

626 MacMillian Dr.
Dedicated Outdoor Air System

FOR
UNCWilmington

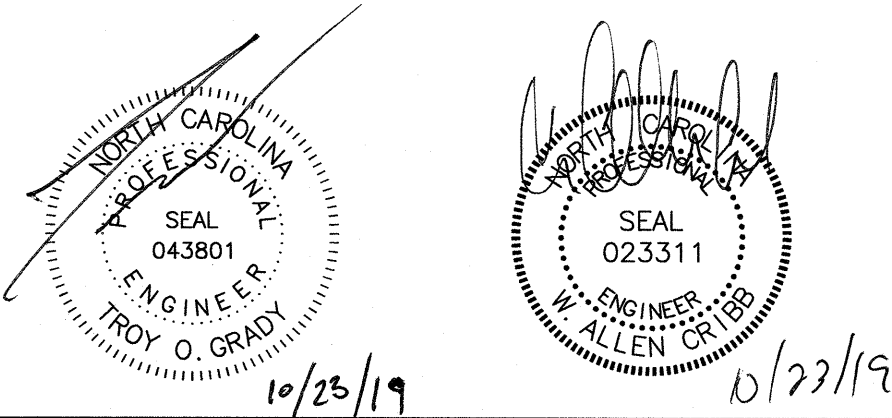
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Wilmington, NC 28405



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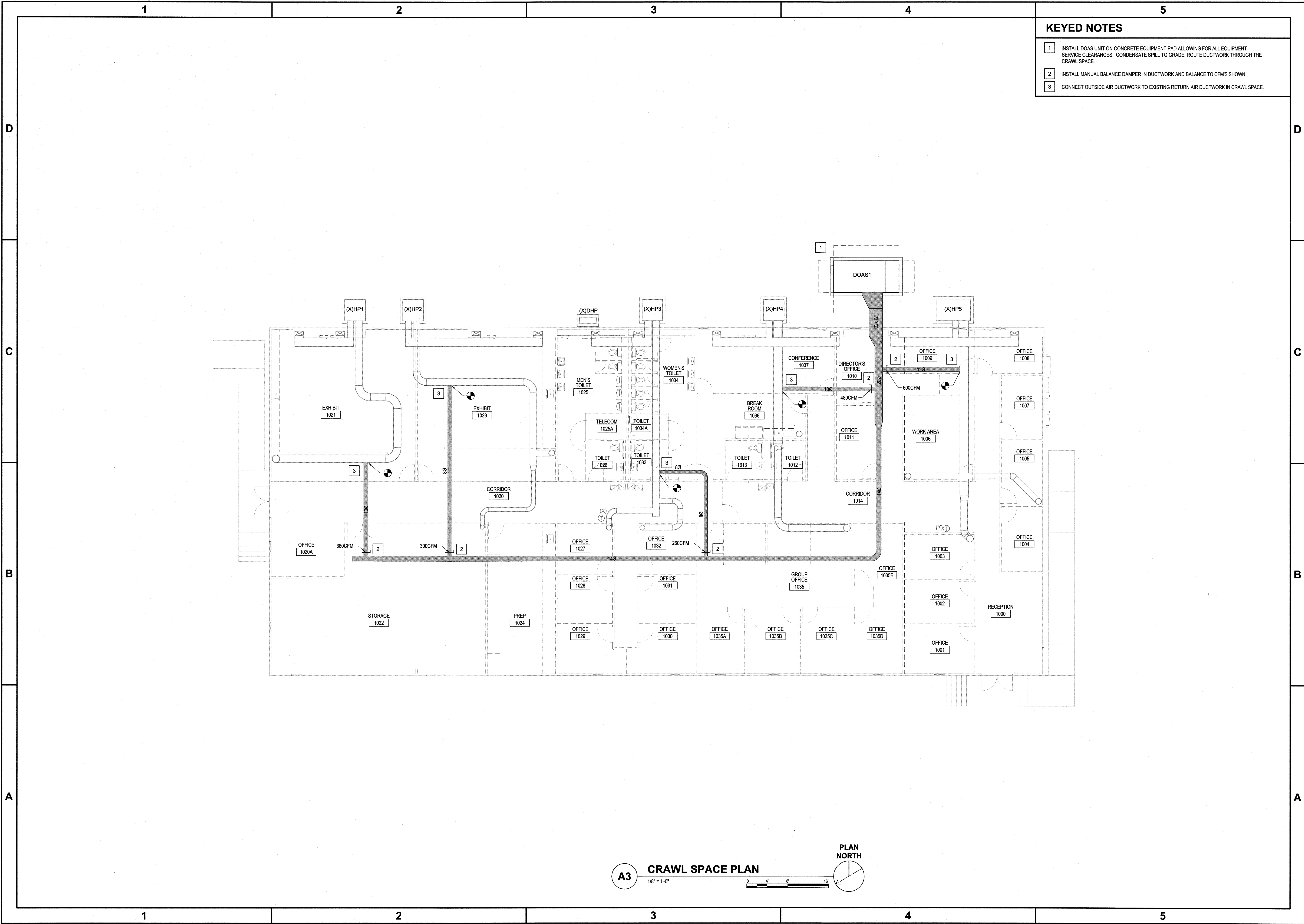
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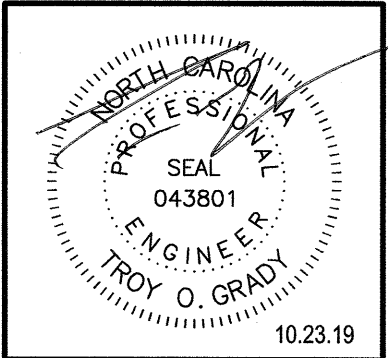
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626 MacMillan Avenue
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**CRAWL SPACE PLAN
HVAC**


JOB NO.: 19137
DRAWN: GAS
DESIGNED: GAS
CHECKED: TOG
DRAWING NO.: M-101
REVISION: 0

DRAWING CODE	DESIGN BASIS MFR	MODEL	ALTERNATE APPROVED MFR	SYSTEM TYPE	SA/OA FAN				DX COOLING				HG REHEAT				DX HEATING				SCR ELECTRIC HEATING				ELECTRICAL		WEIGHT (LBS)	NOTES	ACCESSORIES
					SA (CFM)	OA (CFM)	ESP (IN H2O)	MOTOR (QTY @HP)	SA EAT "F"/Fwb	SA LAT "F"/Fwb	TOT CAP (MBH)	EFFICIENCY (ARI CONDITIONS)	SA LAT °F	SA LAT °C	CAP (MBH)	EFFICIENCY	SA LAT °F	TOT CAP (KW)	VOLTAGE (V/PH/Hz)	MCA (AMPS)	MOCAP (AMPS)								
DOAS1	TRANE	OAGE264E3	AAON, MUNTERS	HEAT PUMP	2000	1.5	2@5.6KW	93/78	44.7/44.2	213	EER	9.2	79.87/59.29	67.0	108.3	185.8	COP	3	73.5	32	208/360	123.5	125	3,325	1,2,3,4	A-U			

ACCESSORIES:

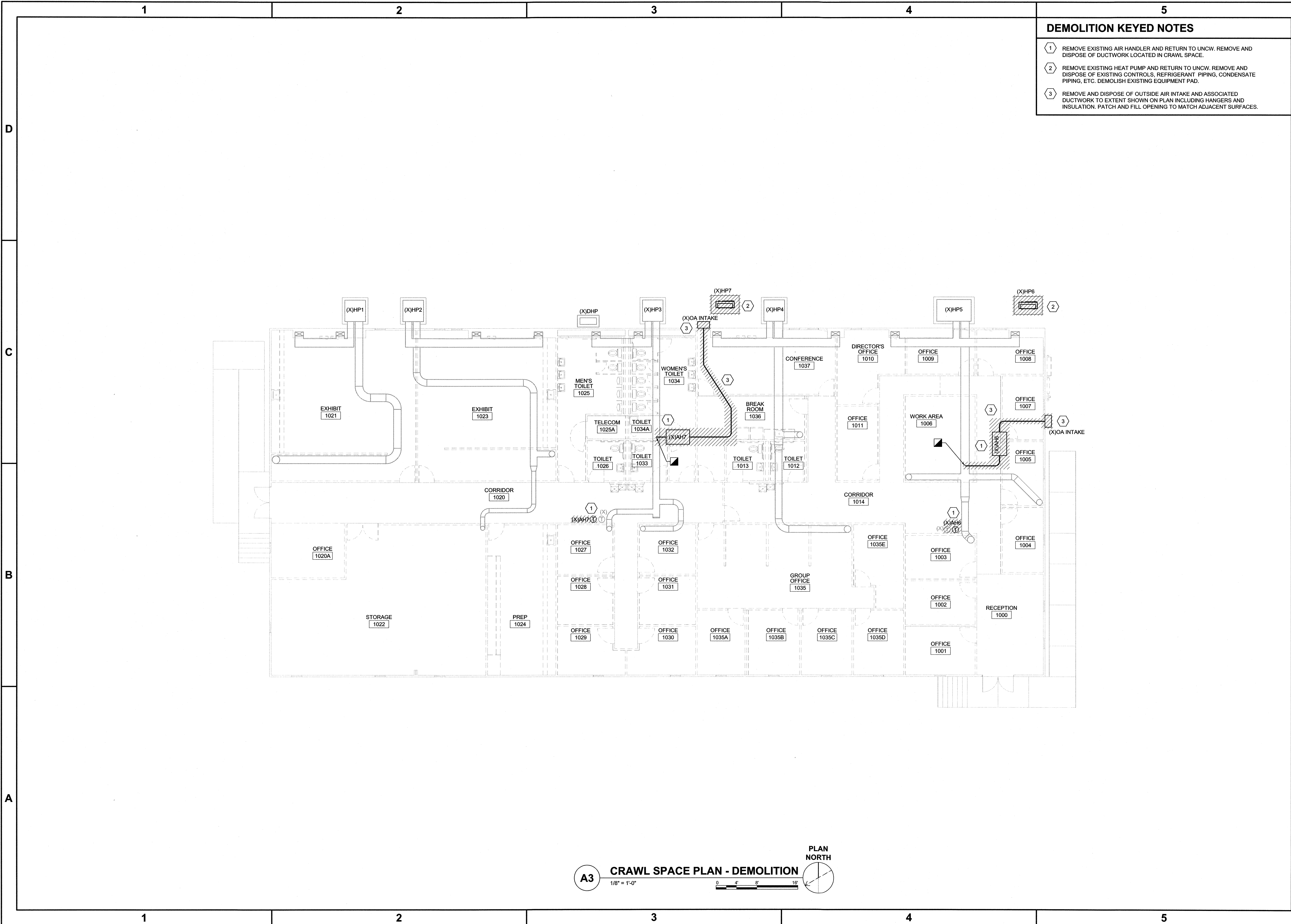
- A. INSULATED FLOOR AND DRAIN PAN.
- B. OA DAMPER WITH 2-POSITION ACTUATOR RATED FOR CLASS 1A LEAKAGE.
- C. SINGLE POINT ELECTRICAL CONNECTION.
- D. FILTERS: 2" MERV 8 PLEATED MEDIA FILTERS.
- E. MODULATING HOT GAS REHEAT.
- F. PHASE AND VOLTAGE MONITOR.
- G. HAIL GUARDS.
- H. AIR COOLED CONDENSER WITH VARIABLE SPEED HEAD PRESSURE CONTROL.
- I. ECM PLENUM SUPPLY FAN.
- J. MODULATING SCR ELECTRIC HEAT.
- K. VARIABLE SPEED CONDENSER FANS.
- L. VARIABLE CAPACITY DIGITAL SCROLL COMPRESSORS ON BOTH CIRCUITS.
- M. SUPPLY FAN PIEZO RING AIRFLOW MONITOR.
- N. SOUND ATTENUATION PACKAGE WITH LOW NOISE CONDENSER FANS AND COMPRESSOR SOUND WRAPS.
- O. DISCHARGE AIR TEMPERATURE CONTROLS WITH TOUCHSCREEN DISPLAY PANEL.
- P. STAINLESS STEEL DRAIN PAN
- Q. COASTAL CORROSION PACKAGE TO INCLUDE 304 STAINLESS STEEL INTERIOR WALLS, FLOOR, ROOF AND SEAMS.
- R. CONDENSER COIL.
- S. HORIZONTAL DISCHARGE CURB.
- T. FACTORY STARTUP AND 1 YEAR PARTS AND LABOR WARRANTY BY THE EQUIPMENT MANUFACTURER.
- U. 5 YEAR PARTS WARRANTY COVERING THE ENTIRE UNIT.

-
- 4" MIN.
- EQUIPMENT MANUFACTURER.
- 1 LAYER OF MAT;
6X6-W2.9 X W2.9
WWF
- 6"
- 3"
- 2"
- ROUGHEN SURFACE
- 1/2"DIA. EPOXY GROUT ANCHOR
NOT MORE THAN 3' ON CTR.



JOB NO.:	19137
DRAWN:	GAS
DESIGNED:	GAS
CHECKED:	TOG

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- DEMOLITION KEYED NOTES**
- 1 REMOVE EXISTING AIR HANDLER AND RETURN TO UNCW. REMOVE AND DISPOSE OF DUCTWORK LOCATED IN CRAWL SPACE.
 - 2 REMOVE EXISTING HEAT PUMP AND RETURN TO UNCW. REMOVE AND DISPOSE OF EXISTING CONTROLS, REFRIGERANT PIPING, CONDENSATE PIPING, ETC. DEMOLISH EXISTING EQUIPMENT PAD.
 - 3 REMOVE AND DISPOSE OF OUTSIDE AIR INTAKE AND ASSOCIATED DUCTWORK TO EXTENT SHOWN ON PLAN INCLUDING HANGERS AND INSULATION. PATCH AND FILL OPENING TO MATCH ADJACENT SURFACES.

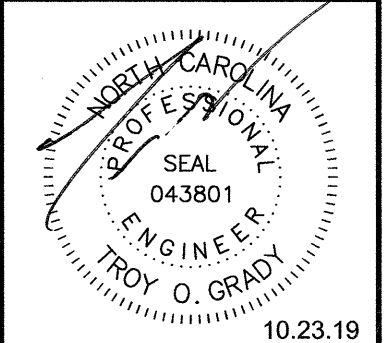
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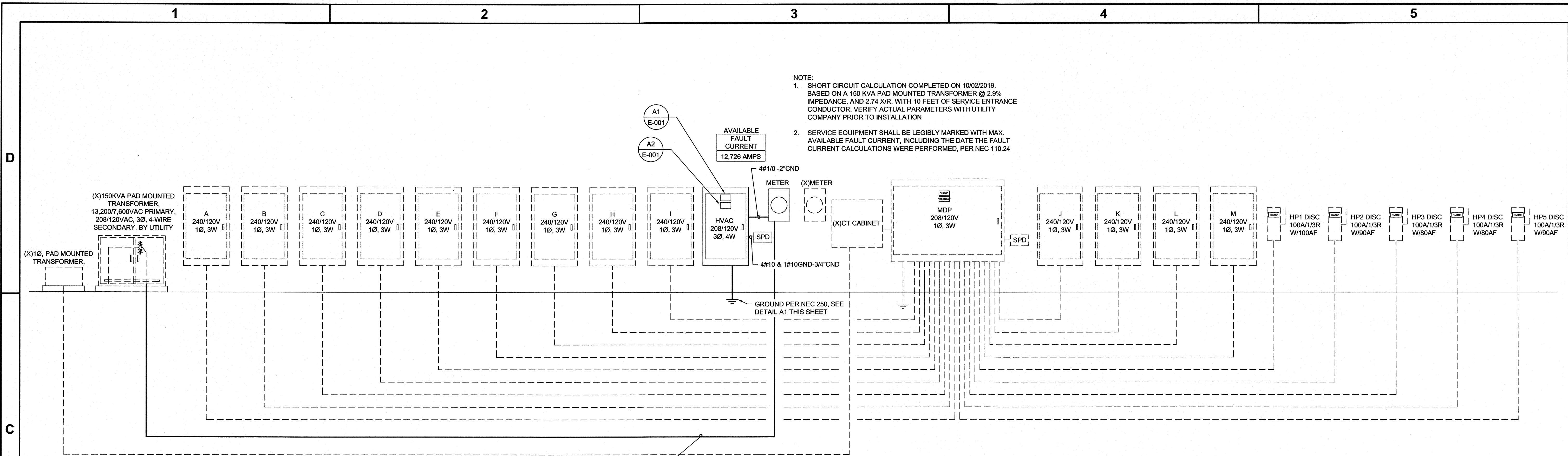
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626 MacMillan Dr. - Dedicated Outdoor Air System
626 MacMillan Avenue
Wilmington, North Carolina

**CRAWL SPACE PLAN
HVAC - DEMOLITION**

JOB NO.:	19137
DRAWN:	GAS
DESIGNED:	GAS
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DRAWING NO.:	MD101
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- NOTE:
1. SHORT CIRCUIT CALCULATION COMPLETED ON 10/02/2019. BASED ON A 150 KVA PAD MOUNTED TRANSFORMER @ 2.9% IMPEDANCE, AND 2.74 X/R. WITH 10 FEET OF SERVICE ENTRANCE CONDUCTOR. VERIFY ACTUAL PARAMETERS WITH UTILITY COMPANY PRIOR TO INSTALLATION
 2. SERVICE EQUIPMENT SHALL BE LEGIBLY MARKED WITH MAX. AVAILABLE FAULT CURRENT, INCLUDING THE DATE THE FAULT CURRENT CALCULATIONS WERE PERFORMED, PER NEC 110.24

C1 RISER DIAGRAM
NOT TO SCALE

LOAD SUMMARY

VOLTAGE	PHASE
208	3
LARGEST MOTOR APPROX. AMPS	34 AMPS
LARGEST MOTOR APPROX. AMPS x .25	9 AMPS
HVAC	
DOAS1 HEATER	35,595 VA
SUB-TOTAL HVAC DEMAND	35,595 VA
SUB-TOTAL HVAC DEMAND	99 AMPS
ADD FOR LARGEST MOTOR	9 AMPS
TOTAL EQUIPMENT DEMAND	9 AMPS
TOTAL DEMAND SERVICE AMPS	
TOTAL DEMAND SERVICE	107 AMPS
TOTAL DEMAND SERVICE	38,658 VA
TOTAL SERVICE CONNECTED LOAD	
TOTAL SERVICE CONNECTED LOAD	35,595 VA

PANEL: HVAC

TYPE: NEMA 3R BOLT-ON	208 MOUNT: FEED:	120 SURFACE BOTTOM	3 PH.	4 WIRE	PROVIDE IF CHECKED: XX	XX	EQUIP. GROUND BUS NEUTRAL BUS GUTTER TAPS SUB-FEED LUGS
LOAD SERVED	LOAD VA	CKT #	LOAD VA	CKT #	LOAD VA	CKT #	LOAD SERVED
DOAS1	11,865	125/3	1	11,865	2	20/1	SPARE
I	11,865	I	3	11,865	4	20/1	SPARE
SPACE	11,865	I	5	11,865	6	20/1	SPARE
SPACE			7	0	8		SPACE
SPACE			9	0	10		SPACE
SPACE			11	0	12		SPACE
NOTE:	11,865	11,865	11,865	TOTAL VOLT AMPS	150	A. BUS (COPPER)	
1. HVAC & REFRIGERATION EQUIPMENT SHALL USE TYPE HACR BREAKERS.	99	99	99	CONN. AMPS	150	A. MAIN CIRCUIT BREAKER	
22 KAIC MIN.							

SERVICE EQUIPMENT LISTED

EXISTING PANEL H DEMOLITION

TYPE: NEMA 1 LOAD CENTER	240 MOUNT: FLUSH	120 V.	1 PH.	3 WIRE			
LOAD SERVED	LOAD VA	CKT #	LOAD VA	CKT #	LOAD VA	CKT #	LOAD SERVED
MAIN		100/2					SPACE NOT USABLE
MINI SPLIT #1 (X)AH		50/2	1	0	2	15/1	LIGHTS
MINI SPLIT #2 (X)AH		I	3	0	4	20/1	RECEPTACLES
MINI SPLIT #3 (X)AH		15/2	5	0	6	20/1	RECEPTACLES
SPACE		I	7	0	8	20/1	RECEPTACLES
SPACE			9	0	10	20/1	RECEPTACLES
SPACE			11	0	14		SPACE
NOTE:				0	16		SPACE
1. HVAC & REFRIGERATION EQUIPMENT SHALL USE TYPE HACR BREAKERS.				0	0	TOTAL VOLT AMPS	100 A. BUS (COPPER)
				0	0	CONN. AMPS	100 A. MAIN CIRCUIT BREAKER

EXISTING PANEL M (DEMOLITION)

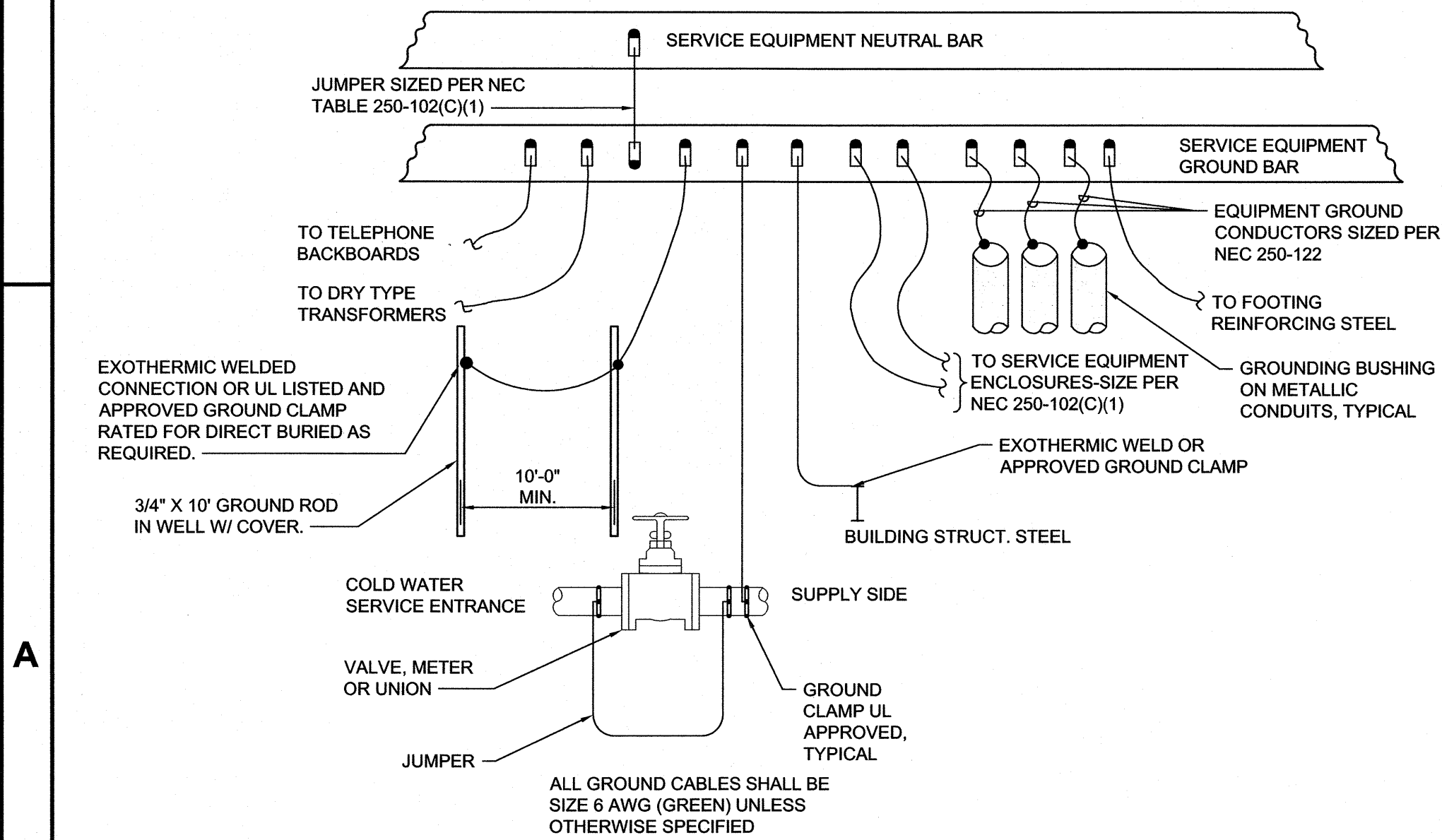
TYPE: NEMA 1 LOAD CENTER	240 MOUNT: FLUSH	120 V.	1 PH.	3 WIRE			
LOAD SERVED	LOAD VA	CKT #	LOAD VA	CKT #	LOAD VA	CKT #	LOAD SERVED
MAIN		100/2					SPACE NOT USABLE
MINI SPLIT #1 (X)AH		50/2	1	0	2	15/1	LIGHTS
MINI SPLIT #2 (X)AH		I	3	0	4	20/1	RECEPTACLES
MINI SPLIT #3 (X)AH		15/2	5	0	6	20/1	RECEPTACLES
SPACE		I	7	0	8	20/1	RECEPTACLES
SPACE			9	0	10	20/1	EXT. RECEPTACLE
SPACE			11	0	12		SPACE
NOTE:				0	0	TOTAL VOLT AMPS	100 A. BUS (COPPER)
1. HVAC & REFRIGERATION EQUIPMENT SHALL USE TYPE HACR BREAKERS.				0	0	CONN. AMPS	100 A. MAIN CIRCUIT BREAKER

EXISTING PANEL H

TYPE: NEMA 1 LOAD CENTER	240 MOUNT: FLUSH	120 V.	1 PH.	3 WIRE			
LOAD SERVED	LOAD VA	CKT #	LOAD VA	CKT #	LOAD VA	CKT #	LOAD SERVED
MAIN		100/2					SPACE NOT USABLE
SPARE		50/2	1	0	2	15/1	LIGHTS
SPARE		I	3	0	4	20/1	RECEPTACLES
SPARE		15/2	5	0	6	20/1	RECEPTACLES
SPACE		I	7	0	8	20/1	RECEPTACLES
SPACE			9	0	10	20/1	RECEPTACLES
SPACE			11	0	14		SPACE
NOTE:				0	16		SPACE
1. HVAC & REFRIGERATION EQUIPMENT SHALL USE TYPE HACR BREAKERS.				0	0	TOTAL VOLT AMPS	100 A. BUS (COPPER)
				0	0	CONN. AMPS	100 A. MAIN CIRCUIT BREAKER

EXISTING PANEL M

TYPE: NEMA 1 LOAD CENTER	240 MOUNT: FLUSH	120 V.	1 PH.	3 WIRE			
LOAD SERVED	LOAD VA	CKT #	LOAD VA	CKT #	LOAD VA	CKT #	LOAD SERVED
MAIN		100/2					SPACE NOT USABLE
SPARE		50/2	1	0	2	15/1	LIGHTS
SPARE		I	3	0	4	20/1	RECEPTACLES
SPARE		15/2	5	0	6	20/1	RECEPTACLES
SPACE		I	7	0	8	20/1	RECEPTACLES
SPACE			9	0	10	20/1	EXT. RECEPTACLE
SPACE			11	0	12		SPACE
NOTE:				0	0	TOTAL VOLT AMPS	100 A. BUS (COPPER)
1. HVAC & REFRIGERATION EQUIPMENT SHALL USE TYPE HACR BREAKERS.				0	0	CONN. AMPS	100 A. MAIN CIRCUIT BREAKER



A1 SERVICE GROUNDING DETAIL
NOT TO SCALE

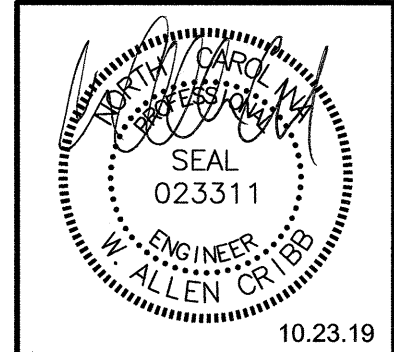
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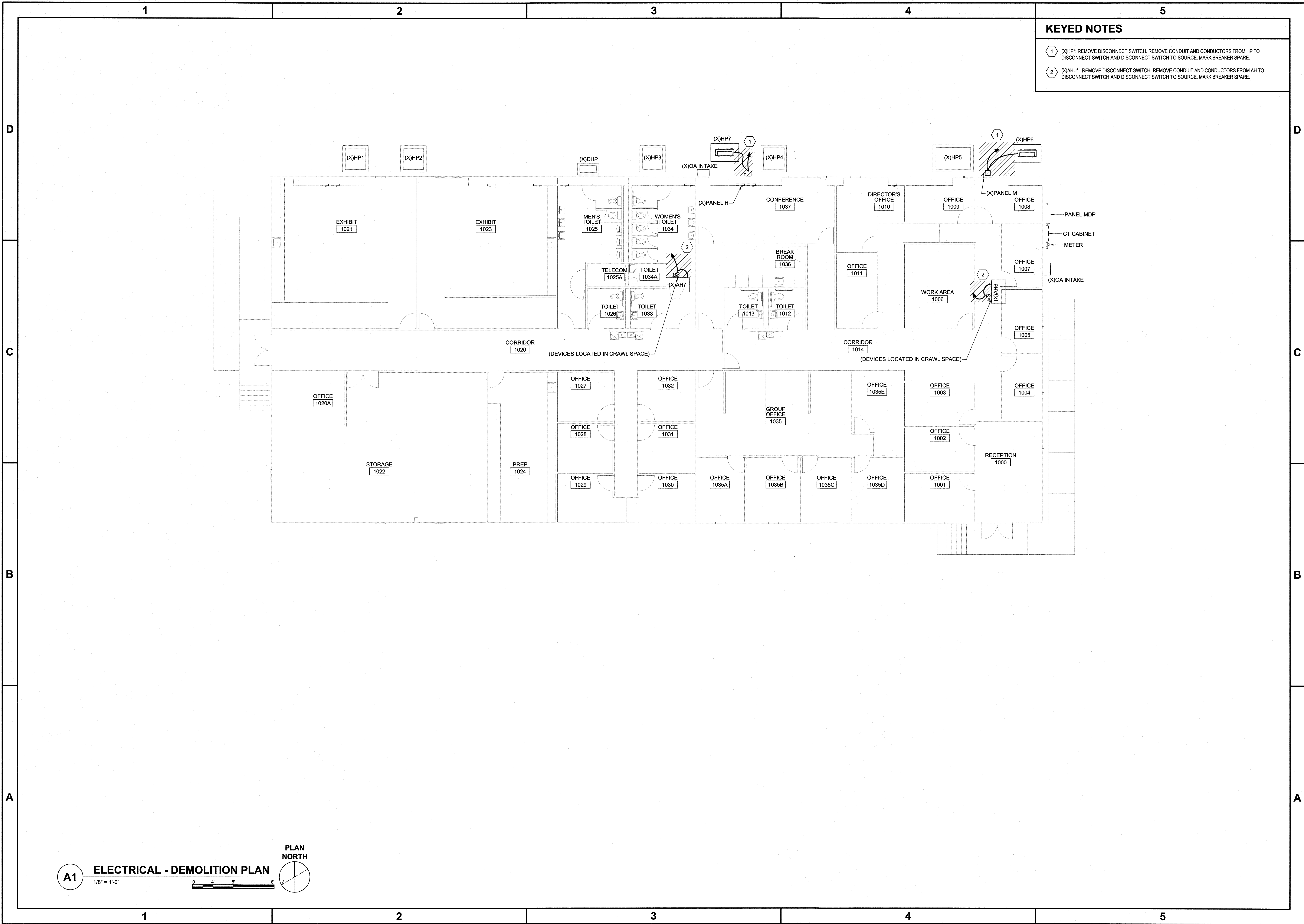
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ELECTRICAL
RISER DIAGRAM AND PANEL SCHEDULES

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DRAWN: MDM
DESIGNED: MDM
CHECKED: WAC

DRAWING NO:
E-601

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0



KEYED NOTES

1 (X)HP*: REMOVE DISCONNECT SWITCH. REMOVE CONDUIT AND CONDUCTORS FROM HP TO DISCONNECT SWITCH AND DISCONNECT SWITCH TO SOURCE. MARK BREAKER SPARE.

2 (X)AH*: REMOVE DISCONNECT SWITCH. REMOVE CONDUIT AND CONDUCTORS FROM AH TO DISCONNECT SWITCH AND DISCONNECT SWITCH TO SOURCE. MARK BREAKER SPARE.

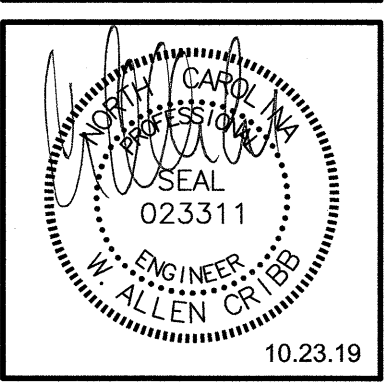
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**ELECTRICAL
DEMOLITION PLAN**

JOB NO.:	19137
DRAWN:	MDM
DESIGNED:	MDM
CHECKED:	WAC
DRAWING NO:	
ED101	
REVISION:	
0	

