



400 N. First Street Rockford, IL 61107 Telephone: 815-227-0023 Brian@m-b-arch.com blakemore-architects.com

# Sustainability, LLC www.oaslc.net

### New Building

for

# Winnebago County Forest Preserve

# Meridian Rd., Winnebago County, Illinois

THE CONTRACTOR SHALL DETERMINE EXACT DIMENSIONS AND CONDITIONS AT THE SITE PRIOR TO SUBMITTING A BID. THE CONTRACTOR SHALL COORDINATE ALL DRAWINGS WITH ACTUAL FIELD CONDITIONS PRIOR TO PROCEEDING WITH THE WORK AND NOTIFY THE ARCHITECT OF ANY DISCREPANCIES. THIS DRAWING IS THE PROPERTY OF BLAKEMORE ARCHITECTS AND MAY NOT BE REPRODUCED WITHOUT THE PRIOR WRITTEN PERMISSION OF THE ARCHITECT.

NO	. DATE	DESCRIPTION
1)	05-08-2025	Initial Layout
2)	08-07-2025	Schematic Design
3)	08-27-2025	Design Development
4)	10-17-2025	Final Owner Review Set
5)	10-27-2025	Issued for Bids / Permit

BA Project No.

Scale

1/8" = 1'-0"

Sheet Title

FLOOR PLAN **VENTILATION** 

Sheet No.

Ref. North

M1.10

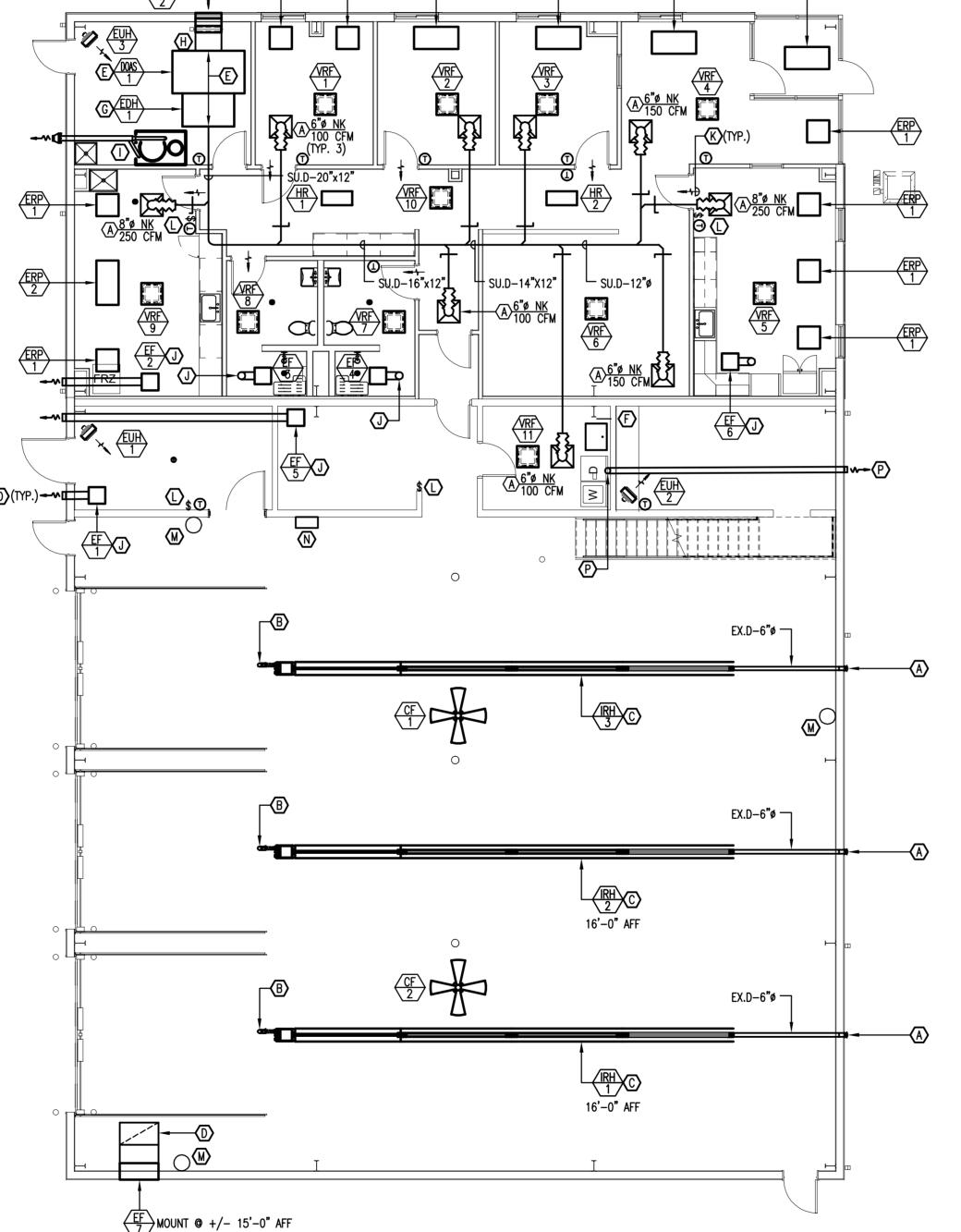
PROFESSIONAL DESIGN FIRM REGISTRATION # 184-003342

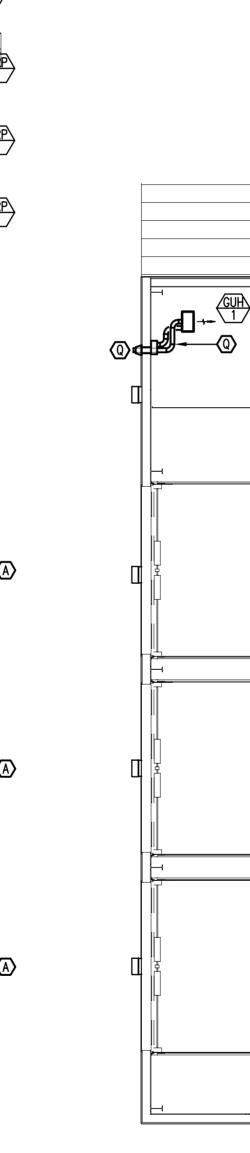
#### **GENERAL NOTES**

- 1. ALL WORK SHALL BE PERFORMED IN A CLEAN AND WORKMANLIKE MANNER.
- 2. ALL WORK SHALL CONFORM TO ALL APPLICABLE CODES INCLUDING INTERNATIONAL MECHANICAL CODE - 2018 AND ALL RELATED LOCAL AMENDMENTS.
- ALL DUCTWORK SHALL BE CONSTRUCTED IN STRICT COMPLIANCE WITH SMACNA AND ASHRAE STANDARDS.
- INSTALL TURNING VANES AT ALL RECTANGULAR ELBOWS, INSTALL MANUAL VOLUME DAMPERS AT ALL BRANCH DUCTWORK OFF OF DUCT MAINS AND IN EACH DUCT AFTER A BRANCH DUCT SPLIT.
- ALL PIECES OF EQUIPMENT THAT PRODUCE CONDENSATION (I.E. FAN COIL UNITS, VRF UNITS, COOLING COILS, ETC.) SHALL BE PROVIDED WITH AN AUXILIARY CONDENSATE OVERFLOW DRAIN PAN OR A CONDENSATE OVERFLOW/CLOG FLOAT SWITCH THAT SHUTS DOWN THE UNIT UPON THE EVENT OF OVERFLOW/CLOG; PER IMC 307.2.3.
- 6. ALL AIR INTAKES SHALL BE MINIMUM 10'-0" AWAY FROM ANY EXHAUST DISCHARGE, PLUMBING VENT, ETC.
- 7. ALL ROOF MOUNTED EQUIPMENT INSTALLATION LOCATIONS SHALL BE COORDINATED BETWEEN ALL TRADES PRIOR TO INSTALLING.
- 8. ALL EXTERIOR DUCTWORK INSULATION SHALL HAVE A MINIMUM R-12 VALUE WITH ALL SEAMS SEALED AIR/WATER TIGHT.
- 9. ALL CEILING EQUIPMENT INSTALLATIONS SHALL BE COORDINATED WITH LIGHTING RCP AND ARCHITECTURAL RCP PLANS. LIGHTING TO TAKE PRECEDENCE. DO NOT INSTALL CEILING FANS BELOW LIGHTS.
- 10. DUCTWORK TO BE INSTALLED IN JOIST SPACE WHEREVER POSSIBLE. COORDINATE WITH OTHER TRADES.

#### MECH. VENTILATION KEYED NOTES

- (A) WALL MOUNTED IRH EXHAUST AIR VENT. INSTALL PER MANUFACTURES REQUIREMENTS. SEE LARGE DETAILS.
- (B) ROOF MOUNTED IRH OUTDOOR AIR VENT WITH 6" INSULATED OUTDOOR AIR DUCTWORK. INSTALL PER MANUFACTURERS REQUIREMENTS. PROVIDE 18" HIGH ROOF CURB. SEE LARGE SCALE DETAILS. INSULATED OUTDOOR AIR DUCTWORK PER THE SPECIFICATIONS. EXTEND 3'-0" ABOVE ROOF.
- (C) COORDINATE IRH HEIGHT WITH ARCHITECT/OWNER/ENGINEER.
- (D) EXHAUST AIR DUCTWORK 42"x24" DROP CLOSE TO WALL. TERMINATE 12" ABOVE FINISHED FLOOR (ANGLED) WITH BIRD SCREEN. SEE LARGE SCALE DETAIL.
- (E) SUSPEND DOAS UNIT WITH THREADED RODS AND ISOLATORS. PROVIDE FLEXIBLE CONNECTIONS ON EACH INLET/OUTLET.
- F FIRE DAMPER AT WALL (TYP.)
- MOUNT ELECTRIC COIL TO DOAS UNIT. INTERLOCK WITH AIRFLOW SWITCH, OUTDOOR AIR DAMPERS AND DOAS UNIT.
- (H) OUTDOOR AIR DUCTWORK AND DAMPER. SEE SEQUENCE OF OPERATION.
- (1) HOT WATER HEATER BY PLUMBING CONTRACTOR. 4"Ø CPVC DIRECT VENT AND AIR INLET FROM HOT WATER HEATER TO BUILDING EXTERIOR. TERMINATE PER MANUFACTURERS RECOMMENDATION. PROVIDE THRU-THE-WALL CONCENTRIC VENT KIT. VERIFY REQUIREMENTS WITH PLUMBING CONTRACTOR. VERIFY SIZE AND
- J CEILING MOUNTED EXHAUST FAN. EXTEND DISCHARGE FULL TO WALL WITH WALL CAP OR ROOF WITH GOOSENECK. SEE FLOOR PLANS. SEE EXHAUST FAN SCHEDULE FOR CONTROL.
- (K) PROVIDE 1" DOOR UNDERCUT. COORDINATE WITH ARCHITECTURAL DRAWINGS.
- (L) WALL MOUNTED SWITCH WITH PILOT LIGHT TO CONTROL FAN.
- M CO/NO2 SENSOR. INTERLOCK WITH EXHAUST FAN AND INTAKE DAMPER.
- N PROVIDE GAS DETECTION AND CONTROL SYSTEM TO MAINTAIN BREATHING ZONE LEVELS BELOW OSHA TOXIC EXPOSURE LIMITS. SYSTEM TO HAVE DUAL CO (GASOLINE ENGINE) AND NO2 (DIESEL ENGINE) SENSING CONTROLLERS. EACH CONTROLLER TO HAVE SETPOINTS PER GAS TYPE FOR VENT "ON", AND A SEPARATE SETPOINT FOR ALARM. COORDINATE POWER WITH ELECTRICAL CONTRACTOR. ALL PROGRAMMING/DISPLAY TO BE THROUGH INTEGRAL LCD DISPLAY. HORN AND ALARM LIGHT TO BE PANEL FACE MOUNTED. CONTRACTOR TO PROVIDE FULL FUNCTIONAL TEST AT THE TIME OF START UP USING PROPER TRACE GAS TO ENSURE INTERLOCKED VENTILATION TRIGGERS AT THE CORRECT SETPOINT. PROVIDE OWNER TRAINING AND TEST REPORT TO OWNER AT TIME OF ACCEPTANCE. SYSTEM TO BE TOXALERT TSM-02-2 OR APPROVED EQUAL.
- (0) EXHAUST WALL CAP.
- (P) 4"ø DRYER EXHAUST. SEE LARGE SCALE DETAIL.
- ② SS FLUE COLLECTOR FOR GAS-FIRED UNIT HEATER WITH OUTDOOR AIR INTAKE AND CONCENTRIC VENT.



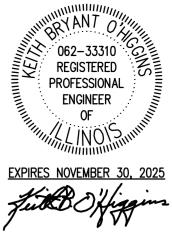


QUH 1 Q	MOUNT AS HIGH AS POSSIBLE SEE ARCH. DWGS.	62"x62" WLS 1

Floor Plan - Ventilation

1/8" = 1'-0"

Mezzanine Plan - Ventilation 1/8" = 1'-0"





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FLOOR PLAN **PIPING** 

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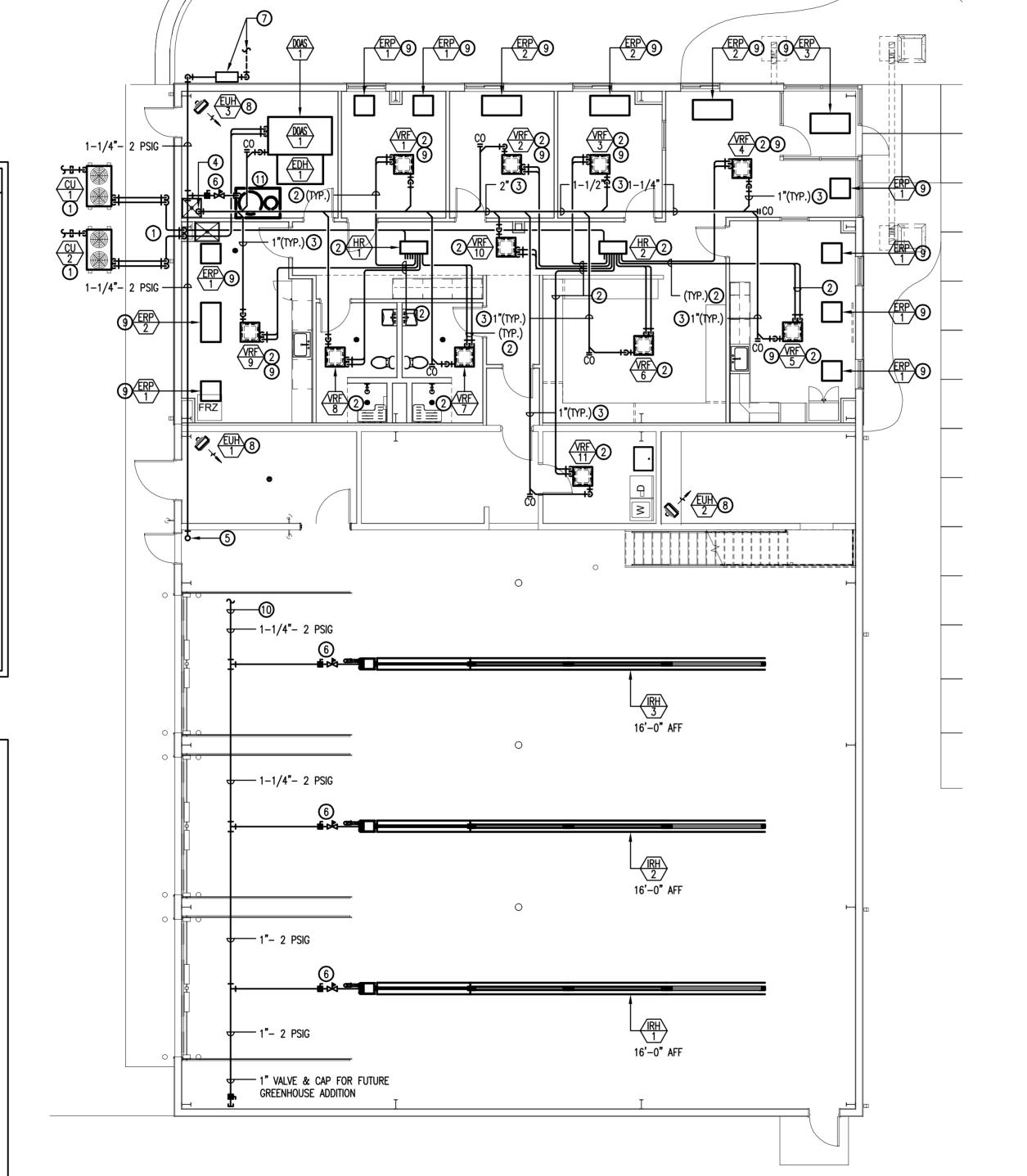




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#### MECHANICAL PIPING KEYED NOTES

- 1) PROVIDE AND INSTALL GROUND MOUNTED CONDENSING UNIT (CU) ON MINIMUM 18" HIGH STAND WITH 3/4" WAFFLE PADS AT ALL FOUR CORNERS. SEE LARGE SCALE DETAILS FOR ADDITIONAL REQUIREMENTS. PROVIDE NEW REFRIGERANT PIPING TO RUN TO/FROM AIR COOLED CONDENSER AND INDOOR VRF UNIT(S) (VRF), DOAS (DOAS) UNIT AND/OR HEAT RECOVERY UNIT(S) (HRU). FIELD VERIFY PIPE ROUTING AND PIPE SIZES WITH EQUIPMENT UNIT MANUFACTURER. PROVIDE 1-1/2" drain with trap. Verify routing in field. See VRF diagrams for ADDITIONAL PIPING REQUIREMENTS AND PIPING CONFIGURATION.
- (2) VRF UNIT AND ASSOCIATED HRU: PROVIDE REFRIGERANT PIPING TO RUN TO/FROM HR UNITS AND INDOOR UNITS. PROVIDE TRAP AND 1" INSULATED CONDENSATE PIPE FROM UNIT. RISE CONDENSATE OFF OF UNIT AND RUN CONDENSATE PIPE AS HIGH AS POSSIBLE. SUSPEND UNIT FROM STRUCTURE (BEAM/JOIST) WITH ISOLATORS. PROVIDE ADDITIONAL SUPPORTS AS REQUIRED BY FIELD CONDITIONS. FIELD VERIFY PIPE ROUTING AND PIPE SIZES WITH UNIT MANUFACTURER. SEE VRF DIAGRAMS FOR ADDITIONAL PIPING REQUIREMENTS AND PIPING CONFIGURATION. FIELD LOCATE ALL HRU'S AND COORDINATE LOCATION WITH ELECTRICAL
- (3) RUN INSULATED CONDENSATE AS HIGH AS POSSIBLE. SEE PLANS FOR PIPE SIZES
- (4) INSULATED CONDENSATE DROP IN ROOM TO JANITORS SINK, FLOOR SINK AND/OR FLOOR DRAIN. SEE FLOOR PLANS FOR SIZE(S).
- 5 GAS TO/FROM ABOVE. SEE PLANS FOR SIZES. SEE LARGE SCALE DETAILS FOR ADDITIONAL REQUIREMENTS.
- 6 GAS COCK AND GAS PRESSURE REDUCING STATION. SEE LARGES SCALE DETAIL FOR ADDITIONAL REQUIREMENTS.
- (7) GAS METER BY NICOR. COORDINATE PIPING AND PAD REQUIREMENTS WITH NICOR.
- 8 MOUNT SUSPENDED UNIT AS HIGH AS POSSIBLE ABOVE FINISHED FLOOR WITH THREADED RODS AND ISOLATORS.
- 9 SEQUENCE ELECTRIC RADIANT CEILING PANEL (ERCP) WITH ASSOCIATED VRF UNIT.
- (10) SEE FLOOR/MEZZANINE PLAN FOR CONTINUATION.
- (1) HOT WATER HEATER BY PLUMBING CONTRACTOR.
- 12) PROVIDE 1-1/4" INSULATED CONDENSATE PIPE WITH TRAP FROM GAS-FIRED HEATER. EXTEND TO MOP SINK.



\_\_\_\_ 1"- 2 PSIG

Floor Plan - Piping 1/8" = 1'-0"

Mezzanine Plan - Piping 1/8" = 1'-0"

										VARIAE	BLE REFRIGER	RANT FLOW	AND CON	IDENS	NG U	NIT SCHEI	DULE (VRF)	CU											
TAG	LOCATION	MANUFACTURER	MODEL NUMBER	TYPE	CORRECTED COOLING CAPACITY TOTAL/SENS. (MBH)	CORRECTED HEATING CAPACITY SENS. (MBH)	D CFM	EAT D.B. (°F)	EAT W.B. (°F)	Filter Type	RLA / MCA / MOCP	VOLT/PH	DIMENSIONS LxWxH (IN.)		TAG	MANUFACTURER	MODEL NUMBER	REFRIGERANT TYPE	OPERATING WEIGHT (LBS)	CORRECTED COOLING CAPACITY (MBH)	CORRECTED HEATING CAPACITY (MBH)	COOLING IEER	HEATING COP	MCA	MOP	VOLT/Hz/F	PH FAN CFM	DIMENSIONS HxDxW (IN.)	NOTES
(VRF)	OFFICE 107	LG	ARNU073TRD4	4 WAY CEILING CASSETTE	6.1/3.5	6.3	265/247/21	2 75.0	65.0	WASHABLE	0.2 / 0.5 / 15	208-230/1	22 x 22 x 12	OUTDOOF	CU	LG	ARUM144BTE5	R410A	666	111.2	114.5	21.7	3.8	51	70	208/60/	3	67 x 30 x 49	1,2,3,4,5,6,7,8,9,10,1 12,13
VRF 2	OFFICE 106	LG	ARNU073TRD4	4 WAY CEILING CASSETTE	6.1/3.5	6.3	265/247/21	2 75.0	65.0	WASHABLE	0.2 / 0.5 / 15	208-230/1	22 x 22 x 12	SECTION															1,2,3,4,5,6,7,8,9,10,1 12,13
VRF 3	OFFICE 105	LG	ARNU073TRD4	4 WAY CEILING CASSETTE	6.1/3.5	6.3	265/247/21	2 75.0	65.0	WASHABLE	0.2 / 0.5 / 15	208-230/1	22 x 22 x 12																1,2,3,4,5,6,7,8,9,10,1° 12,13
VRF 4	WAITING 101	LG	ARNU153TQD4	4 WAY CEILING CASSETTE	12.5/7.2	12.9	388/353/32	8 75.0	65.0	WASHABLE	0.2 / 0.5 / 15	208-230/1	22 x 22 x 12																1,2,3,4,5,6,7,8,9,10,1 12,13
VRF 5	BREAK ROOM 103	LG	ARNU183TQD4	4 WAY CEILING CASSETTE	15.5/8.9	16.0	396/388/35	75.0	65.0	WASHABLE	0.2 / 0.5 / 15	208-230/1	22 x 22 x 12																1,2,3,4,5,6,7,8,9,10,1 12,13
VRF 6	OPEN OFFICE 104	LG	ARNU183TQD4	4 WAY CEILING CASSETTE	15.5/8.9	16.0	396/388/35	75.0	65.0	WASHABLE	0.2 / 0.5 / 15	208-230/1	22 x 22 x 12																1,2,3,4,5,6,7,8,9,10,1 12,13
VRF 7	UNISEX 110	LG	ARNU073TRD4	4 WAY CEILING CASSETTE	6.1/3.5	6.3	265/247/21	2 75.0	65.0	WASHABLE	0.2 / 0.5 / 15	208-230/1	22 x 22 x 12																1,2,3,4,5,6,7,8,9,10,1 12,13
VRF 8	UNISEX 110	LG	ARNU073TRD4	4 WAY CEILING CASSETTE	6.1/3.5	6.3	265/247/21	2 75.0	65.0	WASHABLE	0.2 / 0.5 / 15	208-230/1	22 x 22 x 12																1,2,3,4,5,6,7,8,9,10,1 12,13
VRF 9	LAB 109	LG	ARNU183TQD4	4 WAY CEILING CASSETTE	15.5/8.9	16.0	396/388/35	75.0	65.0	WASHABLE	0.2 / 0.5 / 15	208-230/1	22 x 22 x 12																1,2,3,4,5,6,7,8,9,10,1 12,13
VRF 10	CORRIDOR 102	LG	ARNU183TQD4	4 WAY CEILING CASSETTE	15.5/8.9	16.0	396/388/35	75.0	65.0	WASHABLE	0.2 / 0.5 / 15	208-230/1	22 x 22 x 12																1,2,3,4,5,6,7,8,9,10,1 12,13
(VRF)	SHELTER ROOM 114	LG	ARNU073TRD4	4 WAY CEILING CASSETTE	6.1/3.5	6.3	265/247/21	2 75.0	65.0	WASHABLE	0.2 / 0.5 / 15	208-230/1	22 x 22 x 12	!	V														1,2,3,4,5,6,7,8,9,10,1 12,13
	-																												T

NOTES:

PROVIDE DISCONNECT SWITCH FOR EACH VRF UNIT BY ELECTRICAL CONTRACTOR.

PROVIDE OUTSIDE AIR INTAKE CONNECTION FOR EACH UNIT. AS SHOWN ON DRAWING.

PROVIDE 7-DAY PROGRAMMABLE THERMOSTAT FOR EACH UNIT. PROVIDE GRILLE FOR EACH CASSETTE.

9. PROVIDE 6" BASE, BY MANUFACTURER. 10. PROVIDE ISOLATION VALVES PER MANUFACTURERS RECOMMENDATIONS. PROVIDE CONDENSATE PUMP AND COND. DRAIN PAN FLOAT ALARM AND SHUT DOWN OF EACH UNIT.

6. PROVIDE EACH UNIT WITH AUTOMATIC FAN SPEED CONTROL. 7. SYSTEM DESIGNED FOR SIMULTANEOUS HEATING/COOLING OPERATION.

8. PROVIDE ALL HARDWARE, HANGERS, ISOLATORS FOR COMPLETE INSTALLATION.

12. PROVIDE OUTDOOR AIR DUCT GASKET FOR EACH INDOOR VRF UNIT.

13. SEE SPECIFICATIONS FOR ADDITIONAL REQUIREMENTS.

11. PROVIDE CU OPERATION TO -13 DEG. F.

													DEDI	CATE	D OU	TDO	OR AI	r uni	SCHI	EDULE	<del>DOAS</del>															
				GENERAL DATA					DIMENSI	ONAL DATA	(IN.)		SUPPLY	FAN DATA	١		HEATIN	IG CAPACITY	DATA		COOLIN	IG CAPACITY	' DATA			LEAVING	AIR TEMPE	ERATURE		E	LECTRIC	AL DATA	١	FILTERS		
TAG	LOCATION	AREA SERVED	MANUFACTURER	MODEL NUMBER	TYPE	OPERATING WEIGHT (LB.)	EER	IEER	LENGTH	WIDTH HE	EIGHT C		(TERNAL P (IN.)	MIN. OA CFM	TYPE [	DRIVE	OUTPUT( MBH)	EAT (DB 'F)	EAT (WB 'F)	SENSIBLE (MBH)	TOTAL (MBH)	EAT (DB °F)	EAT (WB 'F)	REHEAT	COOLING DBT	COOLING	REHEAT DBT	REAT	HEATING DBT	MCA	моср	VOLT	PH	TYPE	FACE AREA (FT^2)	NOTES
(DOAS)	UTILITIES 108	BUILDING	LG	ARND153DCR	SINGLE ZONE	390	9.8	13.5	46"	77"	23" 1,	,300	2.0	100% F	ECM PLUG D	DIRECT	99.9	15.0	13.0	67.2	67.2	95.0	75.0	23.4	55.0	52.4	70.0	58.4	75.2	7.5	15.0	208	1	2" MERV 8	6.94	1,2,3,4,5,6,7,8,9,10, 11
																			·																	

HANG FROM STRUCTURE WITH VIBRATION ISOLATORS.

PROVIDE FULL SIZE CONDENSATE DRAIN WITH TRAP. EXTEND TO FLOOR DRAIN.

INTERLOCK WITH ELECTRIC DUCT HEATER. CONSTRUCTION FILTERS AND THREE (3) SETS OF MERV 8 FILTERS.

EXTEND REF. PIPING TO/FROM REMOTE CONDENSING UNIT. VERIFY SIZE WITH UNIT MANUFACTURER.

PROVIDE NON-FUSED DISCONNECT.

PROVIDE TOUCH SCREEN INTERFACE PANEL WITH CONTROLLER TO MATCH BAS INTERFACE.

LOW AMBIENT CONTROLS DOWN TO -10°F.

PROVIDE DISCHARGE AIR SENSOR AND SPACE HUMIDISTAT.

10. SEE SPECIFICATIONS FOR ADDITIONAL REQUIREMENTS.

						CONDEN	sing Unit	SCH	EDULE	CU	<b>)</b>							
				GENERAL DA	ATA					COMPRES	SSOR D	ATA	FAN DA	ATA	ELEC.	TRICAL D	)ATA	
TAG	LOCATION	MANUFACTURER	MODEL NUMBER	UNIT SERVED	TOTAL HEAT REJECTION (COOLING MBH)	TOTAL HEAT REJECTION (HEATING MBH)	DIMENSIONS (LxWxH)	WEIGHT (LBS)	QUANTITY	SIZE (TONS) TOTAL	SST (°F)	REFRIGERANT TYPE	QUANTITY	EAT (°F)	MCA	MOCP	VOLT/ PH	NOTES
$\langle \frac{CU}{2} \rangle$	ROOF	LG	ARUM144DTES	DOAS-1	153	121	49"x30"x67"	666	2	12.0		410A	2	95.0	51.0	70	208/3	1,2,3,4,5,6,7,8

INCLUDE LOW AMBIENT CONTROL (-22°F), ANTI-CYCLING TIME DELAY AND CRANKCASE HEATER. NO ADDITIONAL FIELD PIPING OR CONTROLS REQUIRED.

ALL UNITS SHALL BE COMPATIBLE WITH ASSOCIATED "DX" AIR HANDLING UNIT COOLING COIL. PROVIDE 18" EQUIPMENT RAILS WITH VIBRATION ISOLATORS, SEE LARGE SCALE DETAILS.

PROVIDE HAIL GUARDS.

DUAL CIRCUIT.

LOW AMBIENT BAFFLE KIT. PROVIDE AND INSTALL ELECTRONIC EXPANSION VALVE KIT(S).

8. SEE THE SPECIFICATIONS AND DETAILS FOR ADDITIONAL REQUIREMENTS.

		VRF R	REFRIGERA	NT BOXES	S (HRU)										
		ı	general data												
TAG															
HRU 1	CU-1	PRHR043A	LG	1	208/1	0.2	1,2								
HRU 2	CU-1	PRHR083A	LG	1	208/1	0.2	1,2								
NOTES:		-													

1. PROVIDE ISOLATION VALVES AT EACH CONNECTION.

2. SEE SPECIFICATIONS FOR ADDITIONAL REQUIREMENTS.

#### MECHANICAL/ELECTRICAL COORDINATION SCHEDULE

NOTES: 1. DEVICES TO BE FURNISHED BY THE ELECTRICAL CONTRACTOR (MARKED "E"), OR MECHANICAL CONTRACTOR (MARKED "M").

2. ALL CONDUIT AND WIRING FOR TEMPERATURE CONTROL AND EQUIPMENT INTERLOCK SHALL BE BY BAS CONTRACTOR. OTHER CONTROLS AND CONTROLCONDUIT/WIRING BY TRADE FURNISHING RESPECTIVE

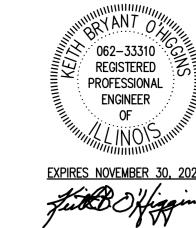
IT IS THE RESPONSIBILITY OF THE ELECTRICAL CONTRACTOR TO COORDINATE AND REVIEW THE ELECTRICAL CHARACTERISTICS, AMPACITY, AND OTHER REQUIREMENTS OF COMPONENTS BEFORE INSTALLATION

OF WORK. ALL OTHER CONTRACTORS SHALL ADVISE ELECTRICAL CONTRACTOR OF ANY MOTOR/DEVICE CHANGES.

ALL LOOSE STARTERS SHALL INCLUDE HOA SWITCH, CONTROL TRANSFORMER, AND ONE N.O. AND ONE N.C. AUXILIARY CONTACTS. ALL SINGLE PHASE EXHAUST FAN CONTROL SWITCHES SHALL HAVE

IDENTIFICATION NAMEPLATE AND PILOT LIGHT. 5. SEE SPECIFICATIONS AND DRAWINGS FOR TYPES AND LOCATIONS OF DEVICES SCHEDULED BELOW.

UNIT MOUNTED DEVICES **EQUIPMENT** STARTER DISCONNECT OVERCURRENT SINGLE POINT STARTER DISCONNECT OVERCURRENT PROTECTION REMARKS DESCRIPTION DEDICATED OUTDOOR AIR SYSTEM UNIT REFER TO EXHAUST FAN SCHEDULE ON MECHANICAL DRAWINGS FOR EXHAUST FAN YES CONTROL REQUIREMENTS, M.O.D. POWER WIRING BY BAS CONTRACTOR. INFRARED HEATER YES VARIABLE REFRIGERANT YES FLOW UNIT VRF HEAT RECOVERY UNIT YES YES CONDENSING UNIT E.C. TO PROVIDE RECEPTACLE, CONTROLLED BY FAN CONTROLLERS. CEILING FAN YES ELECTRIC DUCT HEATER YES М ELECTRIC SUSPENDED UNIT HEATER ELECTRIC RADIANT YES CEILING PANEL UNIT HEATER NOTES: 1. VERIFY FINAL LOADS AND REQUIREMENTS OF ALL EQUIPMENT WITH FINAL MECHANICAL DRAWINGS.





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SCHEDULES MECHANICAL

Sheet No.

M200

#### PROFESSIONAL DESIGN FIRM REGISTRATION #

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			E	LECTRIC S	USPENDE	D UNI	T HE	ATER	SCHI	EDULI	EUH	$\rightarrow$				
		GE	NERAL DATA				HEATING (	COIL DATA		FAN	DATA		ELECTRIC	CAL DATA		
TAG	LOCATION	AREA SERVED	MANUFACTURER	MODEL NUMBER	TYPE	KW	MBH	VOLT	PH	TYPE	CFM	RPM	HP	VOLT	PH	NOTES
EUH 1	HERBICIDE 117	HERBICIDE 117	BERKO	HUHAA320	SUSPENDED	3	10	208	1	PROP	350	1,600	1/100	208	3	1,2,3,4
EUH 2	TOO ROOM 115	TOOL ROOM 115	BERKO	HUHAA320	SUSPENDED	3	10	208	1	PROP	350	1,600	1/100	208	3	1,2,3,4
EUH 3	UTILITIES 108	UTILITIES 108	BERKO	HUHAA320	SUSPENDED	3	10	208	1	PROP	350	1,600	1/100	208	3	1,2,3,4

PROVIDE HORIZONTAL DEFLECTION LOUVERS FOR ALL UNITS.

PROVIDE REMOTE THERMOSTAT. PROVIDE DISCONNECT SWITCH.

SEE SPECIFICATIONS FOR ADDITIONAL REQUIREMENTS.

			ELEC	CTRIC RAD	IANT	CEILI	NG PA	NEL SC	HEDULE	ERP			
		GE	NERAL DATA					ELE	CTRICAL DATA				
TAG	LOCATION/AREA SERVED	QUANTITY (FIELD VERIFY)	MANUFACTURER	MODEL NUMBER	WIDTH	LENGTH	WATTS	BTUH	VOLT	AMPS	PH	CONTROLS	NOTES
ERP 1	SEE PLANS	8	BERKO	CP378	24"	24"	375	1,279	208	1.8	1	SEQUENCE WITH VRF UNIT(S)	1,2,3,4,5,6
ERP 1	SEE PLANS	5	BERKO	CP758	24"	48"	750	2,559	208	3.6	1	SEQUENCE WITH VRF UNIT(S)	1,2,3,4,5,6
NOTES:										•			

. VERIFY LAY-IN CEILING REQUIREMENTS.

2. COLOR BY ARCHITECT.

3. CONTROLLED BY REMOTE THERMOSTAT, SEE PLANS FOR CLARIFICATION.

4. BAS CONTRACTOR TO INTERLOCK WITH VRF UNIT. REMENTS.

5.	SEE	<b>SPECIFICATIONS</b>	FOR	ADDITIONAL	REQUIRE

					ELECT	RIC D	UCT	HEAT	ER SCH	EDULE	EDH						
	GENERAL DATA COIL DATA ELECTRICAL DATA																
TAG	LOCATION	AREA SERVED	MANUFACTURER	MODEL NUMBER	SIZE (IN.)	CFM	EAT (°F)	LAT (°F)	SP (IN.)	STAGES	TYPE	KW	AMPS	MOCP	VOLT	PH	NOTES
(EDH)	UTILITIES 108	DOAS-1	LG	ZWOREHTR02	49" X 17"	1,300			0.1	SCR	INLINE OPEN COIL	20.0	95.7	125	208	1	1,2

OVER-TEMPERATURE PROTECTION, TRANSFORMER, AIRFLOW SWITCH, DUCT TEMPERATURE SENSOR, HEATER BOX AND MOUNTING FLANGES.

INTERLOCK WITH DOAS UNIT. SCR CONTROLLER TO BE CONTROLLED BY BAS CONTRACTOR TO MAINTAIN 50°F (ADJ.) DURING OCCUPIED HEATING SEASON.

PROVIDE 2 @ 20" X 25" X 1" WASHABLE MESH FILTERS AND 2 @ 20" X 25" X 2" MERV 8 FILTERS WITH EXTRA SET.

.T	PH	NOTES
.1	РП	
8	1	1,2

GAS-FIR	RED LOW II	NTENSITY	INFR	ARED	HEATER	SCHE	DULE	(IRH)
GENERAL DA		HEATER D	ATA	ELECTRIC	CAL DATA			
MANUFACTURER	MODEL NUMBER	COMBUSTION TUBE LENGTH (FT)	INPUT (MBH)	OUTPUT (MBH)	GAS INLET PRESSURE (IN" W.C.)	VOLT	PH	NOTES
ROBERTS GORDON	CTH2V-100	40'	100	100	5"-12"	120	1	1,2,3,4,5,6,7,8,9,10,11,12
ROBERTS	071101/ 400		400	400	=""	400	_	1 0 7 4 5 6 7 0 0 10 11 10

5. EQUIPMENT SUPPLIER SHALL PROVIDE EQUIPMENT TRAINING COVERING INSTALLATION, WIRING AND CONTROLS.

6. FACTORY AUTHORIZED REPRESENTATIVE SHALL PROVIDE A COMPLETE START-UP AND TRAINING.

7. PROVIDE LOW VOLTAGE PROGRAMMABLE THERMOSTATS.

8. GAS REGULATORS TO BE PROVIDED BY INSTALLING CONTRACTOR.

9. ELECTRICAL CONTRACTOR TO PROVIDE SERVICE SWITCH LOCATED NEAR EACH BURNER.

10. COMBUSTION AIR INTAKES ON ALL IR HEATERS. I. MOUNTING HEIGHT TO BE 16-20', VERIFY IN FIELD.

12. SEE SPECIFICATIONS FOR ADDITIONAL REQUIREMENTS.

TES										
,8,9,10,11,12										
,8,9,10,11,12										
,8,9,10,11,12										
2. REFLECTORS SHALL COVER ALL TUBING WITHOUT ANY GAPS FOR SUSPENSION POINTS, ALL JOINTS SHALL BE TERMINATED WITH END CAPS.  3. HI EFFICIENCY REFLECTORS IN ACCORDANCE WITH AHRI 1330, AN IF FACTOR OF 14 OR GREATER.										
,										

	GAS FIRED UNIT HEATER SCHEDULE													
	GENERAL DATA HEATER DATA FAN DATA ELECTRICAL DATA													
TAG	LOCATION	AREA SERVED	MANUFACTURER	MODEL NUMBER	TYPE	INPUT (MBH)	OUTPUT (MBH)	TYPE	CFM	RPM	HP	VOLT	PH	NOTES
GUH 1	MEZZANINE 201	MEZZANINE 201	MODINE	PTC-55	SUSPENDED HORIZONTAL	55.0	51.15	PROP.	1,097	1,440	1/8	120	1	1,2,3,4,5

PROVIDE POWER VENT, DISCONNECT SWITCH, AND SPACE MOUNTED THERMOSTAT.

PROVIDE SS FLUE COLLECTOR AND CONCENTRIC VENT KIT.

PROVIDE ALL HANGERS, SUPPORTS, ETC. CONTRACTOR SHALL MOUNT PER MANUFACTURER RECOMMENDATIONS. 4. TWO-STAGE GAS HEATER, 409 SS HEAT EXCHANGER, TOTALLY ENCLOSED MOTOR, VERTICAL LOUVERS, TURNDOWN NOZZLE9S) AND FAN GUARD.

. SEE SPECIFICATIONS FOR ADDITIONAL REQUIREMENTS.

	DIFFUSER, GRILLE AND REGISTER ON AIR QTY. (CFM)									
TAG	MANUFACTURER	MODEL NUMBER	TYPE	SERVICE	MATERIAL	MAXIMUM NC	NOTES			
A	TITUS	TMS-AA	LAY-IN	SUPPLY	ALUMINUM	30	1			
OTES:										

	CEILING FAN CF												
TAG	LOCATION	MANUFACTURER	MODEL NUMBER	TYPE	QUANTITY	CFM	NO. OF BLADES	MIN. BLADE DIA. (IN.)	WEIGHT (LBS)	WATTS	AMPS	MOTOR VOLT/PH	NOTES
(CF)	GARAGE 116	LEADING EDGE	56011	PROP.	SEE PLANS	27,500	3	56	24	110	1.0	120/1	1,2,3,4,5
CF 2	GARAGE 116	LEADING EDGE	56011	PROP.	SEE PLANS	27,500	3	56	24	110	1.0	120/1	1,2,3,4,5
NOTES:		•	•		•		•						

1. PROVIDE VARIABLE SPEED 5A CONTROLLER (4 FANS MAX. PER CONTROLLER). COORDINATE CONTROLLER LOCATIONS WITH OWNER.

2. COLOR SELECTED BY OWNER.

3. PROVIDE DOWNROD AND SAFETY CHAIN.

4. PROVIDE THREE PRONG PLUG.

5. SEE SPECIFICATIONS FOR ADDITIONAL REQUIREMENTS.

	EXHAUST FAN SCHEDULE (EF)																
GENERAL DATA FAN DATA																	
TAG	LOCATION	AREA SERVED	MANUFACTURER	MODEL	TYPE	DRIVE	DAMPER SIZE (IN.)	CFM	S.P. (IN.)	MAX. FAN RPM	BHP	MTR RPM	MTR HP	MTR PH	MTR VOLT	FAN CONTROLS	NOTES
(EF)	CEILING	HERBICIDE 117	COOK	GCVF-180	CENT	DIRECT	6"ø	200	0.25	1,274		1,725	46 WATTS	1	120	\$	1,2,3,4,8
EF 2	CEILING	LAB 109	COOK	GCVF-500	CENT.	DIRECT	6"ø	300	0.25	1,320		1,725	50 WATTS	1	120	\$	1,2,3,4,8
EF 3	CEILING	UNISEX 110	COOK	GCVF-180	CENT.	DIRECT	6"ø	100	0.375	935		1,725	15 WATTS	1	120	®	2,3,4,5,8
EF 4	CEILING	UNISEX 111	COOK	GCVF-180	CENT	DIRECT	6"ø	100	0.375	935		1,725	15 WATTS	1	120	®	2,3,4,5,8
EF 5	CEILING	LOCKER AREA 113	COOK	GCVF-180	CENT	DIRECT	6"ø	200	0.25	1,274		1,725	46 WATTS	1	120	\$	1,2,3,4,8
EF 6	CEILING	BREAK ROOM 103	COOK	GCVF-500	CENT.	DIRECT	6"ø	300	0.25	1,320		1,725	50 WATTS	1	120	\$	2,3,4,6,8
EF 7	WALL	GARAGE 116	COOK	XLWH 36XLWH	PROP.	BELT	12 X 12	10,000	0.375	630	1.59	1,725	2.0	3	208	®	3,4,7

1. PROVIDE WALL CAP 2. BIRDSCREEN.

4. GRAVITY BACKDRAFT DAMPER.

3. DISCONNECT SWITCH WITH SPEED CONTROLLER.

5. EXTEND 8"Ø THRU ROOF TO GOOSENECK. 6. EXTEND 10"Ø THRU ROOF TO GOOSENECK.

8. PROVIDE WHITE PLASTIC GRILLE AND ISOLATORS.

7. PROVIDE GRAVITY SHUTTER, WALL COLLAR AND GUARD. \$ SWITCH WITH PILOT LIGHT BY E.C. THERMOSTAT BY BAS.

 STARTER BY E.C. RELAY BY BAS.

	WALL LOUVER SCHEDULE (WLS)										
TAG	MANUFACTURER	MODEL NUMBER	SIZE (W x L x D)	LOCATION	AREA/EQUIPMENT SERVICED	CFM	FREE AREA (SQ. FT.)	VELOCITY (FPM)	PRESSURE DROP (IN.)	NOTES	
WLS 1	RUSKIN	ELF375DX	62" x 62" x 4"	MEZZANINE 201	GARAGE 116	10,000	14.58	686	0.10	1,2,3,4,5,6	
$\frac{\text{WLS}}{2}$	RUSKIN	XP500WD	28" x 24" x 4"	UTILITIES 108	DOAS-1	1,300	2.29	567	0.09	1,2,3,4,5,6	
MOTEC.											

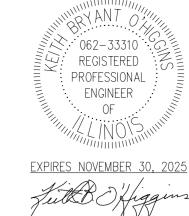
1. PROVIDE BIRDSCREEN.

2. PROVIDE CUSTOM FINISH TO BE SELECTED BY ARCHITECT. PROVIDE SAMPLE FOR OWNER/ARCHITECT REVIEW.

3. PROVIDE 2" FLANGE.

4. PROVIDE MOTORIZED DAMPER WITH END SWITCH.

5. MOUNT BOTTOM OF LOUVER 24" ABOVE ROOF. 6. SEE DETAILS AND SPECIFICATIONS FOR ADDITIONAL REQUIREMENTS.





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# New Building

for

# Winnebago County Forest Preserve

# Meridian Rd. Winnebago County, Illinois

THE CONTRACTOR SHALL DETERMINE EXACT DIMENSIONS AND CONDITIONS AT THE SITE PRIOR TO SUBMITTING A BID. THE CONTRACTOR SHALL COORDINATE ALL DRAWINGS WITH ACTUAL FIELD CONDITIONS PRIOR TO PROCEEDING WITH THE WORK AND NOTIFY THE ARCHITECT OF ANY DISCREPANCIES. THIS DRAWING IS THE PROPERTY OF BLAKEMORE ARCHITECTS AND MAY NOT BE REPRODUCED WITHOUT THE PRIOR WRITTEN PERMISSION OF THE ARCHITECT.

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2025-09 BA Project No.

Scale

#### NO SCALE

Sheet Title

SCHEDULES **MECHANICAL** 

Sheet No.

Ref. North

#### M210

Total RLA: 2.35

ARUM072DTE5 (76.79 kBtu/h) (60.75 kBtu/h)
Additional Refrigerant : 6.62 lbs (Precharged Refrigerant : 14.30 lbs) Standard Combi. : ARUM072DTE5





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Sustainability, LLC www.oaslc.net

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Sheet Title

SYSTEMS MECHANICAL

Sheet No.

Ref. North

**M300** 

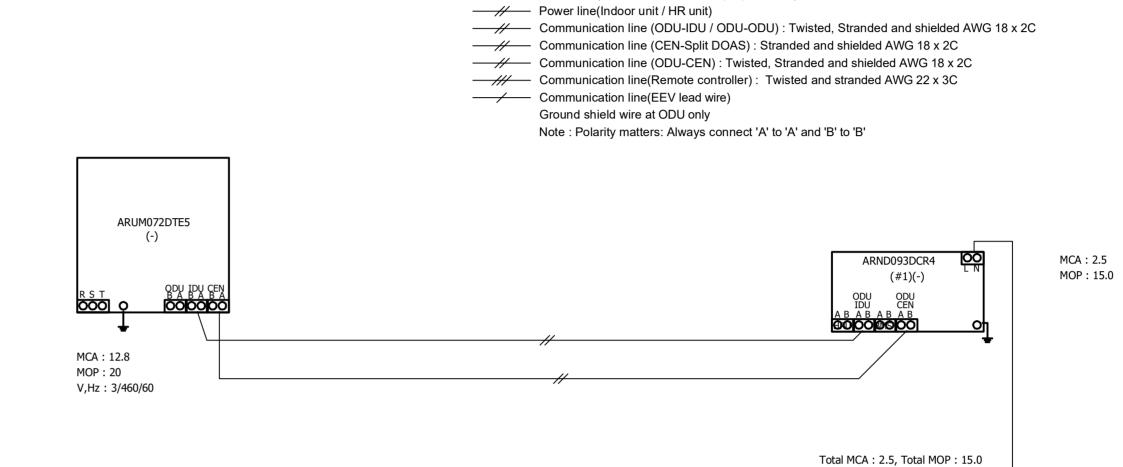
PROFESSIONAL DESIGN FIRM REGISTRATION # 184-003342



ARND093DCR4 900 CFM / 1.0 inchAq 54.8 °F / 53.1 °F / 70.0 °F (67.58 / 40.61 kBtu/h)(14.22 kBtu/h) (84.98 kBtu/h)(10.7 / 2.5

Power wiring, breaker size, and disconnects should follow local code and NEC. Multi-frame outdoor units require a separate power connection for each frame.

Refer to the most up-to-date submittal sheets for applicable electrical data.





1. ONLY FACTORY MANUFACTURED MARKERS AS FOLLOWS WILL BE ACCEPTABLE: PIPES 3/4" THRU 5-7/8" DIAMETER: USE "SNAP-AROUND" TYPE. PIPES 6" DIAMETER AND LARGER: USE "STRAP-AROUND" TYPE. STENCILS AND STICK-ON TYPE MARKERS WILL NOT BE PERMITTED. 2. IDENTIFICATION MARKERS TO BE PLACED ON ALL EXPOSED COVERED AND

UNCOVERED PIPES AT 20'-0" INTERVALS AND AT ALL VALVES AND BRANCHES AND ON BOTH SIDES OF WALLS WHERE PIPES PASS THROUGH SAME. ARROWS OF SAME COLOR AS IDENTIFICATION MARKERS SHALL ALSO BE PLACED ON PIPES POINTING AWAY FROM MARKER INDICATING DIRECTION OF FLOW.

SIZE (	OF LEGEND LETTERS	
OUTSIDE DIAMETER	LENGTH OF	Size of
OF PIPE	COLOR FIELD	Letters
OR COVERING	A	B
3/4" TO 1-1/4"	8"	1/2"
1-1/2" TO 2"	8"	3/4"
2"-1/2" TO 6"	12"	1-1/4"

PLAN TAG	SERVICE	IDENTIFICATION MARKER
BWS BWR	BOILER WATER SUPPLY BOILER WATER RETURN	BLACK LETTERING ON YELLOW BACKGROUND BLACK LETTERING ON YELLOW BACKGROUND
HWS HWR G	HOT WATER HEATING SUPPLY HOT WATER HEATING RETURN NATURAL GAS	BLACK LETTERING ON YELLOW BACKGROUND BLACK LETTERING ON YELLOW BACKGROUND BLACK LETTERING ON YELLOW BACKGROUND
MU HPWS HPWR	MAKE-UP WATER (H.W. TANK) HEAT PUMP/HOT WATER SUPPLY HEAT PUMP/HOT WATER RETURN	WHITE LETTERING ON GREEN BACKGROUND BLACK LETTERING ON YELLOW BACKGROUND BLACK LETTERING ON YELLOW BACKGROUND
CTWS CTWR C	COOLING TÓWER WATER SUPPLY COOLING TOWER WATER RETURN CONDENSATE	WHITE LETTERING ON GREEN BACKGROUND WHITE LETTERING ON GREEN BACKGROUND BLACK LETTERING ON YELLOW BACKGROUND



**GAS CONNECTION DETAIL** 

FIBROUS BOARD RECTANGULAR/EXPOSED DUCT INSULATION

BRANCH GAS PIPE BY -

∠GAS COCK (TYP.)

- CONNECTION BY

HEATING CONTRACTOR

GAS PRESSURE REGULATOR TO

PRESSURE AT RATED GAS FLOW.

MAINTAIN 6" W.C. DISCHARGE

HEATING CONTRACTOR

SEE FLOOR PLANS

FOR PIPE SIZES

FIBROUS BOARD INSULATION

WITH STRAIGHT OR KERFED

RECTANGULAR

ADHESIVE SPOTTED AS REQUIRED -

TO ASSIST THE INSTALLATION

DUCT

CORNERS

- WHERE REGULATOR IS

- FLEXIBLE CONNECTION

INSIDE, PIPE REGULATOR

VENT FULL SIZE TO OUTSIDE

TERMINATE W/ TURNED DOWN

GALVANIZED SCREENED ELBOW.

HEATING CONTR.

- WEATHER-BARRIER MASTIC REINFORCED

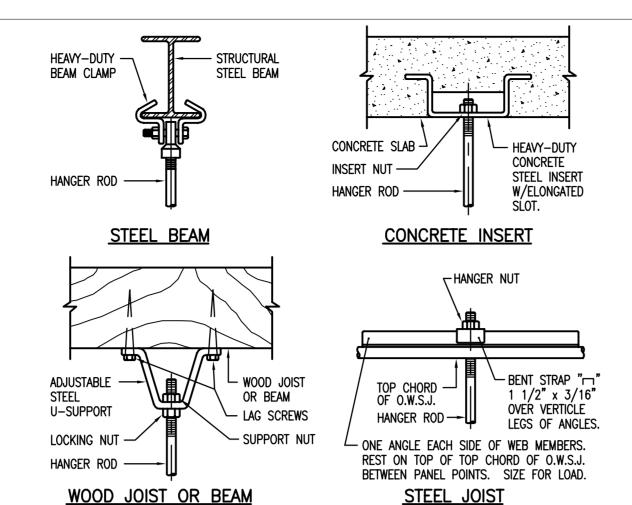
WITH FABRIC OR MESH FOR OUTDOOR

VAPOR-BARRIER TAPE OVER JOINTS,

BREAKS AND PENETRATIONS OF THE

APPLICATIONS

VAPOR-BARRIER JACKET



PIPE HANGERS AND SUPPORTS SUPPORT HORIZONTAL STEEL AND COPPER PIPING AS FOLLOWS:

NOMINAL PIPE SIZE	DISTANCE BETWEEN SUPPORTS	HANGER ROD DIAMETERS
1/2"	6'	3/8"
3/4 TO 1-1/2" 2" TO 2-1/2"	6'	1/2"
2" TO 2-1/2"	10'	1/2"
3" AND 4"	10'	5/8"

PLACE HANGER WITHIN 1 FOOT OF EACH HORIZ. ELBOW. SUPPORT HORIZ. SOIL WASTE AND STORM PIPE NEAR EACH HUB, WITH 5 FEET MAXIMUM SPACING BETWEEN HANGERS

VERTICAL PIPING:

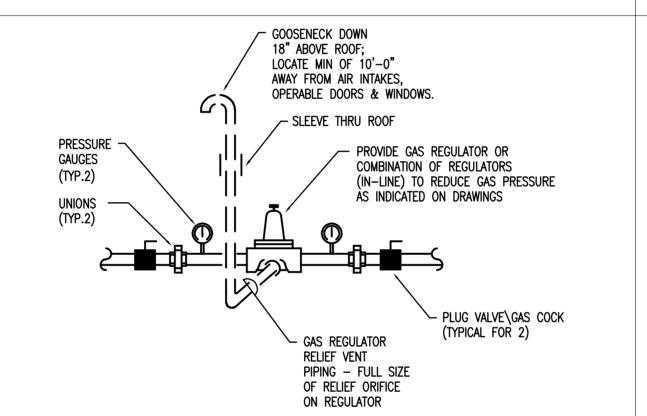
1. SUPPORT VERTICAL WATER PIPING AT EVERY FLOOR.

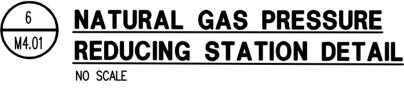
2. SUPPORT VERTICAL SOIL PIPE AT EACH FLOOR AT HUB. WHERE SEVERAL PIPES CAN BE INSTALLED IN PARALLEL AND AT SAME ELEVATION PROVIDE MULTIPLE OR TRAPEZE HANGERS.

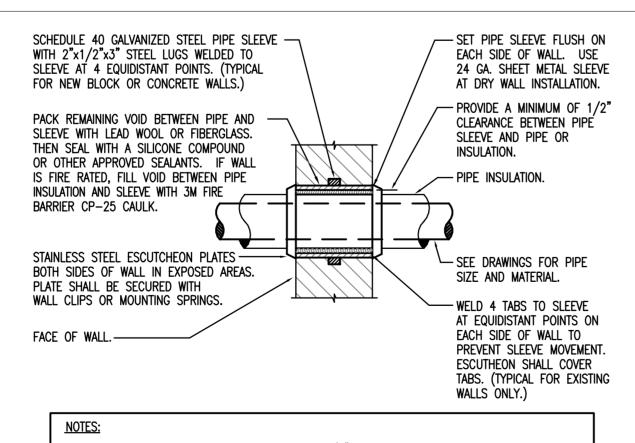
WHERE PRACTICAL, SUPPORT RISER PIPING INDEPENDENTLY OF CONNECTED HORIZ. PIPING.



# PIPE HANGER DETAILS







I.D. OF OF PIPE SLEEVE TO BE A MIN. OF 1/2" LARGER THAN O.D. OF PIPE OR INSULATION PASSING THROUGH WALL.

2. CONTRACTOR SHALL BE RESPONSIBLE FOR THE COORDINATION OF THEIR SLEEVES WITH OTHER TRADES AND/OR CONTRACTORS.

PIPE SLEEVES THRU SMOKE OR FIRE WALLS SHALL BE IN COMPLIANCE WITH NFPA-90A.

PIPE SLEEVE THRU INTERIOR WALL

NO SCALE



BUTT HINGE — 1" x 1"— OR

PIANO HINGE MIN. 2 PER DOOR

PROVIDE CAM LOCKS IN LIEU OF

OBSTRUCTIONS WILL NOT PERMIT

FULL SWING OPENING OF DOOR.

DOOR —

ŹIŃSŨLÁTIÔŊ?

INSULATION -

HINGE DETAIL

SMOKE DAMPERS & DEVICES MOUNTED INSIDE DUCT.

NO. HINGES

HINGES IN AREAS WHERE

STATIC IN DUCT

- SASH LOCK

OF 24"x24".

METAL GAGE

— CONTINUOUS BAR—

SAME SIZE AS ANGLE

 $\times$  1/4", BOLTED TO

DOOR BACK

SIDE VIEW OF DOOR IN DUCT OR ASU

LOCKS

S = SIDE OPPOSITE HINGES, T = TOP, B = BOTTOM NOTE: TYPICAL LOCATIONS FOR ACCESS DOORS — FIRE DAMPERS, AUTO DAMPERS, REHEAT COILS,

TYPICAL DUCT ACCESS DOOR

FLEXIBLE CONNECTION TO ISOLATE ALL DUCTS FROM ALL

FANS AND FAN ENCLOSURES TO PREVENT

STRUCTURE.

ANGLES, ALL SIDES -

MITRED, WELDED

CORNERS

TRANSMISSION OF VIBRATION TO DUCTWORK AND

SASH LOCK -

XINSULATION X

GASKET ——/

INSULATION —

LOCK DETAIL

FRAME

DOOR -

DOOR TO BE SQUARE IN

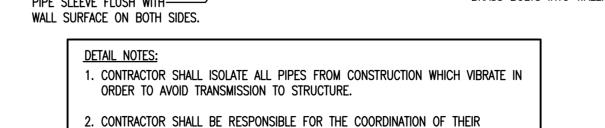
SHAPE, 2" SMALLER THAN

DUCT DIMENSION WITH A

MINIMUM SIZE OF 8"x8"

AND A MAXIMUM SIZE

2 PER DOOR



SLEEVES WITH OTHER TRADES AND/OR CONTRACTORS. 3. PIPE SLEEVES THRU SMOKE OR FIRE WALLS SHALL BE IN COMPLIANCE WITH

ABOVE GRADE PIPE SLEEVE THRU EXTERIOR WALL





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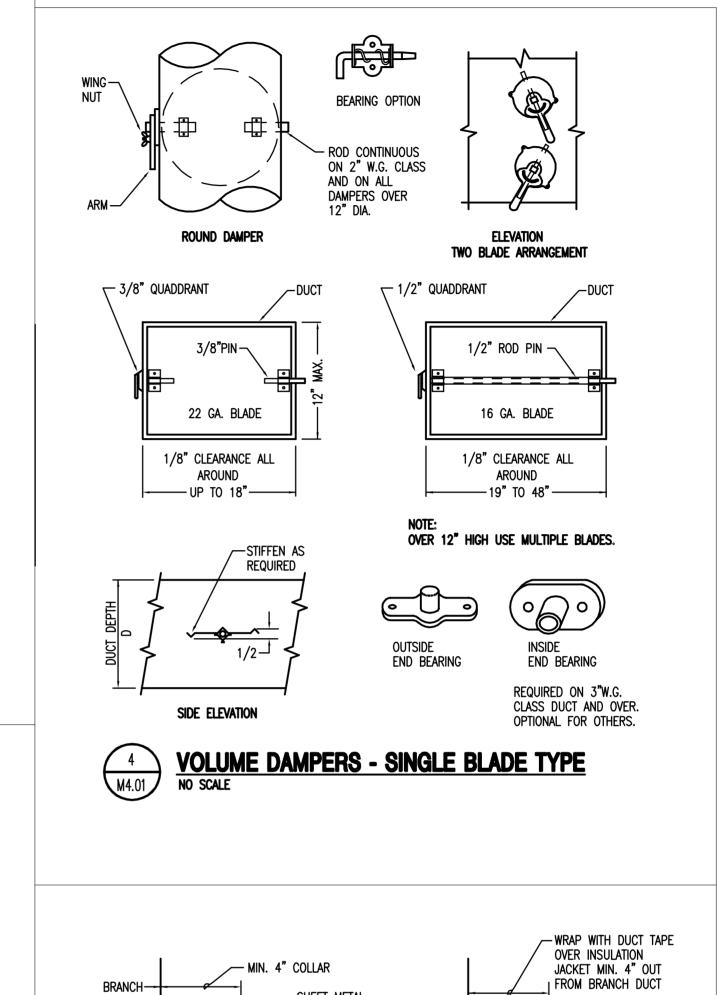
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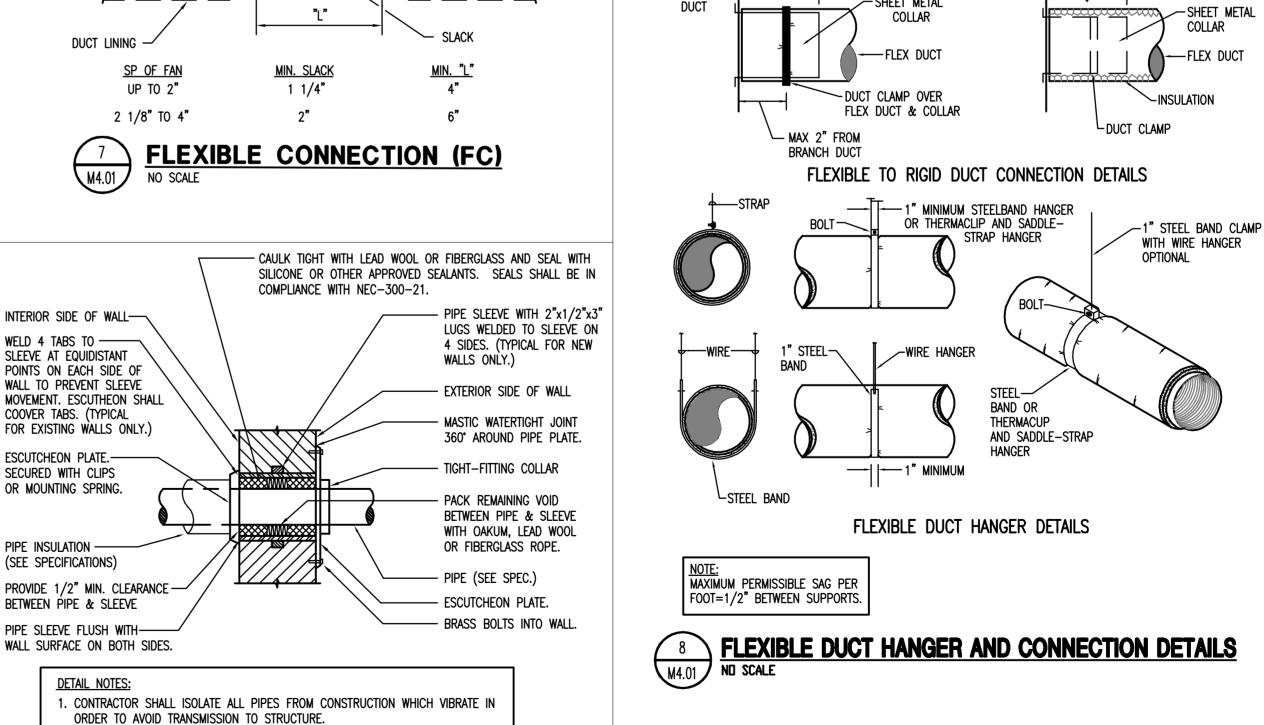
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#### M400

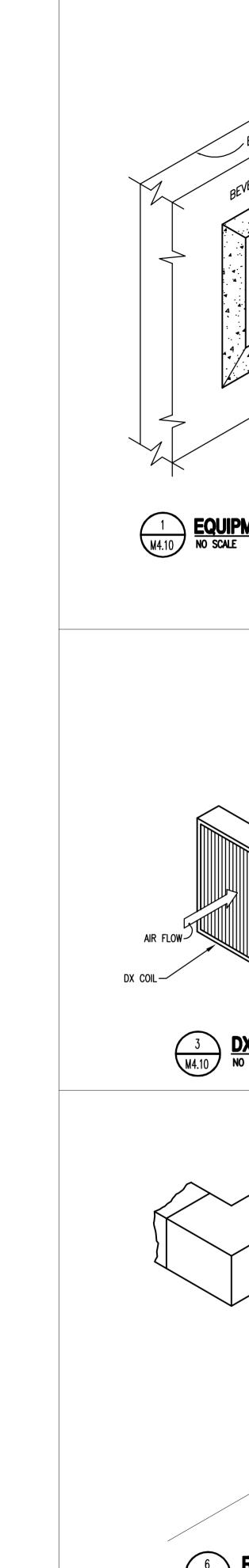
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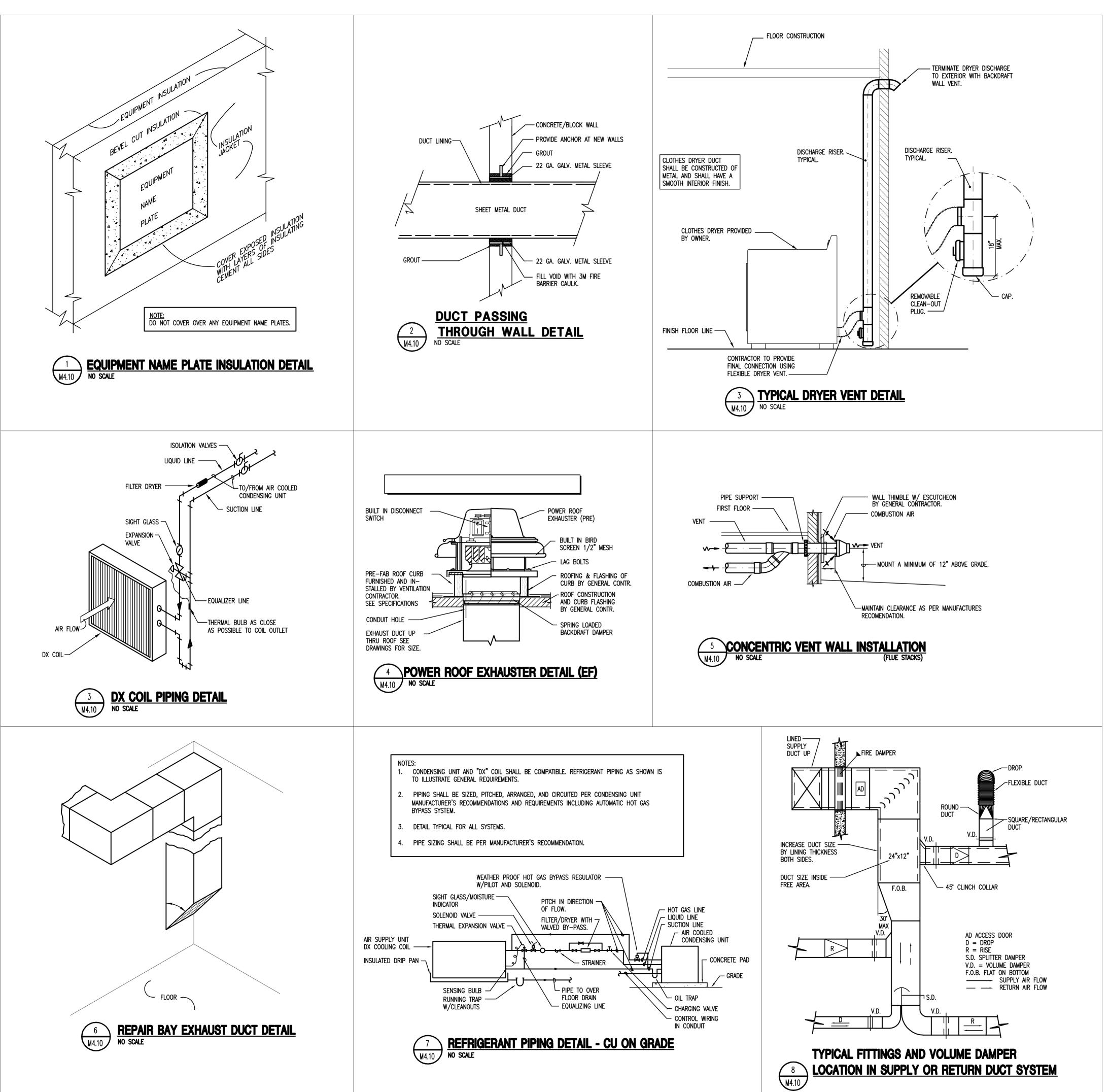
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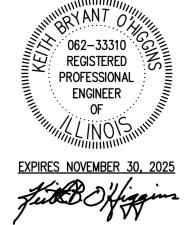








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BA Project No.

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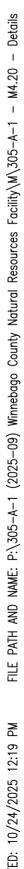
#### **DETAILS - MECHANICAL**

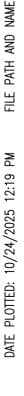
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M410

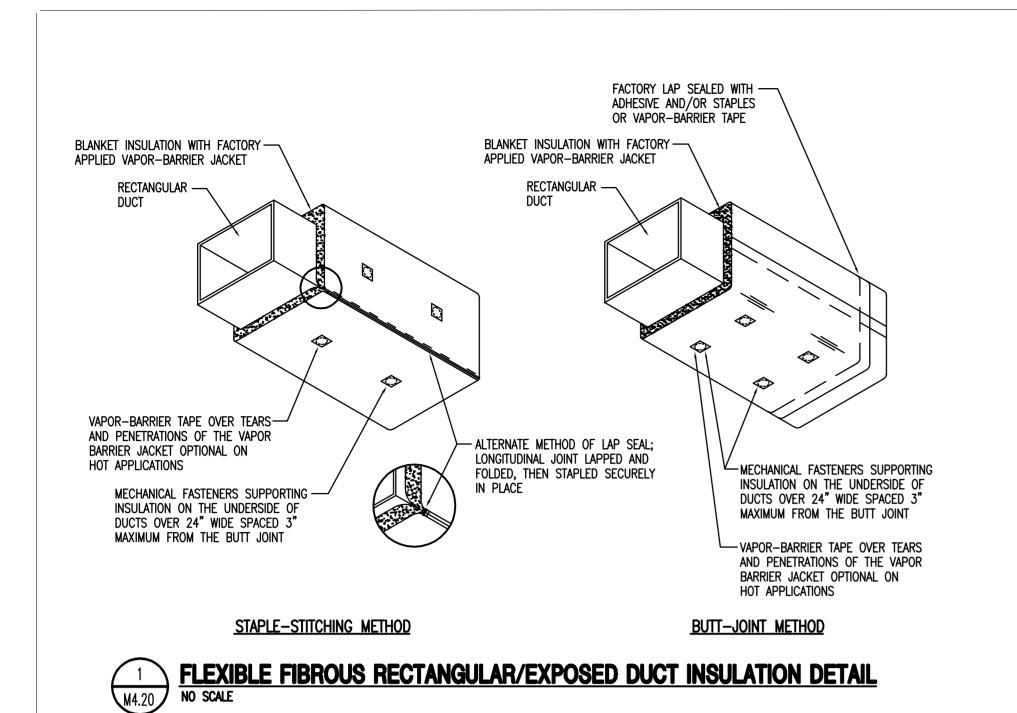
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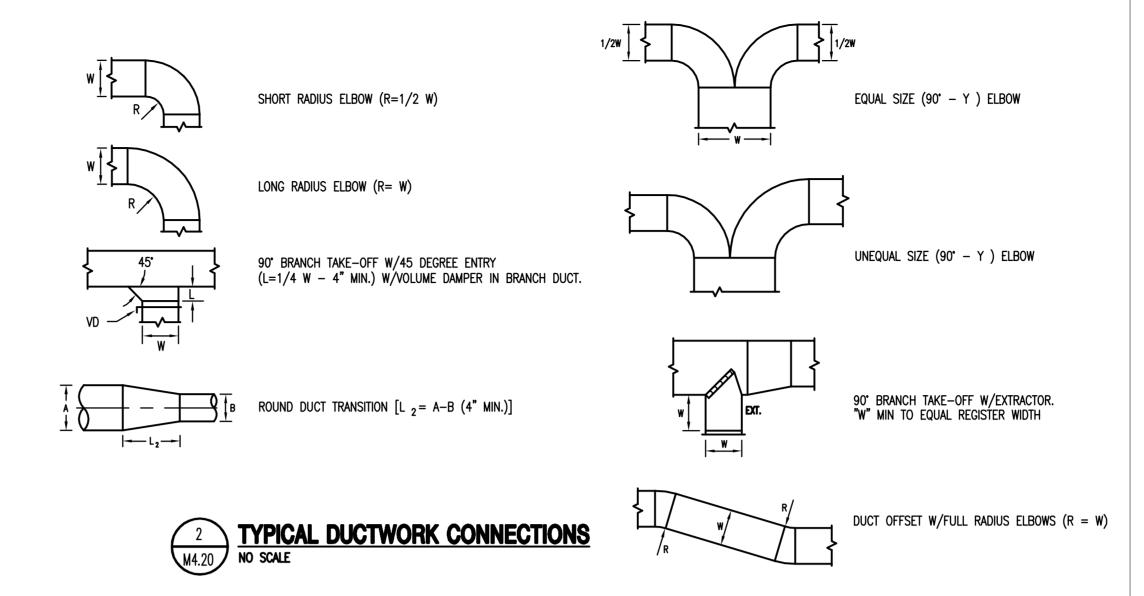
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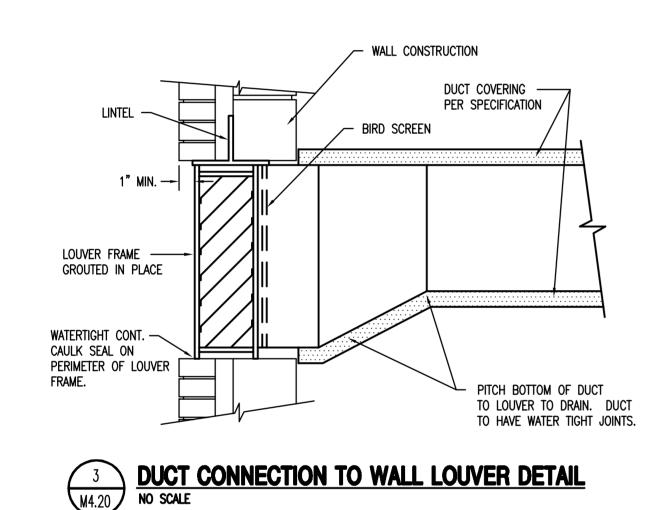


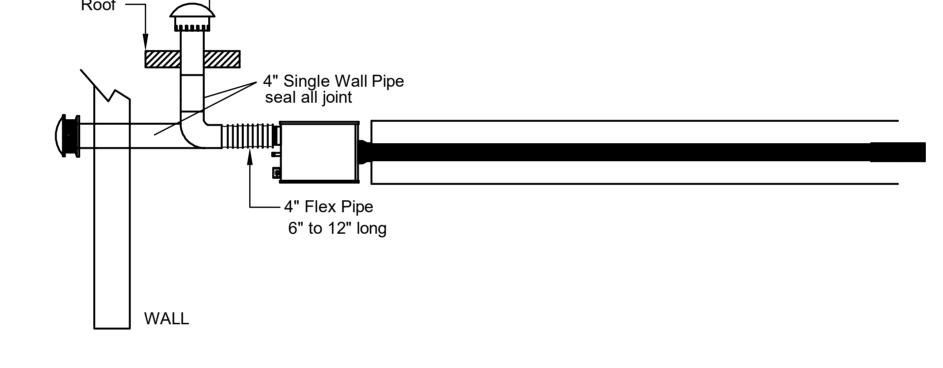




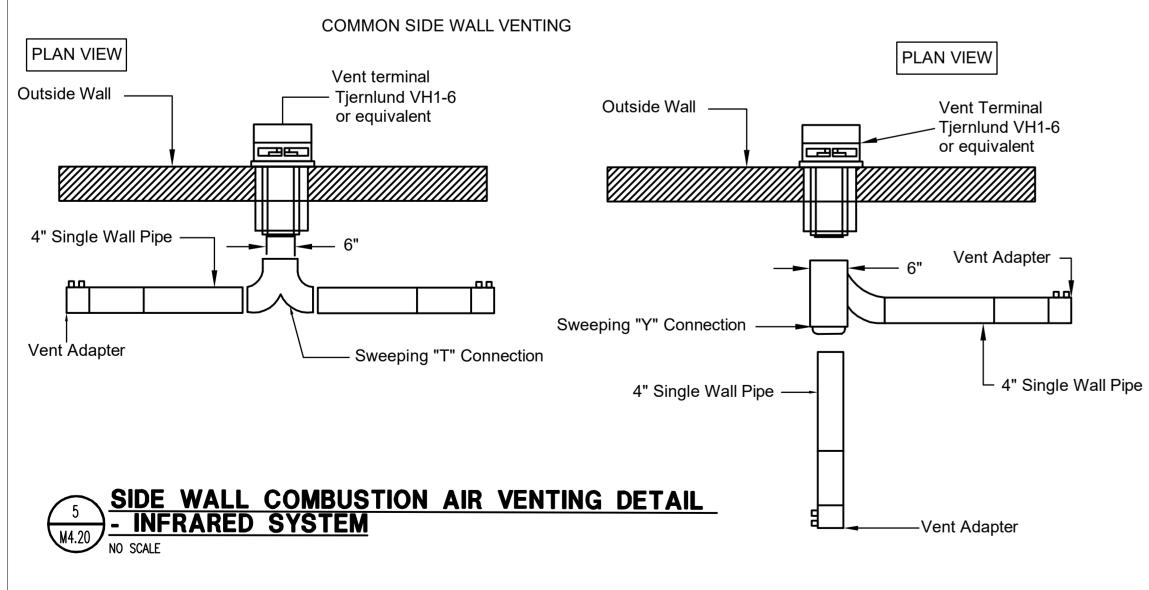


**OUTSIDE COMBUSTION AIR SUPPLY** 



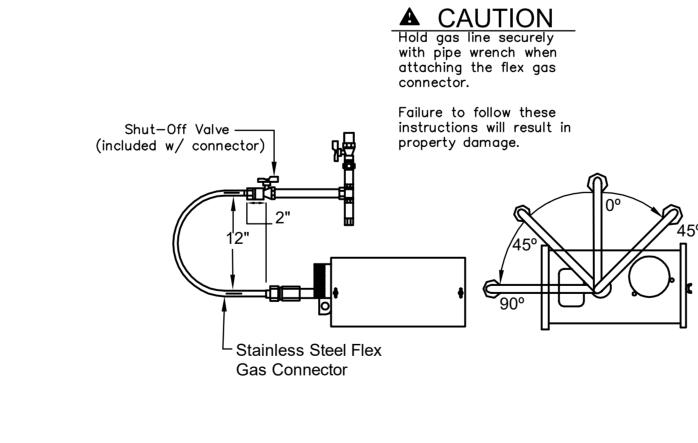


4 OUTSIDE COMBUSTION AIR SUPPLY DETAIL - INFRARED SYSTEM M4.20 NO SCALE



- a) Refer to Installation, Operation and Service Manual for proper design.
- b) Maximum of two units may be vented together into a 6" (15 cm) diameter common vent.
- c) Units must be same BTU input.
- d) Units must be controlled from one common thermostat.
- e) Use sweeping "T", or sweeping "Y" connection.
- f)When heater extension packages are used, they directly effect maximum vent length. Refer to Installation,

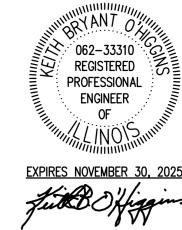
Operation and Service Manual for requirements.



# GAS CONNECTION TO INFRARED HEATER DETAIL

Gas pipe work must be installed and tested in accordance with United States ANSIZ223.1/NFPA54 latest addition and Canada-CNA/CSA-B149.1 and B149.2

- a) Install the flex gas connector as shown. The flex gas connector accommodates expansion of the heating system and allows for easy installation and service of the burner.
- b) Shut-Off Valve must be parallel to burner inlet. The 2" displacement shown is for the cold condition. This displacement may reduce when the system is fired.





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#### New Building

for

# Winnebago County Forest Preserve

### Meridian Rd. Winnebago County, Illinois

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Scale

#### NO SCALE

Sheet Title

#### **DETAILS - MECHANICAL**

Ref. North

Sheet No.

#### M420

OR GRILLE (TOP NO. = SIZE OF FACE OR NECK, BOTTOM NO. = AMOUNT OF AIR,

BOTTOM MOUNTED REGISTER OR GRILLE

DUCT SIZE FREE AREA (1ST NUMBER IS DUCT

WIDTH ON PLAN VIEW, 2ND NUMBER IS DUCT

LETTER INDICATES TYPE).

DEPTH IN PLAN VIEW).

SUPPLY OR FRESH AIR DUCT UP

RETURN OR EXHAUST AIR DUCT UP

SUPPLY OR FRESH AIR DUCT DOWN

RETURN OR EXHAUST AIR DUCT DOWN

24x12

SINGLE DUCT TERMINAL UNIT WITH HEATING COIL

FAN POWERED BOX WITH HEATING COIL

DIRECTION OF AIR FLOW THRU GRILLE.

**EQUIPMENT TAG** D-# DEMOLITION NOTE TAG

PLAN NOTE TAG

AND MAKE SATISFACTORY ADJUSTMENTS TO INSTALLATION OF THE NEW WORK. CONDITIONS. SHOP DRAWINGS. AND WORK OF OTHER TRADES PRIOR TO ROUGH\\_IN. CONTRACTOR SHALL BE RESPONSIBLE, AT HIS OWN EXPENSE, FOR THE REMOVAL AND REINSTALLATION OF ANY PART OF THEIR WORK IF SAME WAS INSTALLED WITHOUT

STRUCTURAL BUILDING MEMBER.

THE SEQUENCE FOR THE INSTALLATION OF ALL WORK SHALL BE COORDINATED BETWEEN CONTRACTOR AND IN STRICT ACCORDANCE WITH ARCHITECT/ENGINEER AND OWNERS

CONTRACTOR WORK, CEILING HEIGHTS AND CLEARANCE FOR INSTALLING HIS WORK.

CONTRACTOR SHALL BE RESPONSIBLE FOR ALL CORING, CUTTING, PATCHING, REPAIRING, REFINISHING AND REMOVAL/REPLACEMENT OF NEW OR EXISTING BUILDING CONSTRUCTION REQUIRED TO ACCOMMODATE THE INSTALLATION OR REMOVAL OF THEIR WORK. ALL PATCHING, REPAIRING AND REFINISHING WORK SHALL BE PERFORMED BY THOSE REGULARLY POSSIBLE. CARE SHALL BE TAKEN SO AS NOT TO DAMAGE ANY EXISTING BUILDING CONSTRUCTION OR ITEMS THAT ARE TO REMAIN. ANY EXISTING FINISHES THAT ARE DAMAGED DURING THE INSTALLATION OF NEW WORK OR REMOVAL OF EXISTING WORK SHALL BE REPAIRED, REPLACED AND PAID FOR BY THE INSTALLING CONTRACTOR, TO THE SATISFACTION OF THE ARCHITECT AND OWNER. REFER TO ARCHITECTURAL DRAWINGS FOR EXISTING BUILDING CONSTRUCTION THAT IS TO REMAIN AND, THEREFORE, SUBJECT TO PATCHING, REPAIRING, REFINISHING, AND REMOVAL/ REPLACEMENT.

CONTRACTOR SHALL BE RESPONSIBLE FOR HIS OWN CLEAN UP DURING CONSTRUCTION. IF CONTRACTOR FAILS TO PROVIDE SUCH CLEAN UP, THE ARCHITECT/ENGINEER WILL DIRECT ANOTHER CONTRACTOR TO PERFORM THE CLEAN UP AND THE NEGLIGENT CONTRACTOR SHALL PAY THE ASSOCIATED BACK CHARGES AS DEEMED APPROPRIATE BY THE ARCHITECT/ENGINEER.

CONTRACTOR SHALL INSTALL ALL AUXILIARY SUPPORTING STEEL AS REQUIRED FOR THE SUPPORTING OF THEIR PIPING, DUCTWORK, CONDUIT, TANKS, EQUIPMENT, ETC. ALL SUPPORTING STEEL FOR ITEMS ABOVE A SUSPENDED CEILING SHALL BE FROM BUILDING STRUCTURAL MEMBERS ONLY.

UNLESS INDICATED OTHERWISE, THE ARCHITECT/ENGINEER MAKES NO REPRESENTATION AS TO WHETHER OR NOT ANY HAZARDOUS OR CONTAMINATED MATERIALS (INCLUDING BUT NOT LIMITED TO ASBESTOS, PCB'S, CONTAMINATED SOILS, ETC.) ARE PRESENT WITHIN THE EXISTING BUILDING OR ON THE SITE. WORK SHOWN ON THE DRAWINGS AND/OR INDICATED IN THE SPECIFICATIONS SHALL NOT BE CONSTRUED TO CALL FOR CONTACT WITH ANY OF THESE MATERIALS. IF THESE MATERIALS ARE ENCOUNTERED OR SUSPECTED, THE CONTRACTOR SHALL NOT DISTURB THEM AND SHALL CONTACT THE ARCHITECT/ ENGINEER IMMEDIATELY.

13. CONTRACTOR SHALL STORE ALL MATERIALS AND EQUIPMENT SHIPPED TO THE SITE IN A PROTECTED AREA. IF MATERIAL IS STORED OUTSIDE OF THE BUILDING, IT MUST BE STORED OFF THE GROUND A MINIMUM OF SIX INCHES (6") SET ON 6 X 6 PLANKS AND/ OR WOOD PALLETS. ALL MATERIAL AND EQUIPMENT MUST BE COMPLETELY COVERED WITH WATERPROOF TARPS OR VISQUIN. ALL PIPING AND DUCTWORK WILL HAVE THE ENDS CLOSED TO KEEP OUT DIRT AND OTHER DEBRIS. NO EQUIPMENT WILL BE ALLOWED TO BE STORED ON THE SITE UNLESS IT IS SITTING ON WOOD PLANKS AND COMPLETELY PROTECTED WITH WEATHERPROOF COVERS.

THE DRAWINGS. SCHEDULES AND SPECIFICATIONS HAVE BEEN PREPARED USING ONE MANUFACTURER FOR EACH PIECE OF EQUIPMENT AS THE BASIS FOR DIMENSIONAL DESIGN. IF THE CONTRACTOR PURCHASES EQUIPMENT LISTED AS A SPECIFIED ACCEPTABLE MANUFACTURER BUT IS NOT THE SCHEDULED MANUFACTURER USED FOR THE BASE DESIGN. THE CONTRACTOR SHALL BE RESPONSIBLE FOR CHECKING ALL THE DIMENSIONS OF THE EQUIPMENT TO VERIFY THAT IT WILL FIT IN THE SPACE SHOWN ON THE DRAWINGS. MINOR DEVIATIONS IN DIMENSIONS WILL BE PERMITTED, PROVIDED THE RATINGS MEET THOSE SHOWN ON THE DRAWINGS AND EQUIPMENT WILL PHYSICALLY FIT INTO THE SPACE ALLOCATED WITH SUITABLE ACCESS AROUND EQUIPMENT FOR OPERATION AND MAINTENANCE ON THE EQUIPMENT.

CONTRACTOR AND/OR MANUFACTURER SHALL VERIFY THAT THE CHARACTERISTICS OF THE EQUIPMENT HE SUBMITS FOR REVIEW MEETS THE CAPACITY AND DUTY SPECIFIED.

WHEN EQUIPMENT IS SUBMITTED FOR REVIEW AND DOES NOT MEET THE PHYSICAL SIZE OR ARRANGEMENT OF THAT SCHEDULED AND SPECIFIED, CONTRACTOR SHALL PAY FOR ALL ALTERATIONS REQUIRED TO ACCOMMODATE SUCH EQUIPMENT AT NO ADDITIONAL COST TO OWNER. CONTRACTOR WILL ALSO PAY ALL COSTS FOR ADDITIONAL WORK REQUIRED BY OTHER CONTRACTORS, OWNER, ARCHITECT OR ENGINEER TO MAKE CHANGES WHICH WOULD ALLOW THE EQUIPMENT TO FIT IN THE SPACE AND FUNCTION AS INTENDED.

CONTRACTOR SHALL FIELD VERIFY THE SIZE OF EXISTING OPENINGS, WINDOWS, DOORS, CORRIDORS, ROOMS, ETC. FOR ACCESS OF THE NEW EQUIPMENT INTO OR REMOVAL OF EXISTING EQUIPMENT FROM THE BUILDING. IF OPENINGS ARE TOO SMALL FOR ACCESS THEN CONTRACTOR SHALL, AT HIS OWN EXPENSE, PROVIDE NEW OR ENLARGED OPENINGS AND RESTORE SAME TO ORIGINAL SIZE AND CONDITION. CONTRACTOR MAY ELECT TO ORDER THE EQUIPMENT DISASSEMBLED AND/OR WITH SPLIT HOUSING FOR ENTRANCE INTO THE EXISTING SPACE OR BUILDING. CONTRACTOR SHALL REASSEMBLE EQUIPMENT AFTER IT IS IN THE SPACE AT HIS OWN EXPENSE.

#### **GENERAL NOTES - ALL CONTRACTORS**

DRAWINGS ARE GENERALLY DIAGRAMMATIC. ROUTING OF PIPING, DUCTWORK, CONDUITS, RACEWAYS, ETC, AS SHOWN ON DRAWINGS, DOES NOT INTEND TO SHOW EVERY RISE, DROP, OFFSET, FITTING NOR EVERY STRUCTURAL ELEMENT THAT MAY BE ENCOUNTERED DURING THE INSTALLATION OF THIS WORK. CONTRACTOR SHALL MAKE ANY REQUIRED CHANGES FROM THE GENERAL ROUTING SHOWN ON THESE DRAWINGS, SUCH AS OFFSETS, BENDS OR CHANGES IN ELEVATION DUE TO COORDINATION WITH THE WORK OF OTHER TRADES AND BUILDING CONSTRUCTION. ALL CHANGES SHALL BE MADE WITHOUT ADDITIONAL COST TO THE OWNER OR DELAY IN COMPLETION DATE OF THE PROJECT.

2. IT IS INTENDED THAT EQUIPMENT SHALL BE LOCATED SYMMETRICALLY WITH THE ARCHITECTURAL ELEMENTS OF THE BUILDING, NOTWITHSTANDING THE FACT THAT LOCATIONS INDICATED BY THESE DRAWINGS MAY BE DISTORTED FOR CLEARNESS OF PRESENTATION.

CONTRACTOR SHALL CHECK DRAWINGS OF OTHER TRADES TO VERIFY THAT SPACES IN WHICH THEIR WORK WILL BE INSTALLED ARE CLEAR OF OBSTRUCTIONS. WORK SHALL BE INSTALLED TO MAINTAIN MAXIMUM HEADROOM AND SPACE CONDITION AT ALL POINTS IN THE BUILDING. WHERE HEADROOM OR SPACE CONDITIONS APPEAR INADEQUATE, CONTRACTOR SHALL NOTIFY ARCHITECT/ENGINEER BEFORE PROCEEDING WITH THE INSTALLATION OF THEIR WORK.

CONTRACTOR SHALL FURNISH OTHER TRADES ADVANCE INFORMATION AND/OR SHOP DRAWINGS ON LOCATIONS AND SIZES OF PIPING, DUCTWORK, CONDUIT, RACEWAYS, EQUIPMENT, FRAMES, BOXES, SLEEVES AND OPENINGS, ETC. NEEDED FOR THEIR WORK TO PERMIT OTHER TRADES AFFECTED TO INSTALL THEIR WORK PROPERLY AND WITHOUT DELAY.

WHERE THERE IS EVIDENCE THAT WORK OF ONE TRADE WILL INTERFERE WITH WORK OF OTHER TRADES, ALL TRADES SHALL MEET ON JOB SITE TO WORK OUT SPACE CONDITIONS CONTRACTORS SHALL VERIFY EXACT LOCATIONS OF ALL DEVICES AND EQUIPMENT WITH FIELD CONSULTING WITH OTHER TRADES BEFORE INSTALLING THEIR WORK.

CONTRACTOR SHALL PROVIDE SLEEVES IN BEAMS, FLOORS, COLUMNS AND WALLS AS SHOWN ON THE DRAWINGS, AS REQUIRED BY JOB SITE CONDITIONS, AND/OR AS SPECIFIED, WHEN INSTALLING THEIR WORK. ALL BEAMS AND COLUMNS WHICH ARE REQUIRED TO BE SLEEVED SHALL BE CUT AND REINFORCED AS REQUIRED BY FIELD CONDITIONS AND LOCATIONS AND SIZES SHALL BE CHECKED AND APPROVED BY ARCHITECT BEFORE CONTRACTOR CUTS ANY

STIPULATION AS CALLED FOR IN THE SPECIFICATION AND/OR AS DIRECTED.

CONTRACTOR SHALL REFER TO THE ARCHITECTURAL AND STRUCTURAL CONTRACT DRAWINGS (BEFORE SUBMITTING HIS BID) TO FAMILIARIZE HIMSELF WITH THE EXTENT OF THE GENERAL

INVOLVED IN THAT TRADE AND SHALL MATCH THE ADJACENT CONSTRUCTION AS CLOSELY AS



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REGISTERED PROFESSIONAL Engineer

0F

New Building

Winnebago County **Forest Preserve** 

Meridian Rd. Winnebago County, Illinois

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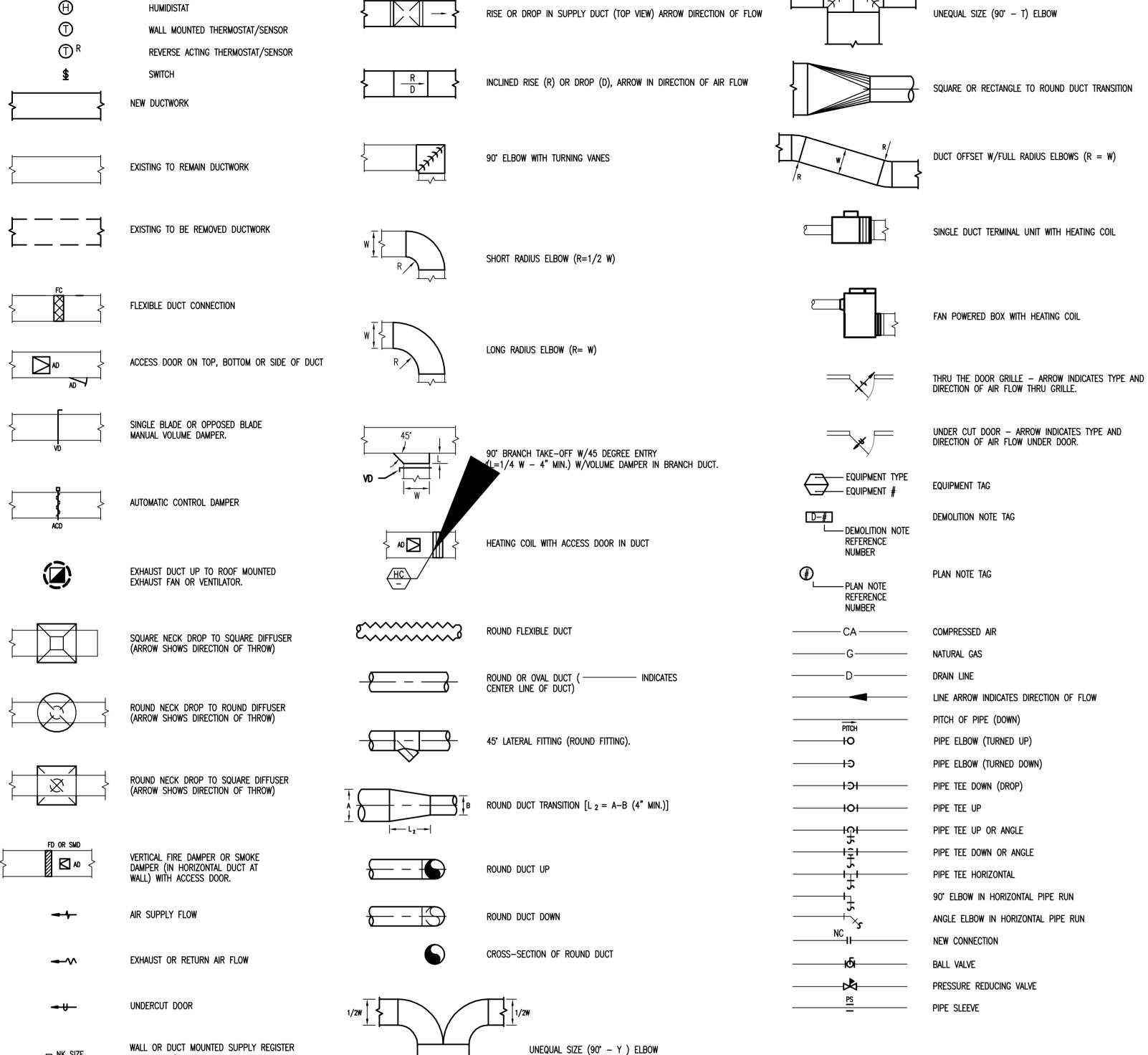
**SYMBOLS - MECHANICAL** 

Ref. North

M500

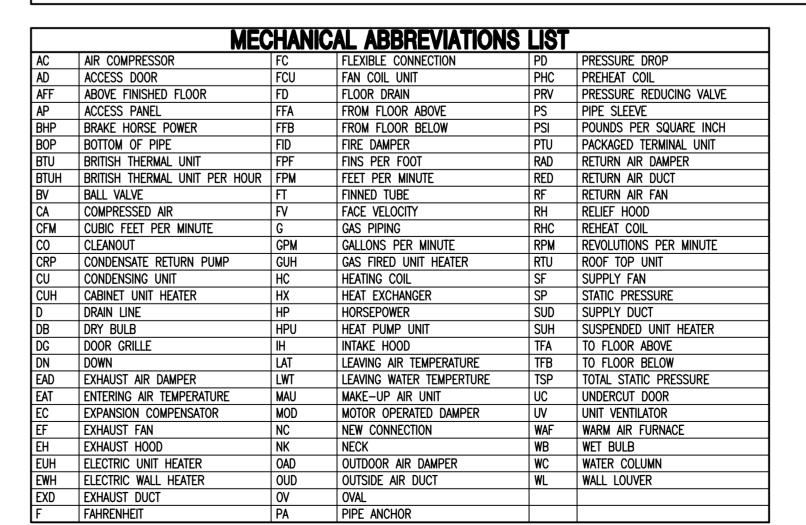
PROFESSIONAL DESIGN FIRM REGISTRATION # 184-003342

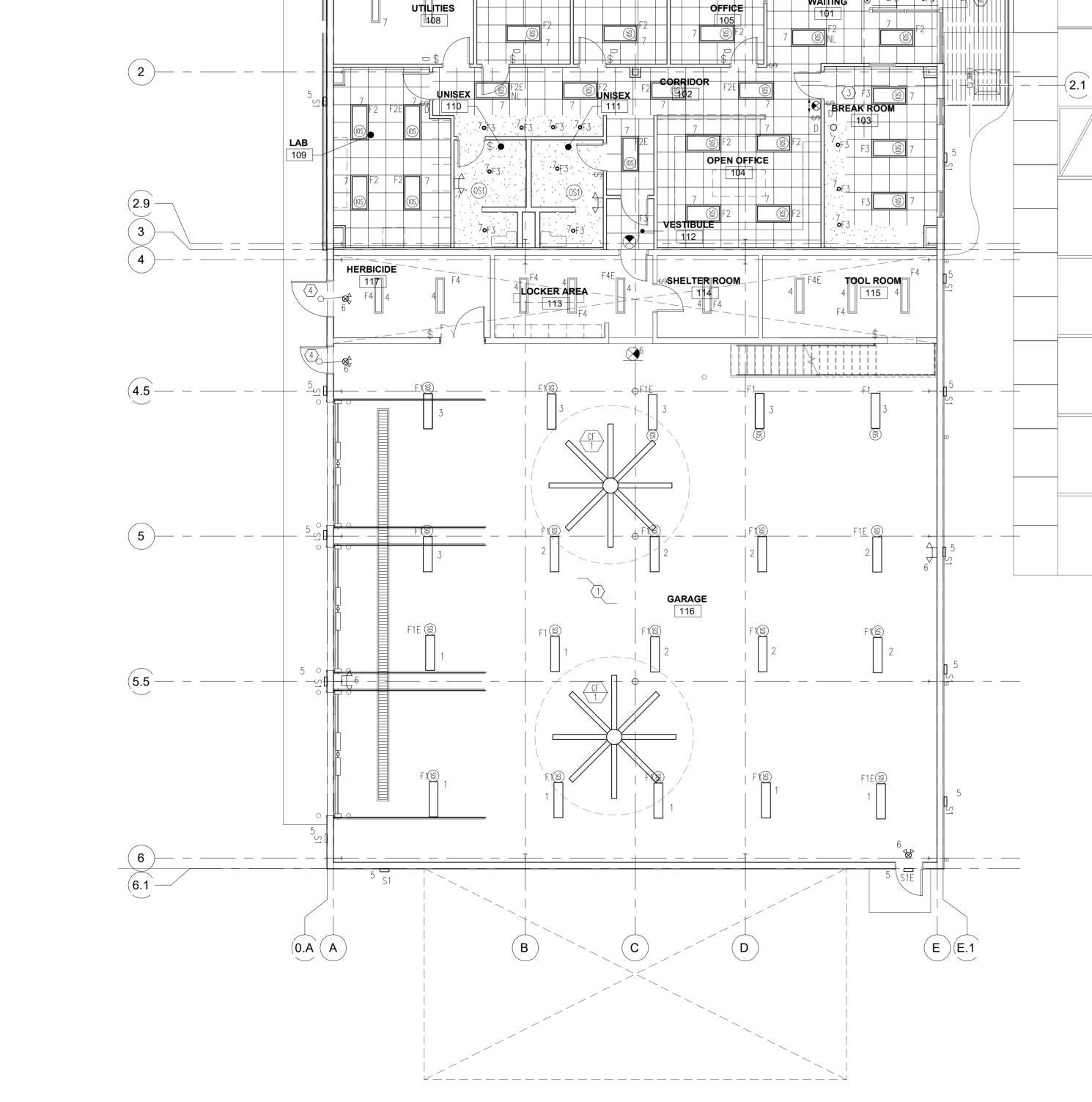
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90° BRANCH TAKE-OFF FROM MAIN

SQUARE OR RECTANGLE DUCT TRANSITION





WAITING

Floor Plan - Electrical - Lighting 1/8" = 1'-0"

#### **GENERAL ELECTRICAL NOTES:**

- 1. LIGHTING CONTROL SYSTEM FOR NEW LIGHT AREAS IS nLIGHT BY ACUITY.
- ALL LIGHTING CONTROL SHALL COMPLY WITH 2021 IECC, WHETHER SPECIFICALLY INDICATED OR NOT. PROVIDE ALL PERIPHERAL COMPONENTS, INCLUDING PROGRAMMING, AS REQUIRED TO ACHIEVE THIS PURPOSE.
- FINAL LIGHTING CONTROL PROGRAMMING DECISIONS SHALL BE BY OWNER. CONTRACTOR SHALL DEDICATE A FULL DAY TO COORDINATE HOW THE LIGHTING CONTROL SYSTEM SHALL BE PROGRAMMED. PROVIDE LASER—ETCHED SWITCH LABELS PER OWNER DIRECTION.
- 4. CONNECT EMERGENCY LIGHTS AND EXIT SIGNS TO UNSWITCHED LEG OF LOCAL LIGHTING CIRCUIT.
- FOR ALL LIGHT FIXTURES NOT SUPPLIED WITH nLIGHT CONTROLS, PROVIDE POWER PACKS IN QUANTITIES AND LOCATIONS AS REQUIRED FOR COMPLETE LIGHTING CONTROL, WHETHER SPECIFICALLY INDICATED OR NOT.
- 6. FOR ADDITIONAL INFORMATION REGARDING nLIGHT CONTROL SYSTEM, CONTACT KELLI COTTER AT (312) 614-0960.
- EXTERIOR LIGHTING ON THIS SHEET IS FED FROM PANEL "\_\_\_", cct. \_\_\_, UNLESS SPECIFICALLY NOTED OTHERWISE. PROVIDE ASTRONOMIC TIMER CONTROL CAPABILITIES WITHIN LIGHTING CONTROL SYSTEM TO CONTROL EXTERIOR LIGHTING.

#### **ELECTRICAL KEY NOTES:**

- (1) COORDINATE FINAL LOCATION OF LIGHT FIXTURES WITH OTHER EQUIPMENT WITHIN THE ROOM,
- 3 PROVIDE TWO (2) SWITCHES. ONE FOR OVERHEAD 2'X4'S, & ONE FOR DOWNLIGHTS.
- 4 PROVIDE REMOVE EXTERIOR HEAD ON EXIT/EMERGENCY LIGHT.

#### LIGHTING CONTROL SYMBOLS:

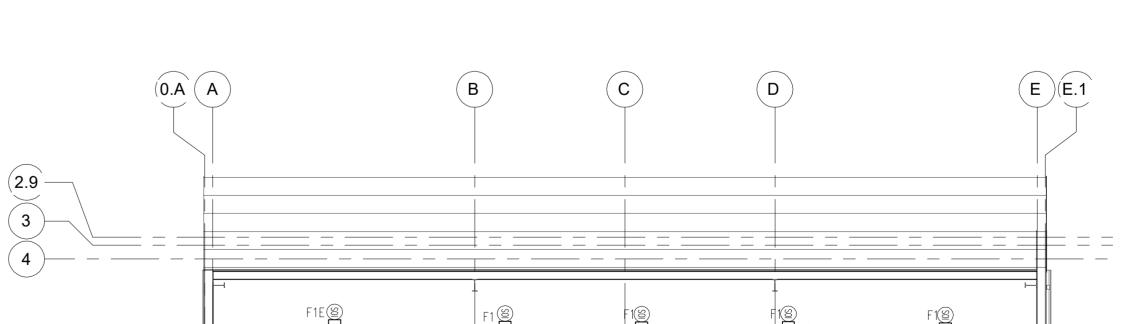
- \$D nLIGHT #nPODMA DX XX WIRED AESTHETIC WALLPOD, RAISE/LOWER DIMMING.
- \$ nLIGHT #nPODMA XX WIRED AESTHETIC WALLPOD.
- OS1) nLIGHT #NCM 6 RJB LOW VOLTAGE CEILING MOUNT SENSOR, HIGH BAY 360°
- (0S) INTEGRAL OCCUPANCY SENSOR.

4.5

- DPP nLIGHT #nPP16 D EFP POWER/RELAY PACK, 0-10V DIMMING, EXTERNAL FAULT PROTECTION. (NOT SHOWN PROVIDE IN NUMBER(S) REQUIRED.)
- PP nLIGHT #nPP16 EFP POWER/RELAY PACK, EXTERNAL FAULT PROTECTION.

  (NOT SHOWN PROVIDE IN NUMBER(S) REQUIRED.)

- INCLUDING BUT NOT LIMITED TO DUCTWORK, PUMPS, PIPING, ETC.
- 2 FIXTURES ARE ABOVE MEZZANINE.



Mezzanine Plan - Electrical - Lighting 1/8" = 1'-0"





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New Building

for

# Winnebago County Forest Preserve

Meridian Rd., Winnebago County, Illinois

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Scale

1/8" = 1'-0"

Sheet Title

FLOOR PLAN - ELECTRICAL - LIGHTING

Ref. North

E110

PROFESSIONAL DESIGN FIRM REGISTRATION # 184-003342

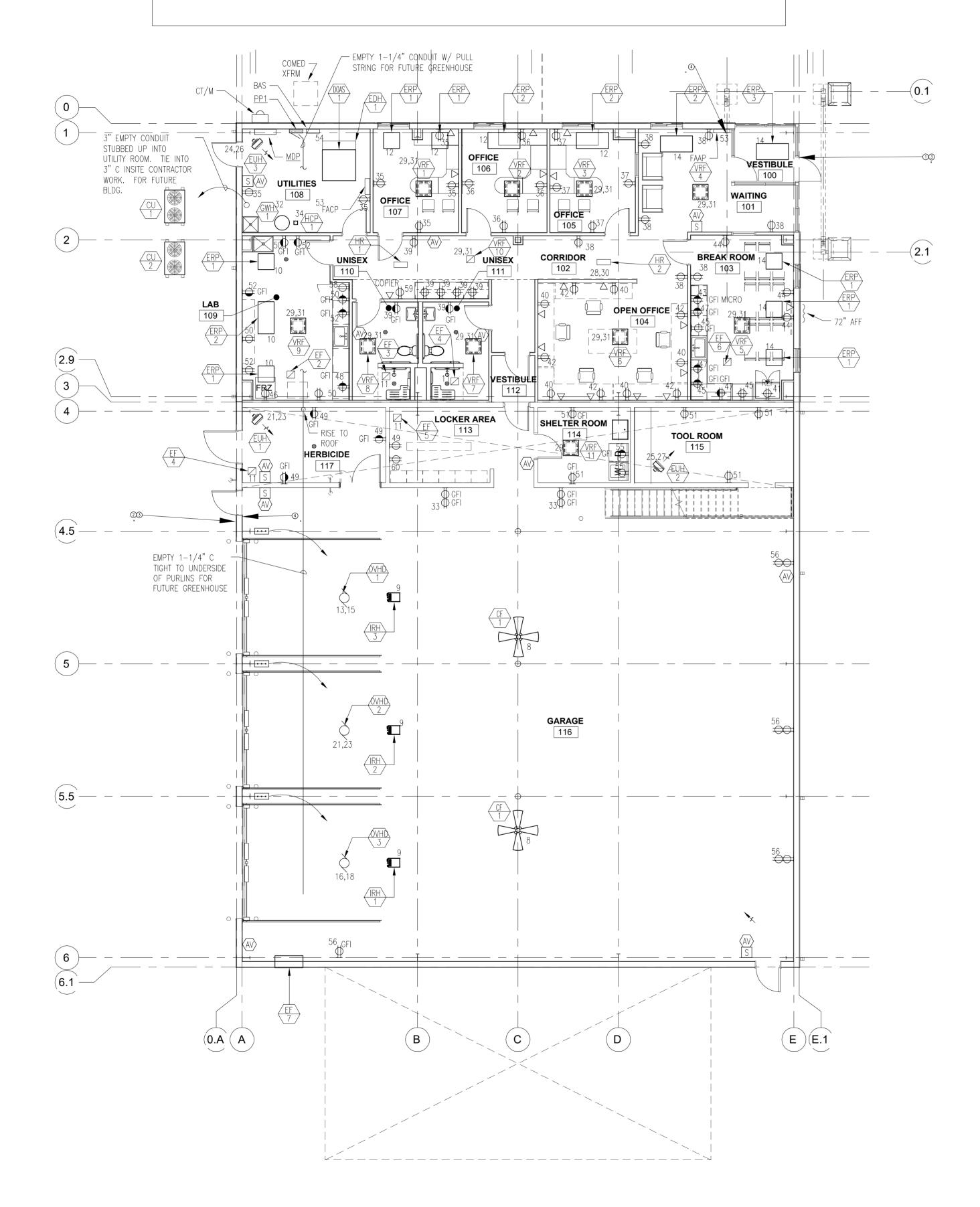
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(2) PROVIDE EMPTY CONDUIT AND WALL BOX FOR DOOR ACCESS CONTROL. CONDUIT TO ELBOW OUT INTO SPACE +/- 10'-0" AFF.

3 PROVIDE POWER TO DOOR STRIKE IN HAREWARE.

PROVIDE EMPTY CONDUIT AND WALL BOX FOR BURGLAR ALARM KEYPAD.
CONDUIT TO BE STUBBED UP ABOVE CEILING, OR ELBOWED INTO SPACE
AT +/- 10'-0" AFF.

OWNER WILL FURNISH AND INSTALL AN ACCESS CONTROL SYSTEM AND BURGLAR ALARM SYSTEM.

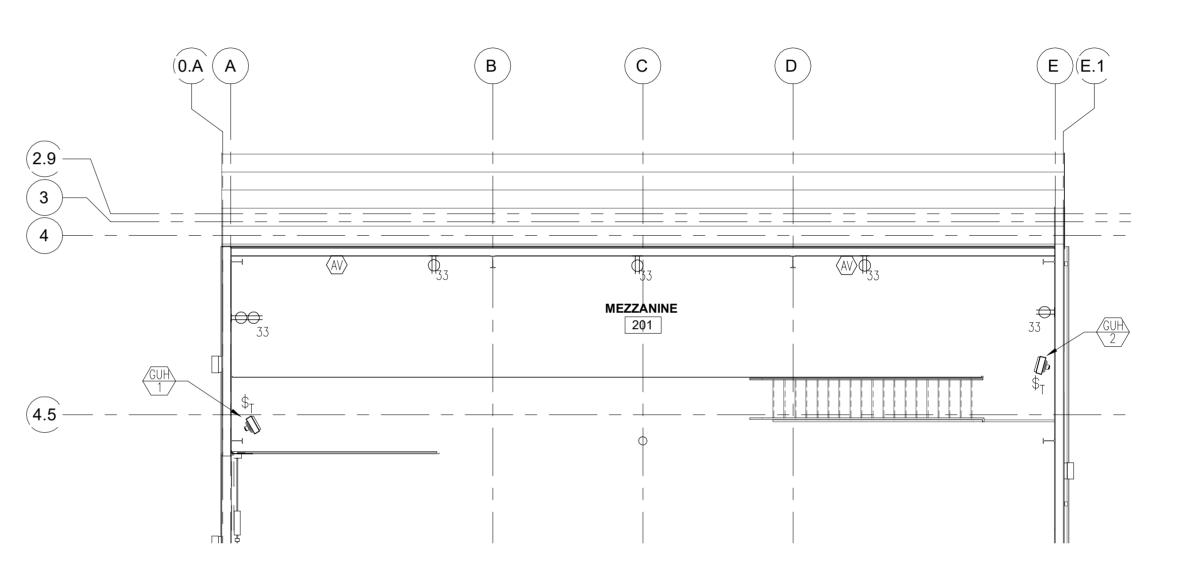






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Mezzanine Plan - Power - Electrical

New Building

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Sheet Title

FLOOR PLAN - POWER - ELECTRICAL

Ref. North



Sheet No.



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EQUIP. TAG	DESIGNATED TAG	LOCATIONS	VOLTS	PHASE	LOAD H.P.	AMP	KVA	FEEDER	SOURCE PANEL	OF POWER  CCT. NO.	PROTECT (AMPERES)	STA SIZE	RTER TYPE	DISCO	NNECT TYPE	REMARKS
(CF)	CEILING FAN	GARAGE	120	1 1	п.г.	0.9		1)	PANEL PP-1	8	20A 1P		-	PROVIDE N	NEMA5-20R O EACH FAN	TYP. OF 2
(CU)	CONDENSING UNIT	GRADE	208	3	_				MDP	2		-	_	A 3P A FUSES	NEMA 3R	
(CU) 2	CONDENSING UNIT	GRADE	208	3	_				MDP	3		-	_	A 3P A FUSES	NEMA 3R	
EDH 1	ELECTRIC DUCT HEATER (DOAS)		208	3	_	40			MDP	5	40A, 3P	-	_	50A 3P	DISCONNECT	
(EF)	EXHAUST FAN	HERBICIDE 117	120	1	-	1.5	-	1)	PP-1	11	20A, 1P	-	_	20A 1P	THERMAL OVERLOAD	
EF 2	EXHAUST FAN	LAB 109	120	1	-	1.5		1)	PP-1	11	20A, 1P	-	_	20A 1P	THERMAL OVERLOAD	
EF 3	EXHAUST FAN	UNISEX TOILET 110	120	1	-	1.5	-	1	PP-1	11	20A, 1P	_	_	20A 1P	THERMAL OVERLOAD	
EF 4	EXHAUST FAN	UNISEX TOILET 111	120	1	-	1.5		1	PP-1	11	20A, 1P	-	_	20A 1P	THERMAL OVERLOAD	
EF 5	EXHAUST FAN	LOCKER ROOM 113	120	1		1.5	_	1)	PP-1	11	20A, 1P	_	_	20A 1P	THERMAL OVERLOAD	TYP. OF 8
EF 6	EXHAUST FAN	BREAK ROOM 103	120	1	_	1.5		4	PP-1	11	20A, 1P	-	-	20A 1P	THERMAL OVERLOAD	
EF 7	EXHAUST FAN	GARAGE 116	208	3	_	10			MDP	6	20A, 3P	-	-	20A 3P	DISCONNECT	TYP. OF 8
ERP 1	ELECTRIC RADIANT CEILING PANEL	SEE PLANS	120	1	-	6.3		1	PP-1	SEE SCHEDULE	20A, 1P	-	_	20A 1P	TOGGLE	TYP. OF 4
ERP 2	ELECTRIC RADIANT CEILING PANEL	SEE PLANS	120	1	-	3.1		1)	PP-1	SEE SCHEDULE	20A, 1P	_	_	20A 1P	TOGGLE	TYP. OF 1
ERP 3	ELECTRIC RADIANT CEILING PANEL	SEE PLANS	120	1	-	8.5		1	PP-1	SEE SCHEDULE	20A, 1P	_	-	20A 1P	TOGGLE	TYP. OF 4
OVHD 1	OVERHEAD DOOR-1	GARAGE	208	1	-	9.0		1)	PP-1	13,15	20A, 1P	_	_	20A 1P	THERMAL OVERLOAD	TYP. OF 1
OVHD 2	OVERHEAD DOOR-2	GARAGE	208	1	-	9.0		1	PP-1	17,19	20A, 1P	_	_	20A 1P	THERMAL OVERLOAD	
OVHD 3	OVERHEAD DOOR-3	GARAGE	208	1	-	9.0		1	PP-1	16,18	20A, 1P	_	_	20A 1P	THERMAL OVERLOAD	
200AS	DEDICATED OUTDOOR AIR	UTILITIES 108	208	1	-	7.5		1	PP-1	20,22	15A, 2P	_	_	20A 2P	TOGGLE	
EUH 1	ELECTRIC UNIT HEATER	HERBICIDE 117	208	1	-			3	PP-1	21,23	20A, 2P	_	-	MANUFA	HED BY ACTURER	
EUH 2	ELECTRIC UNIT HEATER	TOOL ROOM 115	208	1	-			3	PP-1	25,27	20A, 2P	-	_	MANUFA	HED BY ACTURER	
EUH 3	ELECTRIC UNIT HEATER	UTILITIES 108	208	1	-			3	PP-1	24,26	20A, 2P	_	-		HED BY ACTURER	
HRU 1	HEAT RECOVERY UNIT	CORRIDOR 102	208	1	-	0.2		2	PP-1	28,30	20A, 2P	-	-	20A 2P	TOGGLE	
HRU 2	HEAT RECOVERY UNIT	CORRIDOR 102	208	1	-	0.2		2	PP-1	28,30	20A, 1P	_	-	20A 2P	TOGGLE	
(IRH)	INFRARED HEATER	GARAGE	120	1	-	1.0		1	PP-1	9	20A, 1P	-	-	20A 1P	TOGGLE	
IRH 2	INFRARED HEATER	GARAGE	120	1	-	1.0		1	PP-1	9	20A, 1P	_	_	20A 1P	TOGGLE	
IRH 3	INFRARED HEATER	GARAGE	120	1	-	1.0		1	PP-1	9	20A, 1P	_	_	20A 1P	TOGGLE	
IRH 4	INFRARED HEATER	GARAGE	120	1	-	1.0	-	1	PP-1	9	20A, 1P					
VRF 1	VARIABLE REFRIGERANT FLOW	OFFICE 107	208	1	-	0.2		2	PP-1		15A, 2P	-	-	20A 2P	TOGGLE	FED FROM CU-1
VRF 2	VARIABLE REFRIGERANT FLOW	OFFICE 106	208	1	-	0.2		2	PP-1	29,31	15A, 2P	_	-	20A 2P	TOGGLE	FED FROM CU-1
VRF 3	VARIABLE REFRIGERANT FLOW	OFFICE 105	208	1	-	0.2		2	PP-1	29,31	15A, 2P	_	_	20A 2P	TOGGLE	FED FROM CU-1
VRF 4	VARIABLE REFRIGERANT FLOW	WAITING 101	208	1	_	0.2		2	PP-1	29,31	15A, 2P	_	_	20A 2P	TOGGLE	FED FROM CU-1
VRF 5	VARIABLE REFRIGERANT FLOW	BREAK ROOM 103	208	1	_	0.2		2	PP-1	29,31	15A, 2P	_	-	20A 2P	TOGGLE	FED FROM CU-1
VRF 6	VARIABLE REFRIGERANT FLOW	OPEN OFFICE 104	208	1	_	0.2		2	PP-1	29,31	15A, 2P	_	-	20A 2P	TOGGLE	FED FROM CU-1
VRF 7	VARIABLE REFRIGERANT FLOW	UNISEX TOILET 111	208	1	_	0.2		2	PP-1	29,31	15A, 2P	_	-	20A 2P	TOGGLE	FED FROM CU-1
VRF 8	VARIABLE REFRIGERANT FLOW	UNISEX TOILET 110	208	1	-	0.2		2	PP-1	29,31	15A, 2P	_	_	20A 2P	TOGGLE	FED FROM CU-1
VRF 9	VARIABLE REFRIGERANT FLOW	LAB 109	208	1	_	0.2		2	PP-1	29,31	15A, 2P	_	_	20A 2P	TOGGLE	FED FROM CU-1
VRF 10	VARIABLE REFRIGERANT FLOW	CORRIDOR 102	208	1	-	0.2		2	PP-1	29,31	15A, 2P	-	-	20A 2P	TOGGLE	FED FROM CU-1
VRF 11	VARIABLE REFRIGERANT FLOW	SHELTER ROOM 114	208	1	_	0.2	-	1	PP-1	29,31	15A, 2P	_	-	20A 2P	TOGGLE	FED FROM CU-1
GWH 1	GAS WATER HEATER	UTILITIES 108	120	1	-	1.9		1	PP-1	32	20A, 1P	_	_	20A 1P	TOGGLE	
HCP 1	HOT WATER CIRCULATION PUMP	UTILITIES 108	120	1	_	2.3	_	1	PP-1	34	20A, 1P	-	_	20A 1P	THERMAL OVERLOAD	

1		CIRCULATION	I FUIVIF												UVERLUAD
					1.101	ITINO	FIVE	UDE COLIEDU							
					LIGH	HIING	FIXI	URE SCHEDU							
TYPE	NO.	LAMP TYPE	MOUNTING	ACCEPTABLE MANUFACTURER AND CATALOG NU	JMBER	VOLTS	INPUT WATTS	DESCRIPTION						REMARKS	
F1		LED	SURFACE/ SUSPENDED	H.E. WILLIAMS #GL-4-L3000/840-ND-DIM-UNV / OCCSS LSXR-AISLE- EQUIVALENT BY ACUITY	·UNV	UNV	251	4' NOM. LENGTH LOW- LUMEN PACKAGE, 400 WITH INTEGRAL HIGH-	OK COLOR TEM	PERATURE, 0-10	OV DIMMABLE,		HEN MOTION DET	ES OF NOT SENSIN TECTED. CAN BE	
F1E		LED	SURFACE/ SUSPENDED	H.E. WILLIAMS #GL-4-L3000/840-ND-DIM-UNV / OCCSS LSXR-AISLE- EQUIVALENT BY ACUITY	UNV	251	SAME AS TYPE "F1" E FIXTURES WILL SERVE BRIGHTNESS UNTIL MC	AS NIGHT LIGH	ITS DURING OFF	PACK. THESE HOURS, AT 10%	BRIGHTNESS W	HEN MOTION DET	ES OF NOT SENSIN TECTED AND WHEN D OFF DURING OFF	N NORMAL POWER IS	
F2		LED	RECESSED GRID	#STAK 2x4 4000LM 80CRI 35K COLT MIN10 ZT MVOLT AF	UNV	32	RECESSED LED GRID O-10V DIMMABLE TO	TROFFER, 4000 10%, INTEGRAL	LUMENS, 80CRI AUTO-DIM PHO	I, 3500K CCT, TOCELL.					
F2E		LED	RECESSED GRID	LITHONIA #STAK 2x4 4000LM 80CRI 35K COLT MIN10 ZT MVOLT E1	15WLCP APIR	UNV	32	SAME AS "F2" FIXTUR	E EXCEPT WITH	INTEGRAL 15W	BATTERY PACK.				ME AS OTHER FIXTURES RING NORMAL POWER
F3		LED	RECESSED CEILING	H.E. WILLIAMS #4DR-TL-L20/835-DIM-UNV-OW-OF-WH-WET/CC-I-F1 EQUIVALENT BY ACUITY		UNV	20	4.5" DIA. RECESSED L COLOR TEMPERATURE, OPEN REFLECTOR, WH	0-10V DIMMA	BLE TO 10%, WI	PACKAGE, 3500K DE DISTRIBUTION,			REQUIREMENTS WIT ENTS AS REQUIRED	TH CEILING TYPE, AND D.
F4		LED	SURFACE/ SUSPENDED	H.E. WILLIAMS #75R-4-L65/835-DIM-UNV EQUIVALENT BY ACUITY		UNV	49	4' LED STRIP FIXTURE COLOR TEMPERATURE,	PACKAGE, 3500K	PROVIDE PERIPHERAL COMPONENTS AS REQUIRED TO MOUNT FIXTURAL OPTIMAL HEIGHT, NOT MORE THAN 9'-0" AFF.					
F4E		LED	SURFACE/ SUSPENDED	H.E. WILLIAMS #75R-4-L65/835-DIM-UNV EQUIVALENT BY ACUITY		UNV	49	SAME AS "F4" FIXTUR	E EXCEPT WITH	INTEGRAL BATTI	ERY PACK.				ME AS OTHER FIXTURES RING NORMAL POWER
S1		LED	SURFACE WALL	LITHONIA #WPX2LED 50K MVOLT PE DDBXD		UNV	47	WALL MOUNTED LED A PHOTOCELL, TYPE III [				MOUNT APPRO MOUNTING WITH INSTALL AS RE	H ARCHITECTURAL	BOVE GRADE. COC L ELEVATIONS AND	)RDINATE FINAL ) STRUCTURE AND
S1E		LED	SURFACE WALL	LITHONIA #WPX2LED 50K MVOLT E14WC PE DDBXD											
		LED	UNIVERSAL	LIGHTALARMS #QLX500-RN SERIES EQUIVALENT BY ACUITY		UNV	N/A	RED LED THERMOPLAS PROVIDE CHEVRONS A PLANS/REQUIREMENTS.	ND MOUNTING						
		LED	WALL MOUNTED	LITHONIA #EU2CM6		UNV	1	LED EMERGENCY LIGHT	T						
		LED	UNIVERSAL	LITHONIA #ECRGH05QM6		UNV	4	LED EXIT COMBO WITH (PROVIDE REMOTE HEA			AN.)				

	FEEDER SCHEDULE	
FEEDER TYPE	WIRE, GROUND & CONDUIT SIZE (COPPER)	CB SIZE
1	2#12 & 1#12G - 3/4°C	20A 1P
2	2#12 & 1#12G - 3/4°C	20A 2P
3	3#12 & 1#12G - 3/4°C	20A 3P
4)	2#10 & 1#10G - 3/4°C	25A 1P
5	2#8 & 1#10G - 3/4°C	35A 1P
6	3#10 & 1#10G - 3/4°C	30A 3P
7)	3#8 & 1#10G - 3/4°C	35A 3P
8	2#8 & 1#10G - 3/4°C	40A 2P
9	3#6 & 1#10G - 3/4°C	45A 3P
(10)	3#6 & 1#10G - 3/4°C	50A 3P
(1)	3#4 & 1#8G - 1"C	70A 3P
(12)	3#3 & 1#8 - 1-1/4°C	80A
(13)	4#3/0 & 1#6G - 2°C	200A 3P (4W)
(14)	3#4/0 & 1#4G - 2°C	225A 3P
(15)	4-500Kcmil & 1#3G - 3"C	400A 3P (4W)
16)	2 SETS OF 4-350Kcmil & 1#1G - 3"C	600A 3P (4W)

NOTE: IN GENERAL, ALL FEEDERS ARE SIZED BASED UPON THE OVERCURRENT PROTECTION FEEDING THAT CIRCUIT. REFER TO PANEL SCHEDULES TO DETERMINE OVERCURRENT PROTECTION SIZE, AND CROSS-REFERENCE THIS SCHEDULE TO DETERMINE FEEDER TYPE.

USE AND/OR AREA SERVED  GARAGE LIGHTING  GARAGE LIGHTING  EXTERIOR LIGHTING  OFFICE LIGHTING  IRH 1 THRU 3  EXHAUST FANS 1 THRU 6  OVHD #1  OVHD #2  ELECTRIC UNIT HTR. EUH-1  ELECTRIC UNIT HTR. EUH-2  VRFs 1 THRU 11  OUTLETS MEZZANINE & GARAGE	C/B 20 1 20 1 20 1 20 1 20 1 20 2 20 2 20	CIR. NO. 1 3 5 7 9 9 11 13 15 17 19 21 23	MIH GRO  A  1760  1760  1200  250  90  3240	B 1760 1445 480 1560 950 950	752 50 1080 2280	CIR. NO. 2 4 6 8 10 12	C/B 20 1 20 1 20 1 20 1 20 1 20 1 20 1 20	USE AND/OR AREA SERVED  GARAGE LIGHTING  GARAGE & 113,114,115&117 LIGHTING  GARAGE EXIT/EMERGENCY LIGHTING  GARAGE CEILING FANS (CF-1)  ERP RM. 109  ERP RMS 105,106&107
GARAGE LIGHTING  EXTERIOR LIGHTING  OFFICE LIGHTING  IRH 1 THRU 3  EXHAUST FANS 1 THRU 6  OVHD #1  OVHD #2  ELECTRIC UNIT HTR. EUH-1  ELECTRIC UNIT HTR. EUH-2  VRFs 1 THRU 11	1 20 1 20 1 20 20 1 20 20 20 20 20 20 20 20 20 20 20 20 20 2	1 3 5 7 9 11 13 15 17	1760 1200 250 90 3240	480 1560	1080	2 4 6 8 10	1 20 1 20 1 20 1 20 1 20	GARAGE & 113,114,115&117 LIGHTING  GARAGE EXIT/EMERGENCY LIGHTING  GARAGE CEILING FANS (CF-1)  ERP RM. 109
EXTERIOR LIGHTING  OFFICE LIGHTING  IRH 1 THRU 3  EXHAUST FANS 1 THRU 6  OVHD #1  OVHD #2  ELECTRIC UNIT HTR. EUH-1  ELECTRIC UNIT HTR. EUH-2  VRFs 1 THRU 11	20 1 20 1 20 1 20 1 20 2 20 2 20 2	5 7 9 11 13 15 17 19	90 3240 950	480 1560	1080	4 6 8 10 12	1 20 1 20 1 20 1 20	GARAGE EXIT/EMERGENCY LIGHTING  GARAGE CEILING FANS (CF-1)  ERP RM. 109
EXTERIOR LIGHTING  OFFICE LIGHTING  IRH 1 THRU 3  EXHAUST FANS 1 THRU 6  OVHD #1  OVHD #2  ELECTRIC UNIT HTR. EUH-1  ELECTRIC UNIT HTR. EUH-2  VRFs 1 THRU 11	20 1 20 1 20 1 20 2 20 2	7 9 11 13 15 17 19 21	90 3240 950	480 1560	1080	6 8 10	1 20 1 20 1 20	GARAGE CEILING FANS (CF-1) ERP RM. 109
OFFICE LIGHTING  IRH 1 THRU 3  EXHAUST FANS 1 THRU 6  OVHD #1  OVHD #2  ELECTRIC UNIT HTR. EUH-1  ELECTRIC UNIT HTR. EUH-2  VRFs 1 THRU 11	20 1 20 1 20 2 20 20 20 2	11 13 15 17 19	90 3240 950	1560 950	1080	8 10 12	20 1 20 1	GARAGE CEILING FANS (CF-1) ERP RM. 109
IRH 1 THRU 3  EXHAUST FANS 1 THRU 6  OVHD #1  OVHD #2  ELECTRIC UNIT HTR. EUH-1  ELECTRIC UNIT HTR. EUH-2  VRFs 1 THRU 11	20 / 2 / 20 / 2 / 20 / 2	11 13 15 17 19	90 3240	1560 950	1080 2280	10	20 1	ERP RM. 109
EXHAUST FANS 1 THRU 6  OVHD #1  OVHD #2  ELECTRIC UNIT HTR. EUH-1  ELECTRIC UNIT HTR. EUH-2  VRFs 1 THRU 11	2 20 20 20 20 20 2	13 15 17 19	3240 950	950	1080 2280	12	/ 1	
OVHD #1  OVHD #2  ELECTRIC UNIT HTR. EUH-1  ELECTRIC UNIT HTR. EUH-2  VRFs 1 THRU 11	2 20 20 20 20 20 2	15 17 19 21	3240 950		2280		/ 1	ENF KW3 103,100&107
OVHD #2  ELECTRIC UNIT HTR. EUH-1  ELECTRIC UNIT HTR. EUH-2  VRFs 1 THRU 11	2 20 / 20 / 2	17 19 21	950		1	1.4	] 20/	ERP RMS 100,101&103
ELECTRIC UNIT HTR. EUH-1  ELECTRIC UNIT HTR. EUH-2  VRFs 1 THRU 11	20 /	17 19 21	950			14	20 /	ERP RMS 100,101&103
ELECTRIC UNIT HTR. EUH-1  ELECTRIC UNIT HTR. EUH-2  VRFs 1 THRU 11	20 /	19	950		950	16	- /	OVHD #3
ELECTRIC UNIT HTR. EUH-2  VRFs 1 THRU 11	2	21	350	ı	950	18	20 /	
ELECTRIC UNIT HTR. EUH-2 VRFs 1 THRU 11	2		850	1560	1	20	-	DOAS-1
VRFs 1 THRU 11	<i>y</i>		t	850	1560	22	20 /	
VRFs 1 THRU 11	20/	25	1560		1560	24	20/	ELECTRIC UNIT HTR. EUH-3
	/		1560	1500	1	26	2	
	/ 2	27		1560 105	7.15	28	20	   HRU-1 & HRU-2
	20	29	215		315 105	30	2	
OUTLETS MEZZANINE & GARAGE		31	315 360			32	20/1	GAS WATER HTR. GWH-1
	20/1	33		1080 900		34	20/1	HOT WATER CIRC. PUMP HCP-1
OUTLETS 108 & 107	20/1	35			1080 720	36	20/1	OUTLETS 106
OUTLETS 105	20/1	37	720 1080	,		38	20/1	OUTLETS 101 & 102
OUTLETS 102, 110 & 111	20/1	39		1080 900		40	20/	OUTLETS 104
OUTLETS 103 REFRIGERATOR	20/1	41			1500 900	42	20/1	OUTLETS 104
OUTLETS MICROWAVE	20/1	43	1500 540	'	000	44	20	OUTLETS 103
OUTLETS 103	20	45	340	540 540		46	20	OUTLETS 109 - ULTR-LOW TEMP
OUTLETS 103	20	47	l	340	540 1500	48	20	OUTLETS 109 - UNDER COUNTER REFR.
OUTLETS 117 & 113	20	49	720	l	1300	50	20	OUTLETS 109
OUTLETS 114 & 115	20	51	720	900 720	]	52	20	OUTLETS 109
FACP & FAAP	20	53	l	720	1200 1000	54	20	BAS SYSTEM
114 - WASHER & DRYER	20	55	1920	  -	1000		20	GARAGE OUTLETS
CO/NOX ALERT CONTROLLER	20	57	1500	100	]	56	20	ULTRA LOW FREEZER
COPIER	20	59	l	1800	1800	58	20	LOCKER AREA BOOT DRYER
	25 /	61	2640		1920	60	20	FUTURE GAS PUMP
WELL PUMP	/	63	0	2640	]	62	20	FUTURE FUEL LIGHTING
HELL I OWN	/	65	l	0	2460	64	20	GHU 1 & 2
CDADE	20/	67	0	ļ	1000	66	20	
SPARE	20	69	0	0	1	68	20	SPARE
SPARE	20	71	į	0	0	70	20	SPARE
SPARE	20	73	0	ı	0	72	20	SPARE
SPARE	20/1	75	0	0	1	74	1 20	SPARE
SPARE	20 1	77		0	0	76	20	SPARE
SPARE	20 1	79	0		0	78	50 /	SPARE
SPARE	/ 1		4200	0	1	80	"/	
SPARE	20 1	81		4200	^	82	/	FUTURE BUILDING
SPARE	20/1	83			0 4200	84	/ 3	
TOTAL LOAD	PER I	PHASE	29435	26620	29422	TOTAL	_ KVA:	85.5
						AM	IPS:	102.8

	FAINE	EL BOAI						el "PP-1"
VOLTAGE:	208/120V, 3ø, 4W		MAIN (A) 200A	MCB X	MLO	LOC,	OUNT:	UTILITIES SURFACE
		C/R CIR.		UND BUS	X	CIR.	TYPE:	AIC/MIN: 22,000
	SE AND/OR AREA SERVED	C/ D   NO.	A 1760	В	С	NO.	C/B	USE AND/OR AREA SERVED
GARAGE LIGHTING		20 1	1760	1700	1	2	20/	GARAGE LIGHTING
GARAGE LIGHTING		20 3		1760 1445	75.0	4	20/	GARAGE & 113,114,115&117 LIGHTING
EXTERIOR LIGHTIN	G	20 5	_		752 50	6	20/1	GARAGE EXIT/EMERGENCY LIGHTING
OFFICE LIGHTING		20 7	1200 250			8	20/	GARAGE CEILING FANS (CF-1)
IRH 1 THRU 3		20 9		480 1560		10	20/1	ERP RM. 109
EXHAUST FANS 1	THRU 6	20 11	1		1080 2280	12	20/	ERP RMS 105,106&107
		20 13	90 3240		2200	14	20/1	ERP RMS 100,101&103
OVHD #1		15	32+0	950 950		16	20 /	
		20 / 17	-	930	950			OVHD #3
OVHD #2		19	950	]	950	18	/ 2 20 /	
		20 / 21	850	1560		20		DOAS-1
ELECTRIC UNIT H	TR. EUH-1	23		850	1560	22	/ 2 20 /	
		20 / 25	1560	]	1560	24		ELECTRIC UNIT HTR. EUH-3
ELECTRIC UNIT H	TR. EUH-2	27	1560	1560	]	26	/ 2 20 /	
		20 / 29	1	105	315	28		HRU-1 & HRU-2
VRFs 1 THRU 11		31	315	1	105	30	20 2	
			360	1000	1	32	20/1	GAS WATER HTR. GWH-1
OUTLETS MEZZAN	NE & GARAGE	20 33		1080 900		34	20/1	HOT WATER CIRC. PUMP HCP-1
OUTLETS 108 &	107	20 35		,	1080 720	36	20/1	OUTLETS 106
OUTLETS 105		20 37	720 1080			38	20 / 1	OUTLETS 101 & 102
OUTLETS 102, 11	0 & 111	20 39		1080 900		40	20/1	OUTLETS 104
OUTLETS 103 REI	FRIGERATOR	20 41	]		1500 900	42	20/	OUTLETS 104
OUTLETS MICROWA	AVE	20 43	1500 540			44	20/1	OUTLETS 103
OUTLETS 103		20 45	- 0.0	540 540		46	20/1	OUTLETS 109 - ULTR-LOW TEMP
OUTLETS 103		20 47	1	340	540 1500	48	20/1	OUTLETS 109 - UNDER COUNTER REFR.
OUTLETS 117 &	113	20 49	720 720	]	1300	50	20/	OUTLETS 109
OUTLETS 114 &	115	20 51	720	900			20/	OUTLETS 109
FACP & FAAP		20 53		720	1200	52	20	BAS SYSTEM
114 – WASHER 8	▶ DRYFR	20 55	1920	]	1000	54	20	GARAGE OUTLETS
CO/NOX ALERT C		20 57	1500	100		56	20/	ULTRA LOW FREEZER
COPIER	ONTROLLER	20 59		1800	1800	58	<u>/ 1</u> 20/	
COPIER		25 / 61	2640	]	1920	60	20/	LOCKER AREA BOOT DRYER
WELL BUILD		63	0	2640	]	62	20/	FUTURE GAS PUMP
WELL PUMP		65	1	0	2460	64	20/	FUTURE FUEL LIGHTING
		3 20 67	0	1	1000	66	/ 1	GHU 1 & 2
SPARE			0	0	I	68	20/1	SPARE
SPARE		20 69		0	^	70	20/1	SPARE
SPARE		20 71		1	0	72	20/1	SPARE
SPARE		20 73	0		1	74	20/1	SPARE
SPARE		20 75		0		76	20/1	SPARE
SPARE		20 77			0	78	20/1	SPARE
SPARE		20 79	0 4200			80	50	
SPARE		20 81	1200	0 4200		82		FUTURE BUILDING
SPARE		20 83	1	+200	0		/ ,	
	TOTAL	LOAD PER PHASE	29435	26620	4200 29422	84 TOTAL	/ <u>3</u> . KVA:	85.5
	101/12					1		İ





400 N. First Street Rockford, IL 61107 815-227-0023 Brian@m-b-arch.com blakemore-architects.com Telephone:



# New Building

for

# Winnebago County Forest Preserve

# Meridian Rd., Winnebago County, Illinois

THE CONTRACTOR SHALL DETERMINE EXACT DIMENSIONS AND CONDITIONS AT THE SITE PRIOR TO SUBMITTING A BID. THE CONTRACTOR SHALL COORDINATE ALL DRAWINGS WITH ACTUAL FIELD CONDITIONS PRIOR TO PROCEEDING WITH THE WORK AND NOTIFY THE ARCHITECT OF ANY DISCREPANCIES. THIS DRAWING IS THE PROPERTY OF BLAKEMORE ARCHITECTS AND MAY NOT BE REPRODUCED WITHOUT THE PRIOR WRITTEN PERMISSION OF THE ARCHITECT.

NO	. DATE	DESCRIPTION
1)	05-08-2025	Initial Layout
2)	08-07-2025	Schematic Design
3)	08-27-2025	Design Development
4)	10-17-2025	Final Owner Review Set
5)	10-27-2025	Issued for Bids / Permit

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BA Project No.

Scale

NO SCALE

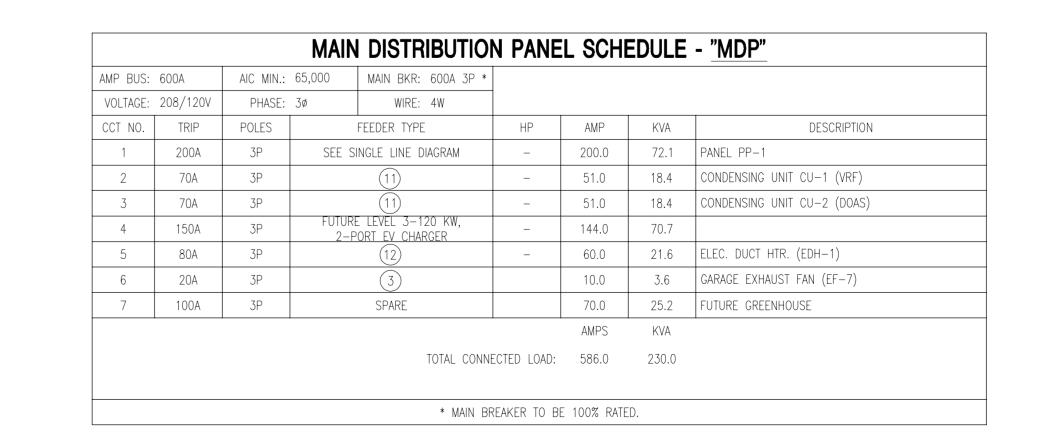
Sheet Title

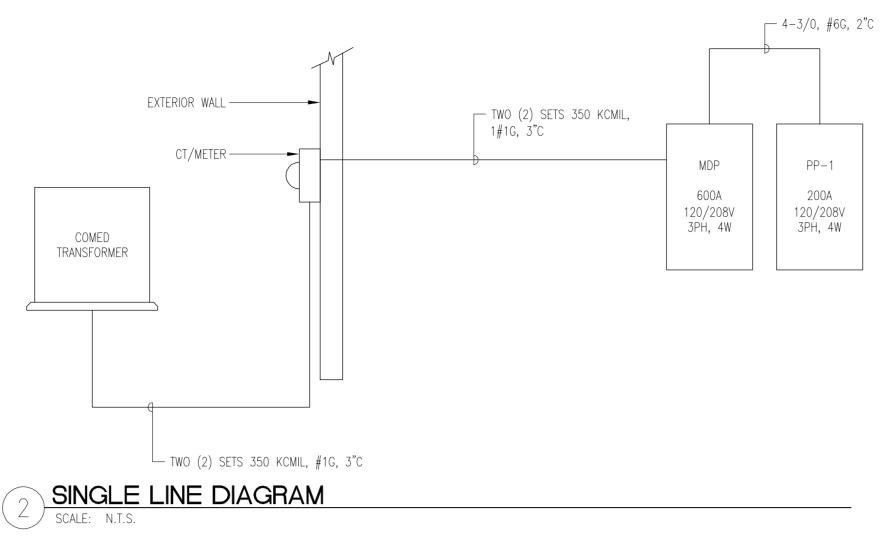
SCHEDULES - ELECTRICAL

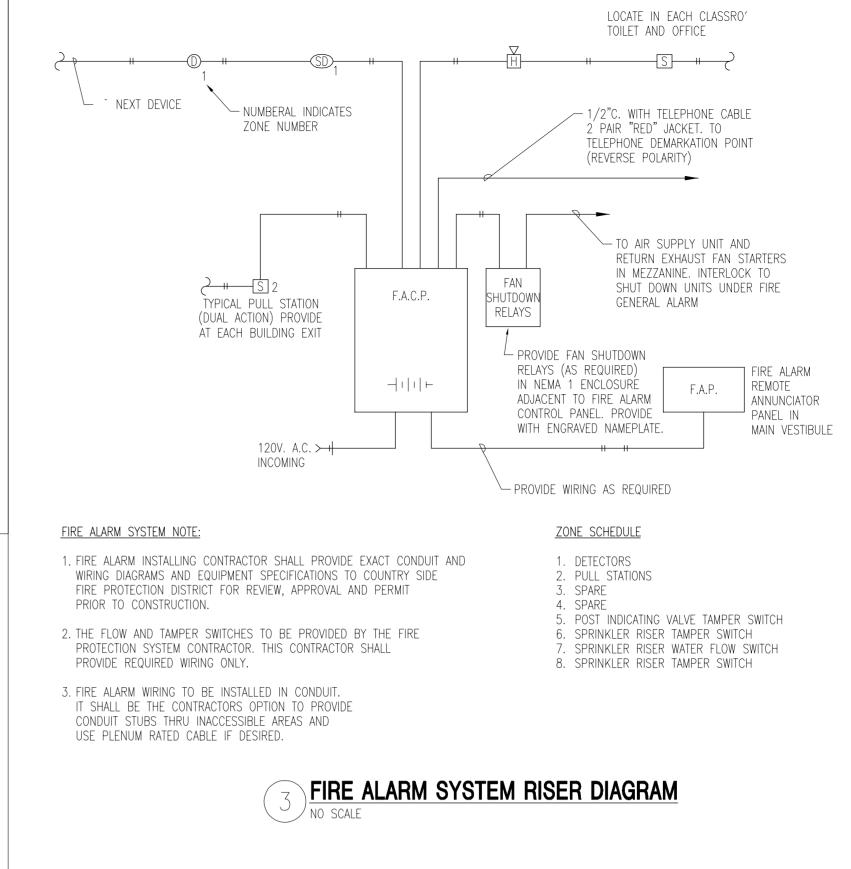
Ref. North

Sheet No.

E300











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New Building

for

# Winnebago County Forest Preserve

#### Meridian Rd., Winnebago County, Illinois

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Sheet Title

DETAILS AND DIAGRAMS
- ELECTRICAL

Ref. North

Sheet No.

E401



- NOTES: 1. DEVICES TO BE FURNISHED BY THE ELECTRICAL CONTRACTOR (MARKED "E"), OR MECHANICAL CONTRACTOR (MARKED "M").
- 2. ALL CONDUIT AND WIRING FOR TEMPERATURE CONTROL AND EQUIPMENT INTERLOCK SHALL BE BY BAS CONTRACTOR. OTHER CONTROLS AND CONTROLCONDUIT/WIRING BY TRADE FURNISHING RESPECTIVE
- EQUIPMENT.
  3. IT IS THE RESPONSIBILITY OF THE ELECTRICAL CONTRACTOR TO COORDINATE AND REVIEW THE ELECTRICAL CHARACTERISTICS, AMPACITY, AND OTHER REQUIREMENTS OF COMPONENTS BEFORE INSTALLATION
- OF WORK. ALL OTHER CONTRACTORS SHALL ADVISE ELECTRICAL CONTRACTOR OF ANY MOTOR/DEVICE CHANGES.
  4. ALL LOOSE STARTERS SHALL INCLUDE HOA SWITCH, CONTROL TRANSFORMER, AND ONE N.O. AND ONE N.C. AUXILIARY CONTACTS. ALL SINGLE PHASE EXHAUST FAN CONTROL SWITCHES SHALL HAVE
- IDENTIFICATION NAMEPLATE AND PILOT LIGHT.

  5. SEE SPECIFICATIONS AND DRAWINGS FOR TYPES AND LOCATIONS OF DEVICES SCHEDULED BELOW.

QUIP.	EQUIPMENT	UNIT MOUNTED DEVICES				REM	OTE OR LOOS	E DEVICES	
TAG DESCRIPTION		STARTER	DISCONNECT	OVERCURRENT PROTECTION	SINGLE POINT CONNECTION	STARTER	DISCONNECT	OVERCURRENT PROTECTION	REMARKS
DAS -	DEDICATED OUTDOOR AIR SYSTEM UNIT	_	М	_	YES	_	_	E	
ĪF	EXHAUST FAN	_	М	_	YES	Е	_	E	REFER TO EXHAUST FAN SCHEDULE ON MECHANICAL DRAWINGS FOR CONTROL REQUIREMENTS, M.O.D. POWER WIRING BY BAS CONTRACTOR
RH -	INFRARED HEATER	_	_	_	YES	_	E	E	
RF	VARIABLE REFRIGERANT FLOW UNIT	_	_	_	YES	_	Е	E	
RU -	VRF HEAT RECOVERY UNIT	_	_	_	YES	_	E	E	
	VRF SYSTEM CONDENSING UNIT	_	_	_	YES	_	E	E	
E P	CEILING FAN	_	_	_	YES	_	E	E	E.C. TO PROVIDE RECEPTACLE, CONTROLLED BY FAN CONTROLLERS.
DH -	ELECTRIC DUCT HEATER	_	М	_	YES	_	_	E	
UH -	ELECTRIC SUSPENDED UNIT HEATER	_	М	_	YES	_	_	E	
RP	ELECTRIC RADIANT CEILING PANEL	_	_	_	YES	_	E	E	

7	
DAIL	
FUGIEL	
CARL	
 n	
PLUIIEU	

LIGHTING				
SYMBOL	DESCRIPTION			
	2'x4' LED LTG. FIXTURE			
	1'x4'LED LTG. FIXTURE			
	2'x2' LED LTG. FIXTURE			
0	ROUND SHAPED DOWN LIGHT FIXTURE			
Ω	ROUND SHAPED WALL MOUNTED LTG. FIXTURE			
	2' WALL MOUNTED LED LTG. FIXTURE			

E	XIT LIGHTING
SYMBOL	DESCRIPTION
$\otimes$	EXIT SIGN
•	DOUBLE FACE EXIT SIGN
$\overline{\otimes}$	SINGLE FACE EXIT SIGN WITH DIRECTIONAL ARROW
⊗	SINGLE FACE EXIT SIGN WITH DIRECTIONAL ARROW
₹	SINGLE FACE EXIT SIGN WITH DIRECTIONAL ARROWS
<b>↑⊕</b> ↑	DOUBLE FACE EXIT SIGN WITH DIRECTIONAL ARROWS
<b>S</b>	DOUBLE FACE EXIT SIGN WITH DIRECTIONAL ARROWS
<b>S</b>	

SWITCHES				
SYMBOL	DESCRIPTION			
\$	SINGLE POLE SWITCH			
\$ <sup>3W</sup>	THREE WAY SWITCH			
\$ <sup>T</sup>	THERMAL OVERLOAD SWITCH			

POWER DEVICES				
SYMBOL	DESCRIPTION			
	BRANCH CIRCUIT PANEL BOARD			
	DISTRIBUTION PANEL BOARD			
Ū.	TWO BUTTON START-STOP CONTROL BOX			
	THREE BUTTON START-STOP CONTROL BOX			
<b>(</b> )	CEILING MOUNTED JUNCTION BOX			
<b>P</b>	WALL MOUNTED JUNCTION BOX			
<b>J</b> L•	JUNCTION BOX W/ FLEXIBLE CONDUIT			
\$T	TOGGLE DISCONNECT SWITCH WITH THERMAL OVERLOAD RELAY			
TO OR TO	TOGGLE DISCONNECT SWITCH WITH THERMAL OVERLOAD RELAY AND FLEXIBLE CONDUIT			
M	UTILITY METER			
	NON-FUSED DISCONNECT SWITCH			
T	TRANSFORMER			
H	HAND DRYER			
<u></u>	GROUNDING			

FIRE ALARM				
SYMBOL	DESCRIPTION			
Ĥ	DOOR MOUNTED MAGNETIC HOLD OPEN DEVICE			
FCP	FIRE ALARM CONTROL PANEL			
FAA	FIRE ALARM ANNUNCIATOR PANEL			
S	MANUAL PULL STATION			
(AV)	WALL MOUNTED AUDIO/VISUAL DEVICE			
D	CEILING MOUNTED HEAT DETECTOR			
SD	CEILING MOUNTED SMOKE DETECTOR			
⟨V⟩	VISUAL DEVICE			

	MOTOR
SYMBOL	DESCRIPTION
<i>\O</i> /	MOTOR
Q <sub>2</sub> √ <sub>2</sub>	FRACTIONAL HORSEPOWER MOTOR TOGGLI DISCONNECT SWITCH WITH THERMAL OVERLOAD RELAY
Ĺ,	MOTOR W/ DISCONNECT
Ò•À	MOTOR W/ COMBO MOTOR STARTER & NON-FUSED DISCONNECT SWITCH
X	CEILING FAN

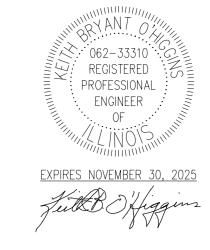
ABOVE COUNTER RECEPTACLES		
SYMBOL	DESCRIPTION	
<b>#</b>	DUPLEX RECEPTACLE	
#	FOURPLEX RECEPTACLE	
#	DUPLEX ISOLATED GROUND RECEPTACLE	
#	FOURPLEX ISOLATED GROUND RECEPTACLE	
•	DUPLEX RECEPTACLE FOR CRITICAL DISTRIBUTION SYSTEM	
\$	FOURPLEX RECEPTACLE FOR CRITICAL DISTRIBUTION SYSTEM	
<b>⊕</b>	DUPLEX RECEPTACLE WITH GROUND FAULT CIRCUIT INTERRUPTER FEATURE	
₩	SWITCHED DUPLEX RECEPTACLE	
<u></u>	SIMPLEX RECEPTACLE	

WALL M	OUNTED RECEPTACLES
SYMBOL	DESCRIPTION
Ф	DUPLEX RECEPTACLE
\$	FOURPLEX RECEPTACLE
#	DUPLEX ISOLATED GROUND RECEPTACLE
#	FOURPLEX ISOLATED GROUND RECEPTACLE
•	DUPLEX RECEPTACLE FOR CRITICAL DISTRIBUTION SYSTEM
8	FOURPLEX RECEPTACLE FOR CRITICAL DISTRIBUTION SYSTEM
Φ	DUPLEX RECEPTACLE WITH GROUND FAULT CIRCUIT INTERRUPTER FEATURE
₩	SWITCHED DUPLEX RECEPTACLE
Φ	SIMPLEX RECEPTACLE
	TV OUTLET
0	TV OUTLET AND DUPLEX RECEPTACLE

TELEPHONE AND DATA		
WALL MOUNTED		
▼ TELEPHONE OUTLET		
$\nabla$	DATA OUTLET	
A	COMBINATION PHONE AND DATA OUTLET	

ABBREVIATIONS LIST

AF	AMPERE FUSE
AFF	ABOVE FINISHED FLOOR
AFG	ABOVE FINISHED GRADE
AT	AMPERE TRIP
ATS	AUTOMATIC TRANSFER SWITCH
C/B	CIRCUIT BREAKER
CCT	CIRCUIT
COM ED	COMMON WEALTH EDISON
C/T	CURRENT TRANSFORMER
CU	COPPER
EC	ELECTRICAL CONTRACTOR
EM	EMERGENCY POWER DEVICE
FPC	FIRE PROTECTION SYSTEM CONTRACTOR
GC	GENERAL CONTRACTGOR
GFCI	GROUND FAULT CIRCUIT INERRUPTER
GRD	GROUND
KWH	KILOWATT HOUR
MC	MECHANICAL CONTRACTOR
MCC	MOTOR CONTROL CENTER
MTS	MANUAL TRANSFER SWITCH
NL	NIGHT LIGHT BRANCH CIRCUIT FIXTURE WITH CIRCUIT BREAKER LOCK-ON
PC	PLUMBING CONTRACTOR
P/T	POTENTIAL TRANSFORMER
TVSS	TRANSIENT VOLTAGE SURGE SUPPRESSION
UON	UNLESS OTHERWISE NOTED
VIF	VERIFY IN FIELD
WP	WEATHERPROOF ENCLOSURED EQUIPMENT
XP	EXPLOSION PROOF DEVICE OR EQUIPMENT





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# New Building

for

# Winnebago County Forest Preserve

# Meridian Rd., Winnebago County, Illinois

THE CONTRACTOR SHALL DETERMINE EXACT DIMENSIONS AND CONDITIONS AT THE SITE PRIOR TO SUBMITTING A BID. THE CONTRACTOR SHALL COORDINATE ALL DRAWINGS WITH ACTUAL FIELD CONDITIONS PRIOR TO PROCEEDING WITH THE WORK AND NOTIFY THE ARCHITECT OF ANY DISCREPANCIES. THIS DRAWING IS THE PROPERTY OF BLAKEMORE ARCHITECTS AND MAY NOT BE REPRODUCED WITHOUT THE PRIOR WRITTEN PERMISSION OF THE ARCHITECT.

NO	DATE	DESCRIPTION
1)	05-08-2025	Initial Layout
2)	08-07-2025	Schematic Design
3)	08-27-2025	Design Development
4)	10-17-2025	Final Owner Review Set
5)	10-27-2025	Issued for Bids / Permit

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BA Project No.

Scale

#### NO SCALE

Sheet Title

SYMBOLS LIST - ELECTRICAL

Ref. North

Sheet No.

E500

#### **GENERAL ELECTRICAL NOTES**

- 1. REFER TO ARCHITECTURAL PLANS AND SPECIFICATIONS FOR ADDITIONAL GENERAL NOTES WHICH WILL APPLY HERE.
- DO NOT SCALE DRAWINGS.
- 3. NOTES ON DRAWINGS SHALL APPLY TO ALL SIMILAR CONDITIONS WHETHER THEY ARE REPEATED OR NOT.
- 4. BOXES LOCATED ON OPPOSITE SIDES OF NON-FIRE RATED WALLS SHALL BE OFFSET A MINIMUM OF 6" HORIZONTALLY. BOXES ON OPPOSITE SIDES OF FIRE RATED WALL SHALL BE OFFSET A MINIMUM OF 24" HORIZONTALLY. "THRU THE WALL" BOXES SHALL NOT BE ALLOWED WITHOUT PRIOR WRITTEN APPROVAL OF THE ARCHITECT/ENGINEER.
- 5. ELECTRICAL CONTRACTOR SHALL VERIFY TOTAL CONNECTED LOAD/HP WITH ALL OTHER TRADES PRIOR TO WIRING OF ALL OTHER TRADES' EQUIPMENT. MAKE ANY CHANGES TO OVERCURRENT DEVICES AND FEEDER SIZE PER ELECTRICAL CODE AS REQUIRED.
- 6. ELECTRICAL CONTRACTOR SHALL VERIFY ALL FURNITURE, MODULAR FURNITURE AND EQUIPMENT LOCATIONS WITH ARCHITECTURAL PLANS. FLEVATIONS AND REVIEWED SHOP DRAWINGS. PRIOR TO MAKING THE ACTUAL ELECTRICAL INSTALLATION, THIS CONTRACTOR SHALL ADJUST RECEPTACLES, OUTLETS OR CONNECTION LOCATIONS TO ACCOMMODATE FURNITURE AND/OR EQUIPMENT.
- 7. ALL EXPOSED CABLES IN PLENUM CEILING SHALL BE APPROVED FOR PLENUM APPLICATION.
- 8. PROVIDE SLEEVES/CONDUITS FOR LOW VOLTAGE CABLES WHEN THEY TRAVERSE ABOVE NON ACCESSIBLE CEILING SPACE. ALSO, PROVIDE SLEEVES THROUGH MASONRY WALLS FOR LOW VOLTAGE CABLES. VERIFY SLEEVE/CONDUIT SIZE REQUIREMENTS AND LOCATION WITH THE CONTRACTOR INSTALLING LOW VOLTAGE SYSTEM.
- 9. UNLESS NOTED OTHERWISE, THE CONDUITS AND BACK BOXES SHALL BE CONCEALED WITHIN ALL DRY WALLS AND NEW MASONRY WALLS. SURFACE METAL RACEWAY SHALL BE USED FOR DEVICES ON EXISTING MASONRY WALLS AS MUCH AS PRACTICAL. THE SURFACE METAL RACEWAY SHALL BE ROUTED IN THE CORNER AND/OR ADJACENT TO WINDOW, DOOR FRAMEWORK ETC. SO IT IS AS INCONSPICUOUS AS POSSIBLE. FOR SAKE OF SIMPLICITY ONLY THE TERM "CONDUIT" IS USED IN MOST CASES IN THIS DOCUMENT. HOWEVER, BASED UPON ABOVE, THE SURFACE METAL RACEWAY AND CONDUIT SHALL BE USED AS APPLICABLE. WHERE SURFACE METAL RACEWAY IS USED ONE TWO CHANNEL RACEWAY WITH DIVIDER SHALL BE USED (FOR POWER & LOW VOLTAGE) WHERE APPLICABLE.
- 10. WHERE POWER AND LOW VOLTAGE OUTLETS (SUCH AS DATA OUTLETS) ARE SHOWN TOGETHER ON DRAWINGS, PROVIDE THEM ADJACENT TO EACH OTHER.
- 11. PROVIDE CONCRETE PAD FOR ALL FLOOR MOUNTED ELECTRICAL EQUIPMENT. (SUCH AS SWITCHBOARDS, PANELS, TRANSFORMER, ETC.)
- 12. REFER TO PANEL DIVISION LINES FOR BRANCH CIRCUIT HOMERUN PANEL BOARD DESIGNATION, UNLESS
- NOTED OTHERWISE, IF APPLICABLE. 13. CIRCUIT NUMBERS SHOWN FOR EXISTING PANELS ARE FOR REFERENCE ONLY. USE NEXT AVAILABLE
- CIRCUITS AND PROVIDE APPROPRIATE SIZE BREAKERS. 14. REFER TO ARCHITECTURAL DRAWINGS FOR EXACT LOCATIONS OF ELECTRICAL EQUIPMENT & DEVICES.
- THE ELECTRICAL DRAWINGS ARE FOR CONCEPT ONLY.
- 15. EACH LIGHTING FIXTURE ON DIMMER CIRCUIT SHALL HAVE SEPARATE NEUTRAL CONDUCTOR. COMMON NEUTRAL IS NOT ALLOWED.
- 16. IN GENERAL, DASHED LINES INDICATE EXISTING ITEMS TO BE REMOVED, LIGHT SOLID LINES INDICATE ITEMS TO REMAIN AND DARK SOLID LINES INDICATE NEW ITEMS.
- 17. THE SYSTEMS PROVIDED BY THIS CONTRACTOR SHALL BE COMPLETELY OPERATIONAL REGARDLESS OF OMISSION OF MINOR ITEMS, SUCH AS CIRCUIT NUMBER FOR RELAY, A CIRCUIT NUMBER NEXT TO A LIGHTING FIXTURE, POWER FOR CONTROL EQUIPMENT, ETC.
- 18. ALL OUTDOOR DEVICES SUCH AS RECEPTACLES, DISCONNECTS, SPEAKERS, LIGHTING FIXTURES, JUNCTION BOXES, ETC. SHALL BE OUTDOOR TYPE.
- 19. THE EXIT SIGNS ARE PROVIDED FOR BIDDING PURPOSE. FINAL LOCATION SHALL BE AS DETERMINED BY LOCAL FIRE MARSHALL. IF REQUIRED BY FIRE MARSHALL, PROVIDE ADDITIONAL EXIT SIGNS WITHOUT ADDITIONAL COST TO OWNER.
- 20. PROVIDE LOCKING CLIPS ON CIRCUIT BREAKERS SERVING EMERGENCY LIGHTING. FIRE ALARM SYSTEM. PA/INTERCOMM, TELEPHONE SYSTEM AND SECURITY SYSTEM LOAD.
- 21. IN CERTAIN CASES LARGER SIZE CABLES ARE SPECIFIED IN ORDER TO COMPENSATE FOR VOLTAGE DROP. PROVIDE OVERSIZE AND/OR MULTIPLE LUGS AT THE LINE AND LOAD SIDE OF EQUIPMENT TO INCORPORATE LARGER AND ADDITIONAL CABLES. IF REQUIRED, PROVIDE SPLICE BOXES AT EITHER END OF CABLE TO INTERCEPT CHANGE IN THE CABLES.
- 22. UNO, ALL OVERCURRENT PROTECTION DEVICES 800 AMP AND LARGER SHALL BE 100% RATED.
- 23. DUE TO THE SMALL SCALE AND INTERFERENCE OF EXISTING EQUIPMENT, EACH AND EVERY ITEM IS NOT SHOWN. SHOWN INFORMATION IS INTENDED AS A GUIDE. CONTRACTOR SHALL VERIFY INFORMATION AND CONDITIONS IN THE FIELD.
- 24. RECONFIGURE LIGHTING FIXTURES AND OUTLETS IN MECHANICAL ROOMS TO BE COMPATIBLE WITH EQUIPMENT LAYOUT AS REQUIRED.
- 25. COORDINATE THE FINAL LOCATION OF RECEPTACLES IN TELECOMMUNICATION CLOSETS WITH TELECOMMUNICATION EQUIPMENT VENDOR.

POLE IS NOT ALLOWED UNLESS SPECIFICALLY INDICATED.

- 26. ALL RECEPTACLES LOCATED WITHIN 6' OF SOURCE OF WATER (SUCH AS SINK) AND ALL OUTDOOR RECEPTACLES SHALL BE GFI TYPE, WHETHER SPECIFICALLY INDICATED OR NOT.
- 27. WHERE THE OUTLETS ARE SHOWN ON FURNITURE/DESK THEY SHALL BE PROVIDED EITHER UNDER THE DESK OR AS A PART OF MILLWORK AS INDICATED ON ARCHITECTURAL DRAWINGS. PROVIDE CONDUITS AND WIRING UNDER OR WITHIN THE FURNITURE/DESK. THE QUANTITY AND LOCATION OF INDICATED OUTLETS IS APPROXIMATE. COORDINATE EXACT REQUIREMENTS WITH ARCHITECT AND MILLWORK VENDOR. IF FURNITURE/DESK IS NEXT TO WALL, THE ROUGH-IN SHALL BE PROVIDED FROM WALLS. IF FURNITURE/DESK IS FREE STANDING, THE ROUGH-IN SHALL BE PROVIDED FROM FLOOR. THE POWER
- 28. PROVIDE EXPANSION FITTINGS FOR ALL ELECTRICAL RACEWAYS AT EVERY EXPANSION JOINT. REFER TO ARCHITECTURAL AND STRUCTURAL DRAWINGS FOR LOCATION OF EXPANSION JOINTS.
- 29. COORDINATE THE INSTALLATION OF ELECTRICAL PANELS, SWITCHBOARD, ETC. WITH OTHER TRADES SUCH THAT NO DUCTWORK, PIPING ETC. IS LOCATED ABOVE THEM.
- 30. UNLESS NOTED OTHERWISE, PROVIDE WIREGUARDS FOR ALL ELECTRICAL DEVICES (SUCH AS FIRE ALARM PULL STATIONS, HORN/STROBES, CLOCKS, SPEAKERS, BATTERY PACKS, EXIT SIGNS, LIGHTING FIXTURES ETC.) LOCATED IN GYMNASIUM.
- 31. VERIFY QUANTITY AND SIZE OF LUGS PROVIDED IN OTHER TRADE'S EQUIPMENT (FOR EXAMPLE, CHILLER, ELEVATOR, FIRE PUMP ETC.) BEFORE STARTING ANY WORK ASSOCIATED WITH SUCH EQUIPMENT. IF THEIR LUGS CANNOT ACCOMMODATE THE CABLES INDICATED IN ELECTRICAL DOCUMENT, PROVIDE LUG FITTINGS TO ACCOMMODATE CHANGE IN THE CABLES. PROVIDE SUCH FITTINGS IN A JUNCTION BOX AS CLOSE AS POSSIBLE TO THEIR EQUIPMENT. IF ALLOWED BY THE EQUIPMENT MANUFACTURER, SUCH FITTINGS MAY BE INSTALLED IN THEIR EQUIPMENT RATHER THAN IN A SEPARATE JUNCTION BOX.

- 32. UNLESS NOTED OTHERWISE, THE TRANSFORMER PRIMARY VOLTAGE SHALL BE 480V, 3PH, 3W AND SECONDARY VOLTAGE SHALL BE 120/208V, 3PH, 4 WIRE.
- 33. MAIN SERVICE ENTRANCE EQUIPMENT SHALL HAVE LABEL FOR SERVICE ENTRANCE TYPE, AND SHALL BE GROUNDED PER ELECTRICAL CODE.
- 34. PROVIDE SEPARATE DEDICATED GROUNDING CONDUCTOR IN EACH FEEDER AND BRANCH CIRCUIT WIRING
- 35. PROVIDE SMOKE DETECTOR WITHIN 5 FEET OF FIRE ALARM CONTROL PANEL, WHETHER SPECIFICALLY
- 36. PROVIDE REMOTE TEST AND INDICATING STATION IN A READILY ACCESSIBLE AND VISIBLE SPACE FOR

THIS INCLUDES VERIFICATION OF DEVICE TYPE, LOCATION, WIRING CONDUIT AND CIRCUIT BREAKER ETC.

- EACH DUCT SMOKE DETECTOR. 37. WHERE "VIF" IS INDICATED NEXT TO A DEVICE, CONTRACTOR SHALL VERIFY ITS REQUIREMENT IN FIELD.
- 38. PROVIDE RED PLASTIC SIGN AT MAIN WATER SERVICE METER INDICATING "MAIN GROUND LOCATION."

PROVIDE APPROPRIATE DEVICE, WIRING, CONDUIT, CIRCUIT BREAKER FTC, AS REQUIRED.

- 39. ALL RECEPTACLES FOR VENDING MACHINES, ICE MACHINES AND REFRIGERATORS SHALL BE GFCI TYPE WHETHER SPECIFICALLY INDICATED OR NOT.
- 40. PROVIDE BALLAST DISCONNECT FOR EACH FLUORESCENT FIXTURE TO MEET NEC 410.73
- 41. PROVIDE ONE WEATHERPROOF, GFI RECEPTACLE WITHIN 25' OF ROOF MOUNTED OR GRADE MOUNTED HVAC EQUIPMENT, WHETHER SPECIFICALLY INDICATED OR NOT AND FEED FROM NEAREST UNLOADED RECEPTACLE CIRCUIT.
- 42. WHETHER SPECIFICALLY INDICATED OR NOT, PROVIDE MINIMUM OF ONE DUCT SMOKE DETECTOR FOR AIR SUPPLY SYSTEM HAVING A CAPACITY GREATER THAN 2,000 CFM AND TWO DUCT SMOKE DETECTORS FOR AIR SUPPLY SYSTEM HAVING A CAPACITY GREATER THAN 15,000 CFM.
- 43. PROVIDE SEPARATE NEUTRAL WIRE FOR EACH CIRCUIT FED FROM ARC-FAULT TYPE CIRCUIT BREAKER.
- 44. PERFORM COORDINATION STUDY OF ELECTRICAL DISTRIBUTION SYSTEM AS INDICATED IN POWER SYSTEM STUDY SPECIFICATION. IT SHALL BE ELECTRICAL CONTRACTOR'S RESPONSIBILITY TO PROVIDE EQUIPMENT WITH PROPER INTERRUPTING RATING OF EQUIPMENT BASED UPON COORDINATION STUDY. AIC (AVAILABLE INTERRUPTING CAPACITY) OF ALL PANELS AND SWITCHBOARD SHOWN IN DRAWINGS ARE FOR GENERAL INFORMATION ONLY. THE FINAL AIC OF ELECTRICAL EQUIPMENT SHALL BE BASED UPON WORST CONDITION COMED FAULT CURRENT AND THE RECOMMENDATIONS MADE IN COORDINATION STUDY. THE COST TO PROVIDE ALL ELECTRICAL DISTRIBUTION EQUIPMENT WITH PROPER FAULT INTERRUPTING RATING (REGARDLESS OF WHAT IS SHOWN ON DRAWINGS) SHALL BE INCLUDED IN THE BID.
- 45. PROVIDE DEEPER BACK BOX AS REQUIRED FOR EACH DEVICE; FOR EXAMPLE MINIMUM OF 2.5" DEEP FOR WALL BOX TYPE OCCUPANCY SENSOR.
- 46. PROVIDE WEATHERPROOF TYPE WHILE-IN-USE COVER FOR ALL 15 AMP AND 20 AMP 120V. RECEPTACLES LOCATED IN OUTDOOR LOCATIONS WHETHER SPECIFICALLY INDICATED OR NOT.
- 47. RECEPTACLES LOCATED ADJACENT TO SINK IN WASHROOMS SHALL BE INSTALLED ON SIDE WALL OF THE SINK AND NOT THE FRONT WALL OF THE SINK REGARDLESS OF HOW THEY ARE SHOWN ON THE DRAWINGS. THE FRONT WALL SHALL BE LEFT AVAILABLE FOR MIRROR OR VANITY CABINET.
- 48. PROVIDE SLEEVES THRU FLOOR AND WALLS AS REQUIRED FOR LOW VOLTAGE CABLES. COORDINATE ALL REQUIREMENTS WITH LOW VOLTAGE CONTRACTORS.
- 49. THE PANEL DIRECTORY SHALL HAVE SPECIFIC LIST OF LOAD SERVED. THE GENERIC OR BROAD LIST IS NOT ACCEPTABLE. FOR EXAMPLE LISTING "LIGHTS IN CLASSROOM" IS NOT ADEQUATE. PROVIDE MORE SPECIFIC LIST SUCH AS "LIGHTS IN CLASSROOM 231, 234 AND STORAGE 239" SHALL BE
- 50. UNLESS NOTED OTHERWISE. ALL WIRING SHALL BE IN CONDUIT EXCEPT LOW VOLTAGE WIRING ABOVE ACCESSIBLE CEILING SPACE. LOW VOLTAGE WIRING EXCEPT FIRE ALARM SYSTEM WIRING ABOVE ACCESSIBLE CEILING SPACE SHALL BE EXPOSED. ALL FIRE ALARM SYSTEM WIRING SHALL BE IN

PROVIDED TO REFLECT THE SPECIFIC LOAD SERVED.

- 51. LOCATE THE OUTLETS FOR LCD PROJECTORS AS DIRECTED BY OWNER'S LCD PROJECTOR VENDOR TO PROVIDE OPTIMUM COVERAGE OF THE PROJECTOR.
- 52. UNLESS SPECIFICALLY INDICATED, ALL CONDUITS OTHER THAN IN ELECTRICAL/ MECHANICAL EQUIPMENT ROOMS AND AUTO/WOOD SHOPS SHALL BE CONCEALED. WHERE A FREE-STANDING EQUIPMENT IS TO BE FED, THE CONDUIT SHALL BE FED FROM FLOOR BELOW. POWERPOLE OR CONDUIT FED FROM CEILING IS STRICTLY PROHIBITED.
- 53. ALL FLOOR MOUNTED RECEPTACLES SHALL BE FLUSH WITH FLOOR AND SHALL HAVE HINGED COVER PLATES. PEDESTAL TYPE RECEPTACLES ARE NOT ALLOWED.
- 54. INSTALL OCCUPANCY SENSORS SUCH THAT IT PROVIDES THE OPTIMUM COVERAGE. THE LOCATIONS OF OCCUPANCY SENSORS INDICATED ON DRAWINGS ARE FOR CONCEPT ONLY. FOR CERTAIN AREAS (SUCH AS ROOMS HAVING HIGH CEILING) WALL MOUNTED OR OTHER APPROPRIATE TYPE MULTIPLE SENSORS MAY HAVE TO BE PROVIDED. COORDINATE ALL REQUIREMENTS WITH OCCUPANCY SENSOR MANUFACTURER. CONNECT SWITCHES AND OCCUPANCY SENSORS SUCH THAT SENSOR CAN BE OVERRIDDEN BY SWITCHES.
- 55. ALL CONDUITS FOR TELEPHONE AND DATA OUTLETS SHALL BE 1.25" UNLESS NOTED OTHERWISE. ALL BACKBOXES FOR TELEPHONE AND DATA OUTLETS SHALL BE 2 GANG AND SHALL BE MINIMUM OF 2.75" DEEP.
- 56. SECURITY SYSTEM WIRING AND COMPONENTS SHALL BE BY OTHERS. PROVIDE CONDUIT AND BACK BOXES AS REQUIRED TO ACCOMMODATE ALL SECURITY COMPONENTS. PROVIDE ALL VOICE/DATA WIRING, TERMINATIONS, CONDUITS, PATCH PANELS, ETC., INCLUDING COPPER AND FIBER OPTIC.
- 57. THE CONTRACTOR MUST VISIT THE SITE TO FAMILIARIZE HIMSELF WITH THE EXISTING SITE AND BUILDING CONDITIONS WHICH WILL BE AFFECTED DURING CONSTRUCTION PRIOR TO SUBMITTING HIS BID PROPOSAL. CONTRACTOR IS CAUTIONED THAT THE PROJECT IS A REMODELING JOB AND IT IS ASSUMED THAT HE HAS INCLUDED FUNDS IN HIS BID TO COVER UNFORESEEN ITEMS WHICH MUST BE MOVED. RELOCATED OR ADJUSTED TO FIT HIS WORK. NO EXTRA COMPENSATION WILL BE ALLOWED FOR ANY EXTRA WORK CAUSED BY FAILURE TO VISIT, EXAMINE OR VERIFY.
- 58. ALL EXISTING EQUIPMENT IS TO REMAIN OPERATIONAL DURING CONSTRUCTION PERIOD. ALL TEMPORARY WIRING OR REROUTING OF CIRCUITRY TO ACHIEVE THIS IS BY THE ELECTRICAL CONTRACTOR. SHUTDOWN OF EXISTING SERVICES SHALL ONLY BE PERMITTED UPON WRITTEN APPROVAL FROM THE OWNER AND THEN ONLY FOR THAT DATE AND DURATION AGREED UPON. INCLUDE ALL PREMIUM TIME CHARGES IN THE BASE BID.
- 59. EXISTING CONDUITS IN GOOD CONDITION MAY BE REUSED WHERE POSSIBLE. PULL NEW WIRE AS REQUIRED. ALL UNUSED CONDUIT, WIRE, JUNCTION BOXES, ETC. WILL BE REMOVED. ALL JUNCTION BOXES MUST HAVE COVERS. VERIFY REQUIREMENTS IN FIELD.
- 60. SOME DEVICES MAY BE FLUSH MOUNTED (IN DRY WALLS AND EXISTING MASONRY WALLS CONSTRUCTION) AND SOME MAY BE SURFACE MOUNTED (ON EXISTING MASONRY WALLS). VERIFY REQUIREMENT BEFORE ORDERING ANY MATERIAL.
- 61. FOR THE AREA TO BE DEMOLISHED, THE DEMOLITION OF LIGHT FIXTURES, OUTLETS OR ANY OTHER FLECTRICAL FOUIPMENT/DEVICES SHALL BE PERFORMED AS REQUIRED. SEE ARCHITECTURAL DRAWINGS AND THE RESPECTIVE FLOOR PLANS IN ELECTRICAL DRAWINGS FOR DEMOLITION. ELECTRICAL CONTRACTOR SHALL

REMOVE ALL ASSOCIATED RACEWAYS AND WIRING AS REQUIRED. ELECTRICAL CONTRACTOR SHALL DE-ENERGIZE AND DISCONNECT APPLICABLE WIRING TO FACILITATE SAFE DEMOLITION.

62. THE EXISTING EQUIPMENT IS SHOWN BASED UPON THE INFORMATION OBTAINED THROUGH BRIEF SURVEY OF THE FACILITY. CONTRACTOR IS TO SURVEY THE EXISTING FACILITY IN ORDER TO DETERMINE THE FULL EXTENT OF WORK AND BE COMPLETELY FAMILIAR WITH ALL THE EXISTING CONDITIONS INCLUDING PLUMBING, HVAC, ELECTRICAL, ETC. THE ARCHITECT/ENGINEER AND OWNER ASSUME NO RESPONSIBILITY IN RESPECT TO THE ACCURACY OF SUCH INFORMATION SHOWN ON THE DRAWINGS. CONTRACTOR SHALL MAKE ADEQUATE ALLOWANCE IN HIS BID FOR SOME DEVIATIONS TO SUCH INFORMATION.

63. WHERE EXISTING CONDITIONS PREVENT PROPER INSTALLATION OF PROPOSED WORK, REROUTE, EXTEND OR ALTER EXISTING WORK SO AS TO ACCOMMODATE PROPOSED WORK REQUIREMENTS.

64. WHERE EXISTING WIRING DEVICE (SUCH AS RECEPTACLE, SWITCH, ETC.) IS INDICATED TO REMAIN, REUSE EXISTING JUNCTION BOX. RACEWAY, BUT PROVIDE NEW DEVICE AND ASSOCIATED COVERPLATE. RECONNECT THIS DEVICE TO NEW CIRCUIT AS INDICATED.

65. WHERE A NEW WALL IS TO BE BUILT PERPENDICULAR TO EXISTING WALL AND IF THERE IS AN INTERFERING EXISTING RECEPTACLE ON THE EXISTING WALL, RELOCATE THIS RECEPTACLE AS REQUIRED.

66. AS REQUIRED EXTEND EXISTING RECEPTACLES WHERE EXISTING WALLS ARE FURRED OUT. REFER TO ARCHITECTURAL DRAWINGS FOR EXTENT OF THIS WORK.

67. IN ORDER TO FACILITATE THE REPLACEMENT OF EXISTING OR INSTALLATION OF NEW DUCTWORK AND/OR PIPING, REMOVE EXISTING LIGHTING FIXTURE AND/OR SMOKE /HEAT DETECTORS AS REQUIRED, WHETHER SHOWN ON DRAWINGS OR NOT. THIS NOTE IS GENERALLY APPLICABLE, BUT NOT LIMITED TO. WHERE THERE IS NO DROPPED CEILING (IN EXPOSED CEILING AREA). ONCE THE INSTALLATION OF DUCTWORK. PIPING ETC IS COMPLETED, REINSTALL ELECTRICAL EQUIPMENT/DEVICES. PROVIDE ADEQUATE ALLOWANCE IN THE BID FOR THIS WORK.

68. ELECTRICAL CONTRACTOR SHALL VERIFY SIZE OF ALL EXISTING OPENINGS, DOORS, ETC., FOR REMOVING EQUIPMENT AND MATERIAL OUT OF BUILDING. ELECTRICAL CONTRACTOR SHALL PROVIDE ANY NEW OR ENLARGED OPENINGS IN EXISTING BUILDING CONSTRUCTION REQUIRED TO FACILITATE EXITING OF HIS EQUIPMENT/MATERIAL AND RESTORE SUCH OPENINGS TO THEIR ORIGINAL STATE AFTER COMPLETION.

69. THE ELECTRICAL DRAWINGS SHOW DIRECT PRINCIPLE WORK WHICH MUST BE ACCOMPLISHED UNDER THIS CONTRACT. INDIRECT AND INCIDENTAL WORK WILL ALSO BE NECESSARY DUE TO CHANGES AFFECTING EXISTING ARCHITECTURAL, MECHANICAL, PLUMBING OR OTHER SYSTEMS. SUCH INCIDENTAL WORK IS ALSO PART OF THIS CONTRACT. INSPECT THOSE AREA, AND ASCERTAIN WORK NEEDED AND DO THAT WORK IN ACCORDANCE WITH THE CONTRACT REQUIREMENTS, AT NO ADDITIONAL COST.

70. WHERE LIGHTING FIXTURES ARE TO BE REUSED, CLEAN FIXTURES THOROUGHLY AND PROVIDE ALL NEW LAMPS.

71. RECEPTACLES DESIGNATED BY LETTER "C" INDICATES CRITICAL RECEPTACLES AND SHALL BE RED IN COLOR, INCLUDING ASSOCIATED COVER PLATES.

72. ALL SWITCHES IN COMMON AREAS SUCH AS HALLWAYS, CORRIDORS, VESTIBULES, STAIRS, PUBLIC WASHROOMS ETC. SHALL BE KEYED TYPE WHETHER SPECIFICALLY INDICATED OR NOT. ALL KEYS FOR KEYED LIGHT SWITCHES SHALL BE SAME AND SHALL MATCH EXISTING KEYS.

73. PROVIDE FOLLOWING CONTACTORS FOR CONTROLLING LIGHTING AND INTERCONNECT SUCH THAT THEY ARE CONTROLLED VIA BAS. VERIFY THE OPERATING VOLTAGE WITH BAS CONTRACTOR. THE CONTACT RATING SHALL BE 277V. IN ADDITION TO THE INDICATED CONTACTS SHOWN BELOW, EACH CONTACTOR SHALL HAVE 2 SPARE CONTACTS.

- CONTACTOR A: 5 POLE FOR OUTDOOR LIGHTS. CONTACTOR B: 2 POLE FOR OUTDOOR ELECTRICAL SIGN AND CANOPY LIGHTS.
- CONTACTOR C: 1 POLE FOR OUTDOOR LIGHTS. CONTACTOR D: 2 POLE FOR PERIMETER LIGHTS.
- 74. AS A MINIMUM, USE #10 WIRES FOR ALL CIRCUITS IN GYM AND FOR ALL EMERGENCY LIGHTING.
- 75. FOR BIDDING PURPOSES, MAKE ALLOWANCE FOR THE FOLLOWING IN ADDITION TO THE WORK SHOWN
- ON THE PLANS, INCLUDING COMPLETE INSTALLATION.
- ADDITION OF 4 SPEAKERS ADDITION OF 4 CALL STATIONS
- ADDITION OF 5 EXIT SIGNS ADDITION OF 30 RECEPTACLES
- ADDITION OF 4 SMOKE/HEAT DETECTORS
- ADDITION OF 2 MANUAL PULL STATIONS ADDITION OF 6 AUDIO/VISUAL/HORN/STROBE UNIT
- 76. PROVIDE PHONE CONNECTION AT FIRE ALARM CONTROL PANEL FOR DIALING OUT WHETHER SPECIFICALLY INDICATED OR NOT.
- 77. PROVIDE AUDIBLE COVER ON EACH MANUAL FIRE ALARM PULL STATION AS INDICATED IN SPECIFICATION.
- 78. RECEPTACIES LOCATED IN DAY CARE AREAS AS WELL AS IN PEDIATRIC LOCATIONS OF HEALTH CARE FACILITIES SHALL BE TAMPER PROOF TYPE WHETHER SPECIFICALLY INDICATED OR NOT.
- 79. PROVIDE GROUNDING OF ALL METALLIC EQUIPMENT/DEVICES (SUCH AS REINFORCING RODS, DRAINS, LADDERS. JUNCTION BOXES. LIGHTING FIXTURES, RACEWAY, PANELS, CONTROL PANELS, PUMPS, ETC.) LOCATED IN AND SERVING SWIMMING POOL AND HOT TUB.
- 80. ALL SWITCHBOARDS, DISTRIBUTION PANELS AND PANEL BOARDS SHALL BE FURNISHED WITH FULL RATED COPPER BUS ND BE BRACED FOR AVAILABLE FAULT CURRENT WITH MINIMUM RATINGS AS FOLLOWS: SWITCHBOARDS - 100,000 AIC DISTRIBUTION PANELS - 55,000 AIC
- PANELBOARDS 10,000 AIC (120/208V) OR 14,000 AIC (277/480V)
- 81. ALL CIRCUIT BREAKERS FOR PANEL BOARDS SHALL BE THE BOLT-ON TYPE, RATED FOR SWITCHING DUTY AND RATED FOR THE AVAILABLE FAULT CURRENT WITH MINIMUM RATING OF 10,000 AIC FOR 120/208V PANELS AND 14.000 AIC FOR 277/480V PANELS.
- 82. ALL CIRCUIT BREAKER SIZES AND QUANTITIES INDICATED ON SCHEDULE(S) ARE FOR THE CONVENIENCE OF THE BIDDERS ONLY. THE ELECTRICAL CONTRACTOR SHALL BE RESPONSIBLE FOR VERIFYING AND SUPPLYING ALL REQUIRED BRANCH BREAKERS.
- 83. ALL PANELS RECESSED IN WALLS SHALL HAVE 3-1" CONDUITS STUBBED INTO CEILING CAVITY OR STUBBED OUT OF WALL 12'-0" ABOVE SLAB. IN UNFINISHED AREAS WITH STUB AT 12'-0" THE EXACT HEIGHT OF STUBS SHOULD BE VERIFIED.
- 84. ALL SYSTEMS TO BE INSTALLED PER THE CITY OF ROCKFORD BUILDING CODES AND AMENDMENTS.





GENERAL UTILITY NOTES

1. IT WILL BE THE ELECTRICAL CONTRACTOR'S RESPONSIBILITY TO

2. IT SHALL BE THE CONTRACTORS RESPONSIBILTY TO PROVIDE

COORDINATE ALL REQUIREMENTS WITH THE UTILITY COMPANY.

TRANSFORMER PAD. SWITCHGEAR PAD. TRENCHING. METERING

METERING CABINET LOCATION INDICATED ARE FOR REFERENCE

PURPOSES ONLY AND REQUIRE UTILITY COMPANY APPROVAL.

3. <u>COMMONWEALTH EDISON COMPANY INFORMATION</u>

CONTACT NAMF:

PHONE NUMBER:

CONDUIT AND WIRE:

BELOW:

SECONDARY CONDUCTORS. COORDINATE ALL REQUIREMENTS WITH

EQUIPMENT, PRIMARY CONDUITS, SECONDARY CONDUITS AND

ELECTRICAL SERVICE TO THE BUILDING INCLUDING BUT NOT LIMITED TO;

UTILITY COMPANY DRAWINGS AND SPECIFICATIONS. TRANSFORMER AND

FIRE ALARM SYSTEM GENERAL NOTES

A. ALL WIRING SHALL BE ROUTED WITHIN APPROVED RACEWAY. ROUTE ALL CONDUIT CONCEALED IN

FINISHED AREAS OF BUILDING. WHERE IMPOSSIBLE TO CONCEAL RACEWAY. CONDUIT SHALL BE

MINIMUM 3/4". PROVIDE WIREMOLD AS DESCRIBED. (SEE PLAN NOTES FOR FURTHER INFORMATION).

EXPOSED AREAS: PROVIDE WIREMOLD #V500 (IVORY) SURFACE RACEWAY INCLUDING ALL

CONCEALED (INACCESSIBLE AREAS): PROVIDE CONDUIT AS REQUIRED. CONTRACTOR WILL BE

• ALL FIRE ALARM JUNCTION BOXES SHALL BE RED AND STENCILED WITH BLACK LETTERS.

EXISTING FIRE ALARM SYSTEM CONDUIT MAY BE REUSED AS APPROPRIATE. HOWEVER, WHERE

RACEWAY WILL BE PROVIDED AS HEREIN BEFORE STATED. SEE DEMOLITION NOTES FOR

• ALL ADDRESSABLE CIRCUITS WILL USE ONE (1) #18AWG TWISTED SHIELDED PAIR (TSP) CABLE

ADDRESSABLE INITIATING DEVICES — 1 PAIR #18AWG TWISTED SHIELDED PAIR, (1)RED AND (1)

HORN DEVICE - 2#14AWG PER CIRCUIT, (1)RED AND (1) BLACK. DO NOT EXCEED MORE

SLAVE FAN RELAY - 2#14AWG BLUE WIRES FROM FIRE ALARM CONTROL PANEL TO FAN

MAGNETIC DOOR HOLDER DEVICE – 2#14AWG YELLOW WIRES FROM FIRE ALARM CONTROL

FIRE ALARM ANNUNCIATOR - 1#16AWG TWISTED SHIELDED PAIR AND 2#14.

PROVIDE ZONE ADAPTER MODULES AS REQUIRED IN FINISHED AREAS. INSTALL MODULES ABOVE CEILING

4. EACH SUPPLY UNIT WILL HAVE SMOKE DETECTOR AND FAN STOP RELAY TO STOP FAN ON ANY FIRE ALARM.

5. FIRE ALARM ANNUNCIATOR SHALL CONTAIN A SYSTEM KEY RESET SWITCH, TROUBLE LAMP/BUZZER, TROUBLE

7. THE FIRE ALARM INSTALLING CONTRACTOR SHALL SUBMIT DRAWINGS AND SPECIFICATIONS INCLUDING BUT NOT

SHEETS TO THE LOCAL FIRE PREVENTION BUREAU FOR REVIEW PRIOR TO BEGINNING CONSTRUCTION.

8. CONNECT KNOX BOX LOCATED BY MAIN ENTRANCE TO FIRE ALARM CONTROL PANEL. EXACT LOCATION OF

9. PROVIDE CITY TIE CONNECTION AS REQUIRED BY AUTHORITY HAVING JURISDICTION. VERIFY REQUIREMENTS.

10. INSTALL CONDUIT AND WIRING FROM FIRE ALARM CONTROL PANEL TO TELEPHONE TERMINAL CABINET FOR

CENTRAL STATION TIE. COORDINATE REQUIREMENTS WITH AUTHORITY HAVING JURISDICTION AND PROVIDE AS

11. COORDINATE ALL TAMPER AND FLOW SWITCH LOCATIONS AND QUANTITY WITH SPRINKLER DRAWINGS AND FIELD

12. INSTALL CONDUIT AND WIRING FROM FIRE ALARM CONTROL PANEL TO ELEVATOR CONTROL PANEL FOR ELEVATOR

LIMITED TO; END OF LINE DEVICE LOCATIONS, BATTERY CALCULATIONS, WIRING DIAGRAMS AND EQUIPMENT CUT

3 PROVIDE NOTIFICATION APPLIANCE CIRCUIT POWER EXTENDER AS REQUIRED TO ACCOMMODATE EXCESSIVE LOADS

OR DISTANCES. LOCATE AS REQUIRED TO PREVENT VANDALISM AND TAMPERING. PROVIDE 120V CIRCUIT AS

UNLESS OTHERWISE NOTED. ALL INITIATING DEVICES SHALL BE ASSIGNED TO A SEPARATE ADDRESS.

E. SEE FIRE ALARM DETAILS AND SPECIFICATIONS FOR ADDITIONAL WIRING AND RACEWAY REQUIREMENTS.

FOR RACEWAY FILL. ONE (1) TSP CABLE IS EQUIVALENT TO TWO (2) #14AWG CONDUCTORS.

CONDUIT HAS DETERIORATED OR IS OTHERWISE UNACCEPTABLE (i.e. GREENFIELD, ETC.) NEW

FITTINGS, BOXES AND MISC. AS REQUIRED. PAINT AS DIRECTED BY ARCHITECT.

RESPONSIBLE FOR PROPERLY SIZING ALL CONDUIT.

ALL TWISTED SHIELDED PAIR CABLE WILL BE 300V INSULATION.

• GENERAL ALARM - 2#14AWG PER ZONE, (1)RED AND (1) BLUE.

VISUAL DEVICE – ON SAME CIRCUIT AS HORN DEVICES.

D. ALL FIRE ALARM INDICATING AND INITIATING CIRCUITS WILL BE SUPERVISED.

FIRE ALARM CONTROL PANEL — 120V — 2#12AWG.

C. <u>ALL WIRING WILL BE NEW</u> AND IN ACCORDANCE WITH SUPPLIERS WIRING DIAGRAMS AND AS NOTED

ADDITIONAL INFORMATION.

B. CONDUCTOR AND CONDUIT FILL WILL BE AS FOLLOWS:

THAN 12 UNITS PER CIRCUIT.

REQUIRED. VERIFY REQUIREMENTS IN FIELD.

SILENCE SWITCH AND POWER ON LIGHT.

OBSERVATION. CONNECT AS REQUIRED.

RECALL PROVISION.

ALL FANS TO BE RESET FROM THE FIRE ALARM CONTROL PANEL.

6. REFER TO FLOOR PLANS FOR EXACT LOCATION AND NUMBER OF DEVICES.

KNOX BOX TO BE DETERMINED BY LOCAL FIRE AUTHORITY HAVING JURISDICTION.

REQUIRED. ALL REQUIRED TELEPHONE LINES SHALL BE ARRANGED FOR BY OWNER.

# BLAKEMORE ARCHITECTS

400 N. First Street Rockford, IL 61107 Telephone: 815-227-0023 Brian@m-b-arch.com Email: blakemore-architects.com



# Winnebago County **Forest Preserve**

# Meridian Rd. Winnebago County, Illinois

THE CONTRACTOR SHALL DETERMINE EXACT DIMENSIONS AND CONDITIONS AT THE SITE PRIOR TO SUBMITTING A BID. THE CONTRACTOR SHALL COORDINATE ALL DRAWINGS WITH ACTUAL FIELD CONDITIONS PRIOR TO PROCEEDING WITH THE WORK AND NOTIFY THE ARCHITECT OF ANY DISCREPANCIES. THIS DRAWING IS THE PROPERTY OF BLAKEMORE ARCHITECTS AND MAY NOT BE REPRODUCED WITHOUT THE PRIOR WRITTEN PERMISSION OF THE ARCHITECT.

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BA Project No.

Scale

#### NO SCALE

Sheet Title

Ref. North

GENERAL NOTES ELECTRICAL

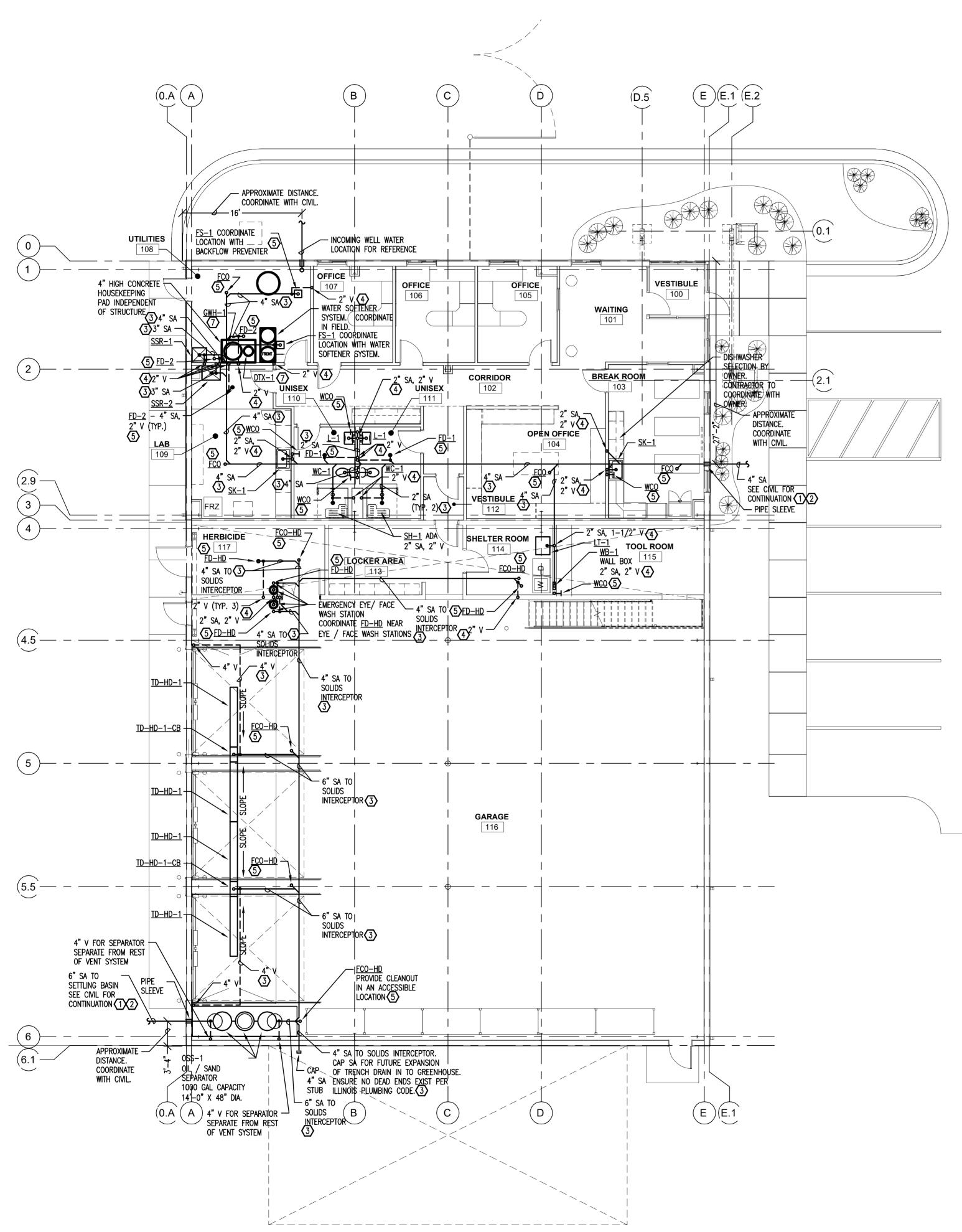
2025-09

Sheet No.

E600

Under Floor Plan - Plumbing

1/8" = 1'-0"



#### **GENERAL NOTES**

- 1. CONTRACTOR TO INSULATE ALL NEW PIPING AND CONNECTIONS PER
- 2. ALL NEW DOMESTIC WATER PIPING TO BE DISINFECTED PER THE ILLINOIS PLUMBING CODE 2014.
- CONTRACTOR TO FIELD VERIFY LOCATION OF ALL SANITARY, VENT, AND WATER PIPING PRIOR TO WORK.
- 4. CONTRACTOR TO VERIFY NO CONDUIT OR PIPING ARE IN SAW CUT AREAS PRIOR TO SAW CUTTING FLOORS OR WALLS IF ANY SAW CUTTING IS REQUIRED. PATCH FLOORS AND WALLS TO MATCH.
- CONTRACTOR IS RESPONSIBLE FOR ANY CEILING, WALL, OR FLOOR REMOVAL / REPLACEMENT REQUIRED BY NEW WORK.
- CONTRACTOR IS RESPONSIBLE FOR ALL CUTTING, PATCHING, AND PAINTING FOR INSTALLATION OF NEW WORK. SEE ARCHITECTURAL FOR MORE INFORMATION.
- 7. ALL PLUMBING AFFECTED BY THIS WORK SHALL BE COMPLIANT TO ILLINOIS PLUMBING CODE 2014 AND AHJ. IN THE EVENT OF CONFLICT BETWEEN CODES AND THE DRAWINGS, THE CODES SHALL BE
- 8. ALL NEW PIPING MUST BE COORDINATED WITH MECHANICAL, ELECTRICAL, FIRE PROTECTION, STRUCTURAL, CIVIL, ARCHITECTURAL, AND EQUIPMENT.
- 9. CONTRACTOR TO REFER TO ARCHITECTURAL DRAWINGS FOR ANY WORK PHASING REQUIREMENTS.
- 10. HOT WATER CIRCULATION LINES ARE REQUIRED TO BE WITHIN 24" (TWENTY FOUR - INCHES) OF THE FIXTURE WATER SUPPLY FOR PUBLIC RESTROOMS PER ICC ENERGY CODE AND ILLINOIS PLUMBING INSPECTOR AHJ. COORDINATE IN FIELD.
- 11. ALL FLOOR DRAIN COVERS, FLOOR CLEANOUT COVERS, AND FLOOR SINK COVERS SHALL BE INSTALLED FLUSH TO FINISHED FLOOR.

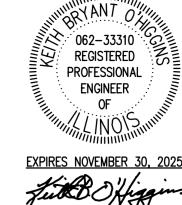
#### **KEYED NOTES - SANITARY, VENT, STORM**

- 1 NEW SANITARY PIPE MAIN EXITING BUILDING. SANITARY TO BE RUN OUT 5'-0" FROM BUILDING TIE INTO SANITARY. REFER TO CIVIL DRAWINGS FOR CONTINUATION. COORDINATE LOCATIONS WITH CIVIL.
- 2 PLUMBING CONTRACTOR TO VERIFY LOCATION, SIZE, CONDITION, INVERTS, AND DIRECTION OF FLOW OF SANITARY PIPING IN FIELD PRIOR TO START OF WORK. COORDINATE WITH CIVIL FOR NEW SANITARY TIE-INS.
- (3) NEW SANITARY / VENT PIPING UNDER GRADE. BED PIPING UNDER GRADE PER SPECIFICATION. COORDINATE LOCATION WITH WITH MECHANICAL, ELECTRICAL, FIRE PROTECTION, ARCHITECTURAL, STRUCTURAL, EQUIPMENT, AND OWNER
- 4 APPROXIMATE LOCATION OF NEW SA AND / OR VENT IN WALL OR CHASE. COORDINATE LOCATION WITH EQUIPMENT, ARCHITECTURAL, STRUCTURAL, AND OWNER. ENSURE THAT NO CONDUIT OR PIPING ARE IN SAW CUTTING AREAS OF WALLS IF

ANY SAW CUTTING IS REQUIRED DURING INSTALL.

COMPLIANCE TO ILLINOIS PLUMBING CODE AND AHJ.

- COORDINATE LOCATIONS OF ALL FLOOR DRAINS  $\underline{FD-1}$ ,  $\underline{FD-2}$ , FLOOR SINKS  $\underline{FS-1}$ , FLOOR CLEANOUTS  $\underline{FCO}$ , WALL CLEANOUTS  $\underline{WCO}$ , AND CLEANOUTS  $\underline{CO}$  WITH ARCHITECTURAL, EQUIPMENT, AND OWNER.
- (6) COORDINATE LOCATION OF FLOOR SINK WITH BACKFLOW PREVENTION DEVICE, ARCHITECTURAL, AND STRUCTURAL. ENSURE
- GAS WATER HEATER <u>GWH-1</u>: TIE INTO CW, HW, AND HWC PIPING. PROVIDE EXPANSION TANK <u>DTX-1</u> SEE SCHEDULE. PROVIDE 4" CONCRETE PAD INDEPENDENT OF STRUCTURE AND DRAIN PAN FOR NEW <u>GWH-1</u> COMMERCIAL GAS WATER HEATER AND NEW DTX-1 EXPANSION TANK. ROUTE T&P PIPING TO NEAREST FLOOR DRAIN. ENSURE PROPER AIR GAP PER ILLINOIS PLUMBING CODE AND AHJ. PROVIDE MANUFACTURER'S CONDENSATE NEUTRALIZATION KIT AND ROUT TO NEAREST FLOOR DRAIN - PROVIDE AIR GAP PER ILLINOIS PLUMBING CODE AND AHJ - DO NOT CREATE A TRIP HAZARD. GAS PIPING BY MECHANICAL WITH FINAL CONNECTION BY PLUMBING. PROVIDE MANUFACTURERS CONCENTRIC VENT KIT WITH VENT INSTALLATION BY PLUMBING AND FINAL CONNECTION TO EQUIPMENT BY PLUMBING. COORDINATE ROOF PENETRATION. COORDINATE WITH ELECTRICAL, MECHANICAL, FIRE PROTECTION, ARCHITECTURAL, AND STRUCTURAL. PROVIDE WATER CIRCULATION PUMP HCP-1. SEE SCHEDULE. INSTALL PER MANUFACTURERS INSTALLATION INSTRUCTIONS AND SPECIFICATIONS. ENSURE COMPLIANCE TO ILLINOIS PLUMBING CODE 2014, ALL APPLICABLE CODES, AND AHJ. LOCATE FD-2 ADJACENT TO GWH-1. COORDINATE LOCATION WITH EQUIPMENT PAD.
- (8) VENT PIPING ABOVE GROUND TO RUN AS HIGH AS POSSIBLE ABOVE CEILING. COORDINATE VENT PIPING WITH MECHANICAL, ELECTRICAL, FIRE PROTECTION, ARCHITECTURAL, STRUCTURAL, AND EQUIPMENT.
- (9) COORDINATE ALL VENT THRU ROOF WITH MECHANICAL, ELECTRICAL, FIRE PROTECTION, STRUCTURAL, EQUIPMENT, ARCHITECTURAL, AND OWNER. EXTEND ALL VTR TO BE 2'-6" ABOVE ROOF LINE. ALL PLUMBING VENTS THRU ROOF SHALL BE A MINIMUM OF 15'-0" AWAY FROM HVAC INTAKES. CONTRACTOR SHALL ENSURE MINIMUM 15'-0" DISTANCE REQUIREMENT.





400 N. First Street Rockford, IL 61107 815-227-0023 Telephone: Brian@m-b-arch.com blakemore-architects.com



# New Building

for

## Winnebago County Forest Preserve

#### Meridian Rd. Winnebago County, Illinois

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Scale

1/8" = 1'-0"

Sheet Title

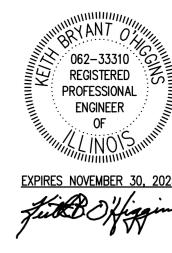
**UNDER FLOOR PLAN -PLUMBING** 

Ref. North

Sheet No.



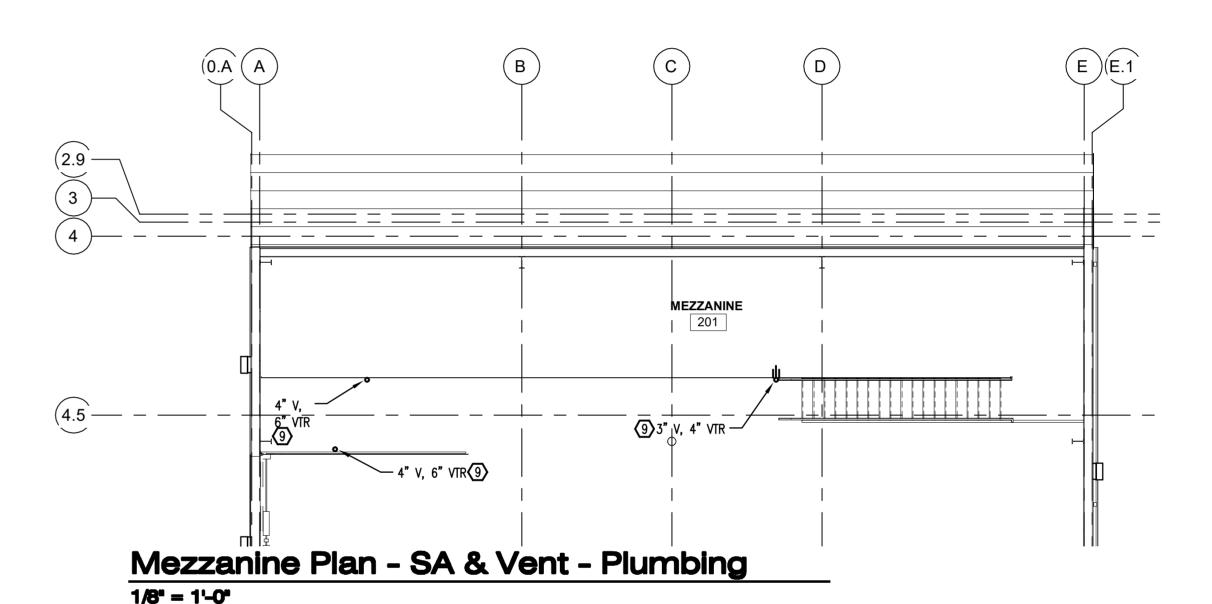
P1.10





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#### **KEYED NOTES - SANITARY, VENT, STORM**

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- 4 APPROXIMATE LOCATION OF NEW SA AND / OR VENT IN WALL OR CHASE. COORDINATE LOCATION WITH EQUIPMENT, ARCHITECTURAL, STRUCTURAL, AND OWNER. ENSURE THAT NO CONDUIT OR PIPING ARE IN SAW CUTTING AREAS OF WALLS IF ANY SAW CUTTING IS REQUIRED DURING INSTALL.
- COORDINATE LOCATIONS OF ALL FLOOR DRAINS  $\underline{FD-1}$ ,  $\underline{FD-2}$ , FLOOR SINKS  $\underline{FS-1}$ , FLOOR CLEANOUTS  $\underline{FCO}$ , WALL CLEANOUTS  $\underline{WCO}$ , AND CLEANOUTS  $\underline{CO}$  WITH ARCHITECTURAL, EQUIPMENT, AND OWNER.
- (6) COORDINATE LOCATION OF FLOOR SINK WITH BACKFLOW PREVENTION DEVICE, ARCHITECTURAL, AND STRUCTURAL. ENSURE COMPLIANCE TO ILLINOIS PLUMBING CODE AND AHJ.
- $\overline{7}$  Gas water heater  $\underline{\text{GWH}} = 1$ : The into CW, HW, and HWC Piping. Provide expansion tank  $\underline{\text{DTX}} = 1$  see schedule. PROVIDE 4" CONCRETE PAD INDEPENDENT OF STRUCTURE AND DRAIN PAN FOR NEW GWH-1 COMMERCIAL GAS WATER HEATER AND NEW <u>DTX-1</u> EXPANSION TANK. ROUTE T&P PIPING TO NEAREST FLOOR DRAIN. ENSURE PROPER AIR GAP PER ILLINOIS PLUMBING CODE AND AHJ. PROVIDE MANUFACTURER'S CONDENSATE NEUTRALIZATION KIT AND ROUT TO NEAREST FLOOR DRAIN - PROVIDE AIR GAP PER ILLINOIS PLUMBING CODE AND AHJ - DO NOT CREATE A TRIP HAZARD. GAS PIPING BY MECHANICAL WITH FINAL CONNECTION BY PLUMBING. PROVIDE MANUFACTURERS CONCENTRIC VENT KIT WITH VENT INSTALLATION BY PLUMBING AND FINAL CONNECTION TO EQUIPMENT BY PLUMBING. COORDINATE ROOF PENETRATION. COORDINATE WITH ELECTRICAL, MECHANICAL, FIRE PROTECTION, ARCHITECTURAL, AND STRUCTURAL. PROVIDE WATER CIRCULATION PUMP <u>HCP-1</u>. SEE SCHEDULE. INSTALL PER MANUFACTURERS INSTALLATION INSTRUCTIONS AND SPECIFICATIONS. ENSURE COMPLIANCE TO ILLINOIS PLUMBING CODE 2014, ALL APPLICABLE CODES, AND AHJ. LOCATE <u>FD-2</u> ADJACENT TO <u>GWH-1</u>. COORDINATE LOCATION WITH EQUIPMENT PAD.
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ILLINOIS PLUMBING CODE 2014 AND AHJ. IN THE EVENT OF CONFLICT

- BETWEEN CODES AND THE DRAWINGS, THE CODES SHALL BE 8. ALL NEW PIPING MUST BE COORDINATED WITH MECHANICAL, ELECTRICAL,
- FIRE PROTECTION, STRUCTURAL, CIVIL, ARCHITECTURAL, AND EQUIPMENT.
- CONTRACTOR TO REFER TO ARCHITECTURAL DRAWINGS FOR ANY WORK PHASING REQUIREMENTS.
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Scale

1/8" = 1'-0"

Sheet Title

FLOOR PLAN - SA & **VENT - PLUMBING** 

Ref. North

Sheet No.



P1.11 PROFESSIONAL DESIGN FIRM REGISTRATION #

184-003342

Floor Plan - SA & Vent - Plumbing 1/8" = 1'-0"

N SUSPENDED∠

OIL / SAND

SEPÁRATOR

(O.A (A) OF VENT SYSTEM (8)

4" V FOR SEPARATOR -

SEPARATE FROM REST

(D.5

**VESTIBULE** 

BREAK ROOM

SELECTION BY
OWNER
CONTRACTOR TO

COORDINATE WITH OWNER

(2.1)

OFFICE

2" V 4

UTILITIES

WITH FINAL CONNECTION

PIPING BY PLUMBING WITH FINAL CONNECTION BY PLUMBING. COORDINATE WITH MECHANICAL AND ELECTRICAL

INTAKE AND EXHAUST

TO EQUIPMENT BY PLUMBING

FS-1 COORDINATE | LOCATION WITH \_\_ \_

 $1 \begin{vmatrix} \frac{1}{2} & 2 & V \text{ (TYP. 3)} \end{vmatrix}$ 

4" V, 6" VIR 9

— 4<sup>\*</sup> V, 6<sup>\*</sup> VTR√9

4" V SUSPENDED 8

— 4" V, 6" VTR FOR SOLIDS SEPARATOR

SEPARATE FROM REST OF VENT SYSTEM (9)

APPLICABLE CODES AND AHJ.

FCO-HD PROVIDE CLEANOUT IN AN ACCESSIBLE LOCATION (5)

PROVIDE MANUFACTURER'S ANTI-FLOTATION ANCHORING KIT,

MANUFACTURER'S MANWAY GUARDING WITH FALL PROTECTION

SCREENING, MANUFACTURER'S ALARM SYSTEM AND CONTROL PANEL,

MANUFACTURER'S PUMP OUT KIT. ENSURE COMPLIANCE TO ALL, +

(5) FD-HD

TD-HD-1-CB

TD-HD-1-CB

4" V FOR SEPARATOR

SEPARATE FROM REST OF VENT SYSTEM (8)

(5.5 -

- INCOMING WELL WATER LOCATION FOR REFERENCE

- water softener

5 LOCKER AREA

COORDINATE FD-HD NEAR

EYE / FACE WASH STATIONS

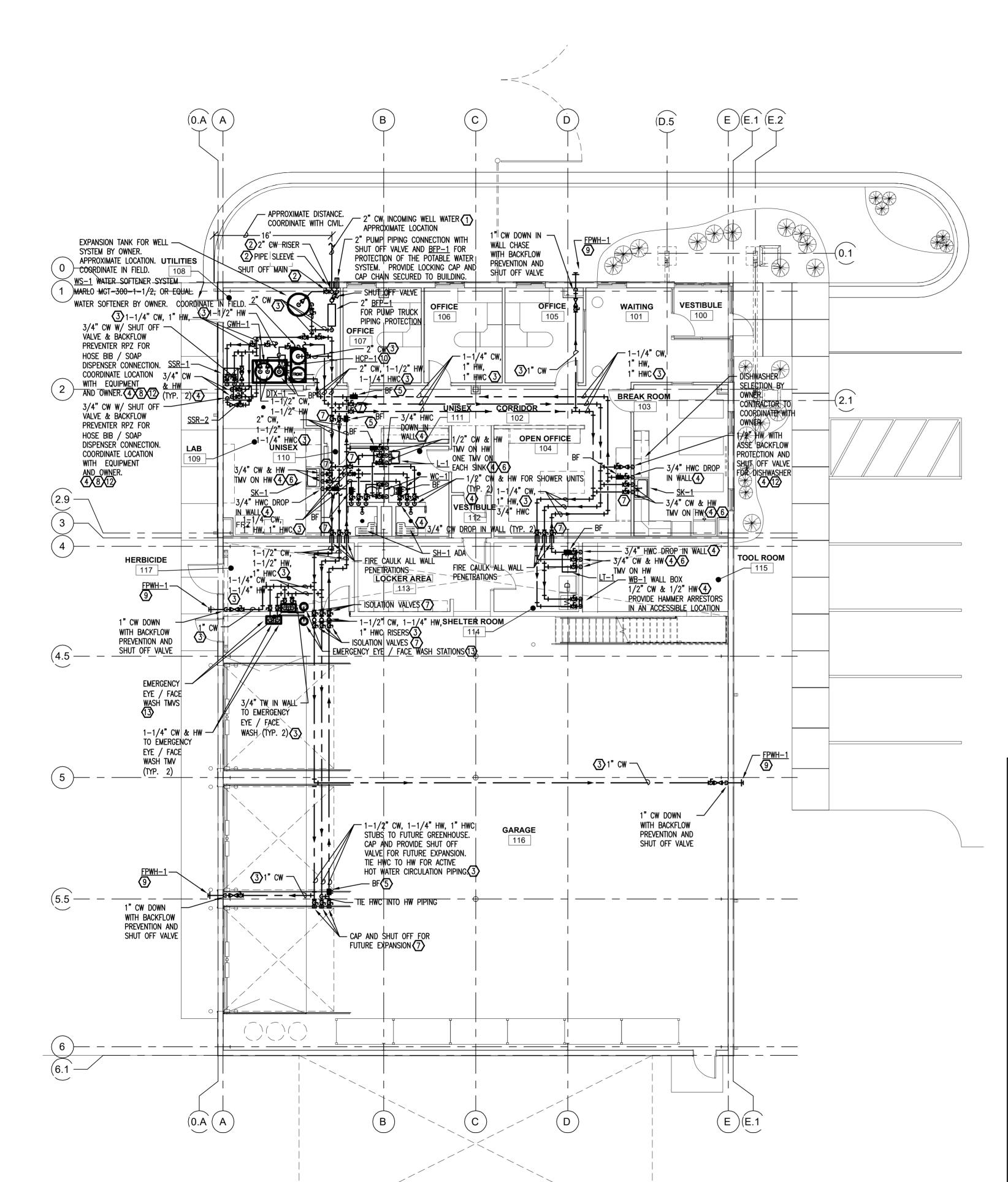
PENETRATION

93" V, 4" VTR

FIRE CAULK WALL — PENETRATION

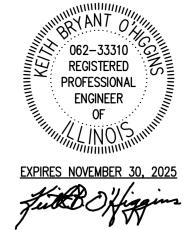
**GARAGE** 

116



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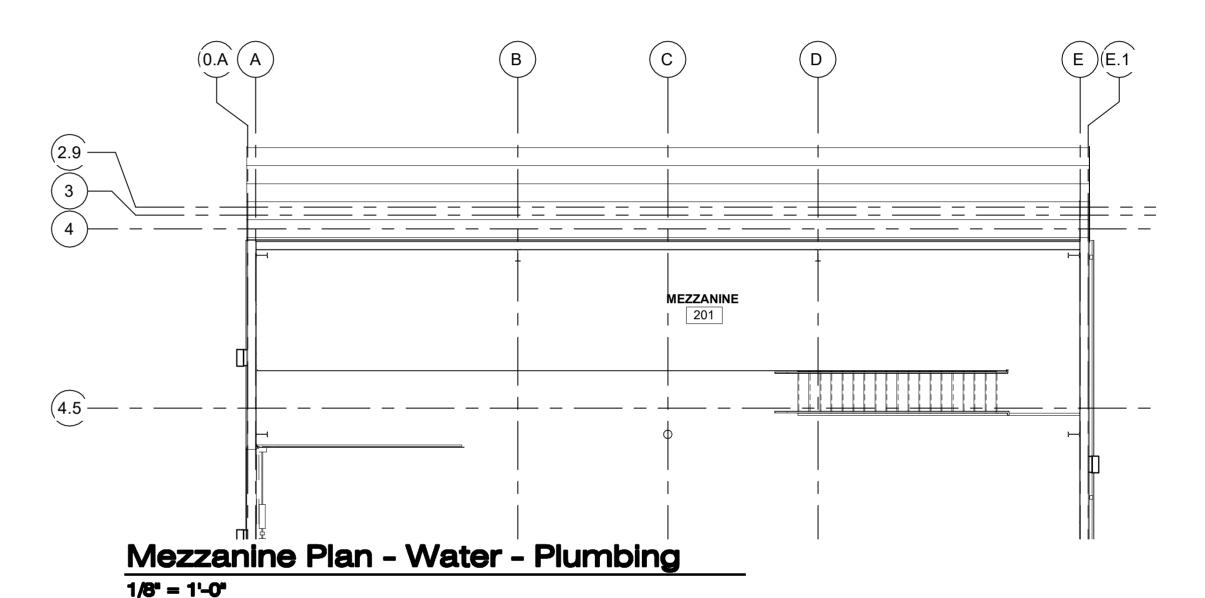
Floor Plan - Water - Plumbing 1/8" = 1'-0"





400 N. First Street Rockford, IL 61107 815-227-0023 Telephone: Brian@m-b-arch.com blakemore-architects.com





#### **KEYED NOTES - WATER**

- 1 NEW 2" CW PIPING INTO BUILDING FROM WELL. CONTRACTOR TO VERIFY LOCATION IN FIELD PRIOR TO START OF WORK. COORDINATE WITH CIVIL AND IN FIELD WITH WELL.
- PROVIDE NEW CW RISER INTO BUILDING. PROVIDE SHUT OFF VALVE. WELL EXPANSION TANK PROVIDED BY OWNER. COORDINATE IN FIELD AND WITH OWNER. COORDINATE WATER WITH WINNEBAGO COUNTY WATER DEPARTMENT AND AHJ. COORDINATE LOCATION IN FIELD. COORDINATE WITH MECHANICAL, ELECTRICAL, ARCHITECTURAL, STRUCTURAL, EQUIPMENT, AND OWNER. ENSURE COMPLIANCE TO ILLINOIS PLUMBING CODE AND AHJ.
- (3) NEW CW, HW, AND / OR HWC PIPING. CONTRACTOR TO VERIFY LOCATION, SIZE, CONDITION, AND DIRECTION OF FLOW IN FIELD. COORDINATE PIPING WITH OWNER. PIPING TO BE RUN AS HIGH AS POSSIBLE - TIGHT TO STRUCTURE. COORDINATE LOCATION WITH MECHANICAL, ELECTRICAL, STRUCTURAL, ARCHITECTURAL, EQUIPMENT, AND OWNER. COORDINATE PIPE LOCATIONS / RUNS WITH MECHANICAL DUCT WORK AND ROOF SUPPORT SYSTEM.
- (4) NEW CW, HW, AND / OR HWC PIPING INTO PIPING IN WALL OR WALL CHASE. COORDINATE WITH MECHANICAL, ELECTRICAL, FIRE PROTECTION, ARCHITECTURAL, STRUCTURAL, EQUIPMENT, AND FIXTURES. COORDINATE DROP IN CHASE OR WALL WITH MECHANICAL PIPING.
- 5 PROVIDE BALANCING FITTING AT HWC BRANCH LINE.
- (6) PROVIDE TMV ON HW.
- 7 APPROXIMATE LOCATION OF SHUT OFF VALVE. ENSURE CLEARANCE FOR VALVE OPERATION AND MAINTENANCE. COORDINATE WITH MECHANICAL, ELECTRICAL, ARCHITECTURAL, STRUCTURAL, AND OWNER. PROVIDE ACCESSES PANELS AS REQUIRED.
- 8 PROVIDE 3/4" CW W/ BACKFLOW PREVENTER FOR HOSE BIB / SOAP DISPENSER AT EXISTING MOP SINK. RUN 3/4" PIPE DOWN INTO WALL AND INSTALL VALVE OUTSIDE OF WALL FOR CONNECTION TO SOAP / CHEMICAL SYSTEM. THIS IS A DEDICATED PIPE AND SHALL HAVE ACCESS TO BACKFLOW PREVENTER FOR MAINTENANCE AS WELL AS SHUT OFF VALVE FOR EMERGENCY / MAINTENANCE. COORDINATE LOCATION AND PIPING WITH SINK AND OWNER. CUT AND PATCH WALL TO INSTALL NEW PIPING. ENSURE COMPLIANCE TO ILLINOIS PLUMBING CODE 2014 AND AHJ.
- 9 FPWH-1: FREEZE PROOF WALL HYDRANT WITH ASSE APPROVED BACKFLOW PROTECTION DEVICE, SHUT OFF VALVE. AND WITHOUT A LOCKING COVER. COORDINATE CW PIPING, PIPING DROP, AND FREEZE PROOF WALL HYDRANT WITH ARCHITECTURAL AND OWNER. CONTRACTOR TO SIZE FREEZE PROOF WALL HYDRANT IN FIELD FOR LOCATION AND WALL THICKNESS. INSTALL FREEZE PROOF WALL HYDRANT AT HEIGHT OF 3'-0" ABOVE GRADE, COORDINATE HEIGHT WITH OWNER AND ARCHITECT. ENSURE ENTIRE INSTALLATION IS COMPLIANT TO ALL APPLICABLE CODES AND AHJ. SEE PLUMBING FIXTURE SCHEDULE.
- GAS WATER HEATER <u>GWH-1</u>: TIE INTO CW, HW, AND HWC PIPING. PROVIDE EXPANSION TANK <u>DTX-1</u> SEE SCHEDULE. PROVIDE 4" CONCRETE PAD INDEPENDENT OF STRUCTURE AND DRAIN PAN FOR NEW GWH-1 COMMERCIAL GAS WATER HEATER AND NEW <u>DTX-1</u> EXPANSION TANK. ROUTE T&P PIPING TO NEAREST FLOOR DRAIN. ENSURE PROPER AIR GAP PER ILLINOIS PLUMBING CODE AND AHJ. PROVIDE MANUFACTURER'S CONDENSATE NEUTRALIZATION KIT AND ROUT TO NEAREST FLOOR DRAIN - PROVIDE AIR GAP PER ILLINOIS PLUMBING CODE AND AHJ - DO NOT CREATE A TRIP HAZARD. GAS PIPING BY MECHANICAL WITH FINAL CONNECTION BY PLUMBING. PROVIDE MANUFACTURERS CONCENTRIC VENT KIT WITH VENT INSTALLATION BY PLUMBING WITH FINAL CONNECTION TO EQUIPMENT BY PLUMBING. COORDINATE ROOF PENETRATION. COORDINATE WITH ELECTRICAL, MECHANICAL, FIRE PROTECTION, ARCHITECTURAL, AND STRUCTURAL. PROVIDE WATER CIRCULATION PUMP HCP-1. SEE SCHEDULE. INSTALL PER MANUFACTURERS INSTALLATION INSTRUCTIONS AND SPECIFICATIONS. ENSURE COMPLIANCE TO ILLINOIS PLUMBING CODE 2014, ALL APPLICABLE CODES, AND AHJ. LOCATE FD-2 ADJACENT TO GWH-1. COORDINATE
- (11) COORDINATE LOCATION OF HCP CIRCULATION PUMP WITH OWNER. MAX HEIGHT TO BE 6'-0" AFF AND MINIMUM HEIGHT TO BE 4'-0: AFF AT WALL.
- PROVIDE ASSE APPROVED BACKFLOW PREVENTION DEVICE ON WATER CONNECTION TO FIXTURE OR EQUIPMENT.
- (13) ENSURE EYE / FACE WASH SYSTEM AND TMV ARE COMPLIANT TO ALL APPLICABLE CODES AND AHJ.

#### **GENERAL NOTES**

- CONTRACTOR TO INSULATE ALL NEW PIPING AND CONNECTIONS PER
- 2. ALL NEW DOMESTIC WATER PIPING TO BE DISINFECTED PER THE ILLINOIS PLUMBING CODE 2014.
- CONTRACTOR TO FIELD VERIFY LOCATION OF ALL SANITARY, VENT, AND
- CONTRACTOR TO VERIFY NO CONDUIT OR PIPING ARE IN SAW CUT AREAS PRIOR TO SAW CUTTING FLOORS OR WALLS IF ANY SAW

WATER PIPING PRIOR TO WORK.

- CUTTING IS REQUIRED. PATCH FLOORS AND WALLS TO MATCH. CONTRACTOR IS RESPONSIBLE FOR ANY CEILING, WALL, OR FLOOR
- REMOVAL / REPLACEMENT REQUIRED BY NEW WORK.
- PAINTING FOR INSTALLATION OF NEW WORK. SEE ARCHITECTURAL FOR MORE INFORMATION. 7. ALL PLUMBING AFFECTED BY THIS WORK SHALL BE COMPLIANT TO

CONTRACTOR IS RESPONSIBLE FOR ALL CUTTING, PATCHING, AND

- BETWEEN CODES AND THE DRAWINGS, THE CODES SHALL BE FOLLOWED. 8. ALL NEW PIPING MUST BE COORDINATED WITH MECHANICAL, ELECTRICAL,
- FIRE PROTECTION, STRUCTURAL, CIVIL, ARCHITECTURAL, AND EQUIPMENT.

ILLINOIS PLUMBING CODE 2014 AND AHJ. IN THE EVENT OF CONFLICT

- CONTRACTOR TO REFER TO ARCHITECTURAL DRAWINGS FOR ANY WORK PHASING REQUIREMENTS.
- 10. HOT WATER CIRCULATION LINES ARE REQUIRED TO BE WITHIN 24" (TWENTY FOUR - INCHES) OF THE FIXTURE WATER SUPPLY FOR PUBLIC RESTROOMS PER ICC ENERGY CODE AND ILLINOIS PLUMBING INSPECTOR AHJ. COORDINATE IN FIELD.
- 11. ALL FLOOR DRAIN COVERS, FLOOR CLEANOUT COVERS, AND FLOOR SINK COVERS SHALL BE INSTALLED FLUSH TO FINISHED FLOOR.

# New Building

for

# Winnebago County Forest Preserve

## Meridian Rd. Winnebago County, Illinois

THE CONTRACTOR SHALL DETERMINE EXACT DIMENSIONS AND CONDITIONS AT THE SITE PRIOR TO SUBMITTING A BID. THE CONTRACTOR SHALL COORDINATE ALL DRAWINGS WITH ACTUAL FIELD CONDITIONS PRIOR TO PROCEEDING WITH THE WORK AND NOTIFY THE ARCHITECT OF ANY DISCREPANCIES. THIS DRAWING IS THE PROPERTY OF BLAKEMORE ARCHITECTS AND MAY NOT BE REPRODUCED WITHOUT THE PRIOR WRITTEN PERMISSION OF THE ARCHITECT

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		·

BA Project No.

Scale

1/8" = 1'-0"

Sheet Title

FLOOR PLAN - WATER - PLUMBING

Ref. North

Sheet No.



B. IT IS INTENDED THAT EQUIPMENT SHALL BE LOCATED SYMMETRICALLY WITH THE ARCHITECTURAL ELEMENTS OF THE BUILDING, NOTWITHSTANDING THE FACT THAT LOCATIONS INDICATED BY THESE DRAWINGS MAY BE DISTORTED FOR CLEARNESS OF PRESENTATION.

C. CONTRACTOR SHALL CHECK DRAWINGS OF OTHER TRADES TO VERIFY THAT SPACES IN WHICH THEIR WORK WILL BE INSTALLED ARE CLEAR OF OBSTRUCTIONS. WORK SHALL BE INSTALLED TO MAINTAIN MAXIMUM HEADROOM AND SPACE CONDITION AT ALL POINTS IN THE BUILDING. WHERE HEADROOM OR SPACE CONDITIONS APPEAR INADEQUATE, CONTRACTOR SHALL NOTIFY ARCHITECT/ENGINEER BEFORE PROCEEDING WITH THE INSTALLATION OF THEIR WORK.

D. CONTRACTOR SHALL FURNISH OTHER TRADES ADVANCE INFORMATION AND/OR SHOP DRAWINGS ON LOCATIONS AND SIZES OF PIPING, DUCTWORK, CONDUIT, RACEWAYS, EQUIPMENT, FRAMES, BOXES, SLEEVES AND OPENINGS, ETC. NEEDED FOR THEIR WORK TO PERMIT OTHER TRADES AFFECTED TO INSTALL THEIR WORK PROPERLY AND WITHOUT DELAY.

E. WHERE THERE IS EVIDENCE THAT WORK OF ONE TRADE WILL INTERFERE WITH WORK OF OTHER TRADES, ALL TRADES SHALL MEET ON JOB SITE TO WORK OUT SPACE CONDITIONS AND MAKE SATISFACTORY ADJUSTMENTS TO INSTALLATION OF THE NEW WORK. CONTRACTORS SHALL VERIFY EXACT LOCATIONS OF ALL DEVICES AND EQUIPMENT WITH FIELD CONDITIONS, SHOP DRAWINGS, AND WORK OF OTHER TRADES PRIOR TO ROUGH—IN. EACH CONTRACTOR SHALL BE RESPONSIBLE, AT THEIR OWN EXPENSE, FOR THE REMOVAL AND REINSTALLATION OF ANY PART OF THEIR WORK IF SAME WAS INSTALLED WITHOUT CONSULTING WITH OTHER TRADES BEFORE INSTALLING THEIR WORK.

F. CONTRACTOR SHALL PROVIDE SLEEVES IN BEAMS, FLOORS, COLUMNS AND WALLS AS SHOWN ON THE DRAWINGS, AS REQUIRED BY JOB SITE CONDITIONS, AND/OR AS SPECIFIED, WHEN INSTALLING THEIR WORK. ALL BEAMS AND COLUMNS WHICH ARE REQUIRED TO BE SLEEVED SHALL BE CUT AND REINFORCED AS REQUIRED BY FIELD CONDITIONS AND LOCATIONS AND SIZES SHALL BE CHECKED AND APPROVED BY ARCHITECT BEFORE CONTRACTOR CUTS AND STRUCTURAL BUILDING MEMBER.

G. THE SEQUENCE FOR THE INSTALLATION OF ALL WORK SHALL BE COORDINATED BETWEEN ALL CONTRACTORS ON THE PROJECT AND IN STRICT ACCORDANCE WITH ARCHITECT/ENGINEER AND OWNERS STIPULATION AS CALLED FOR IN THE SPECIFICATION AND/OR AS DIRECTED.

H. CONTRACTOR SHALL REFER TO THE ARCHITECTURAL AND STRUCTURAL CONTRACT DRAWINGS (BEFORE SUBMITTING THEIR BIDS) TO FAMILIARIZE THEMSELVES WITH THE EXTENT OF THE GENERAL CONTRACTORS WORK, CEILING HEIGHTS AND CLEARANCE FOR INSTALLING THEIR WORK.

I. CONTRACTOR SHALL BE RESPONSIBLE AND PAY FOR ALL CORING, CUTTING, PATCHING, REPAIRING, REFINISHING AND REMOVAL/REPLACEMENT OF NEW OR EXISTING BUILDING CONSTRUCTION REQUIRED TO ACCOMMODATE THE INSTALLATION OR REMOVAL OF THEIR WORK. ALL PATCHING, REPAIRING AND REFINISHING WORK SHALL BE PERFORMED BY THOSE REGULARLY INVOLVED IN THAT TRADE AND SHALL MATCH THE ADJACENT CONSTRUCTION AS CLOSELY AS POSSIBLE. CARE SHALL BE TAKEN SO AS NOT TO DAMAGE ANY EXISTING BUILDING CONSTRUCTION OR ITEMS THAT ARE TO REMAIN. ANY EXISTING FINISHES THAT ARE DAMAGED DURING THE INSTALLATION OF NEW WORK OR REMOVAL OF EXISTING WORK SHALL BE REPAIRED, REPLACED AND PAID FOR BY THE INSTALLING CONTRACTOR, TO THE SATISFACTION OF THE ARCHITECT AND OWNER. REFER TO ARCHITECTURAL DRAWINGS FOR EXISTING BUILDING CONSTRUCTION THAT IS TO REMAIN AND, THEREFORE, SUBJECT TO PATCHING, REPAIRING, REFINISHING, AND REMOVAL/REPLACEMENT.

J. SOME OF THE EXISTING ITEMS AND EQUIPMENT SCHEDULED TO BE REMOVED SHALL BE TURNED OVER TO THE OWNER. ANY ITEMS THAT THE OWNER WANTS TO RETAIN SHALL BE REMOVED CAREFULLY SO AS NOT TO DAMAGE THEM. ALL OTHER ITEMS TO BE REMOVED SHALL BECOME THE PROPERTY OF THE CONTRACTOR AND REMOVED FROM THE SITE.

K. CONTRACTOR SHALL BE RESPONSIBLE FOR THEIR OWN CLEAN-UP DURING CONSTRUCTION. IF CONTRACTOR FAILS TO PROVIDE SUCH CLEAN-UP, THE ARCHITECT/ENGINEER WILL DIRECT ANOTHER CONTRACTOR TO PERFORM THE CLEAN-UP AND THE NEGLIGENT CONTRACTOR SHALL PAY THE ASSOCIATED BACK-CHARGES AS DEEMED APPROPRIATE BY THE ARCHITECT/ENGINEER.

L. CONTRACTOR SHALL INSTALL ALL AUXILIARY SUPPORTING STEEL AS REQUIRED FOR THE SUPPORTING OF THEIR PIPING, DUCTWORK, CONDUIT, TANKS, EQUIPMENT, ETC. ALL SUPPORTING STEEL FOR ITEMS ABOVE A SUSPENDED CEILING SHALL BE FROM BUILDING STRUCTURAL MEMBERS ONLY.

M. IT IS MANDATORY THAT THE COMPLETE EXISTING BUILDING REMAIN IN CONTINUOUS AND NON-INTERRUPTED OPERATION DURING REMODELING/ALTERING OF SAID EXISTING BUILDING. THE SPECIFIC AREA(S) BEING REMODELED/ALTERED AT ANY SCHEDULED TIME ARE OBVIOUSLY EXCLUSIVE OF THIS STATEMENT. SERVICES TO EXISTING BUILDING SHALL BE KEPT IN CONTINUOUS OPERATION INCLUDING POWER, SIGNAL SYSTEMS, LIGHTING, TELEPHONE, HEATING, COOLING, VENTILATING, TEMPERATURE CONTROL, SEWERS AND HOT AND COLD WATER. ANY ABSOLUTELY NECESSARY INTERRUPTION OF THESE SERVICES TO ACCOMPLISH CONTRACT WORK SHALL BE ARRANGED THROUGH THE ARCHITECT WITH THE OWNER A MINIMUM OF TEN (10) WORKING DAYS IN ADVANCE. SUCH INTERRUPTIONS SHALL BE KEPT TO AN ABSOLUTE MINIMUM AS FAR AS TIME INTERVAL IS INVOLVED AND TEMPORARY SERVICES SHALL BE FURNISHED AND INSTALLED UNDER THIS CONTRACT WHERE NECESSARY TO ACCOMPLISH THIS PURPOSE. TEMPORARIES SHALL BE REMOVED BY THE CONTRACTOR ONLY AFTER NEW PERMANENT SERVICES ARE INSTALLED AND FULLY OPERATIONAL.

N. UNLESS INDICATED OTHERWISE, THE ARCHITECT/ENGINEER MAKES NO REPRESENTATION AS TO WHETHER OR NOT ANY HAZARDOUS OR CONTAMINATED MATERIALS (INCLUDING BUT NOT LIMITED TO ASBESTOS, PCB'S, CONTAMINATED SOILS, ETC.) ARE PRESENT WITHIN THE EXISTING BUILDING OR ON THE SITE. WORK SHOWN ON THE DRAWINGS AND/OR INDICATED IN THE SPECIFICATIONS SHALL NOT BE CONSTRUED TO CALL FOR CONTACT WITH ANY OF THESE MATERIALS. IF THESE MATERIALS ARE ENCOUNTERED OR SUSPECTED, THE CONTRACTOR SHALL NOT DISTURB THEM AND SHALL CONTACT THE ARCHITECT/ENGINEER IMMEDIATELY.

O. CONTRACTOR SHALL STORE ALL MATERIALS AND EQUIPMENT SHIPPED TO THE SITE IN A PROTECTED AREA. IF MATERIAL IS STORED OUTSIDE OF THE BUILDING, IT MUST BE STORED OFF THE GROUND A MINIMUM OF SIX INCHES (6") SET ON 6 X 6 PLANKS AND/OR WOOD PALLETS. ALL MATERIAL AND EQUIPMENT MUST BE COMPLETELY COVERED WITH WATERPROOF TARPS OR VISQUIN. ALL PIPING AND DUCTWORK WILL HAVE THE ENDS CLOSED TO KEEP OUT DIRT AND OTHER DEBRIS. NO EQUIPMENT WILL BE ALLOWED TO BE STORED ON THE SITE UNLESS IT IS SITTING ON WOOD PLANKS AND COMPLETELY PROTECTED WITH WEATHERPROOF COVERS.

P. THE DRAWINGS, SCHEDULES AND SPECIFICATIONS HAVE BEEN PREPARED USING ONE MANUFACTURER FOR EACH PIECE OF EQUIPMENT AS THE BASIS FOR DIMENSIONAL DESIGN. IF THE CONTRACTOR PURCHASES EQUIPMENT LISTED AS A SPECIFIED <u>ACCEPTABLE MANUFACTURER</u> BUT IS NOT THE SCHEDULED MANUFACTURER USED FOR THE BASE DESIGN, THE CONTRACTOR SHALL BE RESPONSIBLE FOR CHECKING ALL THE DIMENSIONS OF THE EQUIPMENT TO VERIFY THAT IT WILL FIT IN THE SPACE SHOWN ON THE DRAWINGS. MINOR DEVIATIONS IN DIMENSIONS WILL BE PERMITTED, PROVIDED THE RATINGS MEET THOSE SHOWN ON THE DRAWINGS AND EQUIPMENT WILL PHYSICALLY FIT INTO THE SPACE ALLOCATED WITH SUITABLE ACCESS AROUND EQUIPMENT FOR OPERATION AND MAINTENANCE ON THE EQUIPMENT.

Q. CONTRACTOR AND/OR MANUFACTURER SHALL VERIFY THAT THE CHARACTERISTICS OF THE EQUIPMENT HE SUBMITS FOR REVIEW MEETS THE CAPACITY AND DUTY SPECIFIED.

R. WHEN EQUIPMENT IS SUBMITTED FOR REVIEW AND DOES NOT MEET THE PHYSICAL SIZE OR ARRANGEMENT OF THAT SCHEDULED AND SPECIFIED, CONTRACTOR SHALL PAY FOR ALL ALTERATIONS REQUIRED TO ACCOMMODATE SUCH EQUIPMENT AT NO ADDITIONAL COST TO OWNER. CONTRACTOR WILL ALSO PAY ALL COSTS FOR ADDITIONAL WORK REQUIRED BY OTHER CONTRACTORS, OWNER, ARCHITECT OR ENGINEER TO MAKE CHANGES WHICH WOULD ALLOW THE EQUIPMENT TO FIT IN THE SPACE AND FUNCTION AS INTENDED.

S. CONTRACTOR SHALL FIELD VERIFY THE SIZE OF EXISTING OPENINGS, WINDOWS, DOORS, CORRIDORS, ROOMS, ETC. FOR ACCESS OF THE NEW EQUIPMENT INTO OR REMOVAL OF EXISTING EQUIPMENT FROM THE BUILDING. IF OPENINGS ARE TOO SMALL FOR ACCESS THEN CONTRACTOR SHALL, AT HIS OWN EXPENSE, PROVIDE NEW OR ENLARGED OPENINGS AND RESTORE SAME TO ORIGINAL SIZE AND CONDITION. CONTRACTOR MAY ELECT TO ORDER THE EQUIPMENT DISASSEMBLED AND/OR WITH SPLIT HOUSING FOR ENTRANCE INTO THE EXISTING SPACE OR BUILDING. CONTRACTOR SHALL REASSEMBLE EQUIPMENT AFTER IT IS IN THE SPACE AT HIS OWN EXPENSE.

# PLUMBING ABBREVIATIONS & SYMBOLS

NOTE: NOT ALL ABBREVIATIONS SHOWN MAY BE REQUIRED FOR THIS PROJECT.

FOR THIS	PROJECT.	A
CW	COLD WATER SUPPLY	В
		В
		В
TW		С
		С
WM	WATER MAIN	С
SA		С
SA	UNDERGROUND SANITARY SEWER	C
v	SUSPENDED VENT PIPING	C
PD	PUMPED DISCHARGE PIPING	D'
<del></del>	PIPE ELBOW (TURNED UP)	-
<del></del>	PIPE ELBOW (TURNED DOWN)	E/
<del></del>	PIPE TEE DOWN (DROP)	FI F(
<del></del>	PIPE TEE UP TO FLOOR ABOVE (RISE)	FI
—— <del></del>	PIPE TEE UP OR ANGLE	FI
	PIPE TEE DOWN OR ANGLE	G'
•	PIPE TEE HORIZONTAL	Н
ل 	90° ELBOW IN HORIZONTAL PIPE RUN	L
	ANGLE ELBOW IN HORIZONTAL PIPE RUN	L
NC <sub> </sub>	NEW CONNECTION	0
GV	GATE VALVE	Р
CK	CHECK VALVE	
BF	BALANCING FITTING	
CS	CIRCUIT BALANCING VALVE W/BALANCING PORTS	
	PIPE ALIGNMENT GUIDE	
<u></u>	PIPE SLEEVE	
	PIPE UNION	
	STRAINER	
	ECCENTRIC REDUCER OR INCREASER	
	PRESSURE GAUGE AND NEEDLE VALVE	
₩ wт	WATER THERMOMETER (WITH PIPE WELL)	
HW <b>II</b> +C+	WALL HYDRANT	
( co	CLEANOUT IN SUSPENDED CEILING	
<u>co</u>	FLOOR CLEANOUT	
<u> </u>	I LOUN GLEANOUT	

#### **GENERAL NOTES - PLUMBING**

A. ALL WATER SUPPLY AND RETURN PIPING SHALL BE SUSPENDED WITH CLEVIS AND/OR TRAPEZE PIPE HANGERS. INSULATED PIPING SHALL REST ON STEEL OR WOOD. PIPE COVERING PROTECTION SADDLES OR SHEET METAL INSULATION SHIELDS AS CALLED FOR IN THE SPECIFICATIONS AND/OR DETAILED ON THE DRAWING.

- PLUMBING STACK No.

- RISER DIAGRAM DRAWING No.

FLOOR DRAIN (ROUND)

RISER DIAGRAM TAG

HOSE VALVE

B. ALL WATER SUPPLY AND RETURN PIPING SHALL BE INSULATED, INCLUDING ALL PIPING ABOVE CEILINGS, INSIDE EQUIPMENT, CABINETS, PIPE CHASES AND IN WALLS. SEE SPECIFICATIONS FOR TYPE AND THICKNESS OF INSULATION.

C. ALL HOT WATER SUPPLY AND RECIRCULATING PIPING SHALL BE INSTALLED TO COMPENSATE FOR EXPANSION OF THE PIPE BY INSTALLING PIPE ANCHORS, GUIDES, EXPANSION JOINTS OR LOOPS AND PIPE OFFSETS AS REQUIRED BY FIELD CONDITIONS OR AS SHOWN ON THE DRAWINGS.

D. ALL PIPING PASSING THRU FLOOR CONSTRUCTION SHALL HAVE A SCHEDULE 40 STEEL PIPE SLEEVE INSTALLED AROUND PIPE ONLY. ALL PIPE PASSING THRU WALLS SHALL HAVE A GALVANIZED SHEET METAL OR SCHEDULE 40 STEEL SLEEVE INSTALLED AROUND THE PIPE AND PIPE INSULATION. SEE SLEEVE DETAILS THESE DRAWINGS.

E. PITCH ALL SUPPLY AND RETURN WATER LINES TO DRAIN COMPLETELY THROUGH LOWER EQUIPMENT FIXTURES, UNIONS, OR DRAIN VALVES. INSTALL A 1/2" DRAIN VALVE WITH 3/4" HOSE THREAD AND VACUUM BREAKER OUTLET IN ALL MAIN PIPING RUNS WHICH WOULD NOT BE ABLE TO DRAIN THRU A LOWER PIECE OF EQUIPMENT.

F. ALL VENT AND WASTE PIPING SIZES ARE MINIMUM. ADDITIONAL VENTS SHALL BE ADDED AND/OR PIPE SIZE INCREASED AS REQUIRED BY APPLICABLE CODES, STATUTES AND REGULATIONS, ETC. WITHOUT ADDITIONAL COST TO THE OWNER.

G. UNUSED OPENINGS IN SEWERS, MANHOLES, ETC. SHALL BE CAPPED; THOSE IN PIPING SHALL BE CAPPED OR PLUGGED; STRUCTURAL MEMBERS AND SUPPORTS SHALL NOT BE CUT UNLESS AUTHORIZED BY ARCHITECT IN WRITING.

H. CERTAIN ABBREVIATIONS OR SYMBOLS, WHEN APPLIED TO PRESENT (OR EXISTING) LINE, DEVICE OR EQUIPMENT, SHALL HAVE THE FOLLOWING MEANINGS.

NC NEW CONNECTION TO PRESENT PIPING, DEVICE, MANHOLE, SEWER, DUCT, WIRING, EQUIPMENT, ETC. INSTALL, TEST, COVER, PAINT, ETC. SAME AS NEW WORK. IF IN SEWER MANHOLE, PROVIDE FLOW CHANNEL IN

VL VERIFY EXACT LOCATION, SIZE, INVERT, ETC. IN FIELD. THIS NOTE APPLIES TO ALL PRESENT OR EXISTING UTILITIES AND CONSTRUCTION WHETHER CALLED FOR

#### PLUMBING ABBREVIATIONS

NOTE: NOT ALL ABBREVIATIONS SHOWN MAY BE REQUIRED FOR THIS PROJECT.

AC	ABOVE CEILING	PS	PIPE SLEEVE
BV	BALL VALVE	RC0	RISER CLEANOUT
BFP	BACKFLOW PREVENTER	SK	SINK
BF	BALANCING FITTING	SS	SERVICE SINK
CI	CAST IRON	SSR	SERVICE SINK RECEPTOR
CIU	CAST IRON PIPE UNDERGROUND	TFA	TO FLOOR ABOVE
CK	CHECK VALVE	TFB	TO FLOOR BELOW
CO	CLEANOUT	TMV	THERMOSTATIC MIXING VALVE
CTB	CLOSE TO BOTTOM OF BEAM	UR	URINAL
CTC	CLOSE TO CEILING	UV	UNDERFLOOR VENT
DWV	DROP TO WASTE, RAISE TO VENT FIRST FIGURE – WASTE SIZE; SECOND FIGURE – VENT SIZE	V42"	VENT LINE RUN OR CONNECTED ABOVE FLOOR BY 42"
EWC	ELECTRIC WATER COOLER	VB	VACUUM BREAKER
FB0	FURNISHED BY OTHERS	VTR	VENT THROUGH ROOF
FC0	FLOOR CLEANOUT	W	WASTE
FFA	FROM FLOOR ABOVE	WC	WATER CLOSET
FFB	FROM FLOOR BELOW	WCO	WALL CLEANOUT
GV	GATE VALVE	WF	WASH FOUNTAIN
HV	HOSE VALVE	WH	WALL HYDRANT
L	LAVATORY	WT	WATER THERMOMETER
L	LAVATORY	YCO	YARD CLEANOUT

EQUIP.

GWH-1

EQUIP.

DXT-1

HCP-1

MANUFACTURER

A.O. SMITH

SPECIFICATIONS.

1. ALL CAPACITIES LISTED ARE MINIMUM REQUIREMENTS.

2. CONTRACTOR TO SUBMIT MODIFIED PIPING DIAGRAMS IN THE EVENT

THAT ONE OF THE OTHER MANUFACTURERS LISTED IN THE SPECI-FICATIONS ARE UTILIZED IN LIEU OF MANUFACTURER LISTED ABOVE.

. CONTRACTOR TO PROVIDE INTERCONNECTING WIRING FOR HEATERS

4. CONTRACTOR SHALL BE RESPONSIBLE FOR COORDINATING

AND COMPENSATING OTHER TRADES FOR INCREASED

ELECTRICAL, REQUIREMENTS WHICH MAY OCCUR FROM

UTILIZING OTHER ACCEPTABLE EQUIPMENT.

MANUFACTURER

AMTROL

HEAD

5 28

FLANGE

1-1/4"

AS SHOWN ON WIRING DIAGRAMS, IN ACCORDANCE WITH DIVISION-16

MODEL

ST-42VC-DD (ASME)

(FT.) | SIZE (IN.) | HP | PHASE | VOLT

1/6

MODEL

BTH-150A

150,000

LAVATORY

PUMP DISCHARGE

OFFSET VENT, CONCEALED

#### WATER FLOW INFORMATION

WATER FLOW TEST INFORMATION FOR THIS PROJECT IS THE RESPONSIBILITY OF THE CONTRACTOR. CONTRACTOR SHALL CONTACT THE WINNEBAGO COUNTY WATER DEPARTMENT, ILLINOIS FOR INCOMING WATER SERVICE FLOW TEST INFORMATION AND TO SCHEDULE A CURRENT WATER FLOW TEST FOR THIS PROJECT PRIOR TO START OF WORK. CONTRACTOR SHALL PROVIDE THE DESIGN TEAM CONSISTING OF THE ARCHITECT, MEP ENGINEER, CIVIL ENGINEER, AND OWNER A COPY OF THE CURRENT WATER FLOW TEST INFORMATION CONDUCTED BY THE WINNEBAGO COUNTY WATER DEPARTMENT. FOR ADDITIONAL INFORMATION ON WATER FLOW TESTS AND SCHEDULING CONTACT THE WINNEBAGO COUNTY WATER DEPARTMENT, ILLINOIS WATER DEPARTMENT.

GAS WATER HEATER (GWH) SCHEDULE

RECOVERY

CAPACITY

148 GPH @ 120°F△T

DOMESTIC HOT WATER EXPANSION TANK (DXT) SCHEDULE

VOLUME

(GALS.)

23.0

DOMESTIC IN-LINE CIRCULATING PUMP (HCP) SCHEDULE

MOTOR

MAXIMUM ACCEPT

**FACTOR** 

.49

THERMAL

**EFFICENCY** 

(%)

97%

5. ALL UNITS SHALL BE MANUFACTURED FOR A MINIMUM 150 PSIG WORKING

7. CONCENTRIC VENT KIT PER MANUFACTURER SPECIFICATIONS AND INSTALLATION

INSTRUCTIONS. ENSURE COMPLIANCE TO APPLICABLE CODES, AND AHJ

6. PIPE T & P DOWN TO FLOOR DRAIN. ENSURE AIR GAP TO ILLINOIS PLUMBING CODE

9. PROVIDE CONDENSATE NEUTRALIZATION KIT. PIPE TO FLOOR DRAIN. ENSURE AIR GAP TO

PRECHARGED |

PRESSURE

(PSIG.)

**VENT** 

ELECTRICAL

REQUIREMENTS

5 AMP. (MAX.) 120V.

60 HZ, 1 PHASE

H/D CONN.

(IN.) (IN.)

33/15 3/4

NOTES

2,3,4,5,6,7,8,9

TANK CAPACITY

GAL.

100

8. OR APPROVED EQUAL.

ILLINOIS PLUMBING CODE AND AHJ.

BELL AND GOSSET MODEL

1 | 115 | ECOCIRC XL N 36-45 LEAD FREE STAINLESS STEEL (OR APPROVED EQUAL)

WORKING PRESSURE

(PSIG.)

150





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Web: blakemore-architects.com



#### New Building

f

### Winnebago County Forest Preserve

### Meridian Rd., Winnebago County, Illinois

THE CONTRACTOR SHALL DETERMINE EXACT DIMENSIONS AND CONDITIONS AT THE SITE PRIOR TO SUBMITTING A BID. THE CONTRACTOR SHALL COORDINATE ALL DRAWINGS WITH ACTUAL FIELD CONDITIONS PRIOR TO PROCEEDING WITH THE WORK AND NOTIFY THE ARCHITECT OF ANY DISCREPANCIES. THIS DRAWING IS THE PROPERTY OF BLAKEMORE ARCHITECTS AND MAY NOT BE REPRODUCED WITHOUT THE PRIOR WRITTEN PERMISSION OF THE ARCHITECT.

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BA Project No.

Scale

#### NO SCALE

Sheet Title

ABBREVIATIONS, NOTES, & SYMBOLS - PLUMBING

P3.01

Ref. North

Sheet No.

2025-09

ago County Natural Resources Facility\P\305—A—1 — P3.02 Schedules — Plumbing	
-1 (2025-09) Winneb	
FILE PATH AND NAME: P:\305-A-1 (;	
DATE PLOTTED: 10/24/2025 12:11 PM	

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DATE PLOTTED: 10/24/2025 12:11	
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BY: CARL FUGIEL	

					PLUMBING FIXTURE SCHEDULE
FIXTURE TAG		TIXTURE		RIM T	NOTES:
<u>BFP-1</u>	MANUFACTURER WATTS	MODEL LF009M2QTS-FS	MANUFACTURER -	MODEL _	2" LEAD FREE WATTS LF009M2QTS REDUCED PRESSURE PRINCIPLE BACKFLOW ASSEMBLY FOR PROTECTION TO THE POTABLE WATER SYSTEM, OR APPROVED EQUAL. ANSI/ASSE 1013: LEAD FREE CAST COPPER SILICON ALLOY, SILICON RUBBER DISHES, UNION CONNECTORS, QUARTER TURN VALVE, TWO IN—LINE INDEPENDENT CHECK VALVES, SWIVEL FEATURE, TEST COCKS, AND FUNNEL DRAIN. PROVIDE STRAINER. PROVIDE AIR GAP AND ROUTE TO NEAREST FLOOR SINK / FLOOR DRAIN. ENSURE AIR GAP PER ILLINOIS PLUMBING CODE AND AHJ. PROVIDE OPTION (—FS) FLOOD DETECTION SYSTEM AND COORDINATE WITH ELECTRICAL. SEE SPECIFICATION MANUFACTURERS SPECIFICATIONS AND INSTALLATION INSTRUCTIONS FOR MORE INFORMATION.
BFP-3	WATTS	LF009M3QTS	-	-	3/4" LEAD FREE WATTS LF009M3QTS REDUCED PRESSURE PRINCIPLE BACKFLOW ASSEMBLY FOR PROTECTION TO THE POTABLE WATER SYSTEM, OR APPROVED EQUAL. ANSI/ASSE 1013: LEAD FREE CAST COPPER SILICON ALLOY, SILICON RUBBER DISHES, UNION CONNECTOR QUARTER TURN VALVE, TWO IN—LINE INDEPENDENT CHECK VALVES, SWIVEL FEATURE, TEST COCKS, AND FUNNEL DRAIN. PROVIDE STRAINER. SEE SPECIFICATION MANUFACTURERS SPECIFICATIONS AND INSTALLATION INSTRUCTIONS FOR MORE INFORMATION. FOR 3/4" CW LIN NEXT TO SERVICE SINK RECEPTOR SSR—1 AND SSR—2.
EMERGENCY EYE / FACE WASH <u>EYE-1</u>	GUARDIAN	G1704BC	GUARDIAN EM EYE / FACE WASH TMV (EYE-1-TMV)	G6020	GUARDIAN EMERGENCY SAFETY WIDE AREA EYE / FACE WASH ADA COMPLIANT G1704BC FREE STANDING MOUNTED WITH STAINLESS STEEL BOWL AND BOWL PROTECTION COVER. ANSI Z358.1—2014 COMPLIANT. ADA COMPLIANT. PROVIDE GUARDIAN G LEAD FREE 6020 THERMOSTATIC MIXING VALVE FOR GUARDIAN EMERGENCY EYE / FACE WASH. GUARDIAN MIXING VALVE IS ASSE 1071 AND ANSI Z325.1—2014 COMPLIANT. THERMOSTATIC MIXING VALVE TO BE HOUSED IN MANUFACTURES PROTECTIVE LOCKING STEEL CABINET — PROVIDE LOCKING STEEL CABINET AND MOUNT ON WALL ABOVE SAFETY EYE / FACE WASH. COORDINATE LOCATION IN FIELD. PROVIDE OPTION HFC HAND AND FOOT CONTROL FOR EYE / FACE WASH ACTIVATION. INSTALL PER MANUFACTURES SPECIFICATIONS AND INSTRUCTIONS. ENSURE COMPLIANCE TO ILLINOIS PLUMBING CODE AND AHJ. COORDINATE LOCATION WITH ARCHITECT, EQUIPMENT, AND OWNER. NO SUBSTITUTIONS.
FC0	J.R. SMITH	MODEL 4021-U	-	-	LACQUERED CAST IRON, TWO PIECE BODY WITH DOUBLE DRAINAGE FLANGE, BRASS GASKETED PLUG AND ACCESSIBLE NICKLE-BRONZE ROUND VANDAL PROOF SERRATED COVER IN UNFINISHED AREAS AND ROUND WITH DEPRESSED COVER TO ACCEPT FLOOR FINISH WITH CARPET MARKERS IN CARPETED FLOOR AREAS, OR APPROVED EQUAL.
FCO-HD	JOSAM	58680	-	-	JOSAM HEAVY DUTY FLOOR CLEANOUT MODEL NUMBER 58680. ROUND COATED CAST IRON ACCESS FRAME WITH ANCHOR FLANGES AND HEAVY DUTY SCORIATED COVER. FOR USE IN FINISHED OR UNFINISHED FLOORS SUBJECT TO HEAVY WHEEL TRAFFIC, SUCH AS PARKING LOTS, WAREHOUSES, OR INDUSTRIAL AREAS. SIZE PER DRAWING PIPE SIZE, ILLINOIS PLUMBING CODE 2014, AND AHJ. HEAVY DUTY FLOOR CLEANOUT FOR DOCK AND MAINTENANCE GARAGE AREAS, OR APPROVED EQUAL.
<u>FD-1</u>	J.R. SMITH	MODEL 2010-A-6-NB	-	-	LACQUERED CAST IRON TWO PIECE BODY WITH DOUBLE DRAINAGE. 6" INCH DIAMETER HEAVY-DUTY NICKEL BRONZE SECURED SQUARE HOLE STRAINER, SEDIMENT BUCKET, VANDAL RESISTANT FASTENERS AND NOT FLASHED, OR APPROVED EQUAL.
<u>FD-2</u>	J.R. SMITH	MODEL 2010-A-7-CI	-	-	LACQUERED CAST IRON TWO PIECE BODY WITH DOUBLE DRAINAGE. 7" INCH DIAMETER STRAINER - CAST IRON (SQUARE STRAINER WITH SECURED SQUARE HOLES FOR TILE AREAS), SEDIMENT BUCKET, VANDAL RESISTANT FASTENERS AND NOT FLASHED, OR APPROVED EQUAL.
FD-HD	MIFAB	F1440	-	-	MIFAB FLOOR DRAIN WITH 12" SQUARE ADJUSTABLE TRACTOR GRATE MODEL NUMBER F1440; LACQUERED CAST IRON DEEP SUMP FLOOR DRAIN WITH ANCHOR FLANGE, WEEP HOLES, AND ADJUSTABLE COLLAR WITH STANDARD 1" THICK HINGED SQUARE DUCTILE IRON TRACTO GRATE. PROVIDE VANDAL PROOF FASTENERS, SEDIMENT BUCKET, AND MI-GUARD FLOOR DRAIN TRAP SEALER. FOR USE IN FLOOR AREAS SUBJECT TO HEAVY WHEELED TRAFFIC FOR DOCK AND MAINTENANCE GARAGE AREAS, OR APPROVED EQUAL.
FPWH-1	WOODFORD	MODEL B67	-	-	FREEZE PROOF WALL HYDRANT FPWH—1: BACKFLOW PROTECTED AUTOMATIC DRAINING FREEZE PROOF WALL HYDRANT WITH LOCKING WALL BOX MODEL B67 MANUFACTURED BY WOODFORD, AUTOMATIC DRAINING, WITH PATENTED DOUBLE CHECK BACKFLOW PREVENTER, ASSE STANDARD 1052 APPROVED. 3/4" INLET & OUTLET, OR APPROVED EQUAL. CONTRACTOR TO DETERMINE LENGTH IN FIELD. COORDINATE IN FIELD. INSURE COMPLIANCE TO ILLINOIS PLUMBING CODE.
<u>FS-1</u>	J.R. SMITH	MODEL 3151-12	-	-	12" x 12" x 8" DEEP CAST IRON BODY, ACID RESISTANT COATED INTERIOR FLOOR SINK, NICKEL BRONZE HALF GRATE AND SEDIMENT BUCKET WITH RUBBER FEET; MODEL 3151-12 MANUFACTURED BY J.R. SMITH CO, OR APPROVED EQUAL.
<u>L-1</u>	AMERICAN STANDARD	LUCERNE 0355.012	MOEN	8210 F12	WHITE VITREOUS CHINA, HANDICAPPED WALL HUNG LAVATORY 21" X 18" WITH 4" HIGH BACK ON 4" CENTERS, OVERFLOW AND SOAP DEPRESSION, OR APPROVED EQUAL. MOUNT AT HEIGHT AS INDICATED ON ARCHITECTURAL, ENSURE ADA COMPLIANCE. PROVIDE CHROME PLATED VANDAL RESISTANT COMBINATION SUPPLY FITTING WITH OFFSET GRID STRAINER AND TAILPIECE, CHROME PLATED 17 GAUGE P-TRAP WITHOUT CLEANOUT (INSTALLED PARALLEL TO WALL), G2 QUARTER TURN STOPS, CHROME PLATED BRASS SUPPLIES, AND CHROME PLATED STEEL WALL ESCUTCHEONS. FAUCET MOEN MODEL 8210 F12 1.2 GPM AERATOR — VANDAL RESISTANT, QUARTER TURN HANDLES — VANDAL RESISTANT, OR APPROVED EQUAL. TMV WATTS LFUSG—B-M2. PROVIDE UNDER SINK PROTECTIVE PIPE COVERING BY TRUBRO FOR P-TRAP, TAIL PEACE, ANGLE VALVES, SUPPLY TUBING, AND TMV. PROVIDE CARRIER.
<u>LT-1</u>	MUSTEE	19CFT	MUSTEE	INTEGRAL	MUSTEE 19CFT 24" X 24" X 14" OUTSIDE DIMENSIONS, SINGLE BASIN, THERMO PLASTIC, 3-1/2" STAINLESS STEEL CRUMB CUP AND DRAIN, 1-1/2" CHROME PLATED 17 GAUGE BRASS P-TRAP WITHOUT CLEANOUT, LEDGE BACK 3-HOLE DRILLED FOR TRIM. INTEGRAL FAUCET: ANSI A112.18.1 COMPLIANT DOUBLE HANDLE CHROME PLATED BRASS FITTINGS WITH 6" SWING BRASS SUPPLY FITTING WITH RENEWABLE AND INTERCHANGEABLE SPOUT AND WATER AERATOR MANUFACTURED BY MUSTEE, OR APPROVED EQUAL. PROVIDE CHROME PLATED 17 GAUGE BRASS P-TRAP WITHOUT CLEANOUT, G2 QUARTER TURN STOPS, CHROME PLATED BRASS SUPPLIES, CHROME PLATED STEEL WALL ESCUTCHEONS, AND TMV WATTS LFUSG-B-M2.
<u>SK-1</u>	ELKAY	LRAD312265PD	CHICAGO FAUCET	1100-L9-317XKABCP	ELKAY LUSTERTONE CLASSIC STAINLESS STEEL 33" X 22" X 6-1/2" SINGLE BOWL DROP IN ADA COMPLIANT SINK WITH PERFECT DRAIN MODEL NUMBER LRAD332265PD. PROVIDE 17 GAUGE BRASS P-TRAP WITHOUT CLEANOUT, 1/2" SUPPLIES, QUARTER TURN G2 STOPS, TMV, AND ESCUTCHEONS. FAUCET: CHICAGO FAUCET ADA COMPLIANT MANUAL SINK FAUCET MODEL 1100-L9-317XKABCP, DECK MOUNTED, 9-1/2" L TYPE SWING SPOUT, 8" FIXED CENTERS, PRESSURE COMPENSATING 2.2 GPM AERATOR, VANDAL PROOF 4" WRISTBLADE HANDLES, CERAMIC 1/4-TURN HANDLES, OR APPROVED EQUAL. ENSURE ADA COMPLIANCE.
<u>SH-1</u>	-	-	SYMMONS	9605-PLR	SHOWER UNIT TRIM ONLY. PROVIDE ADA COMPLIANT SHOWER TRIM ONLY. SYMMONS ORIGINS 9605-PLR ADA COMPLIANT SHOWER / HAND SHOWER TRIM, OR APPROVED EQUAL. SYMMONS TEMP-TROL PRESSURE BALANCING SHOWER VALVE, SYMMONS DUAL OUTLET DIVERTER VALVE, AND SYMMONS STOP SCREW TO LIMIT HANDEL TURN ARE ALL INCLUDED WITH THE 9605-PLR KIT. METAL LEVER HANDLES, ADA 36" GRAB BARS FOR HAND SHOWER, DUAL CHECKS FOR BACKFLOW PROTECTION, 60" FLEXIBLE METAL HOSE, ONE ADA MODE HAND SHOWER WAND WITH NON-POSITIVE SHUTOFF, ONE MODE SHOWER HEAD WITH EASY TO CLEAN NOZZLES, 2.0 GPM FLOW RESTRICTION, PROVIDE OPTIONAL IN-LINE VACUUM BREAKER = P/N EF-109. PROVIDE AN ASSE 1070 TEMPERATURE LIMITING DEVICE TMV AHEA OF EACH SHOWER VALVE IN AN ACCESSIBLE LOCATION. PROVIDE ACCESS HATCH FOR ASSE 1070 TMV FOR ACCESS AND COORDINATE WITH ARCHITECTURAL. ENSURE ENTIRE INSTALLATION IS ADA COMPLIANT AND COMPLIANT TO ILLINOIS PLUMBING CODE AND AHJ.
SH-1 DRAIN	JUST MANUFACTURING	J-35-FS	-	-	JUST MANUFACTURING CO. CHROME PLATED BRASS DRAIN WITH FLAT STRAINER MODEL NO. J-35-FS, OR APPROVED EQUAL.
<u>SSR-1</u>	MUSTEE	63M	CHICAGO FAUCET	897-RCF	DURASTONE STRUCTURAL FIBER GLASS 24" x 24" x 10" SINK WITH STAINLESS STEEL BUMPER GUARD CAPS, 3" P-TRAP WITH ADJUSTABLE FLOOR FLANGE. FAUCET: CHICAGO FAUCET MODEL 897-RCF; LEVER HANDLES, INTERNAL STOP VALVES, VACUUM BREAKER SPOUT WITH PAIL HOOK AND WALL SUPPORT, 3/4" THREADED HOSE CONNECTION, FEMALE UNION NUT SUPPLY ARMS. PROVIDE MUSTEE HOSE HANGER AND HOSE. PROVIDE MUSTEE MOP HANGER. PROVIDE TWO SIDED 12" HIGH 20 GAUGE 304 STAINLESS STEEL DURAGUARD WALL GUARDS AND BRACKET FOR 24" X 24" CORNER - PART NUMBER 67.2424 - AS PER MUSTEE, OR APPROVED EQUAL.
<u>SSR-2</u>	MUSTEE	65M	CHICAGO FAUCET	897-RCF	DURASTONE STRUCTURAL FIBER GLASS 24" x 36" x 10" SINK WITH STAINLESS STEEL BUMPER GUARD CAPS, 3" P-TRAP WITH ADJUSTABLE FLOOR FLANGE. FAUCET: CHICAGO FAUCET MODEL 897-RCF; LEVER HANDLES, INTERNAL STOP VALVES, VACUUM BREAKER SPOUT WITH PAIL HOOK AND WALL SUPPORT, 3/4" THREADED HOSE CONNECTION, FEMALE UNION NUT SUPPLY ARMS. PROVIDE MUSTEE HOSE HANGER AND HOSE. PROVIDE MUSTEE MOP HANGER. PROVIDE TWO SIDED 12" HIGH 20 GAUGE 304 STAINLESS STEEL DURAGUARD WALL GUARDS AND BRACKET FOR 24" X 36" CORNER - PART NUMBER 97.2436 - AS PER MUSTEE, OR APPROVED EQUAL
TD-HD-1	ZURN	Z882 12 X 96	-	-	ZURN HEAVY DUTY Z882 12 X 96 TRENCH DRAIN WITH Z-DGE-USA LOAD CLASS E HEAVY DUTY DUCTILE IRON GRATE - MADE IN USA, OR APPROVED EQUAL. INSTALL PER MANUFACTURES SPECIFICATIONS AND INSTRUCTIONS. ENSURE COMPLIANCE TO ILLINOIS PLUMBING CODE AND AHJ.
TD-HD-1-CB	ZURN	Z887-12-HD 12 X 24	-	-	ZURN HEAVY DUTY Z887-12-HD 12 X 24 TRENCH DRAIN CATCH BASIN WITH Z-DGE-USA LOAD CLASS E HEAVY DUTY DUCTILE IRON GRATE - MADE IN USA, OR APPROVED EQUAL. FOR USE IN MAINTENANCE AREAS, WASH BAY, AND AREAS INDICATED - SEE PLANS. INSTALL PER MANUFACTURES SPECIFICATIONS AND INSTRUCTIONS. ENSURE COMPLIANCE TO ILLINOIS PLUMBING CODE AND AHJ.
<u>WB-1</u>	GUY GRAY	82172	-	-	GUY GRAY STAINLESS STEEL WASHING MACHINE OUTLET BOX WITH 1/2" QUARTER TURN SWEAT VALVES — TOP MOUNTED — AND 2" OUTLET DRAIN WITH 2" RUBBER WASHER AND LOCK NUT MODEL # 82172, OR APPROVED EQUAL. COORDINATE LOCATION WITH ARCHITECTURAL, EQUIPMENT, AND WITH OWNER. PROVIDE WATTS LEAD FREE WATER HAMMER ARRESTORS IN AN ACCESSIBLE LOCATION. SEE SPECIFICATIONS. ENSURE COMPLIANCE WITH ILLINOIS PLUMBING CODE AND AHJ.
<u>WC-1</u>	AMERICAN STANDARD	CHAMPION PRO 1.28 GPF 211AA.104 (LEFT HAND) – 211AA.105 (RIGHT HAND)	-	-	FLOOR MOUNTED, ELONGATED BOWL, FLUSH TANK TYPE, ADA HEIGHT, WHITE VITREOUS CHINA WITH EVERCLEAN SURFACE, 1.28 GPF AND 2-3/8" TRAPWAY, OR APPROVED EQUAL. NOTE: TRIP LEVER IS TO BE ON ACCESS SIDE FOR ADA COMPLIANCE - USE CORRECT MODEL TANK FOR RIGHT OR LEFT HAND ACCESS - SEE FLOOR PLAN. ENSURE INSTALLATION IS PER MANUFACTURER SPECIFICATIONS AND INSTALLATIONS INSTRUCTIONS, ILLINOIS PLUMBING CODE, AND AHJ. PROVIDE ELONGATED OPEN FRONT WHITE ANTI-MICROBIAL SEAT WITHOUT COVER. REFER TO FLOOR PLANS FOR LOCATIONS AND COORDINATE WITH OWNER.
<u>wco</u>	J.R. SMITH	MODEL 4532-U	-	-	LINE TYPE WITH LACQUERED CAST IRON BODY AND ROUND BRASS GASKETED PLUG AND ROUND STAINLESS STEEL ACCESS COVER SECURED WITH VANDAL PROOF FASTENERS, OR APPROVED EQUAL.
YCO-HD	JOSAM	MODEL 58680	-	-	JOSAM HEAVY DUTY YARD CLEANOUT MODEL 58680, OR APPROVED EQUAL. ROUND COATED CAST IRON ACCESS FRAME WITH ANCHOR FLANGES AND HEAVY DUTY SCORIATED COVER. FOR USE IN FINISHED OR UNFINISHED FLOORS SUBJECT TO HEAVY WHEEL TRAFFIC, SUCH AS PARKING LOTS, WAREHOUSES, OR INDUSTRIAL AREAS. SIZE PER DRAWING PIPE SIZE, ILLINOIS PLUMBING CODE 2014, AND AHJ.
YCO-HD	J.R. SMITH	MODEL 4253 S-U	-	-	ROUND FLANGED HOUSING WITH HEAVY DUTY CAST IRON COVER FOR USE IN OUTSIDE AREAS. HIGH FLANGE FOR USE IN CONCRETE AREAS OR ASPHALT PAVING. SPIGOT TYPE OUTLET. HOUSING IS COMPLETELY FREE OF PIPING SO THAT NO LOAD IS TRANSMITTED TO THE PIPE. SECURE WITH VANDAL PROOF FASTENERS. OR APPROVED EQUAL.
TMV	WATTS	LFUSG-B-M2	-	-	ASSE 1070 APPROVED PIPE MOUNTED THERMOSTATIC MIXING VALVE FOR UNDER LAVATORY SINK L-1, SINK SK-1 INSTALLATION. NO SUBSTITUTIONS. NOTE: THIS TMV IS NOT FOR MB-1 AS THE WALL MOUNTED MOP SINK USES A LEONARD LEAD FREE MODEL 270-LF IN AN ACCESSIBLE LOCATION, PROVIDE ACCESS HATCH AS REQUIRED AND COORDINATE WITH ARCHITECTURAL, STRUCTURAL, EQUIPMENT, AND OWNER.
BACKWATER VALVE	J.R. SMITH	-	-	-	6" BACKWATER VALVE WITH BOLTED COVER MANUFACTURED BY J.R. SMITH, OR APPROVED EQUAL. INSTALL PER MANUFACTURES INSTALLATION INSTRUCTIONS AND SPECIFICATIONS. INSTALL WITH HEAVY DUTY TRAFFIC RATED COVER — PROVIDE TRAFFIC RATED SLEEVE FOR TRAFFIC RATED COVER AS REQUIRED. THIS VALVE WILL BE INSTALLED IN A HEAVY TRAFFIC AREA AND SHALL BE RATED FOR HEAVY TRAFFIC. ENSURE COMPLIANCE TO ILLINOIS PLUMBING CODE AND AHJ.





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# New Building

for

# Winnebago County Forest Preserve

#### Meridian Rd., Winnebago County, Illinois

THE CONTRACTOR SHALL DETERMINE EXACT DIMENSIONS AND CONDITIONS AT THE SITE PRIOR TO SUBMITTING A BID. THE CONTRACTOR SHALL COORDINATE ALL DRAWINGS WITH ACTUAL FIELD CONDITIONS PRIOR TO PROCEEDING WITH THE WORK AND NOTIFY THE ARCHITECT OF ANY DISCREPANCIES. THIS DRAWING IS THE PROPERTY OF BLAKEMORE ARCHITECTS AND MAY NOT BE REPRODUCED WITHOUT THE PRIOR WRITTEN PERMISSION OF THE ARCHITECT.

NO.	DATE	DESCRIPTION
1)	05-08-2025	Initial Layout
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BA Project No.

#### NO SCALE

Sheet Title

#### SCHEDULES - PLUMBING

Ref. North

Sheet No.

P3.02



PIPE MAY EXTEND

AS WASTE OR VENT.

PROVIDE CLEANOUT TEE

WITH SCREWED COUNTER-

SUNK ABS PLASTIC PLUG:

/ HUB AT FLOOR

RISER LENGTH

PROVIDE WCO WHERE SHOWN ON PLAN, AND ON SANITARY WASTE BRANCHES NOT SERVED WITH A FLOOR CLEANOUT:

**WALL CLEAN OUT DETAIL** 

LOCATE ABOVE FIXTURE FLOOD RIM WITHIN 4' OF FLOOR.

AS REQUIRED

LONG SWEEP AT END OF LINE

OR COMBINATION WYE AND

MEMBRANE CLAMP -

TAPERED-THREAD WITH

TFE JOINT COMPOUND.

CONCRETE

EIGHTH BEND IN

RUN OF LINE.

2 P4.01

AS REQUIRED FOR

DEPTH OF SEWER

HUB AND SPIGOT

CAST IRON PIPE

BELOW FLOOR.

SANITARY

SEWER LINE

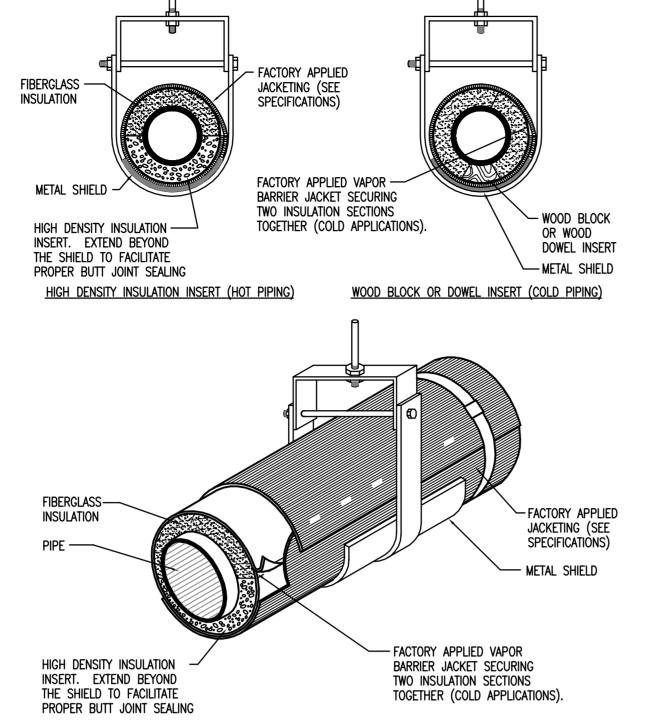
IDENTIFICATION MARKERS OR STRIPS TO BE PLACED ON ALL EXPOSED COVERED AND UNCOVERED PIPES AT 50'-0" INTERVALS AND AT ALL VALVES AND BRANCHES AND ON BOTH SIDES OF WALLS WHERE PIPES PASS THROUGH SAME. ARROWS OF SAME COLOR AS IDENTIFICATION MARKERS SHALL ALSO BE PLACED ON PIPES POINTING AWAY FROM MARKER INDICATING DIRECTION OF FLOW.

SIZE OF LEGEND LETTERS

OUTSIDE DIAMETER	LENGTH OF	SIZE OF
OF PIPE OR	COLOR FIELD	LETTERS
COVERING	A	B
3/4" TO 1-1/4"	8"	1/2"
1-1/2" TO 2"	8"	3/4"
2"-1/2" TO 6"	12"	1-1/4"
8" TO 10"	24"	2-1/2"
OVER 10"	32"	3-1/2"

SERVICE	BACKGROUND OR COLOR BAND	IDENTIFICATION MARKER
CITY WATER DOMESTIC COLD WATER DOMESTIC HOT WATER FIRE PROTECTION (SPRINKLER) NATURAL GAS SANITARY DRAIN	GREEN GREEN YELLOW RED YELLOW GREEN	WHITE ON GREEN WHITE ON GREEN BLACK ON YELLOW WHITE ON RED BLACK ON YELLOW WHITE ON GREEN
STORM WATER	GREEN	WHITE ON GREEN

TYPICAL PIPE IDENTIFICATION MARKERS



**CLEVIS HANGER HIGH** DENSITY INSERT DETAIL

> - STEEL HANGER ROD (SEE SPECIFICATIONS) -SUPPORT FROM STEEL BEAM, JOIST OF CHANNEL IRON BETWEEN JOISTS.

· CONTRACTOR SHALL PROVIDE CLEVIS HANGER —

- WATER PIPE

PIPE INSULATION —

(SEE SPECIFICATIONS)

BLOCKING OF HIGH DENSITY -

INSULATION PROTECTION SHIELD SCHEDULE

UP TO 3/4" 8" 20 GA.

2-1/2" TO 4" 12" 16 GA. 5" TO 6" 18" 16 GA.

8" AND UP 24" 14 GA.

— 360° METAL PIPE COVER AT U-BOLT

PIPE SIZE LENGTH ("L") MIN. GAUGE

12" 18 GA.

RIGID INSULATION

PIPE COVERING PROTECTION SHIELDS

AND CLEVIS HANGER DETAIL

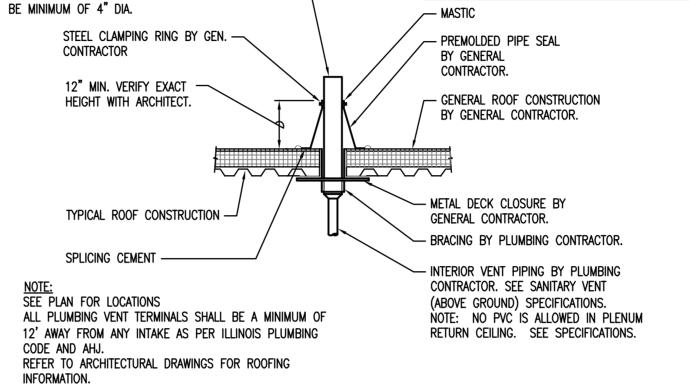
STEEL SUPPORT ROD, MOUNT FROM JOIST, BEAM

OR CONCRETE DECK.

16 GA.

OF SIZE TO FIT AROUND PIPE COVERING O.D.

NOTE: NO HORIZONTAL PIPE HANGERS TO BE SPACED FURTHER THAN 10'-0" APART.



NOTE: REFER TO ARCHITECTURAL DRAWINGS

FOR ACTUAL ROOF CONSTRUCTION

\_\_ 4" PVC INTAKE / EXHAUST

L<sub>1</sub> 1/2" CONNECTION

- ASME RELIEF VALVES

- GAS COCK

GAS VALVE.

NOTE: ENSURE COMPLETE INSTALLATION IS

COMPLIANT TO ALL APPLICABLE ILLINOIS

CODES AND AHJ.

-120V. GAS SOLENOID VALVE

LOCATE AHEAD OF HEATER

PIPE VENT INCREASER BY PLUMBING CONTRACTOR.

INCREASE TO A MINIMUM OF 4" DIA. AT 12 INCHES

BELOW THE ROOF LINE AND 12 INCHES ABOVE THE

ROOF LINE. ALL STACK VENTS THRU ROOF SHALL

SEE PLUMBING DRAWINGS. VENT STACK SHALL



AQUASTAT SET FOR 120°F.

1-1/2" CW —

NOTE: STORAGE TANK-TYPE WATER HEATERS AND HOT WATER STORAGE

TANKS THAT HAVE VERTICAL WATER

PIPING CONNECTION TO THE INLET

AND OUTLET OF THE TANK SHALL BE PROVIDED WITH AN INTEGRAL

HEAT TRAP. INSTALL PER ILLINOIS

THERMAL EXPANSION TANK.

MOUNT TIGHT TO CEILING

AND FIELD INSULATE WITH

1" FIBERGLASS INSULATION

AND ALL SERVICE JACKET.

<u>DTX-1</u> FLOOR MOUNTED

NO SCALE

EXPANSION TANK.

NOTE: THIS DETAIL IS FOR

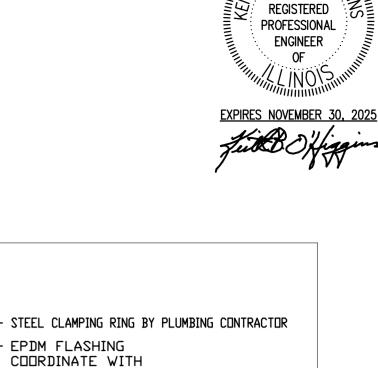
NEW DOMESTIC WATER HEATER (GWH-1)

PLUMBING CODE AND AHJ.

VACUUM -

RELIEF

VALVE



ROOFING CONTRACTOR

FOR SIZE AND LOCATION

ROOFING BY GENERAL CONTRACTOR

✓ INSULATION - BY GENERAL CONTRACTOR

NOTE: REFER TO ARCHITECTURAL DRAWINGS

FOR ACTUAL ROOF CONSTURCTION

10 PLUMBING VENT THROUGH ROOF

- METAL DECK CLOSURE - BY GENERAL CONTRACTOR

- PIPE INCREASER - BY PLUMBING

CONTRACTOR SEE PLUMBING DWGS.



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Meridian Rd. Winnebago County, Illinois

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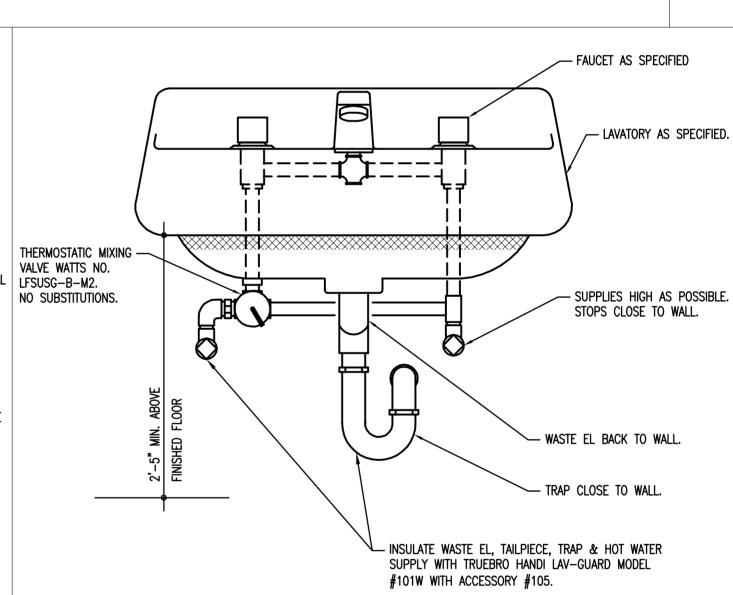
BA Project No.

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Scale



ADD BOOT. —

TURN DOWN FLASHING MINIMUM OF 1". -

2'-6" MIN. VERIFY EXACT

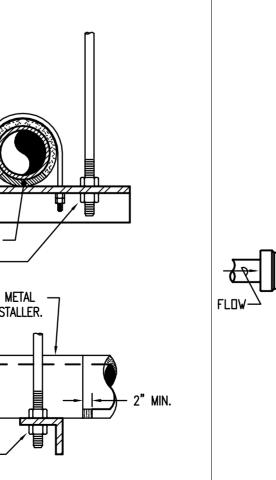
HEIGHT WITH ARCHITECT.

ROOF DECK

BRACE BY PLUMBING CONTRACTOR -

VENT RISER BY PLUMBING CONTRACTOR—

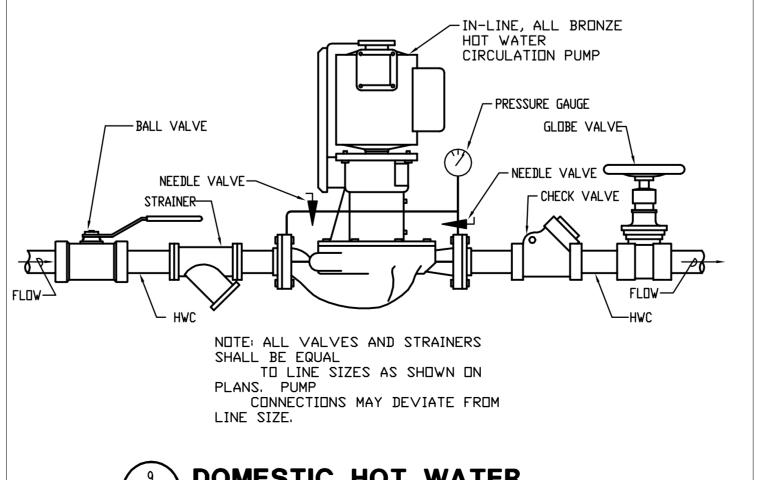






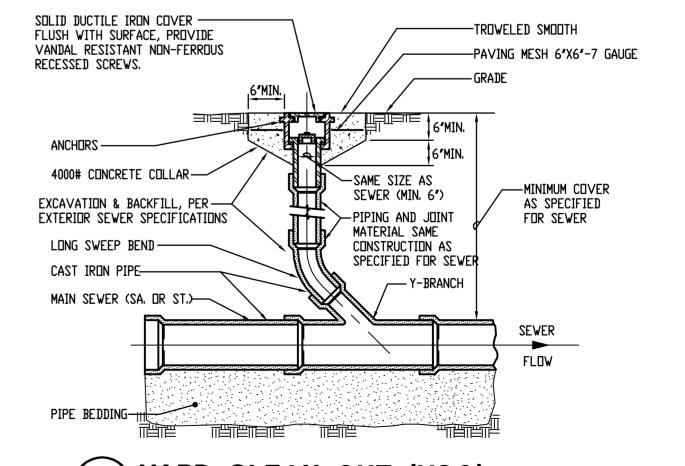
MIN 12" LONG.

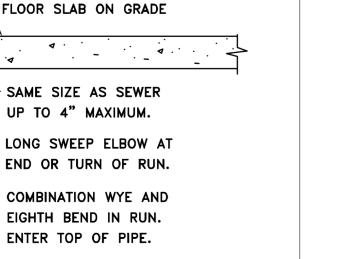
HIGH DENSITY INSULATION — SUPPORT NUT —



DOMESTIC GAS HOT WATER HEATER PIPING DIAGRAM







LOCKING NUT

SUPPORT NUT -

VAPOR BARRIER -

- SEE SPECIFICATIONS FOR

LOCKING NUT -

STEEL CHANNEL OR

ANGLE IRON TRAPEZE

5" & 6"

INSULATION PROTECTION SHIELD SCHEDULE

PIPE SIZE LENGTH ("L") | MIN. GAUGE

UP TO 3" 12" 18 GA.

8" AND UP 24" 14 GA.

EACH SIDE OF

CHANNEL

PIPE INSULATION TYPE AND

GALVANIZED STEEL SHEET METAL PIPE SHIELD BY INSULATION INSTALLER.

**JACKET** 

LONG SWEEP ELBOW AT END OR TURN OF RUN. COMBINATION WYE AND EIGHTH BEND IN RUN. ENTER TOP OF PIPE.

SAME SIZE AS SEWER

UP TO 4" MAXIMUM.

COLUMN OR

**PARTITION** 

AS SHOWN

ON FLOOR

**CLEANOUT** FACE SHALL

BE WITHIN 4" OF WALL

SURFACE.

SION IF

REQUIRED.

PIPE EXTEN-

PLAN.

OF FLOW LOCATE AT BUILDING EXIT, AT ENDS OF RUNS, AT TURNS OF PIPE GREATER THAN 45 DEGREES, AT 90' INTERVALS ON STRAIGHT RUNS, AND/OR WHERE SHOWN ON PLANS. LOCATE CLEANOUTS WHERE THERE IS 18" CLEAR AROUND.

FLOOR CLEAN OUT DETAIL

NO SCALE

HIGH DENSITY PIPE INSULATION — 360° GALVANIZED STEEL SHEET METAL PIPE SHIELD BY INSULATION INSTALLER.

YARD CLEAN OUT (YCO) P4.01

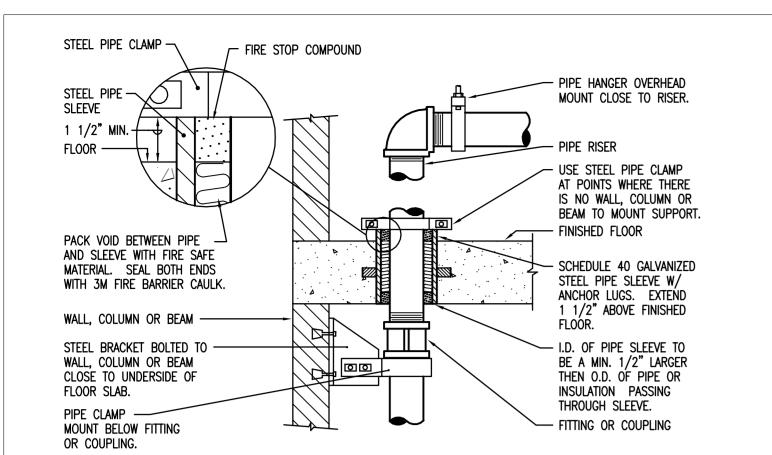
PROFESSIONAL DESIGN FIRM REGISTRATION # 184-003342

**DETAILS - PLUMBING** 

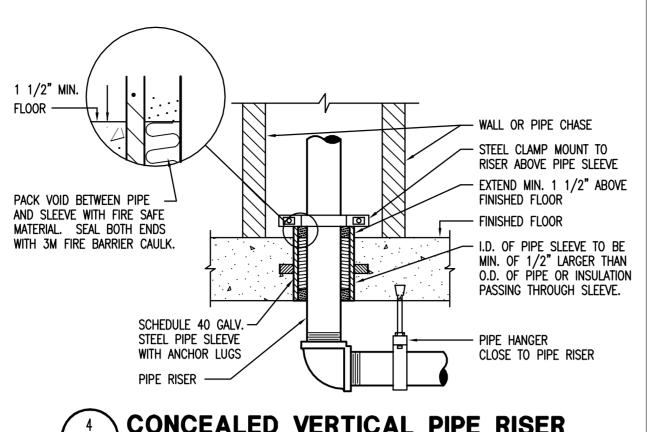
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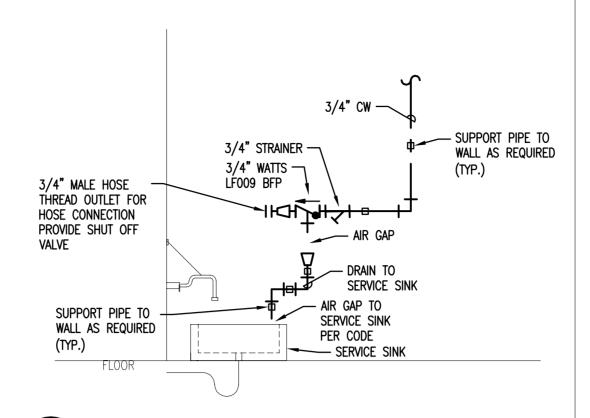




#### EXPOSED VERTICAL PIPE RISER SUPPORT DETAIL P4.02 NO SCALE

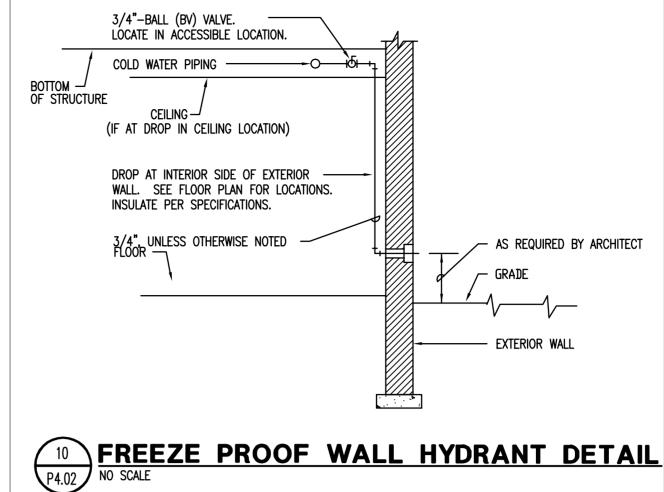


**CONCEALED VERTICAL PIPE RISER** SUPPORT DETAIL



**WATTS LF009 BFP DIAGRAM** P4.02

<u>GUIDELINES</u>



REGISTERED PROFESSIONAL Engineer OF



400 N. First Street Rockford, IL 61107 Telephone: 815-227-0023 Brian@m-b-arch.com Email: blakemore-architects.com Web:



**New Building** 

for

Winnebago County **Forest Preserve** 

Meridian Rd. Winnebago County, Illinois

THE CONTRACTOR SHALL DETERMINE EXACT DIMENSIONS AND CONDITIONS AT THE SITE PRIOR TO SUBMITTING A BID. THE CONTRACTOR SHALL COORDINATE ALL DRAWINGS WITH ACTUAL FIELD CONDITIONS PRIOR TO PROCEEDING WITH THE WORK AND NOTIFY THE ARCHITECT OF ANY DISCREPANCIES. THIS DRAWING IS THE PROPERTY OF BLAKEMORE ARCHITECTS AND MAY NOT BE REPRODUCED WITHOUT THE PRIOR WRITTEN

PERMISSION OF THE ARCHITECT

NO	. DATE	DESCRIPTION
1)	05-08-2025	Initial Layout
2)	08-07-2025	Schematic Design
3)	08-27-2025	Design Development
4)	10-17-2025	Final Owner Review Set
5)	10-27-2025	Issued for Bids / Permit

BA Project No.

Scale

NO SCALE

Sheet Title

**DETAILS - PLUMBING** 

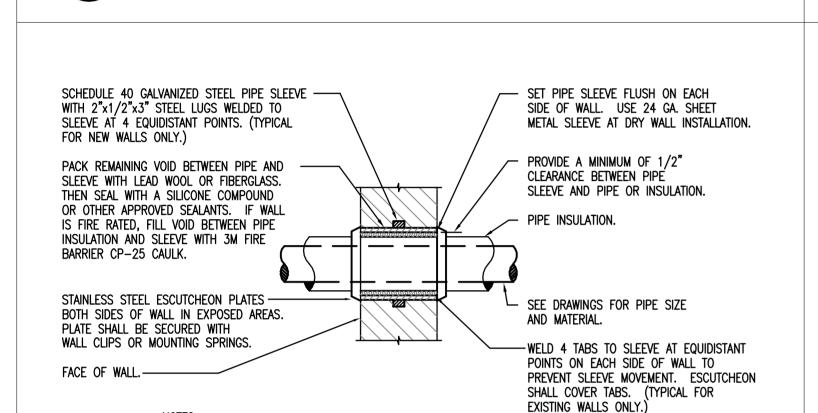
2025-09

Sheet No.

Ref. North

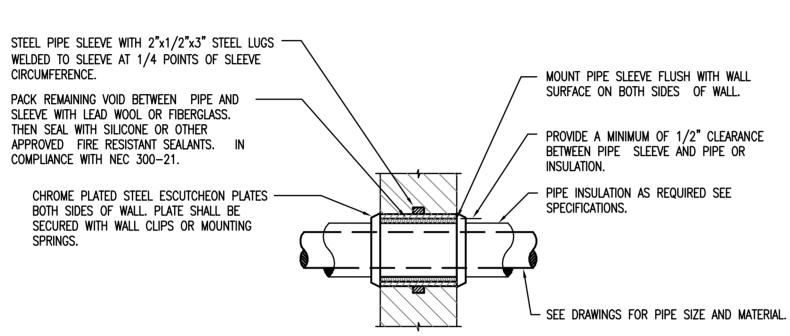
P4.02

PROFESSIONAL DESIGN FIRM REGISTRATION # 184-003342



- 1. I.D. OF OF PIPE SLEEVE TO BE A MIN. OF 1/2" LARGER THAN O.D. OF PIPE OR INSULATION PASSING THROUGH WALL.
- 2. CONTRACTOR SHALL BE RESPONSIBLE FOR THE COORDINATION OF THEIR SLEEVES WITH OTHER TRADES AND/OR CONTRACTORS.
- 3. PIPE SLEEVES THRU SMOKE OR FIRE WALLS SHALL BE IN COMPLIANCE WITH NFPA-90A.

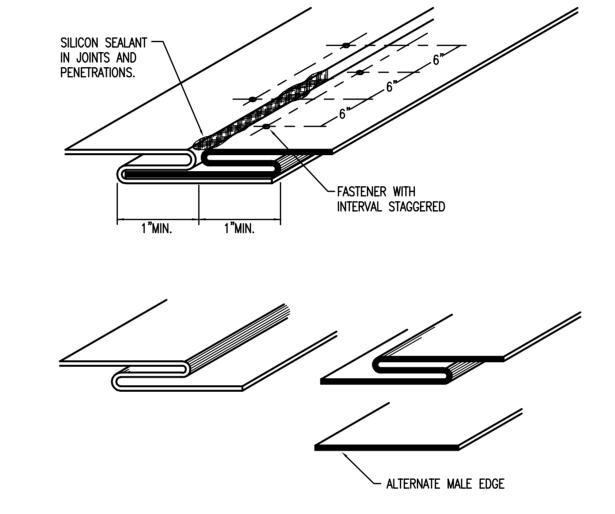




P4.02

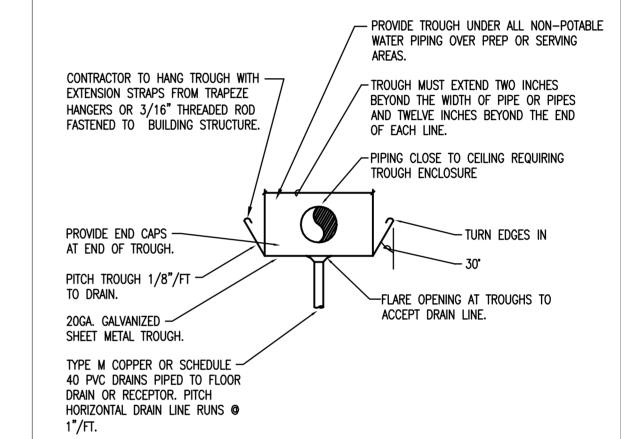
- CONTRACTOR SHALL ISOLATE ALL PIPES FROM CONSTRUCTION WHICH VIBRATE IN ORDER TO AVOID TRANSMISSION TO STRUCTURE.
- CONTRACTOR SHALL BE RESPONSIBLE FOR THE COORDINATION OF THEIR SLEEVES WITH OTHER TRADES AND/OR CONTRACTORS.
- 3. PIPE SLEEVES THRU SMOKE OR FIRE WALLS SHALL BE IN COMPLIANCE WITH NFPA-90A.
- 4. CONTRACTOR MAY ELIMINATE ESCUTCHEON PLATE ON CONCEALED PIPE SLEEVE.

# **EXPOSED PIPE SLEEVE THRU INTERIOR WALL** NO SCALE

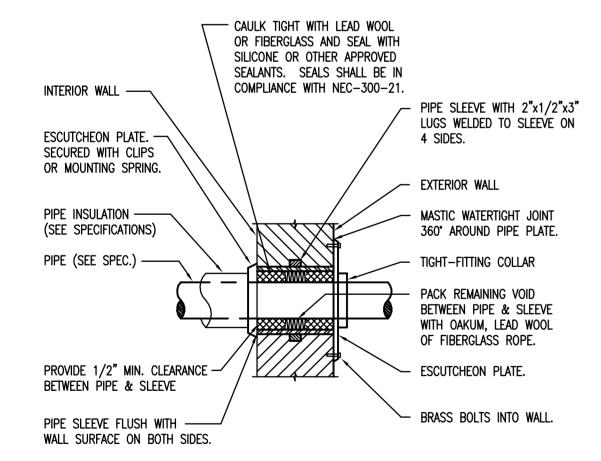


SHEET METAL TROUGH JOINT DETAIL P4.02 NO SCALE

PROPOSED SEWER LINE <u>BELOW</u> <u>EXISTING</u> SEWER LINE WITH 18' MINIMUM SEPARATION.



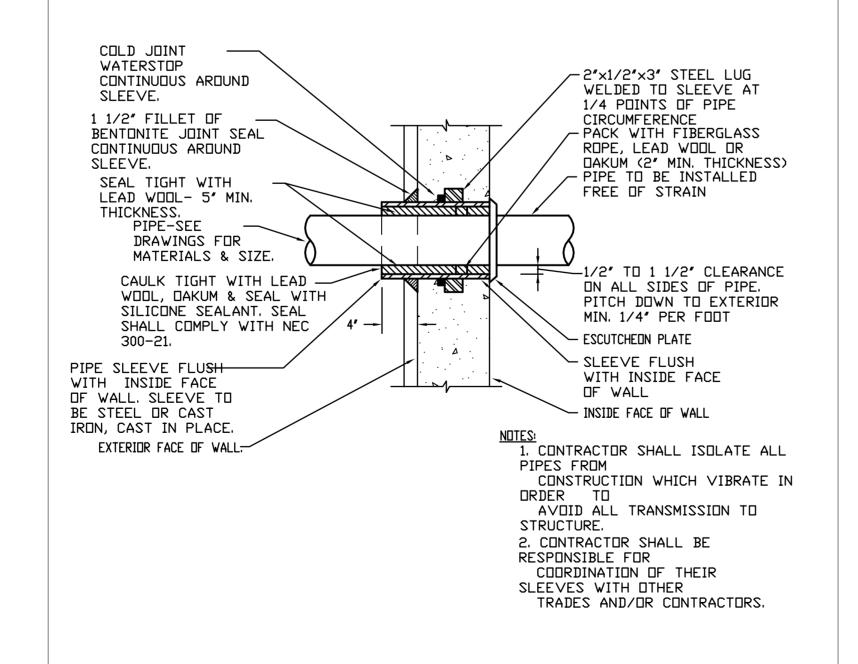
SECTION THRU PIPE TROUGH P4.02



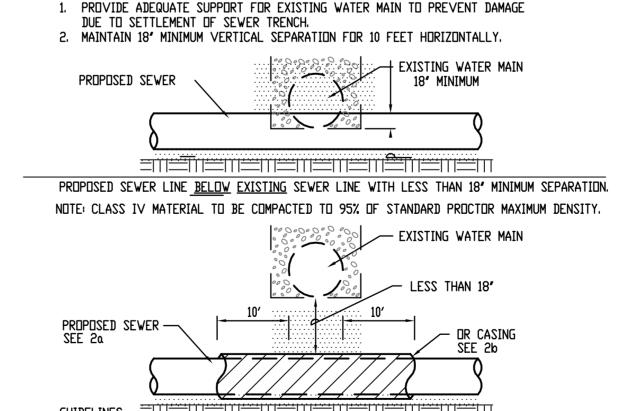
NOTES:

- 1. CONTRACTOR SHALL ISOLATE ALL PIPES FROM CONSTRUCTION WHICH VIBRATE IN
- ORDER TO AVOID TRANSMISSION TO STRUCTURE.
- 2. CONTRACTOR SHALL BE RESPONSIBLE FOR THE COORDINATION OF THEIR SLEEVES WITH OTHER TRADES AND/OR CONTRACTORS. 3. PIPE SLEEVES THRU SMOKE OR FIRE WALLS SHALL BE IN COMPLIANCE WITH

PIPE SLEEVE THRU EXTERIOR WALL



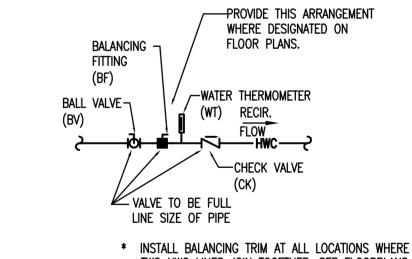
6 UNDERGROUND PIPE SLEEVE THRU FOUNDATION



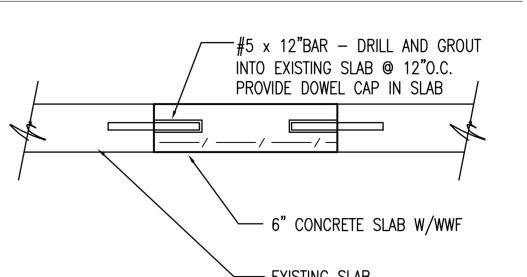
1. DMIT SELECT GRANULAR CRADLE AND GRANULAR BACKFILL TO DNE (1) FOOT OVER TOP OF PIPE AND USE SELECT EXCAVATED MATERIAL (CLASS IV) AND COMPACT FOR 10

- FEET ON EITHER SIDE OF WATER MAIN. 2. a. CONSTRUCT 10 FEET OF PROPOSED SEWER OF WATER MAIN MATERIAL AND
- b. USE 10 FEET OF CASING FOR PROPOSED SEWER AND SEAL ENDS OF CASING. 3. POINT LOADS SHALL NOT BE ALLOWED BETWEEN SEWER OR SEWER CASING AND
- 4. PROVIDE ADEQUATE SUPPORT FOR EXISTING WATER MAIN TO PREVENT DAMAGE DUE TO SETTLEMENT OF SEWER TRENCH.

WATER AND SEWER SEPARATION REQUIREMENTS **VERTICAL SEPARATION** ND SCALE



TWO HWC LINES JOIN TOGETHER. SEE FLOORPLANS. **HOT WATER RECIRCULATING BALANCING TRIM DETAIL** 



SLAB PATCHING DETAIL P4.02 NO SCALE

