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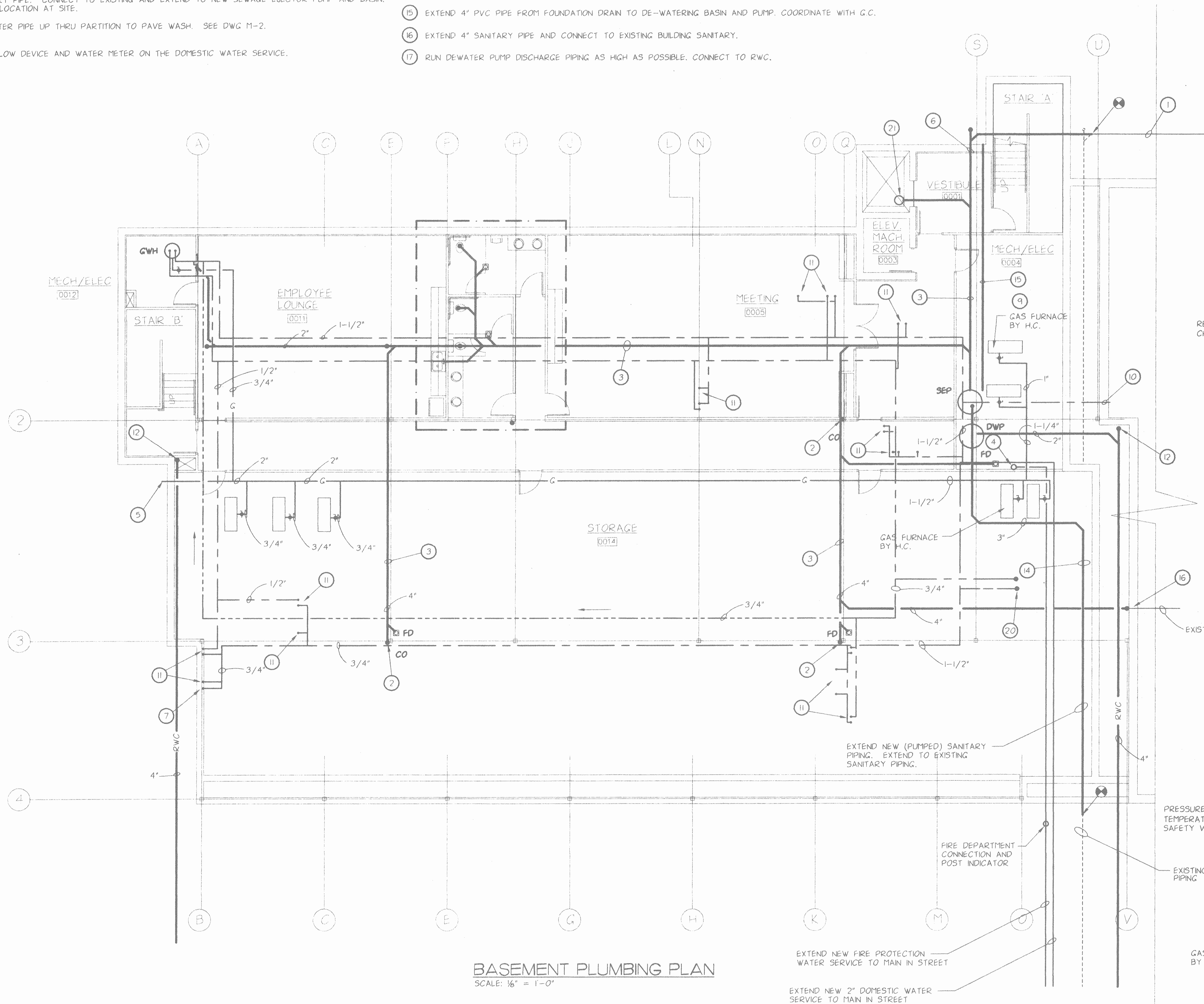
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NOTES:

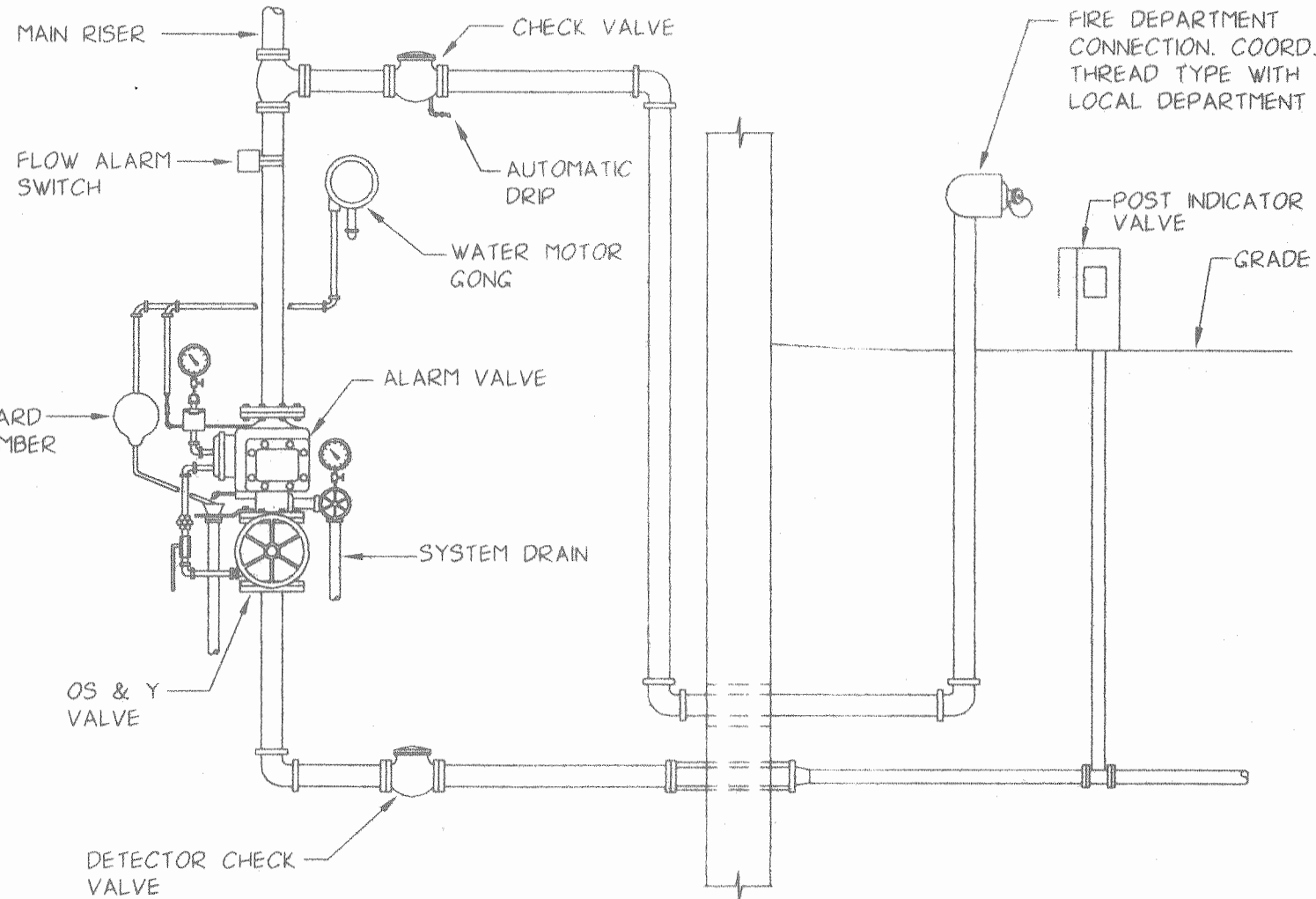
- EXISTING SANITARY PIPE FROM THE EXISTING BUILDING.
- 4" SANITARY PIPE FROM ABOVE. PROVIDE CLEANOUT AT RISER.
- 4" SANITARY PIPING UNDER SLAB.
- FIRE PROTECTION RISER. SEE DETAIL THIS DWG.
- 2" GAS PIPE FROM GAS METER. SEE DWG M-2.
- NEW 4" SANITARY PIPE. CONNECT TO EXISTING AND EXTEND TO NEW SEWAGE EJECTOR PUMP AND BASIN. VERIFY SIZE & LOCATION AT SITE.
- 3/4" COLD WATER PIPE UP THRU PARTITION TO PAVE WASH. SEE DWG M-2.
- PROVIDE BACKFLOW DEVICE AND WATER METER ON THE DOMESTIC WATER SERVICE.

- COORDINATE WORK IN THIS AREA WITH THE ELECTRICAL CONTRACTOR.
- PROVIDE 1-1/2" COLD WATER PIPE TO BACK FEED THE EXISTING BUILDING. PROVIDE SHUT OFF VALVE FOR EXISTING BUILDING.
- PROVIDE 1/2" HOT AND COLD WATER UP TO FIXTURES ABOVE. SEE DWGS M-2 AND M-6.
- PROVIDE 4" RAIN WATER CONDUCTOR FROM SECOND FLOOR.
- SANITARY PIPING FROM EXISTING BUILDING.
- RUN SEWAGE EJECTOR DISCHARGE PIPING AS HIGH AS POSSIBLE.
- EXTEND 4" PVC PIPE FROM FOUNDATION DRAIN TO DE-WATERING BASIN AND PUMP. COORDINATE WITH G.C.
- EXTEND 4" SANITARY PIPE AND CONNECT TO EXISTING BUILDING SANITARY.
- RUN DEWATER PUMP DISCHARGE PIPING AS HIGH AS POSSIBLE. CONNECT TO RWC.

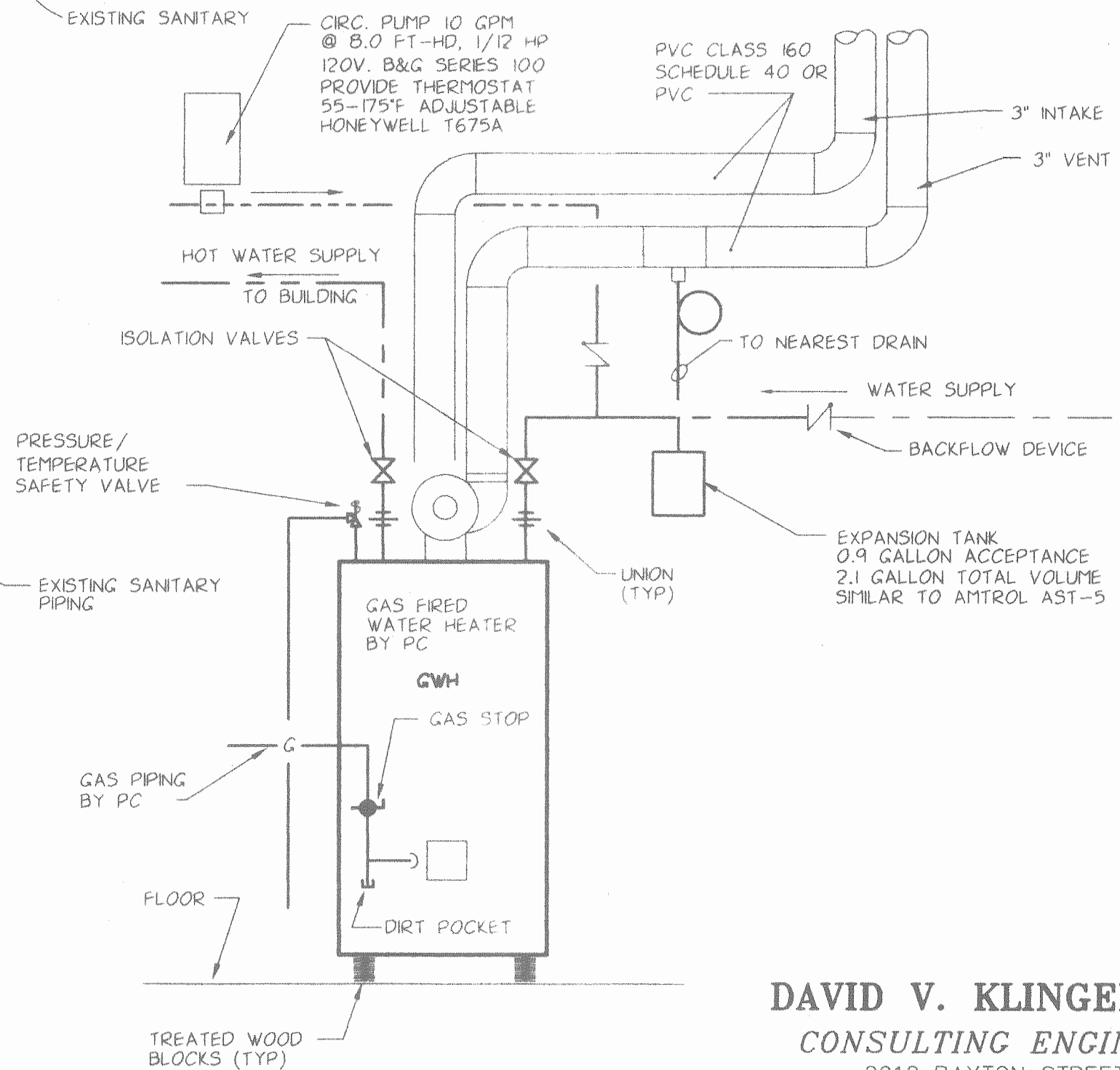
- EXTEND 4" SANITARY UP THROUGH PARTITION TO UNDERSIDE OF SECOND FLOOR FOR FUTURE PLUMBING FIXTURE.
- EXTEND 3/4" CONDENSATE DRAINS FOR GAS FURNACE AND AIR CONDITIONING DX COILS TO FLOOR DRAIN. ROUTE PIPING AS HIGH AS POSSIBLE.
- 1/2" CW & HW UP TO PROCESS ROOM 1009. PROVIDE GARDEN TYPE HOSE, NOZZLE, BOILER DRAIN TYPE VALVE, WATER MIXING, WATER FILTER, VALVE, AND VACUUM BREAKER IN PROCESS ROOM WHERE DIRECTED BY OWNER. HOSE SHALL BE LONG ENOUGH TO CLEAN PROCESSORS.
- PROVIDE SUBMERSIBLE PUMP FOR ELEVATOR PIT - 29.2 GPM @ 10' HD. 3/10 HP, 120V. 3 PRONG PLUG, AUTOMATIC FLOAT SWITCH, AND CHECK VALVE GIANT 6-CIA-RFS.



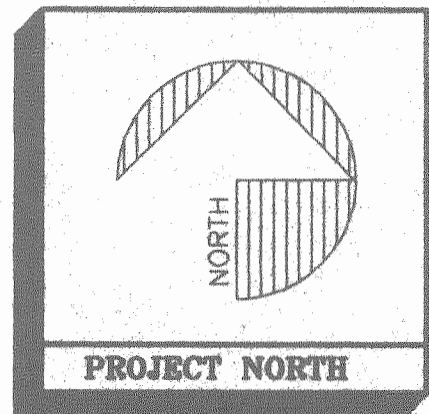
BASEMENT PLUMBING PLAN  
SCALE: 1/8" = 1'-0"



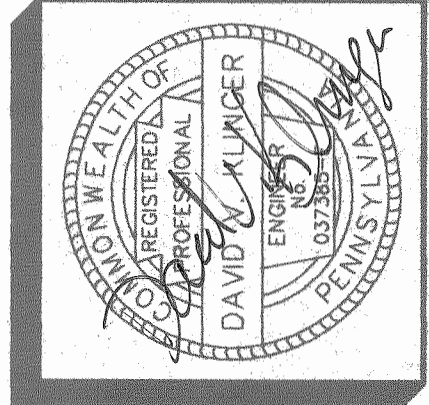
WET SPRINKLER RISER DETAIL  
NO SCALE



WATER HEATER DETAIL  
NO SCALE



**WILLIGEROD & MAC AVOY**  
**ARCHITECTS**  
2223 NORTH SECOND STREET HARRISBURG PENNSYLVANIA 17110-1065  
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**TRISTAN ASSOCIATES**  
4518 UNION DEPOSIT ROAD  
LOWER PATTON TOWNSHIP DAUPHIN COUNTY PENNSYLVANIA  
**BASEMENT PLUMBING PLAN**

ADDITION AND RENOVATIONS TO EXISTING MEDICAL FACILITY FOR  
**TRISTAN ASSOCIATES**  
4518 UNION DEPOSIT ROAD  
LOWER PATTON TOWNSHIP DAUPHIN COUNTY PENNSYLVANIA  
**BASEMENT PLUMBING PLAN**

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CHECKED BY: DVK  
DATE: 4-2-1999  
SHEET NO.  
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MECHANICAL - ELECTRICAL ENGINEERING

FILE: 0432201 JOB #: 04372  
DATE: 3-30-1999 TPE: IL046

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## NOTES:

- 1 DISCONNECT AND REMOVE EXISTING LIGHT POLE AND BASE. REMOVE BRANCH CIRCUIT WIRING.
- 2 CIRCUIT TO BI-16 VIA CONTACTOR #1, 2, OR 3 AS DIRECTED BY OWNER.
- 3 CIRCUIT TO BI-17 VIA CONTACTOR #1, 2, OR 3 AS DIRECTED BY OWNER.
- 4 THIS SIGN WILL BE DELETED. REMOVE BRANCH CIRCUIT BACK TO SOURCE.
- 5 CIRCUIT TO BI-12 VIA CONTACTOR #1, 2, OR 3 AS DIRECTED BY OWNER.
- 6 FOR CONTINUATION, SEE DWG. E8.
- 7 NEW SIGN. CONNECT AS REQUIRED.

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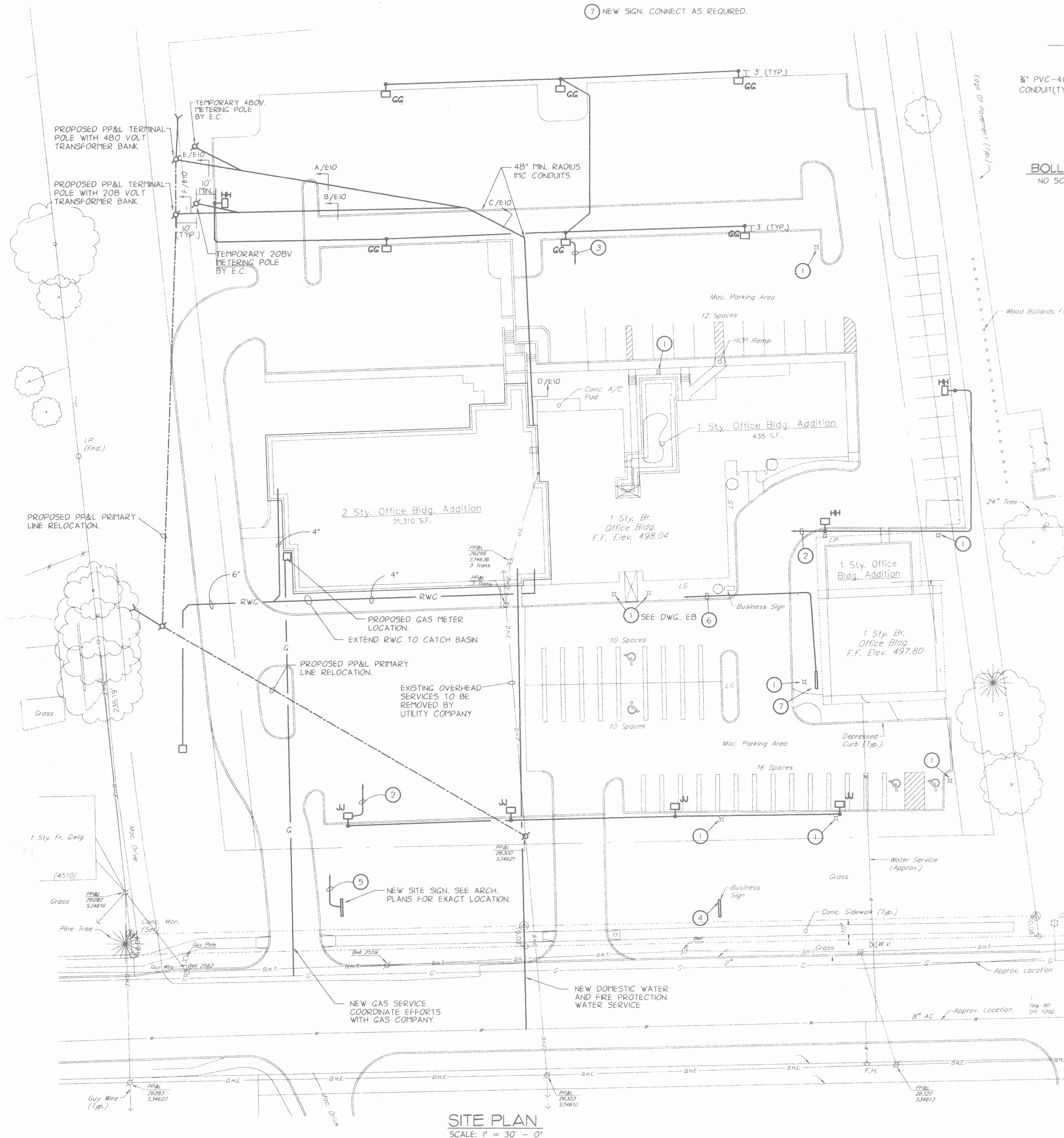
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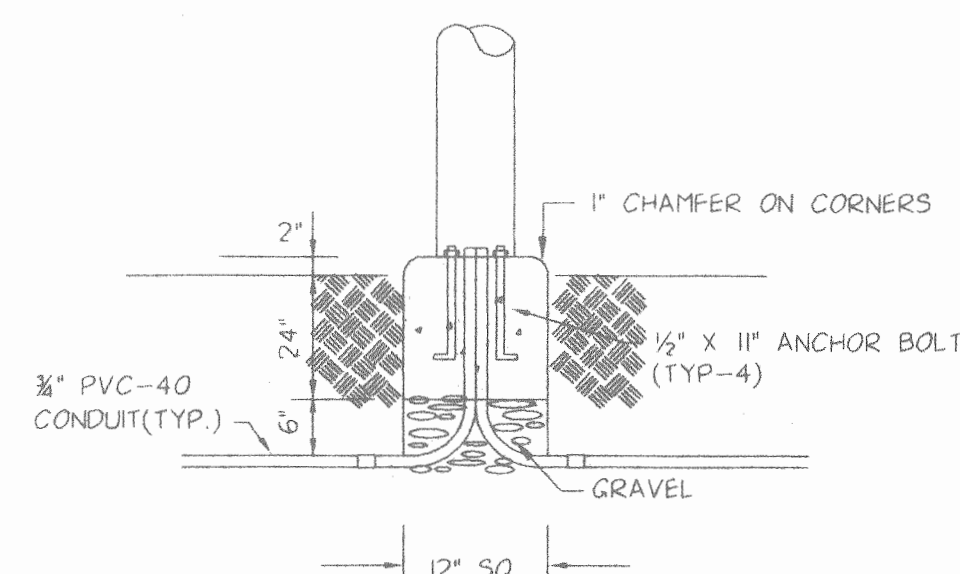
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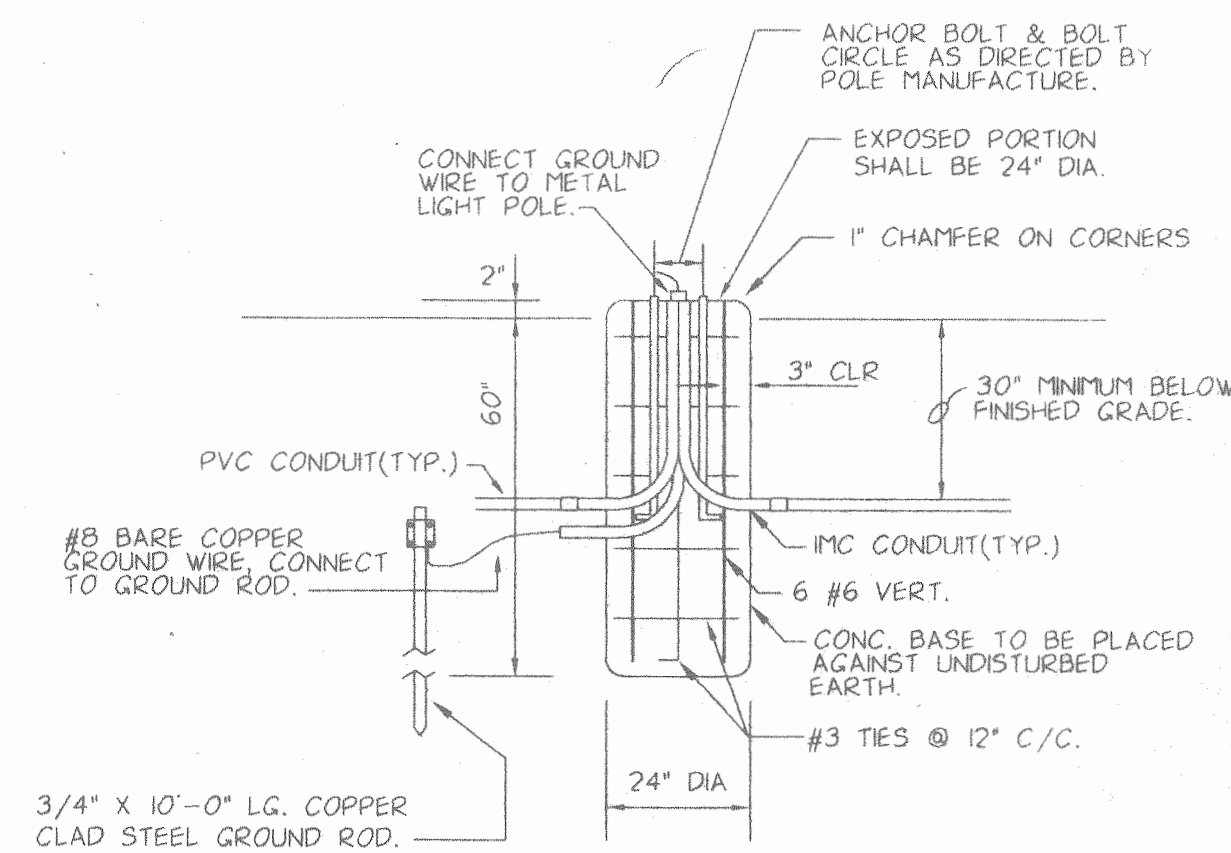
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SITE PLAN  
SCALE: 1" = 30' - 0"



BOLLARD BASE DETAIL - FIXTURE TYPE EE  
NO SCALE  
NOTE: BOND GROUND WIRE TO HOUSING.

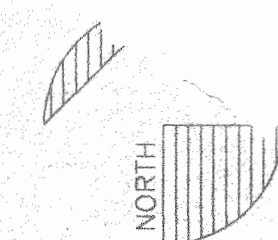


POLE BASE DETAIL FOR TYPE GG, HH, AND JJ FIXTURES  
NO SCALE

## LEGEND

- ⊕ DUPLEX RECP. - SURGE PROTECTION TYPE - WALL
- ⊕ DUPLEX RECP. - WALL
- ⊕ SINGLE RECP. - WALL
- GFI GROUND FAULT INTERRUPTER
- C MOUNTED ABOVE COUNTER HEIGHT
- S SINGLE POLE SWITCH
- S<sub>3</sub> THREE WAY SWITCH
- S<sub>4</sub> FOUR WAY SWITCH
- S<sub>D</sub> INCANDESCENT DIMMER SWITCH
- S<sub>DF</sub> FLUORESCENT DIMMER SWITCH
- S<sub>T</sub> THERMAL SWITCH
- S<sub>TP</sub> THERMAL SWITCH WITH PLOT LIGHT
- ⊕ JUNCTION BOX
- ⊕ TELEPHONE OUTLET
- NORMAL CIRCUIT
- EMERGENCY CIRCUIT
- EQUIP. ON SAME CIRCUIT, SEPARATELY CONTROLLED
- HOMERUN TO PANEL
- EXISTING PANEL
- NEW PANEL
- DISCONNECT SWITCH
- FLUORESCENT LIGHTING FIXTURE
- FLUORESCENT LIGHTING FIXTURE W/ EMERGENCY BALLAST
- EXISTING FLUORESCENT LIGHTING FIXTURE - RELOCATED
- ⊕ WALL MOUNTED LIGHTING FIXTURE
- ⊕ FLUORESCENT OR HID DOWN LIGHT
- ⊕ MOTOR LOCATION

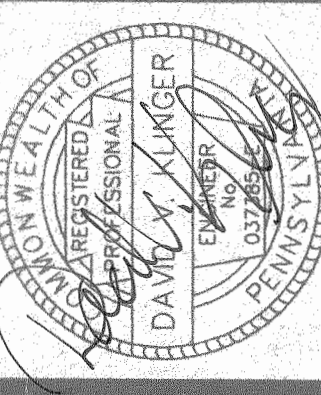
- ⊕ DATA OUTLET
- ⊕ CONTACTOR
- WP WEATHER PROOF
- HWH HOT WATER HEATER
- AFB ABOVE FINISHED FLOOR
- AFG ABOVE FINISHED GRADE
- ⊕ PHOTOELECTRIC CELL
- ⊕ EMERGENCY LAMP (REMOTE)
- ⊕ EMERGENCY BATTERY UNIT WITH INTEGRAL LAMP
- ⊕ EXIT SIGN (WITH DIRECTIONAL ARROWS WHERE INDICATED)
- ⊕ BLANK OUTLET
- ⊕ EXTERIOR POLE MOUNTED LIGHT FIXTURE
- ⊕ BOLLARD FIXTURE
- ⊕ FIRE ALARM MANUAL STATION (N.I.C.)
- RELAY
- ⊕ COMBINATION FIRE ALARM HORN AND STROBE (N.I.C.)
- ⊕ FIRE ALARM HORN (N.I.C.)
- ⊕ FIRE ALARM STROBE (N.I.C.)
- ⊕ SMOKE DETECTOR (N.I.C.)
- ⊕ DUCT DETECTOR (N.I.C.)
- ⊕ HEAT DETECTOR (N.I.C.)
- ⊕ CABLE TELEVISION OUTLET
- ⊕ SPEAKER
- ⊕ VOLUME CONTROL
- ⊕ TRANSFORMER
- ⊕ FLOOR MOUNTED DUPLEX RECEPTACLE
- ⊕ TOTALLY ENCLOSED CIRCUIT BREAKER
- ⊕ EMERGENCY POWER OFF SWITCH FOR FIRE SUPPRESSION SYSTEM
- ⊕ EXISTING SITE LIGHTING POLE
- EX EXISTING
- WH WALL INSERT HEATER
- UH UNIT HEATER



PROJECT NORTH

WILLIGEROD & MAC AVOY  
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ADDITION AND RENOVATIONS TO EXISTING MEDICAL FACILITY FOR

TRISTAN ASSOCIATES  
4516 UNION DEPOSIT ROAD  
LOWER PAXTON TOWNSHIP DAUPHIN COUNTY PENNSYLVANIA

SITE UTILITY PLAN

DRAWN BY: AVK

CHECKED BY: RED/DVK

DATE: 4-2-1999

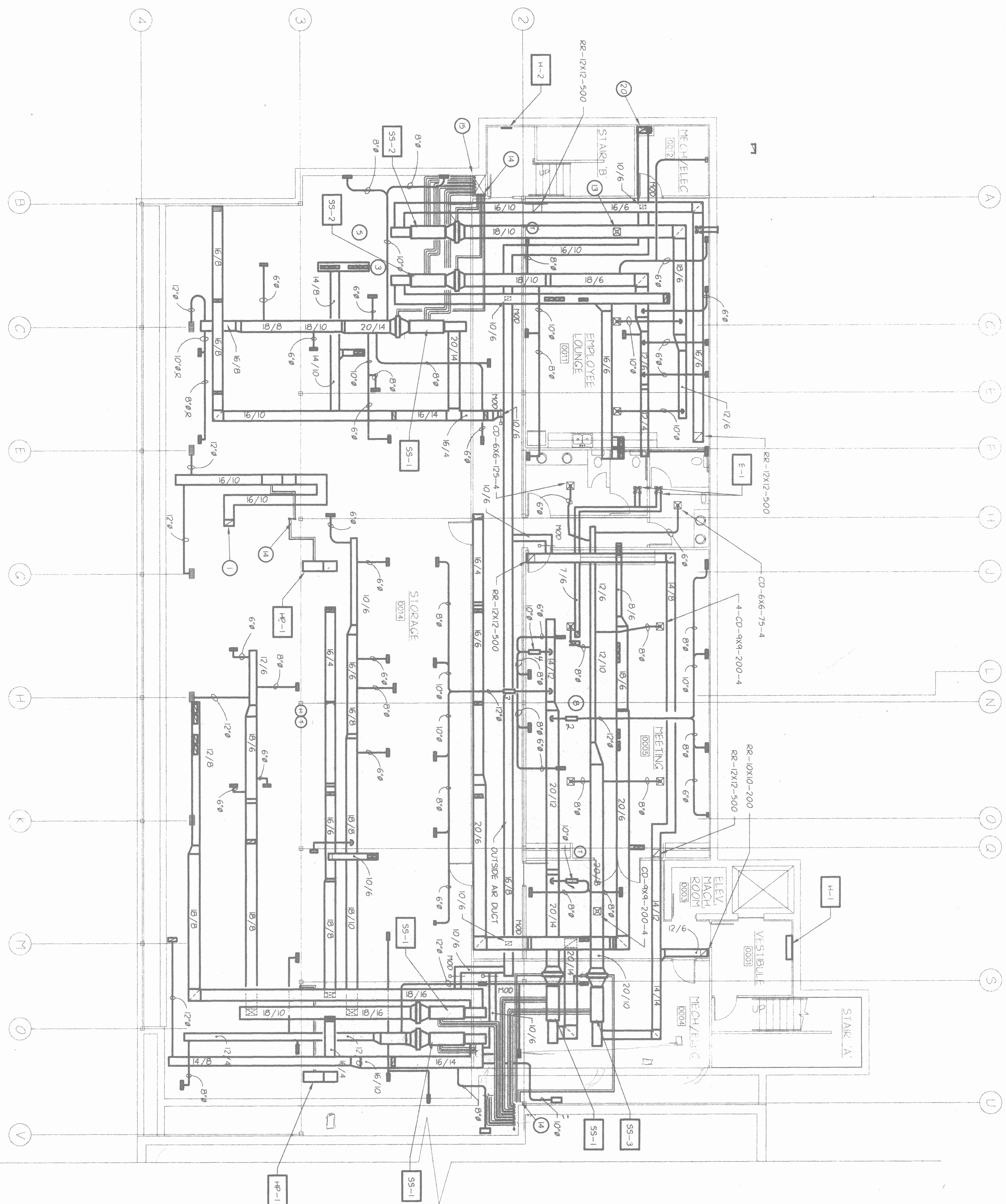
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MECHANICAL - ELECTRICAL ENGINEERING





BASEMENT MECHANICAL PLAN  
SCALE: 1/8" = 1'-0"

NOTES:

- 1 6"x10" RETURN AIR DUCT UP TO RETURN AIR CLOSET.
- 2 4" SANITARY PIPE FROM ABOVE. EXTEND DOWN TO BELOW FLOOR SLAB.
- 3 RUN SUPPLY AIR DUCT UP BETWEEN FLOOR JOIST.
- 4 TRANSITION SUPPLY AIR DUCT UNDER "T" BEAM. SEE DETAIL DWG.
- 5 RUN ROOF ROUND DUCT THRU FLOOR JOIST.
- 6 PROVIDE REGISTER BOOT FOR EACH REGISTER THRU FLOOR.
- 7 RUN DUCTWORK TIGHT UP AGAINST FLOOR JOIST.
- 8 PROVIDE TOP TAKE-OFF.
- 9 ALL ROUND DUCTWORK IN BASEMENT SHALL BE ROOF ROUND SHEET METAL. WRAPPED WITH INSULATION.
- 10 COORDINATE DUCTWORK WITH LIGHTING FIXTURES TO MAINTAIN HIGHEST POSSIBLE CEILING.
- 11 EXHAUST DUCTWORK UP THRU CLOSET TO ROOF. SEE DWG M-2 AND M-3.
- 12 PROVIDE HEATPUMP WITH INTEGRAL ELECTRIC HEATER. CONNECT UNIT TO THERMOSTAT AND HUMIDISTAT. PROVIDE 1/2" AIR GAP BETWEEN UNIT AND FLOOR. PROVIDE 1/2" AIR GAP BETWEEN UNIT AND FLOOR.
- 13 PROVIDE CD-12X12-300-4. TYPICAL FOR THREE.
- 14 RUN REFRIGERANT PIPING UP THRU FLOOR AND PARTITION TO ROOF AND CONDENSING UNITS.
- 15 PROVIDE ACCESS HATCH IN CHASE.
- 16 PROVIDE AIR HANDLERS, MOUNTED AS HIGH AS POSSIBLE.
- 17 INSTALL GAS FURNACE IN STRICT ACCORDANCE WITH THE MANUFACTURER'S RECOMMENDATIONS. INSTALL FURNACE NOT TO EXCEED MAXIMUM VENT/COMB AIR PIPING LENGTH.
- 18 INSTALL GAS FURNACE IN STRICT ACCORDANCE WITH THE MANUFACTURER'S RECOMMENDATIONS. INSTALL FURNACE NOT TO EXCEED MAXIMUM VENT/COMB AIR PIPING LENGTH.
- 19 PROVIDE 1/2" TEAP IN REFRIGERANT SUCTION PIPE RISER.
- 20 6"x10" OUTSIDE AIR DUCT UP THRU SECOND FLOOR TO ROOF INTAKE. SEE DWG M-3.
- 21 EXTEND OUTSIDE AIR DUCT TO RETURN AIR DUCT. PROVIDE MOTORIZED DAMPER INTERLOCKED WITH FURNACE.
- 22 PROVIDE 14" BYPASS DAMPER.
- 23 PROVIDE VARIABLE TEMPERATURE/VARIABLE VOLUME CONTROL SYSTEM.

2 - QUANTITY  
- CEILING DIFFUSER  
- CD - 12 x 12 - 450 - 4  
- GFM  
- PATTERN

DEFUSER REGISTER KEY  
CD - CEILING DIFFUSER  
RR - RETURN REGISTER  
FSR - FLOOR SUPPLY REGISTER  
FRR - FLOOR RETURN REGISTER

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MECHANICAL - ELECTRICAL ENGINEERING

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DATE: 4-2-1999  
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ADDITION AND RENOVATIONS TO EXISTING MEDICAL FACILITY FOR  
**TRISTAN ASSOCIATES**  
4518 UNION DEPOSIT ROAD  
LOWER PAXTON TOWNSHIP DAUPHIN COUNTY PENNSYLVANIA  
**BASEMENT MECHANICAL PLAN**

REVISIONS

COMMONWEALTH OF PENNSYLVANIA  
REGISTERED PROFESSIONAL ENGINEER  
DAVID V. KINGER  
052967

**WILLIGEROD & MAC AVOY ARCHITECTS**  
2223 NORTH SECOND STREET HARRISBURG PENNSYLVANIA  
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PROJECT NORTH  
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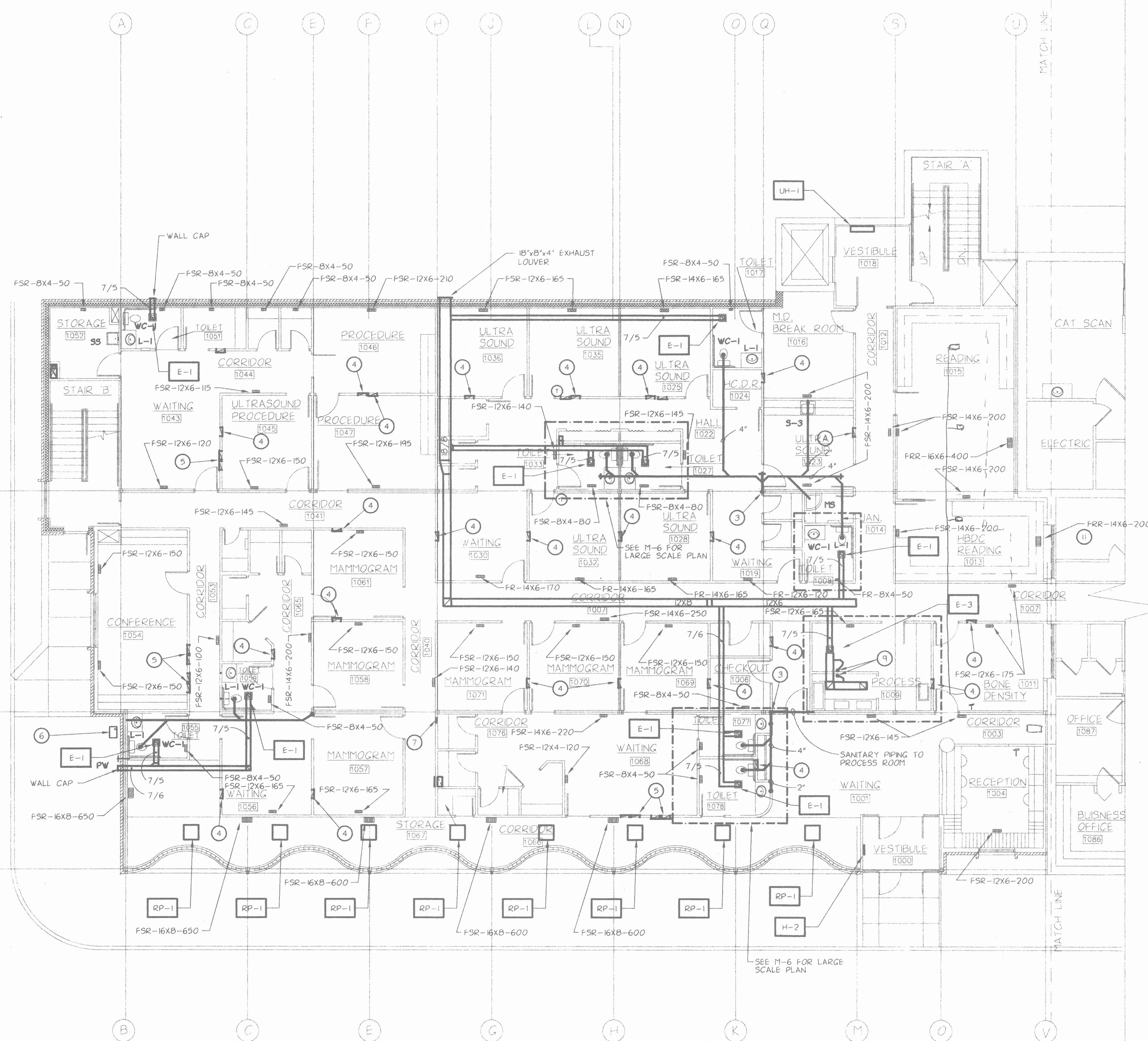
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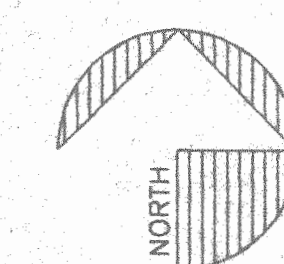
## FIRST FLOOR MECHANICAL PLAN

SCALE: 1/8" = 1'-0"

## NOTES:

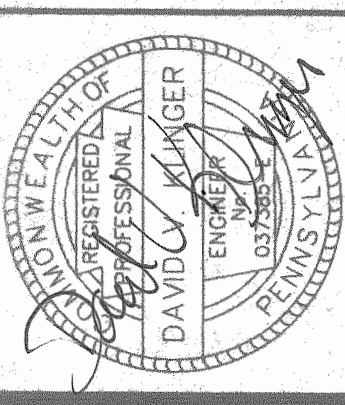
- 1 REMOVE EXISTING SINK. REMOVE PIPING BACK TO MAINS. CAP PIPING LIQUID TIGHT.
- 2 GAS VENT AND OUTSIDE COMBUSTION AIR PIPING UP AND DOWN.
- 3 4" SANITARY DOWN COLUMN TO BELOW BASEMENT SLAB FLOOR. SEE DWG M-1.
- 4 PROVIDE TWO (2) 14"X8" RETURN AIR REGISTER. PROVIDE WALL FRAME. MOUNT ONE 12" A.F.F. TO BOTTOM OF REGISTER AND MOUNT THE OTHER 12" BEL CLG TO TOP OF REGISTER. PROVIDE OPENINGS IN DRYWALL AND FLOOR TO FORM A RETURN AIR DUCT. SEE DWG M-2. COORDINATE WITH G.C.
- 5 14"X8" RETURN AIR REGISTER. PROVIDE WALL FRAME. COORDINATE WITH G.C.
- 6 PROVIDE NEW GAS SERVICE FOR THE NEW ADDITION. RUN GAS PIPING UP TO ROOF, AND DOWN INTO BASEMENT.
- 7 REFRIGERANT PIPING UP & DN.
- 8 7"X6" EXHAUST AIR DUCT FROM BELOW.
- 9 EXTEND FROM EXHAUST FAN, TWO (2) THREE INCH EXHAUST DUCTS. EXTEND DUCTWORK DOWN AND CONNECT TO PROCESSORS WITH RUBBER DUCT. TYPICAL OF TWO.
- 10 THIS CONTRACTOR SHALL COORDINATE THERMOSTAT LOCATIONS, WHETHER SHOWN OR NOT, WITH THE OWNER.
- 11 COORDINATE EXACT LOCATION AT SITE.
- 12 EXTEND PLUMBING VENTS UP NEAREST COLUMNS AND THRU ROOF.

B &lt; &gt; S



PROJECT NORTH

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REVISIONS

ADDITION AND RENOVATIONS TO EXISTING MEDICAL FACILITY FOR  
**TRISTAN ASSOCIATES**  
 4518 UNION DEPOSIT ROAD PENNSYLVANIA  
 LOWER PAXTON TOWNSHIP DAUPHIN COUNTY  
**FIRST FLOOR MECHANICAL PLAN**

**DAVID V. KLINGER, P.E.**  
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 CHECKED BY: DVK  
 DATE: 4-2-1999  
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NOTES:

1. PROVIDE ROOF INTAKE AND ROOF CURB. similar to oneostat qrs-20.
2. PROVIDE ROOF PIPE STANDS FOR GAS PIPING. SPACE IN ACCORDANCE WITH PIPE SUPPORT SCHEDULE.
3. EXTEND SUPPLY AND AIR RETURN AIR DUCTWORK DOWN INTO SPACE.
4. PROVIDE THERMOSTAT AT TEMPORARY LOCATION. THE ASSOCIATED ROOF MOUNTED UNIT SHALL NOT RUN.
5. PROVIDE THERMOSTAT AT TEMPORARY LOCATION. THE ASSOCIATED ROOF MOUNTED UNIT SHALL RUN TO MAINTAIN MINIMAL TEMPERATURES.
6. ROOF MOUNTED CONDENSING UNIT. EXTEND REFRIGERANT PIPING DOWN TO DX COILS IN BASEMENT. SEE DWG M-1.
7. GAS VENT AND COMBUSTION AIR INTAKE FROM GAS FURNACES IN BASEMENT. EXTEND THRU ROOF AND PROVIDE TERMINATION IN ACCORDANCE WITH THE FURNACE MANUFACTURER.
8. RUN 4" RWC DOWN TO BASEMENT THEN OUT TO STORM WATER PIPING ON SITE. SEE SITE PLAN.
9. EXTEND 4" SANITARY PIPING, AND CAP, TO UNDERSIDE OF SECOND FLOOR FOR EXTENSION TO FUTURE PLUMBING FIXTURES.

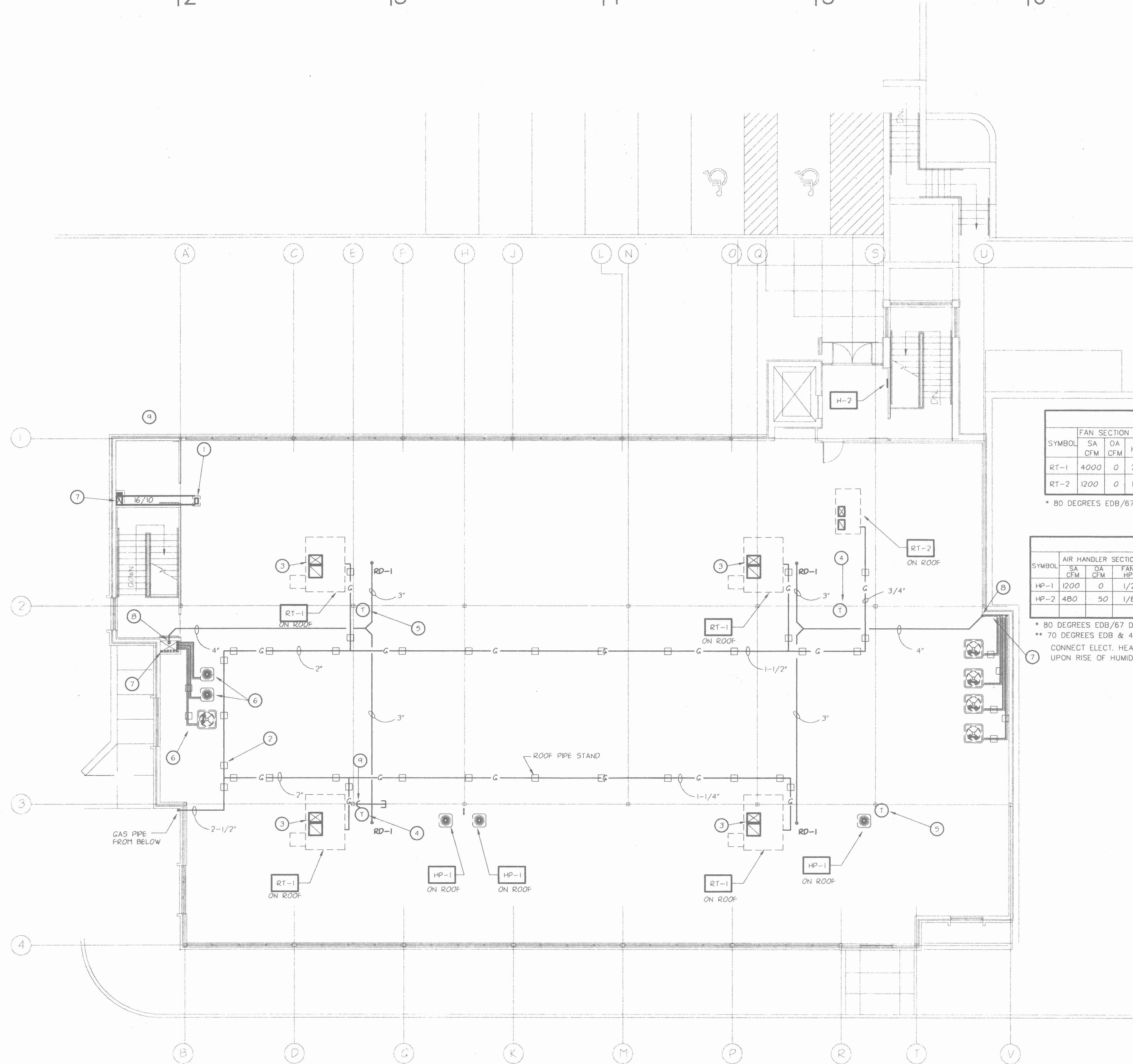
PACKAGED ROOFTOP HEATING/COOLING UNIT SCHEDULE											
SYMBOL	FAN SECTION					COOLING *		HEATING		ELECTRICAL	
	SA CFM	OA CFM	HP	ESP	RPM	TOTAL CLG MBH	SENSIBLE CLG MBH	EER	INPUT MBH	OUTPUT MBH	VOLTAGE-PH
RT-1	4000	0	2.0	0.54	860	123.0	89.0	9.8	204	163	208/230-3Ø
RT-2	1200	0	1/2	0.54	860	46.0	32.0	11.0	50	41	208/230-3Ø

\* 80 DEGREES EDB/67 DEGREES EWB & 95 DEGREES AMBIENT

SPLIT SYSTEM HEAT PUMP SCHEDULE															
SYMBOL	AIR HANDLER SECTION							OUTDOOR SECTION							
	SA CFM	OA CFM	FAN HP	RPM	VOLT-PH	AUX HTG KW	VOLT-PH	TOTAL * MBH	SENS CLG MBH	CLG MBH	EER	TOTAL ** MBH	HTG KW	COP	VOLT-PH
HP-1	1200	0	1/2	1075	208V-1Ø	7.5	208V-1Ø	35.0	25.5	12.0	36.2	3.7	3.0	208V-1Ø	YORK N4AHD14/EFH036
HP-2	480	50	1/8	1075	208V-1Ø	3.8	208V-1Ø	13.0	9.5	10.5	13.0	1.3	3.0	208V-1Ø	YORK N4AHD06/EFH012

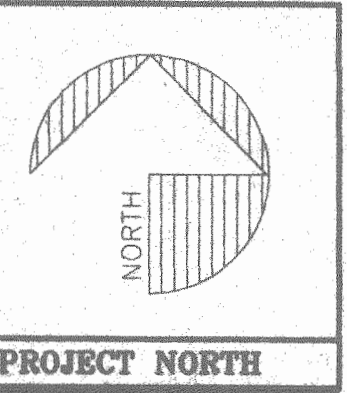
\* 80 DEGREES EDB/67 DEGREES EWB & 95 DEGREES AMBIENT  
\*\* 70 DEGREES EDB & 47 DEGREES AMBIENT

CONNECT ELECT. HEATER AND A/C CYCLE TO HUMIDSTAT. SUCH THAT THE A/C WILL RUN WITH ELECT. HEATER UPON RISE OF HUMIDITY ABOVE SET POINT OF HUMIDSTAT.

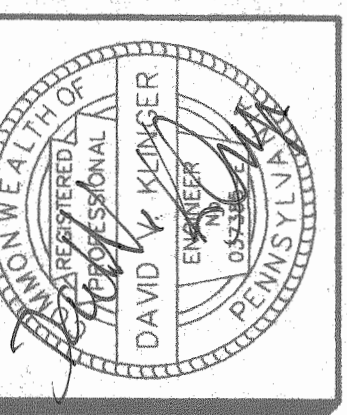


SECOND FLOOR MECHANICAL PLAN  
SCALE: 1/4" = 1'-0"

FILE: 0032213 JOB #: 00372  
DATE: 3-31-1999 TPE: 5:00p



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REVISIONS

ADDITION AND RENOVATIONS TO EXISTING MEDICAL FACILITY FOR  
TRISTAN ASSOCIATES  
4518 UNION DEPOSIT ROAD  
LOWER PAXTON TOWNSHIP DAUPHIN COUNTY PENNSYLVANIA  
SECOND FLOOR MECHANICAL PLAN

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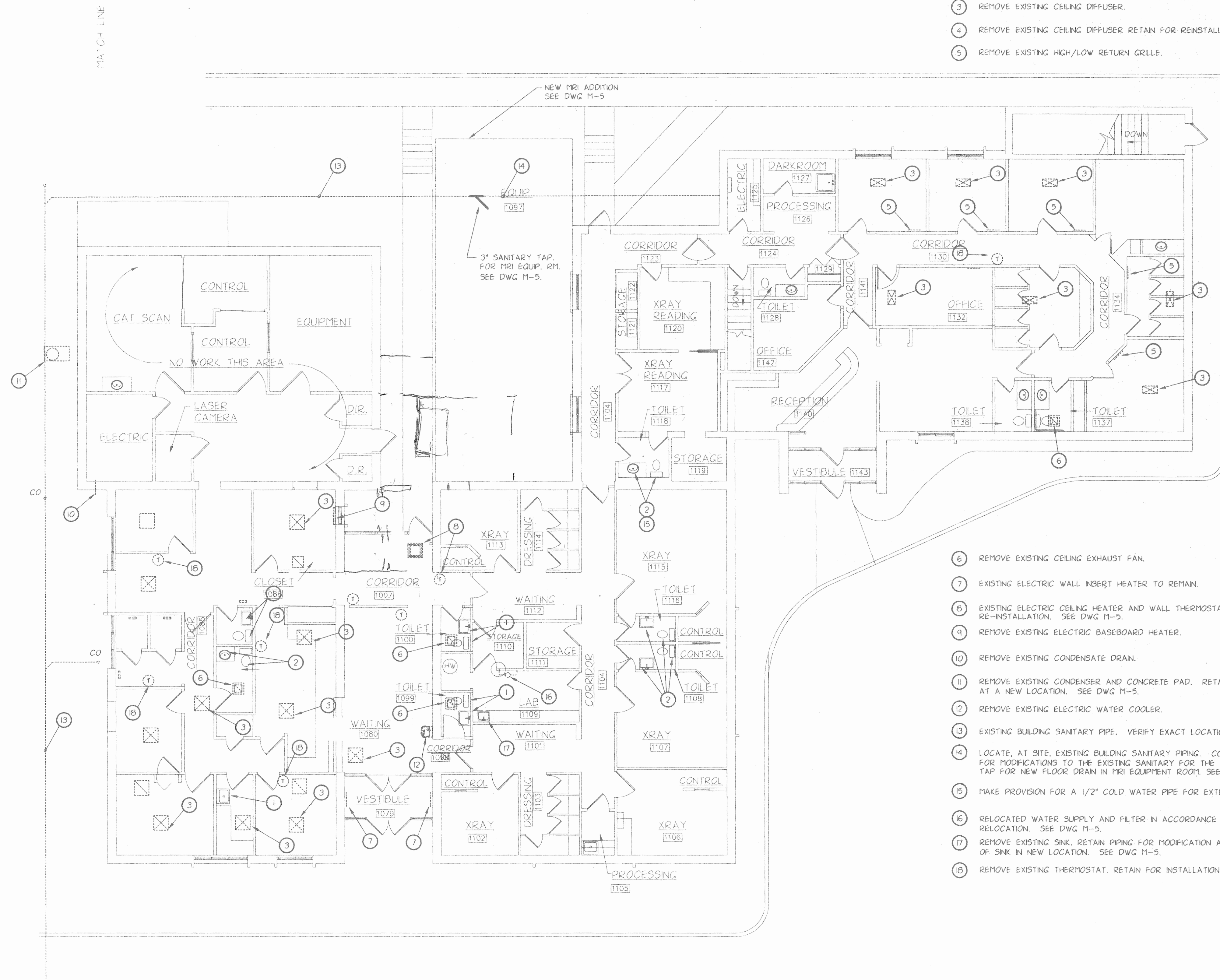
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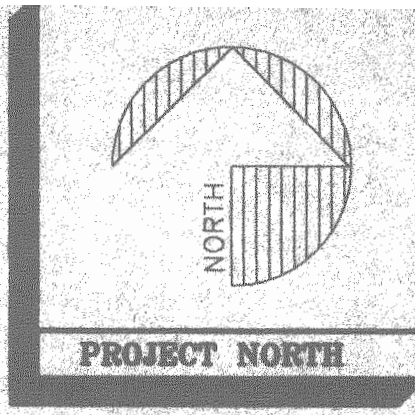


- NOTES:
- 1 REMOVE EXISTING PLUMBING FIXTURES, RETAIN PIPING FOR MODIFICATION AND EXTENSION TO NEW PLUMBING FIXTURES. SEE DWG M-5.
  - 2 REMOVE EXISTING PLUMBING FIXTURES, REMOVE PIPING BELOW FLOOR AND ABOVE CEILING. CAP GAS TIGHT.
  - 3 REMOVE EXISTING CEILING DIFFUSER.
  - 4 REMOVE EXISTING CEILING DIFFUSER RETAIN FOR REINSTALLATION INTO NEW CEILING.
  - 5 REMOVE EXISTING HIGH/LOW RETURN GRILLE.

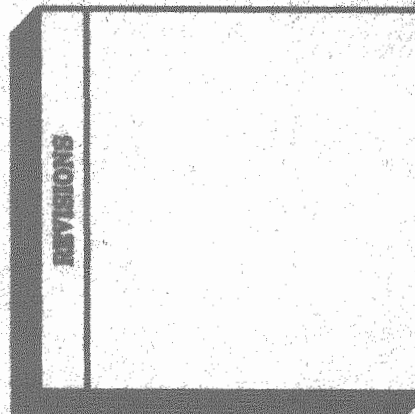
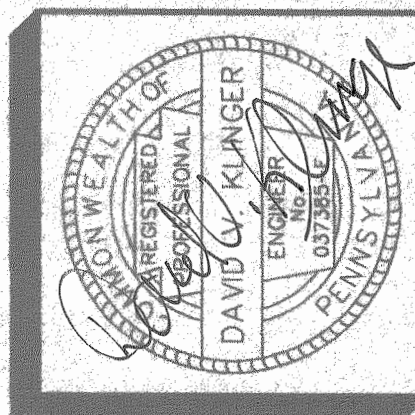
- 6 REMOVE EXISTING CEILING EXHAUST FAN.
- 7 EXISTING ELECTRIC WALL INSERT HEATER TO REMAIN.
- 8 EXISTING ELECTRIC CEILING HEATER AND WALL THERMOSTAT TO REMOVED, RETAIN FOR RE-INSTALLATION. SEE DWG M-5.
- 9 REMOVE EXISTING ELECTRIC BASEBOARD HEATER.
- 10 REMOVE EXISTING CONDENSATE DRAIN.
- 11 REMOVE EXISTING CONDENSER AND CONCRETE PAD. RETAIN CONDENSING UNIT FOR INSTALLATION AT A NEW LOCATION. SEE DWG M-5.
- 12 REMOVE EXISTING ELECTRIC WATER COOLER.
- 13 EXISTING BUILDING SANITARY PIPE. VERIFY EXACT LOCATION AT SITE.
- 14 LOCATE, AT SITE, EXISTING BUILDING SANITARY PIPING. COORDINATE WITH THE G.C. FOR MODIFICATIONS TO THE EXISTING SANITARY FOR THE NEW MRI ADDITION. PROVIDE TAP FOR NEW FLOOR DRAIN IN MRI EQUIPMENT ROOM. SEE DWG. M-6.
- 15 MAKE PROVISION FOR A 1/2" COLD WATER PIPE FOR EXTENSION TO MRI EQUIPMENT ROOM.
- 16 RELOCATED WATER SUPPLY AND FILTER IN ACCORDANCE WITH THE WALL AND DOOR RELOCATION. SEE DWG M-5.
- 17 REMOVE EXISTING SINK. RETAIN PIPING FOR MODIFICATION AND RE-INSTALLATION OF SINK IN NEW LOCATION. SEE DWG M-5.
- 18 REMOVE EXISTING THERMOSTAT. RETAIN FOR INSTALLATION IN NEW LOCATION.

EXISTING BUILDING MECHANICAL DEMOLITION PLAN  
SCALE: 1/8" = 1'-0"

FILE: 0032274 JOB #: 00322  
DATE: 4-1-1999 TFE: 1/40p



**WILLIGEROD & MAC AVOY  
ARCHITECTS**  
2223 NORTH SECOND STREET HARRISBURG, PENNSYLVANIA 17110-1065  
717-238-5037 FAX: 717-238-5037



ADDITION AND RENOVATIONS TO EXISTING MEDICAL FACILITY  
**TRISTAN ASSOCIATES**  
4516 UNION DEPOSIT ROAD  
LOWER PAXTON TOWNSHIP, DAUPHIN COUNTY, PENNSYLVANIA  
**EXISTING BUILDING MECHANICAL DEMOLITION PLAN**

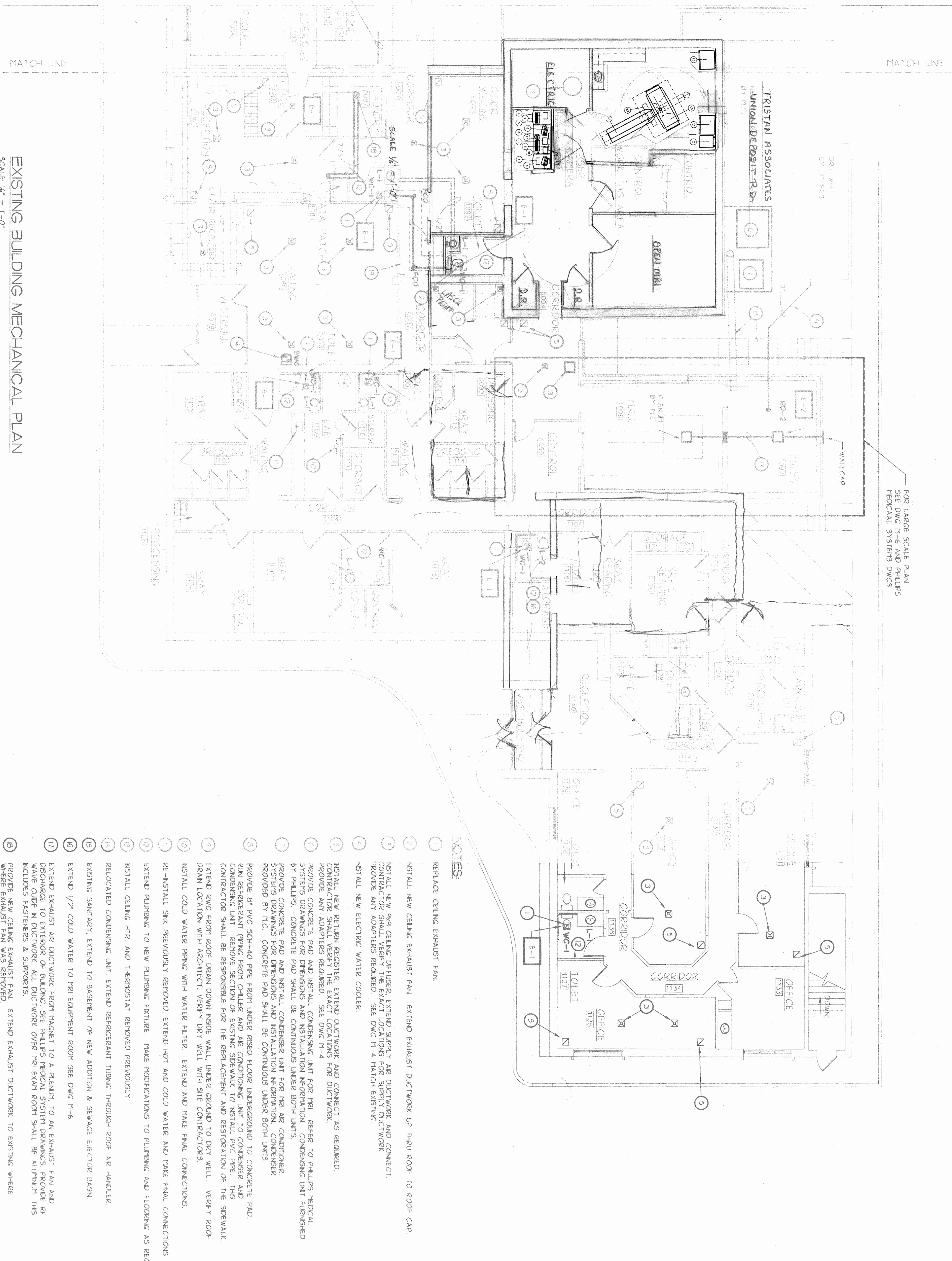
**DAVID V. KLINGER, P.E.**  
CONSULTING ENGINEERS  
2912 PAXTON STREET  
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(717) 561-1109  
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MECHANICAL - ELECTRICAL ENGINEERING

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10-051-R-1	1	SHP CONTROL PANEL
IDC/R&B	1	REMOTE RELAY
10-2176	1	SRM4 RELAY MODULE
10-2190-1	1	7AH BATTERY ASSY.
60-1028	2	THERMAL DETECTOR
63-024	2	PHOTOELECTRIC DETECTOR WITH BASE
67-024	2	IONIZATION DETECTOR WITH BASE
10-1643	1	MANUAL RELEASE/SYSTEM ABORT
20-091	1	RS241575 STROBE
20-098	1	W7245W HORN/STROBE
20-110	1	M86G24R ALARM BELL
02-3644	1	MANUAL RELEASE SIGN
02-3645	1	FLASHING LIGHT SIGN
02-3646	1	"CAUTION" SIGN
70-087	1	215 LB. FM200 AGENT STORAGE CONTAINER
10-1832	1	FM200 AGENT RELEASE MODULE
80-056	1	DISCHARGE NOZZLE
80-053	1	DISCHARGE NOZZLE
80-062	1	DISCHARGE NOZZLE
PART NUMBER	QTY	DESCRIPTION

EQUIPMENT LEGEND  
SPECIAL FIRE SUPPRESSION



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ADDITION AND RENOVATIONS TO EXISTING MEDICAL FACILITY FOR  
**TRISTAN ASSOCIATES**  
4518 UNION DEPOSIT ROAD  
LOWER PAXTON TOWNSHIP DAUPHIN COUNTY PENNSYLVANIA  
**EXISTING BUILDING MECHANICAL PLAN**

REVISIONS

DAVID V. KLINGER  
REGISTERED PROFESSIONAL ENGINEER  
037385  
PENNSYLVANIA

**WILLIGEROD & MAC AVOY ARCHITECTS**  
2223 NORTH SECOND STREET HARRISBURG PENNSYLVANIA  
717-233-7285 FAX: 717-238-5037 17110-1065

**PROJECT NORTH**  
NORTH



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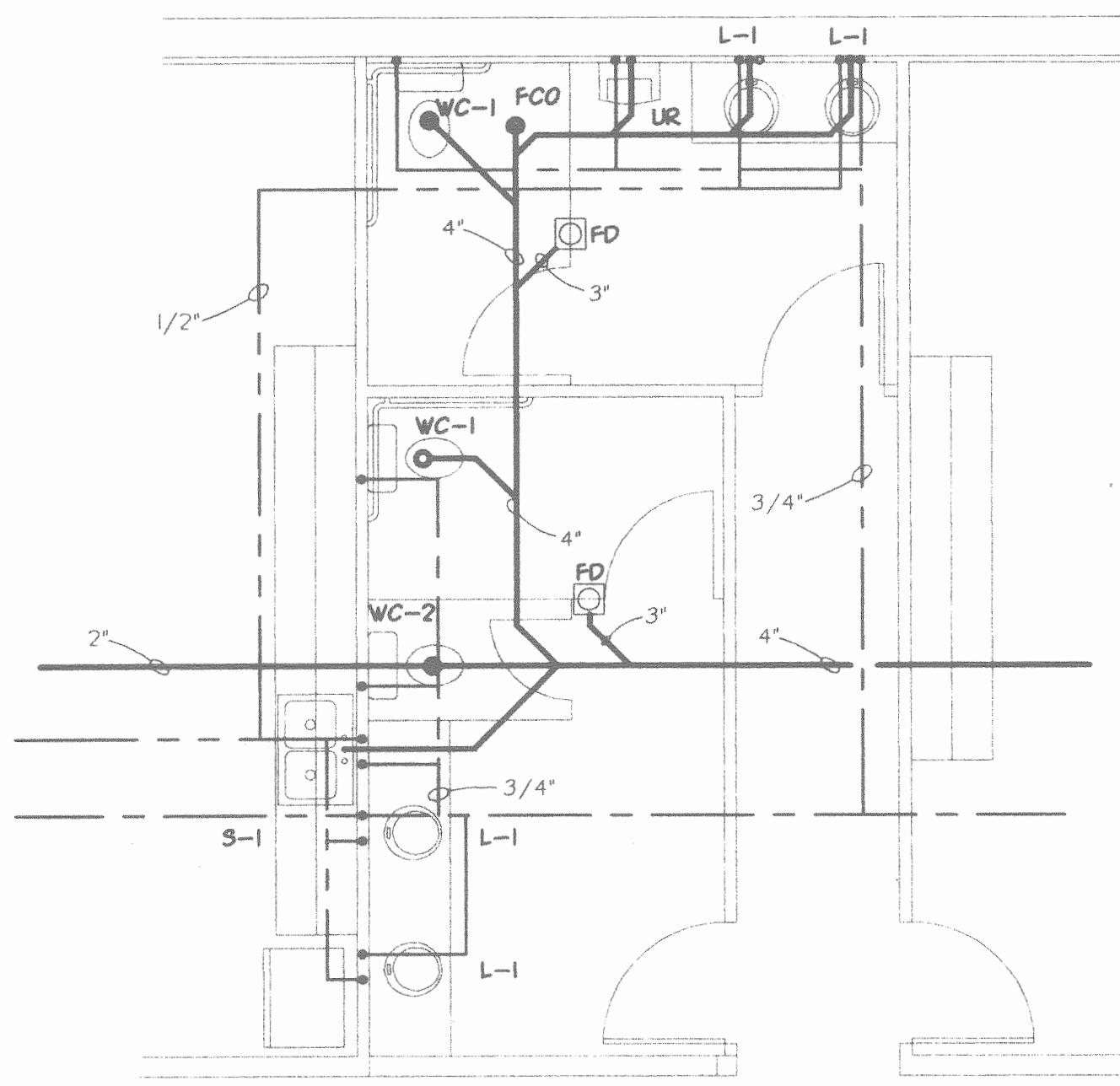
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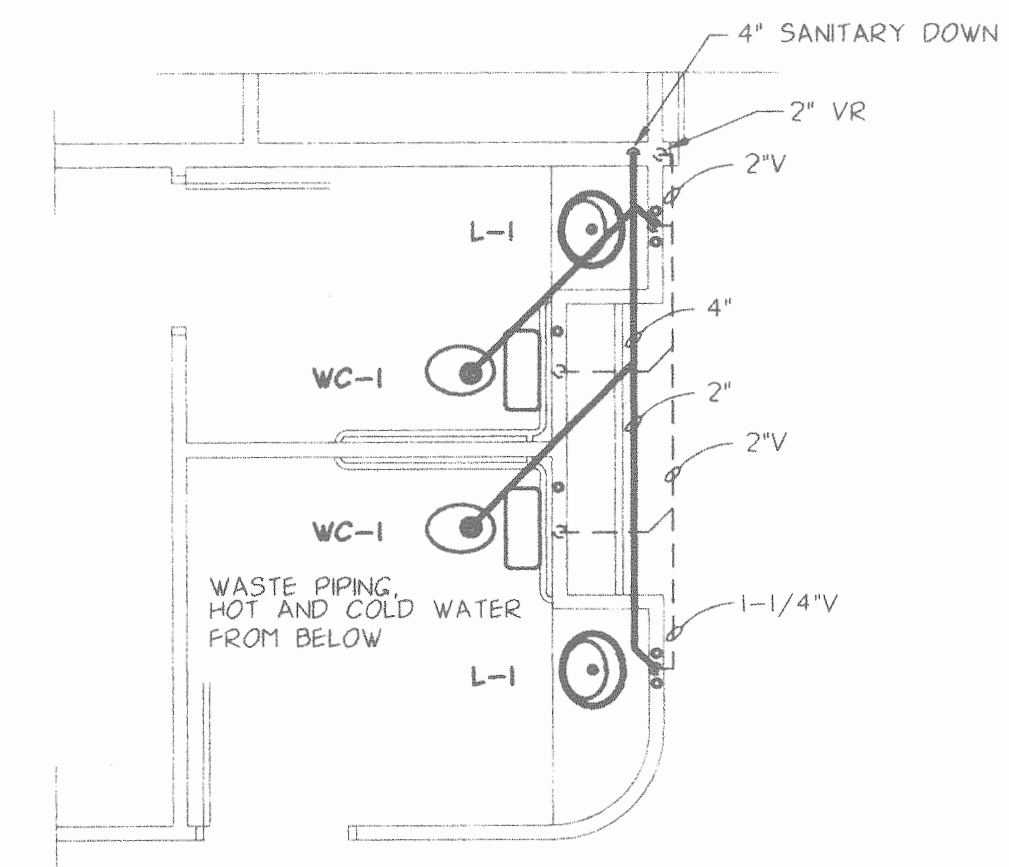
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PLUMBING FIXTURE SCHEDULE						
SYMBOL	DESCRIPTION	HW	CW	DR	V	REMARKS
WC-1	WATER CLOSET-HDCP	--	1/2	4	2	AM STD
WC-2	WATER CLOSET-STD	--	1/2	4	2	AM STD
L-1	LAVATORY - VANITY	1/2	1/2	1-1/2	1-1/4	AM STD
L-2	WHEEL CHAIR LAVATORY	1/2	1/2	1-1/2	1-1/4	AM STD
PW	PAVE WASH	--	3/4	--	--	ZURN
S-1	DOUBLE BOWL SS SINK	1/2	1/2	1-1/2	1-1/4	ELKAY
S-2	SINGLE BOWL SS SINK	1/2	1/2	1-1/2	1-1/4	ELKAY
FD-1	FLOOR DRAIN	--	--	3	--	ZURN
FD-2	FLOOR DRAIN	--	--	3	--	ZURN
RD-1	ROOF DRAIN	--	--	3	--	ZURN
UR	URINAL	--	3/4	2	1-1/2	AM STD
MS	MOP SINK	1/2	1/2	3	1-1/2	AM STD
SS	SERVICE SINK	1/2	1/2	3	1-1/2	AM STD
PW	PAVE WASH	--	3/4	--	--	ZURN
GWH	GAS FIRED WATER HEATER	1/2	1/2	--	--	A.O. SMITH
EWC	ELECTRIC WATER COOLER	--	1/2	1-1/4	1-1/4	OASIS
SEP	SEWAGE EJECTOR PUMP	--	--	3	1-1/2	LITTLE GIANT
DWP	DE-WATERING PUMP	--	--	3	1-1/2	LITTLE GIANT
S-3	SINGLE BOWL SS SINK	1/2	1/2	1-1/4	1-1/4	ELKAY

PROVIDE SUPPLIES, TRAPS, STRAINERS, TAIL PIECES, ETC FOR COMPLETE INSTALLATION.



TOILET ROOMS BASEMENT  
SCALE 1/4" = 1' - 0"



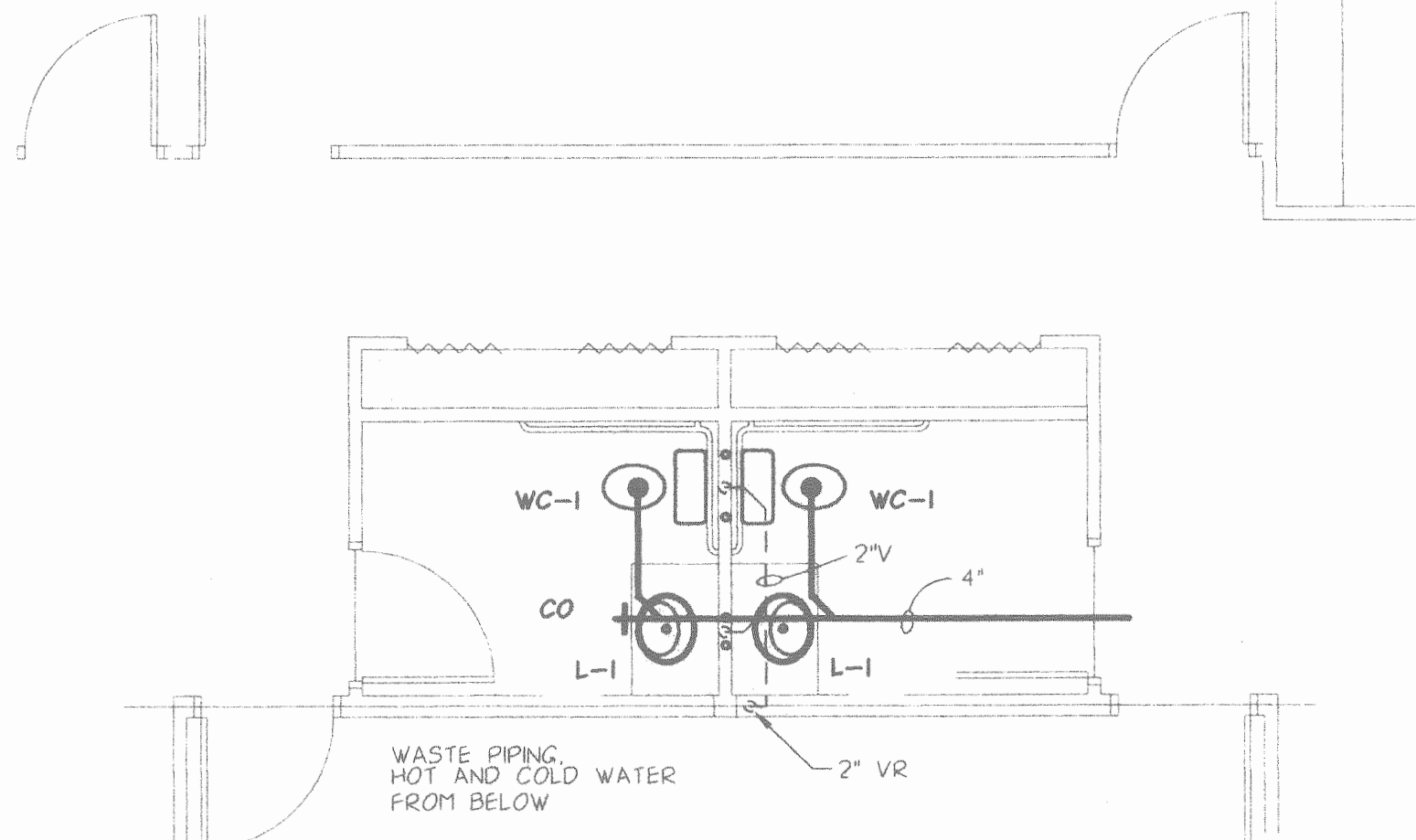
TOILET ROOMS 1077/1078  
SCALE 1/4" = 1' - 0"

ELECTRIC WALL HEATER SCHEDULE					
SYMBOL	CFM	MBH	KW	VOLTS	MFGR. AND MODEL NUMBER
H-1	120	16.1	5.0	240	QMARK CUW-1000 -STF
H-2	120	13.6	4.0	240	QMARK AWH-4000

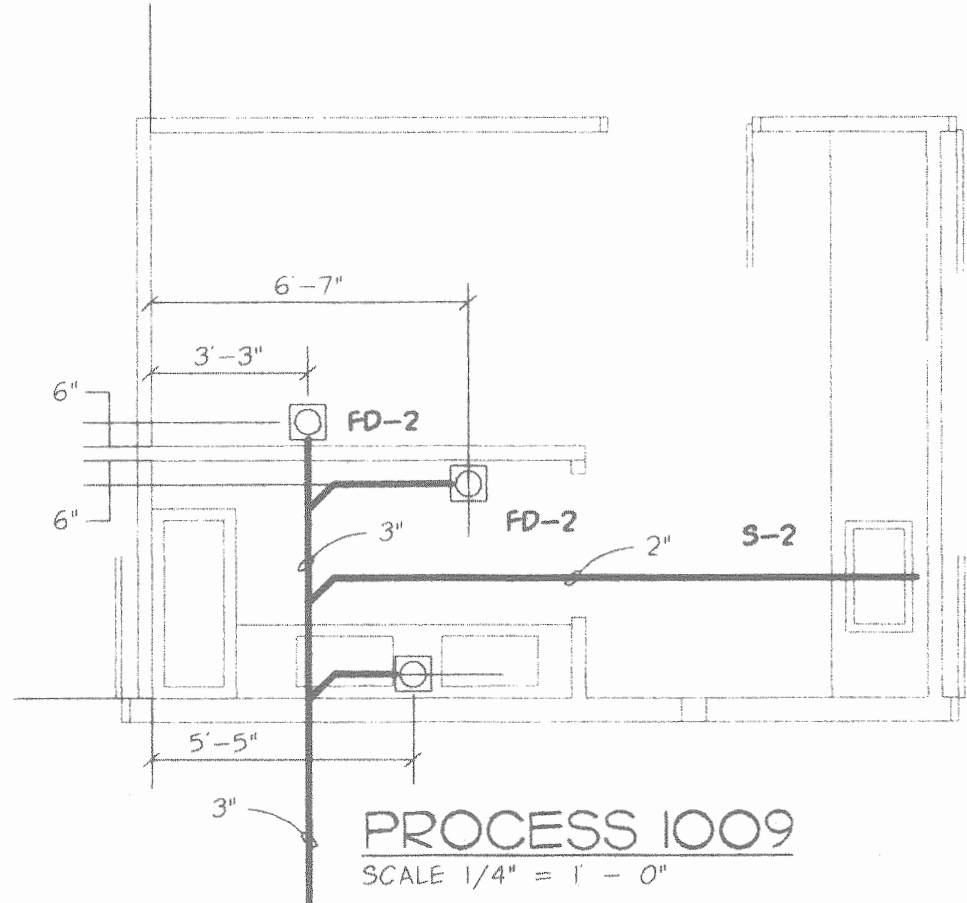
\* WITH INTERNAL TAMPER PROOF THERMOSTAT & DISCONNECT

SPLIT SYSTEM AIR CONDITIONING SCHEDULE																
SYMBOL	AIR HANDLER SECTION							OUTDOOR SECTION *								
	SA CFM	OA CFM	FAN HP	ESP	TSP	RPM	VOLT-PH	HEATING INPUT MBH	OUTPUT MBH	TOTAL MBH CLG	SENS MBH CLG	EER	SYS. KW	VOLT-PH	MFGR AND MODEL	
SS-1	2000	140	3/4	0.50	--	1570	120	125	115	58.0	42.5	12.0	--	208/230	YORK PHDD20N11501/HID060	
SS-2	1000	100	1/3	0.50	--	1570	120	75	70	29.6	23.1	12.0	--	208/230	YORK PHDD12N06901/HID030	
SS-3	1200	100	1/3	0.50	--	1570	120	75	70	36.4	27.7	11.0	--	208/230	YORK PHDD12N06901/HID036	

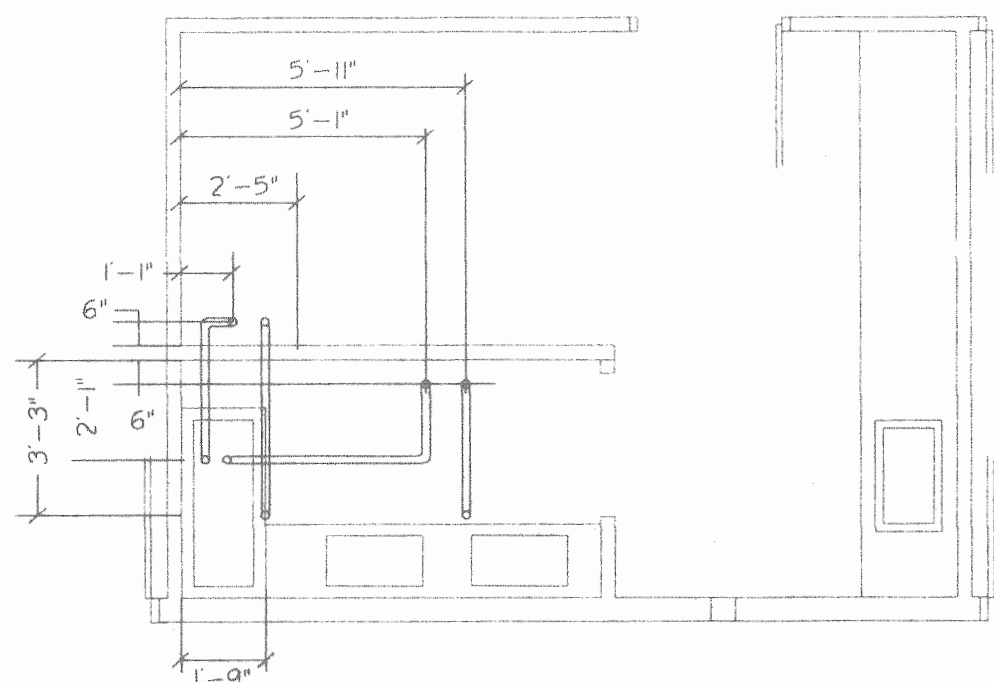
\* RATED IN ACCORDANCE WITH DOE TEST PROCEDURES AND ARI STANDARDS 210 AND 270.



TOILET ROOMS 1027/1033  
SCALE 1/4" = 1' - 0"



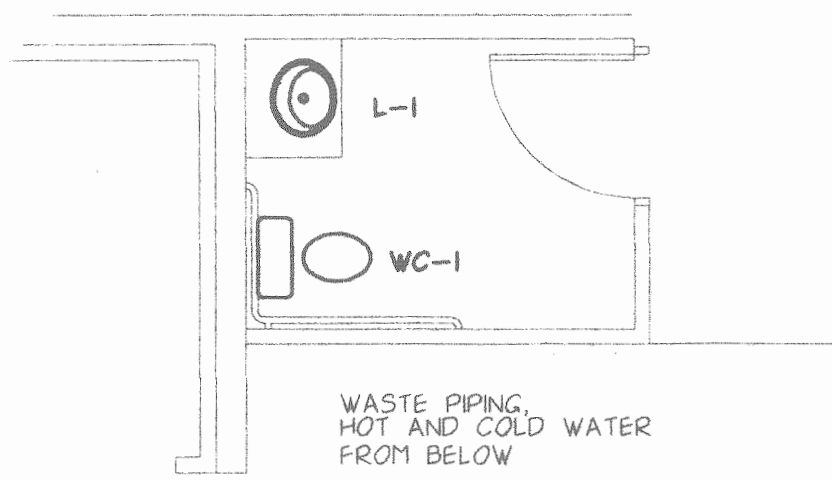
PROCESS 1009  
SCALE 1/4" = 1' - 0"



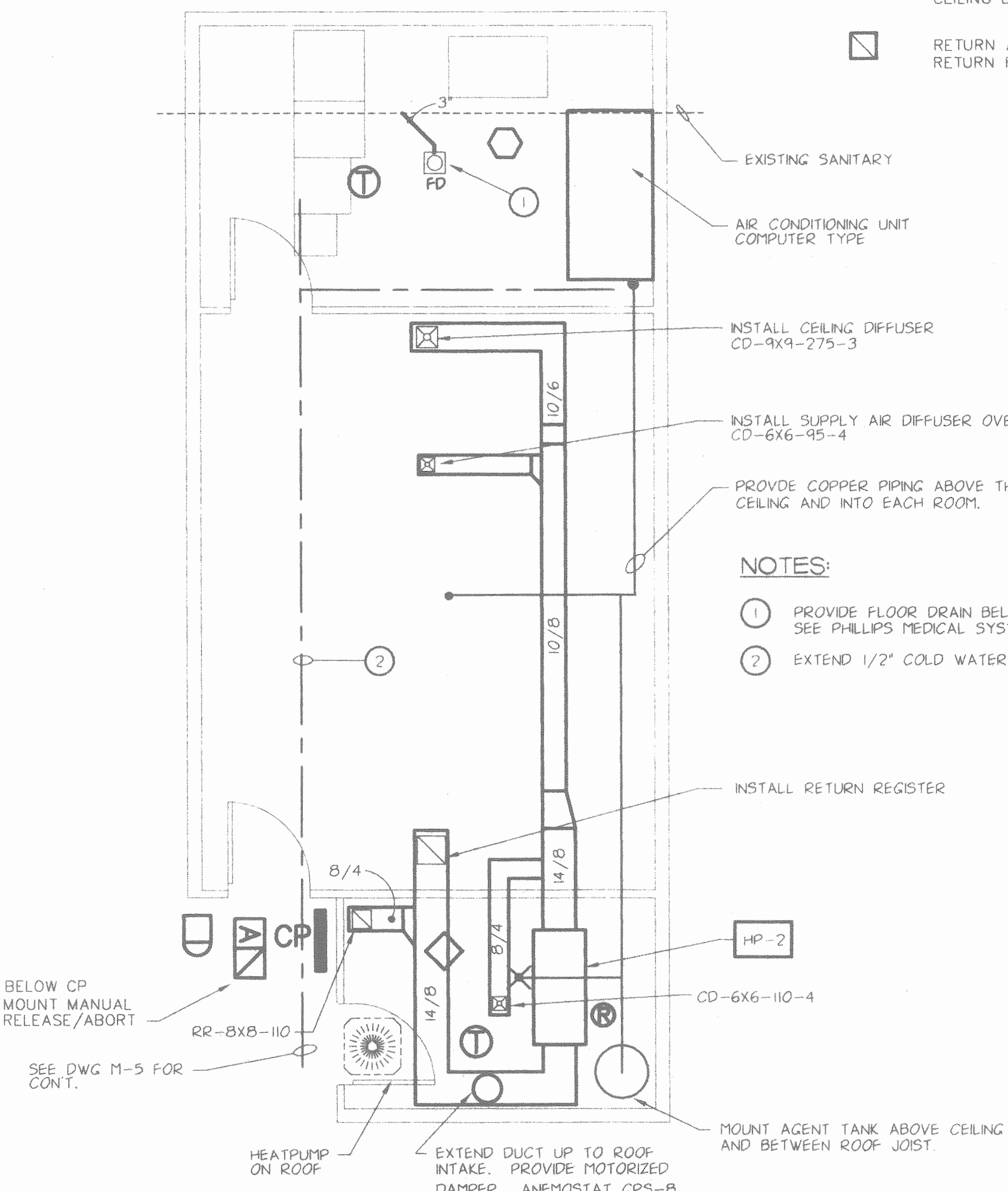
PROCESS 1009  
SCALE 1/4" = 1' - 0"

EXHAUST FAN SCHEDULE						
SYMBOL	CFM	S.P.	H.P.	RPM	VOLTS	TYPE
E-1	101	0.13	33W	1050	120	CLG
E-2	347	0.25	217W	1550	120	CAB
E-3	186	0.13	75W	1690	120	CAB

\* INTERLOCK FAN WITH LOCAL HVAC UNIT.  
\*\* INTERLOCK SUCH THAT FAN RUNS FOR ONE HOUR AFTER EXAM EQUIPMENT SHUTS DOWN.  
\*\*\* FAN SHALL RUN CONTINUOUSLY



TYPICAL TOILET ROOM  
SCALE 1/4" = 1' - 0"



MRI SYSTEMS LAYOUT  
SCALE 1/4" = 1' - 0"

MECHANICAL ABBREVIATIONS

ATC	AUTOMATIC TEMPERATURE CONTROL	LP	LINEAL FEET
ABV	ABOVE	M.C.	MECHANICAL CONTRACTOR
ABF	ABOVE FINISHED FLOOR	MBH	1000 BTU/H
BTUH	BRITISH THERMAL UNITS/HOUR	MTD	MOUNTED
C.A.	COMPRESSED AIR	P.C.	PLUMBING CONTRACTOR
C.I.	CAST IRON	PD	PRESSURE DROP
CD	CONDENSATE DRAIN	PSIG	POUNDS/SQ. IN. GAUGE
CLG	CEILING OR COILING	PVC	POLY VINYL CHLORIDE
CONN	CONNECTION	RD	ROOF DRAIN
CW	COLD WATER	RPM	REVOLUTIONS PER MINUTE
CW	COLD WATER	RWC	RAIN WATER CONDUCTOR
DN	DOWN	TYP	TYPICAL
E.C.	ELECTRICAL CONTRACTOR	V	VENT OR VOLTS
ELEV	ELEVATION	VBF	VENT BELOW FLOOR
EQUIP	EQUIPMENT	VR	VENT RISER
EXIST	EXISTING	VTR	VENT THRU ROOF
FD	FLOOR DRAIN	W	WITH
FLEX	FLEXIBLE	W/O	WITHOUT
FT	FEET	WBF	WASTE BELOW FLOOR
G.C.	GENERAL CONTRACTOR	WPD	WATER PRESSURE DROP
GA	GAUGE		
GAL	GALLONS		
GPM	GALLONS PER MINUTE		
GR	GRADE		
HD	HEAD		
HP	HORSE POWER		
H.C.	HEATING CONTRACTOR		
HW	HOT WATER		
INV	INVERT		
KW	KILOWATT		

NOTE: ABBREVIATIONS DO NOT NECESSARILY APPEAR ON THE DRAWINGS.

MECHANICAL SYMBOLS

	GATE VALVE		COLD WATER
	CHECK VALVE		HOT WATER
	BALL VALVE		VENT PIPING
	UNION OR FLANGE		FLOOR CLEANOUT
	ELBOW UP		SANITARY PIPING
	ELBOW DOWN		RAIN WATER CONDUCTOR
	FLOW ARROW		RETURN OR EXHAUST AIR
	TURNING VANES		SUPPLY AIR
	SUPPLY AIR CEILING DIFFUSER		OUTSIDE AIR
	RETURN AIR RETURN REGISTER		GAS PIPING
	FLEXIBLE CONNECTION		DUCTWORK
	FLEXIBLE DUCT		VOLUME DAMPER
	THERMOSTAT		MOTOR OPERATED DAMPER
	HUMIDISTAT		

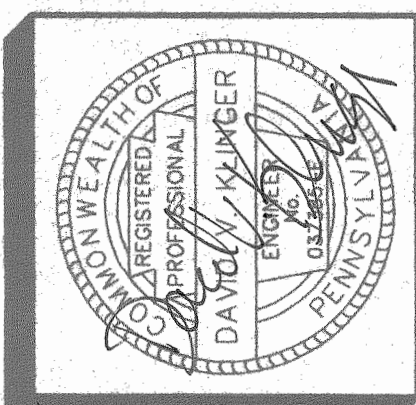
NOTES:

- 1 PROVIDE FLOOR DRAIN BELOW RAISED FLOOR FOR DRAINS FROM EQUIPMENT. SEE PHILLIPS MEDICAL SYSTEM DWGS.
- 2 EXTEND 1/2" COLD WATER PIPE TO EQUIPMENT AND AIR COND. UNIT.

FILE: 9432216 JOB #: 94322  
DATE: 4-2-1999 TFE: 9406

PROJECT NORTH

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MECHANICAL SCHEDULES AND DETAILS

ADDITION AND RENOVATIONS TO EXISTING MEDICAL FACILITY FOR  
TRISTAN ASSOCIATES  
4518 UNION DEPOSIT ROAD PENNSYLVANIA  
LOWER PAXTON TOWNSHIP DAUPHIN COUNTY  
MECHANICAL SCHEDULES AND DETAILS

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MECHANICAL - ELECTRICAL ENGINEERING



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ELECTRICAL NOTES

- CONTROL PANEL SHALL BE WIRED THROUGH SEPARATE CONDUIT TO A 15AMP, 120 VAC DEDICATED CIRCUIT BREAKER. THREE CONDUCTORS MUST BE RUN: HOT, GROUND AND NEUTRAL.
- ALL ELECTRICAL WIRING MUST MEET REQUIREMENTS SET FORTH BY ARTICLE 760 OF THE NEC, AND LOCAL CODES.
- HIGH VOLTAGE / LOW VOLTAGE LINES MUST BE RUN IN SEPARATE CONDUIT.
- ALL WIRES MUST BE LABELED, NUMBERED OR COLOR CODED.
- ALL AUDIBLE DEVICE CIRCUITS ARE SUPERVISED - PARALLEL BRANCHES OF WIRES IS NOT PERMISSIBLE.
- DETECTORS MAY NOT BE LOCATED IN DIRECT AIR STREAMS FROM SUPPLY DUCTS.
- CONTROL PANEL SHALL BE CONNECTED TO EARTH GROUND TO DEFEND AGAINST REDUCED LIGHTENING PROTECTION AND LOSS OF GROUND FAULT SUPERVISION (ARTICLE 760 OF THE NEC).
- ALL PENETRATIONS MADE BY INSTALLING CONTRACTOR SHALL BE SEALED TO INSURE ROOM INTEGRITY.
- INSTALLING CONTRACTOR SHALL CONFORM TO SSI ELECTRICAL SPECIFICATIONS, INCLUDED IN SSI SUBMISSION BOOKLET.

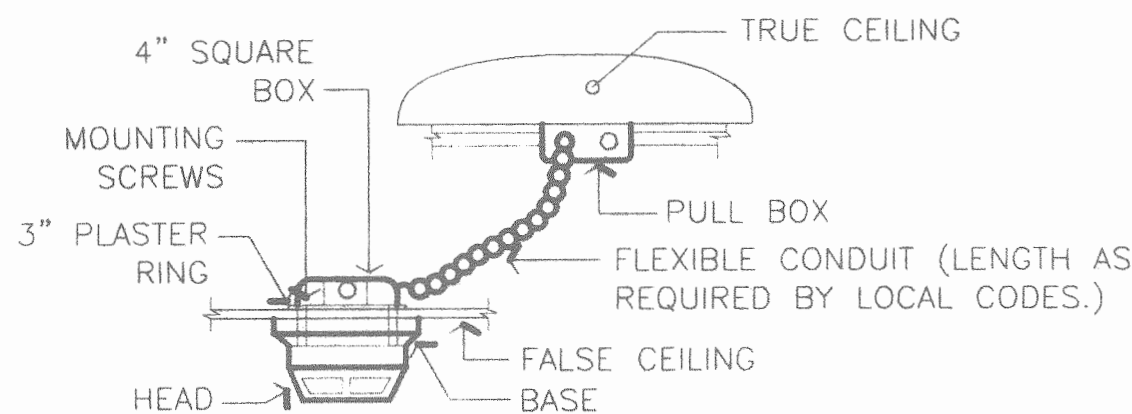
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02-3646 CAUTION SIGN NTS



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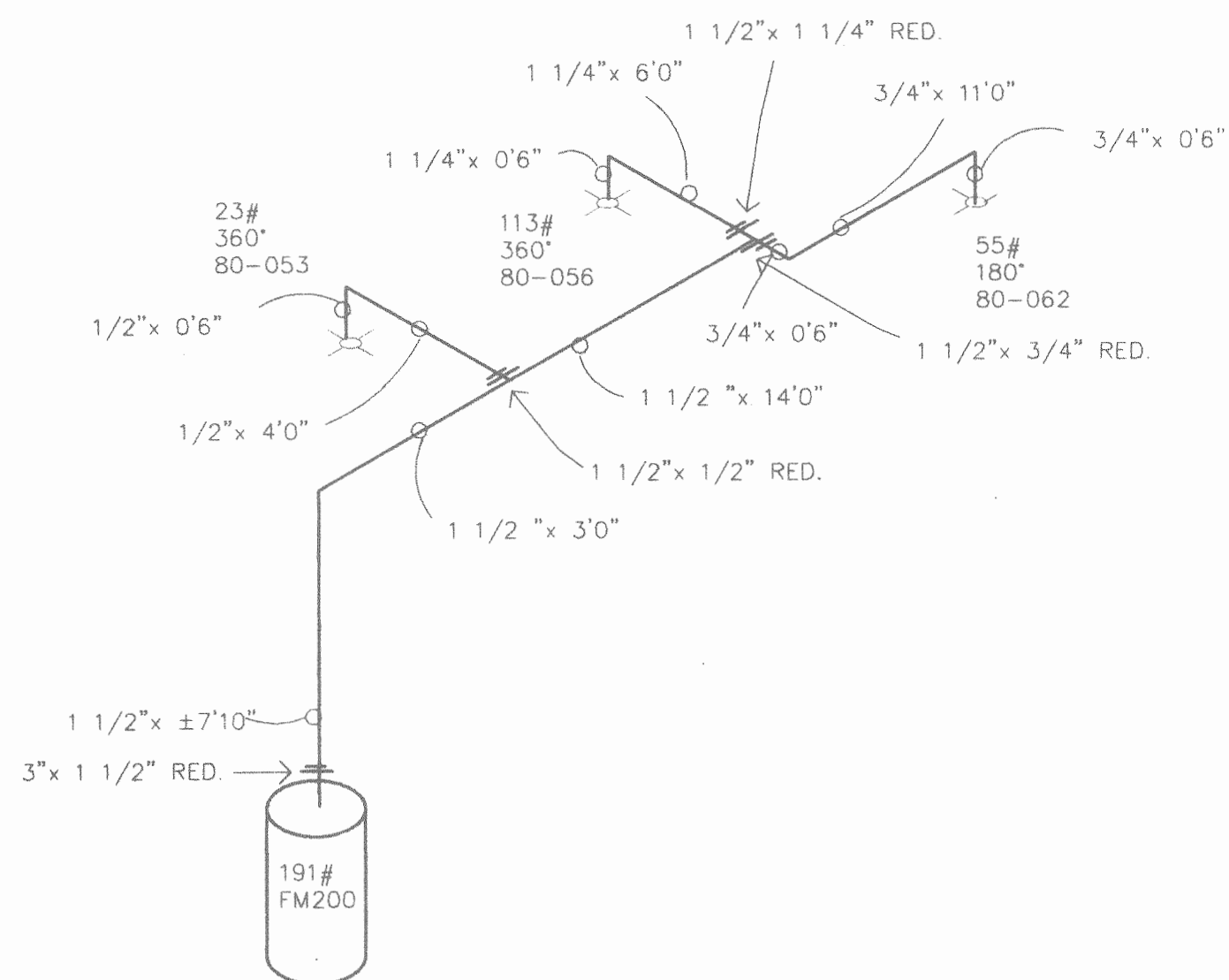
ACOUSTICAL TILE CEILING DETECTOR MOUNTING NTS

C

SYSTEM NOTES

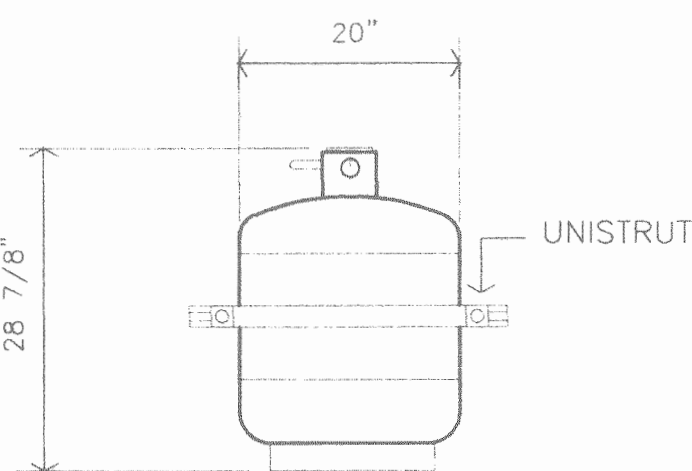
- COMPONENT LOCATIONS ARE SHOWN FOR DESIGN PURPOSES, AND MUST BE APPROVED PRIOR TO ACTUAL INSTALLATION.
- CONTROL PANEL AND ALL ASSOCIATED DEVICES ARE TO BE "FLUSH" MOUNTED UNLESS OTHERWISE NOTED.
- ALL DOORS TO PROTECTED AREA ARE CONSIDERED "NORMALLY CLOSED."
- ANY DEVIATIONS FROM BASIC DESIGN MUST MEET APPROVAL BY THE SSI ENGINEERING DEPARTMENT PRIOR TO CONTINUING WITH INSTALLATION.

D



PIPING ISOMETRIC NTS

E



215 LB. AGENT STORAGE CONTAINER NTS  
P/N 70-087

MECHANICAL NOTES

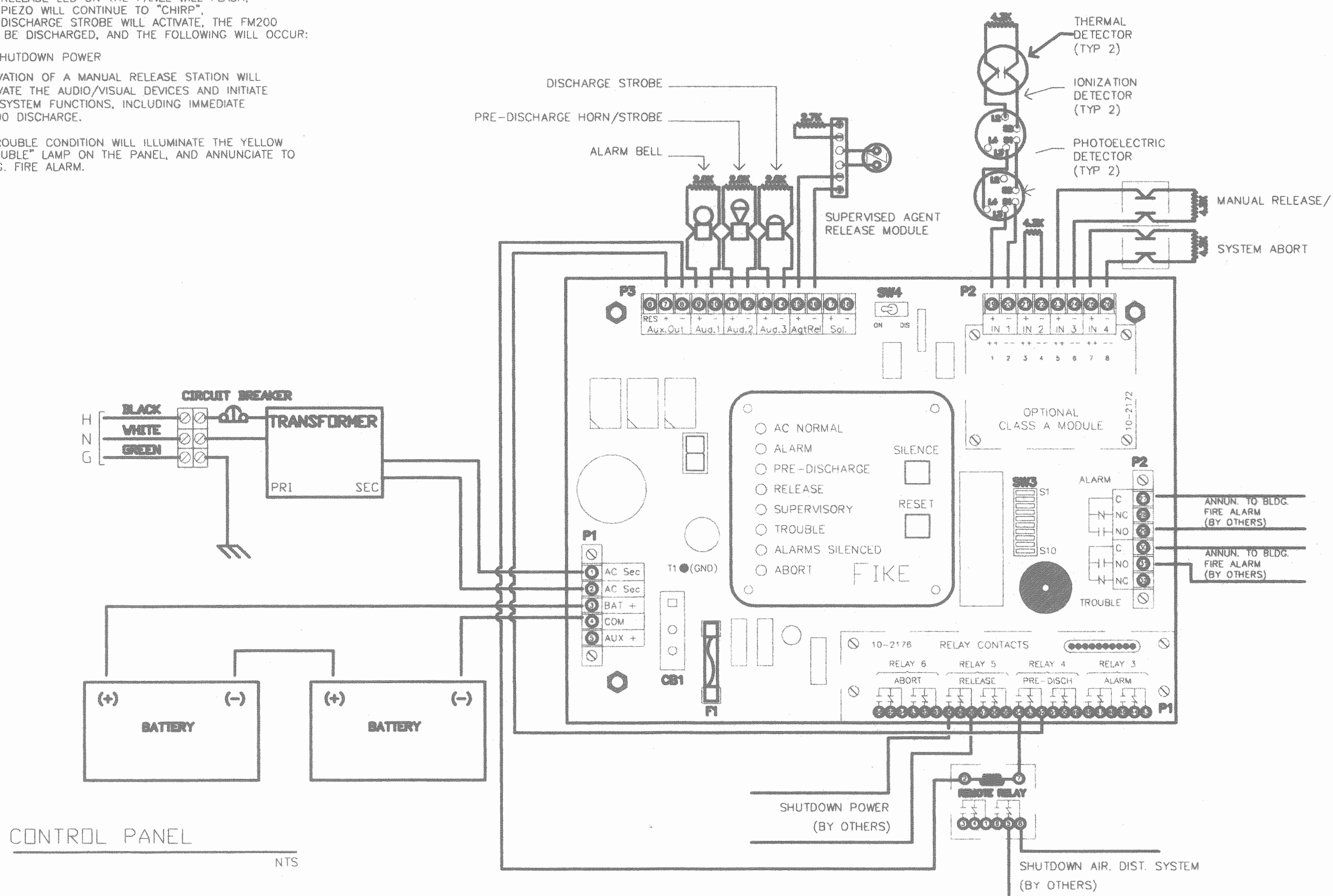
- PIPING MATERIALS MUST CONFORM TO THE REQUIREMENTS AS OUTLINED IN NFPA 2001, SECTION 2-2.1, CURRENT EDITION.
- PIPE FITTINGS MUST CONFORM TO THE REQUIREMENTS AS OUTLINED IN NFPA 2001, SECTION 2-2.3, CURRENT EDITION. MALLEABLE IRON FITTINGS MUST BE 300 LB. CLASS CONFORMING TO ASTM SPECIFICATION A-197. A 150 LB. CLASS AND ORDINARY CAST IRON FITTINGS ARE NOT PERMITTED. VICTAULIC OR GROOVED PIPE FITTINGS MAY BE USED AS WELL AS THREADED, WELDED OR FLANGED, AS LONG AS THEY CONFORM TO THE ABOVE REQUIREMENTS, HOWEVER, HOLE-CUT FITTINGS OR SIMILAR, MAY NOT BE USED.
- ALL REDUCTIONS SHALL BE MADE USING REDUCERS OR REDUCING FITTINGS - BUSHINGS ARE NOT PERMITTED.
- ALL PIPE AND NOZZLE DROPS MUST BE BRACED TO WALLS, COLUMNS, OR CEILINGS USING STEEL HANGERS, BRACED NO MORE THAN 5' APART (CONSULT SSI MECHANICAL SPECS).
- LENGTHS OF PIPE ARE APPROXIMATE ONLY. INSTALLING CONTRACTOR MUST DETERMINE EXACT LENGTH REQUIREMENTS PRIOR TO FABRICATION, TO INSURE UNOBSTRUCTED DISCHARGE.
- PIPING IS DESIGNED "CENTER TO CENTER," AND FITTING ALLOWANCE IS INCLUDED IN PIPE LENGTH "CALL-OFF."
- ALL "THRU TEES" MUST BE RUN IN A HORIZONTAL PLANE.
- ALL PENETRATIONS MUST BE SEALED BY INSTALLING CONTRACTOR.
- INSTALLING CONTRACTOR SHALL CONFORM TO SSI MECHANICAL SPECIFICATIONS, INCLUDED IN SSI SUBMISSION BOOKLET.

SEQUENCE OF OPERATION

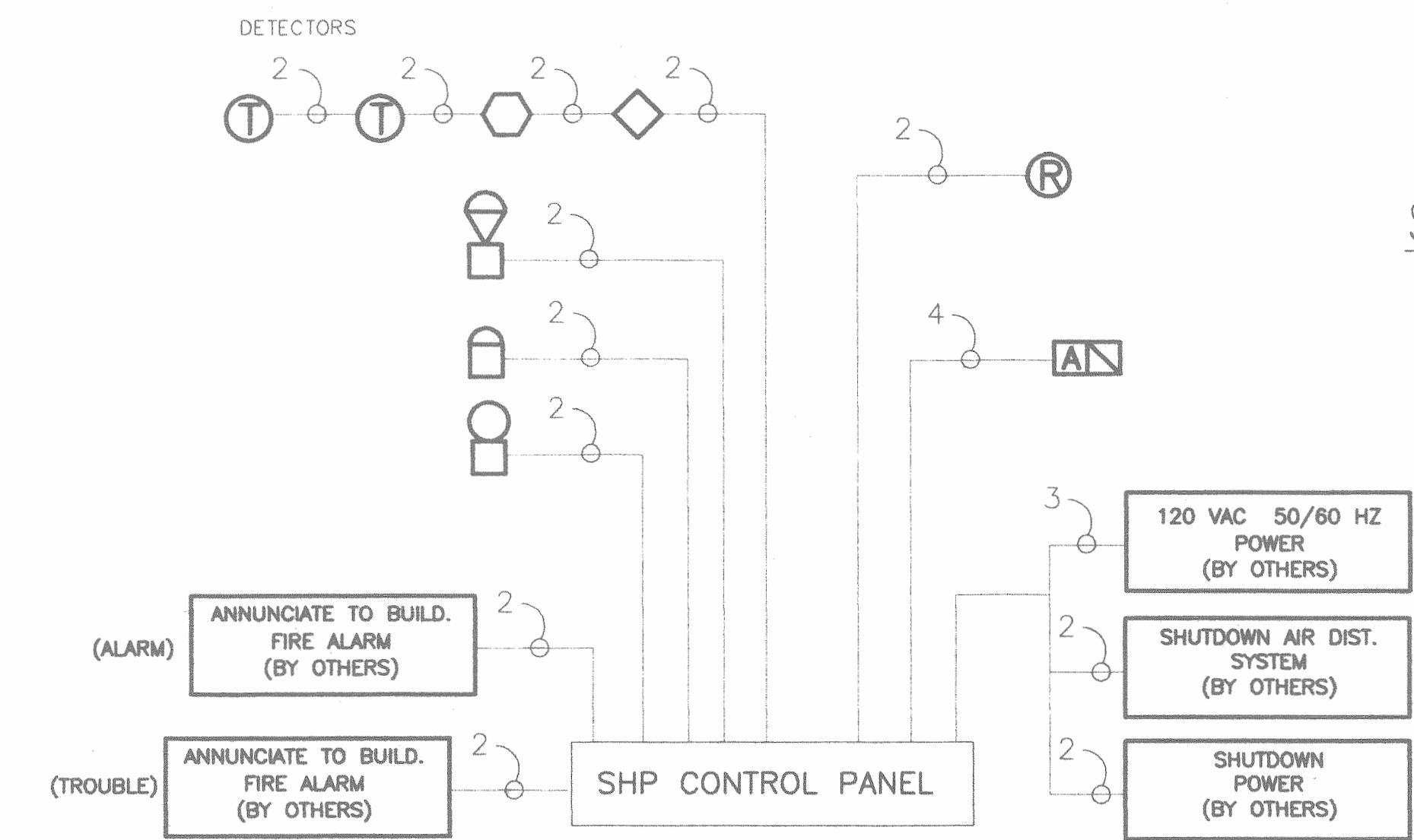
- 1st ALARM: ACTIVATION OF ANY SYSTEM SMOKE OR THERMAL DETECTOR WILL CAUSE THE "ALARM" LED ON THE PANEL TO FLASH, CAUSE THE PIEZO ON THE PANEL TO "CHIRP", AND CAUSE THE ALARM BELL AND CAUSE THE FOLLOWING:
- 1) ANNUNCIATE TO BLDG. FIRE ALARM
- 2nd ALARM: ACTIVATION OF A SECOND SMOKE OR THERMAL DETECTOR WILL CAUSE THE PRE-DISCHARGE LED ON THE PANEL TO FLASH, CAUSE THE PIEZO TO CONTINUE TO "CHIRP", THE HORN/STROBE UNIT TO ACTIVATE, INITIATE A 30 SECOND TIME DELAY AND THE FOLLOWING WILL OCCUR:
- 1) SHUTDOWN AIR DIST. SYSTEM
- DISCHARGE: UPON EXPIRATION OF THE 30 SECOND TIME DELAY, THE RELEASE LED ON THE PANEL WILL FLASH, THE PIEZO WILL CONTINUE TO "CHIRP", THE DISCHARGE STROBE WILL ACTIVATE, THE FM200 WILL BE DISCHARGED, AND THE FOLLOWING WILL OCCUR:
- 1) SHUTDOWN POWER
- MAN. REL. STATION: ACTIVATION OF A MANUAL RELEASE STATION WILL ACTIVATE THE AUDIO/VISUAL DEVICES AND INITIATE ALL SYSTEM FUNCTIONS, INCLUDING IMMEDIATE FM200 DISCHARGE.
- TROUBLE CONDITION: A TROUBLE CONDITION WILL ILLUMINATE THE YELLOW "TROUBLE" LAMP ON THE PANEL, AND ANNUNCIATE TO BLDG. FIRE ALARM.

PANEL PROGRAMMING

SWITCH	POSITION	DESCRIPTION
S1	OFF	SUPPRESSION MODE
S2	OFF	SEQUENTIAL DETECTION
S3	ON	ABORT TYPE 4
S4	ON	ABORT TYPE 4
S5	ON	30 SEC. PRE-DIS. DELAY
S6	OFF	30 SEC. PRE-DIS. DELAY
S7	OFF	A.R.M. OPERATION
S8	OFF	SEQUENTIAL OPTIONS
S9	OFF	UNUSED
S10	ON	INSUPERVISION DISABLED



CONTROL PANEL NTS



ELECTRICAL RISER NTS

FIKE PROTECTION SYSTEMS EQUIPMENT SHALL BE USED. THE SYSTEM SHALL BE FURNISHED, INSTALLED AND TESTED BY THE AUTHORIZED FIKE PROTECTION SYSTEMS DISTRIBUTOR:

SUPPRESSION SYSTEMS INC.  
PH: 1.800.360.0687  
FAX: 215.679.6028

SYSTEM LAYOUT  
SCALE 1/8" = 1'-0"

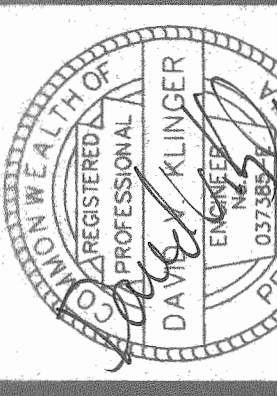
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MECHANICAL - ELECTRICAL ENGINEERING

PROJECT NORTH

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2223 NORTH SECOND STREET  
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TRISTAN ASSOCIATES  
4518 UNION DEPOSIT ROAD  
LOWER PAXTON TOWNSHIP, DAUPHIN COUNTY, PENNSYLVANIA  
MECHANICAL SCHEDULES AND DETAILS

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DATE: 4-1-1999 TIME: 12:45p

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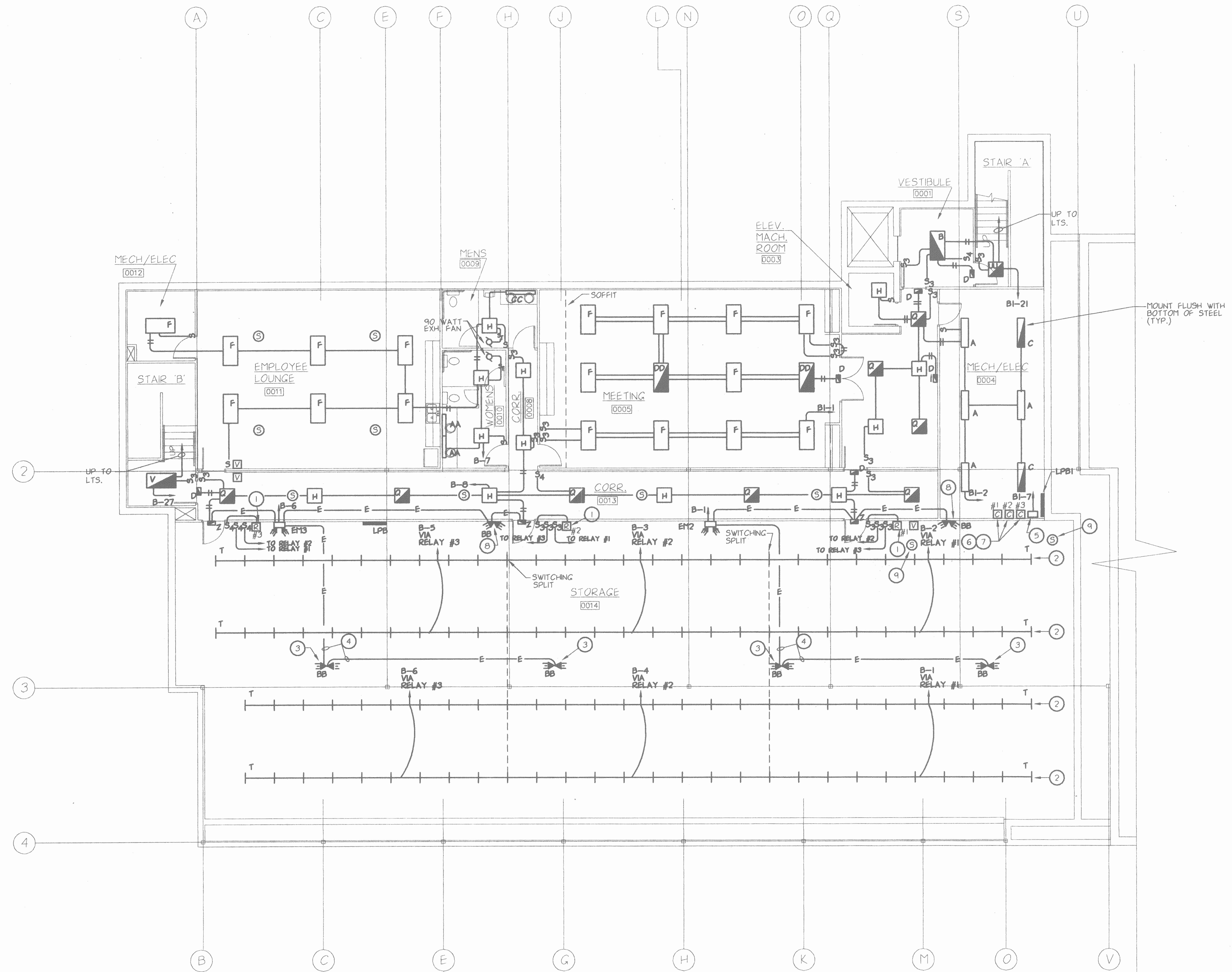
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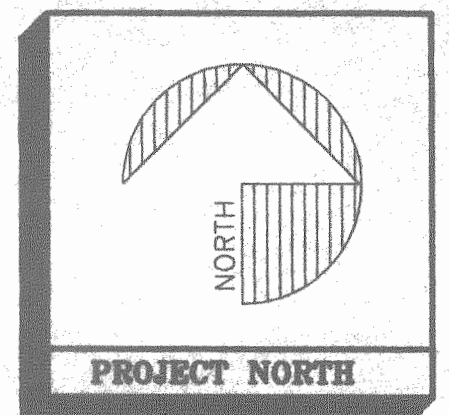


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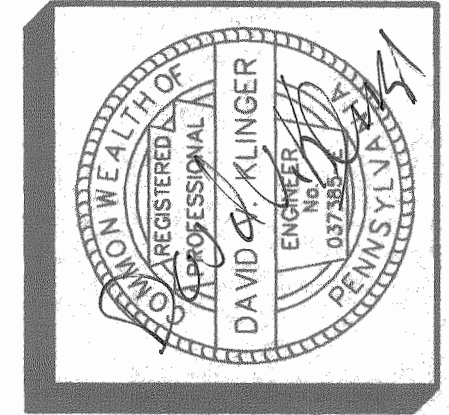
- 1 20A 2P N.O. RELAY IN NEMA 1 ENCL. MOUNT HIGH ON WALL.
- 2 MOUNT FIXTURES ACROSS BOTTOM OF STEEL (TYP.).
- 3 MOUNT ON BOTTOM OF STEEL.
- 4 2 #10 & 1 #10 GND. IN 1/2" C.
- 5 LIGHTING CONTROL CENTER. MOUNT 5' A.F.F. AND 3' (MIN.) FROM PANEL LPB1.
- 6 30A BP N.O. E/O LIGHTING CONTACTOR IN NEMA 1 ENCL. CONNECT CONTACTOR TO LIGHTING CONTROL CENTER. MT. CONTACTORS HIGH ON WALL.
- 7 CONTACTOR #1 SHALL BE CONTROLLED PHOTO CELL ON - PHOTO CELL OFF. CONTACTOR #2 SHALL BE CONTROLLED TIME CLOCK ON - TIME CLOCK OFF. CONTACTOR #3 SHALL BE CONTROLLED PHOTO CELL ON - TIME CLOCK OFF.
- 8 MOUNT 8' A.F.F.
- 9 MOUNT FLUSH WITH BOTTOM OF STEEL.

BASEMENT LIGHTING PLAN  
SCALE: 1/8" = 1'-0"

FILE: 9832261 JOB #: 98372  
DATE: 1-23-1999 TPE: 10-420



**WILLIGEROD & MAC AVOY**  
**ARCHITECTS**  
2223 NORTH SECOND STREET HARRISBURG PENNSYLVANIA 17110-1065  
717-238-5037 FAX: 717-238-5037



REVISIONS

ADDITION AND RENOVATIONS TO EXISTING MEDICAL FACILITY FOR  
**TRISTAN ASSOCIATES**  
4518 UNION DEPOSIT ROAD PENNSYLVANIA  
LOWER PAXTON TOWNSHIP DAUPHIN COUNTY  
**BASEMENT LIGHTING PLAN**

**DAVID V. KLINGER, P.E.**  
**CONSULTING ENGINEERS**  
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(717) 561-1109  
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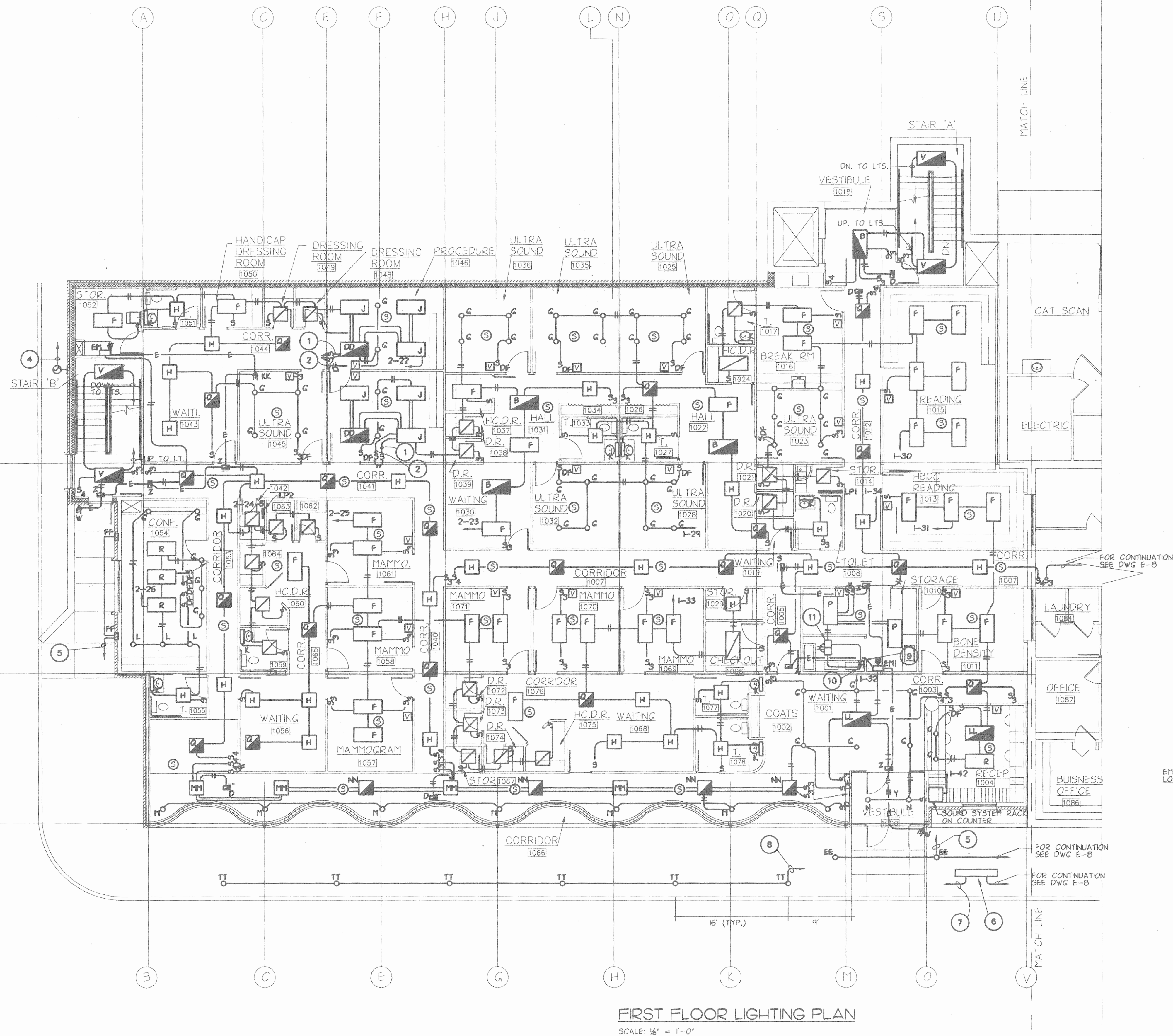
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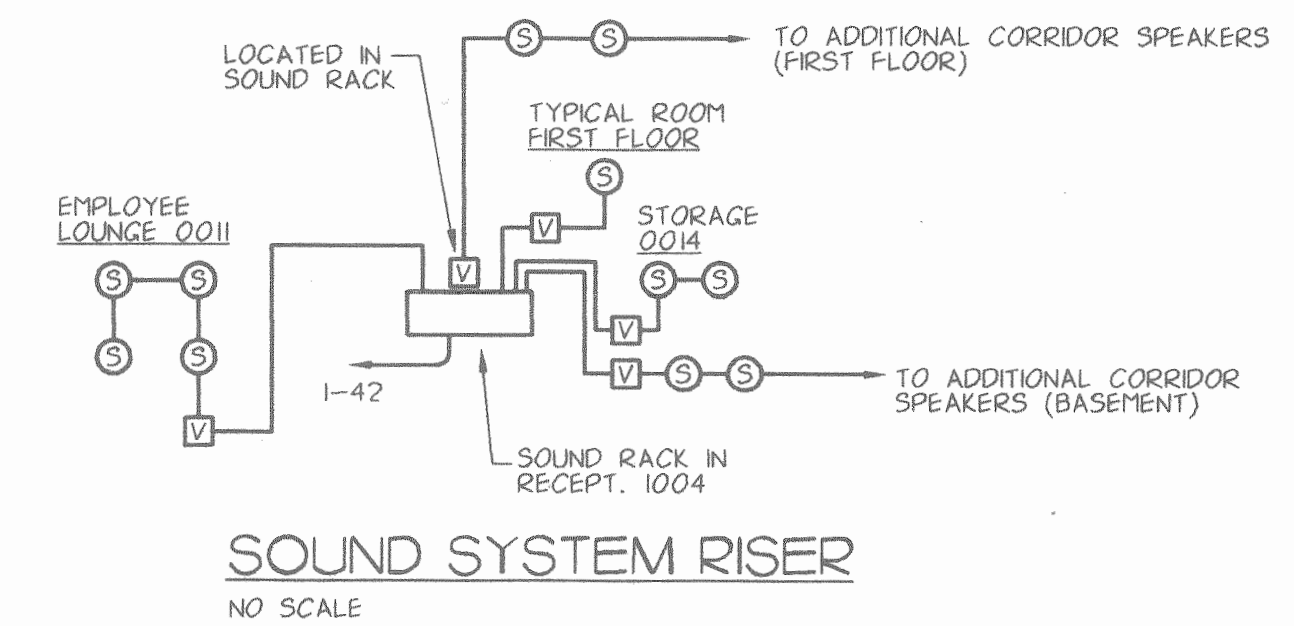


FIRST FLOOR LIGHTING PLAN

SCALE: 1/8" = 1'-0"

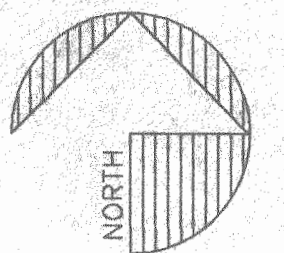
## NOTES:

- 1 OUTSIDE LAMPS.
- 2 INSIDE LAMP.
- 3 NOT USED.
- 4 MOUNT AS HIGH AS POSSIBLE AND EXTEND 3 #12 AND 1 #12 GND. IN 1/2" C. TO THE LIGHTING CONTROL CENTER IN MECH/ELECT. 0004
- 5 CIRCUIT TO B1-13 VIA CONTACTOR #1, 2, OR 3 AS DIRECTED BY OWNER.
- 6 NEW SIGN. CONNECT AS REQUIRED.
- 7 CIRCUIT TO B1-12 VIA CONTACTOR #1, 2, OR 3 AS DIRECTED BY OWNER.
- 8 CIRCUIT TO B1-18 VIA CONTACTOR #1, 2, OR 3 AS DIRECTED BY OWNER.
- 9 SWITCH FOR SAFE LIGHT. MOUNT 48" A.F.F.
- 10 SWITCH FOR NORMAL LIGHT. MOUNT 72" A.F.F.
- 11 SAFELIGHT - ALKLO #R-2058-2 WITH PLASTER FRAME. PROVIDE 200W. A23 INCANDESCENT LAMP IN NORMAL COMPARTMENT. PROVIDE 15 W. A15 INCANDESCENT LAMP IN SAFELIGHT COMPARTMENT. PROVIDE SAFELIGHT FILTER #G-04. (CONFIRM CORRECT FILTER WITH KODAK BEFORE ORDERING).



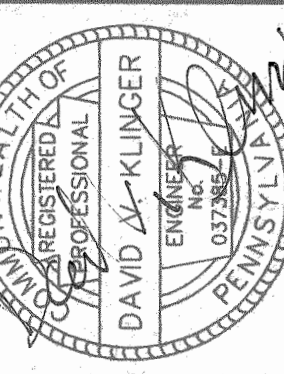
SOUND SYSTEM RISER

NO SCALE



PROJECT NORTH

**WILLIGEROD & MAC AVOY**  
**ARCHITECTS**  
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 717-238-5037 FAX: 717-238-5037



REVISIONS

ADDITION AND RENOVATIONS TO EXISTING MEDICAL FACILITY FOR  
**TRISTAN ASSOCIATES**  
 4518 UNION DEPOT ROAD  
 LOWER PAXTON TOWNSHIP DAUPHIN COUNTY PENNSYLVANIA  
**FIRST FLOOR LIGHTING PLAN**

**DAVID V. KLINGER, P.E.**  
**CONSULTING ENGINEERS**  
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MECHANICAL - ELECTRICAL ENGINEERING

DRAWN BY: AVK  
 CHECKED BY: RED  
 DATE: 4-2-1999  
 SHEET NO.

E-2

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FILE: 9932252 JOB #: 99322  
 DATE: 2-8-1999 IPE: 9406



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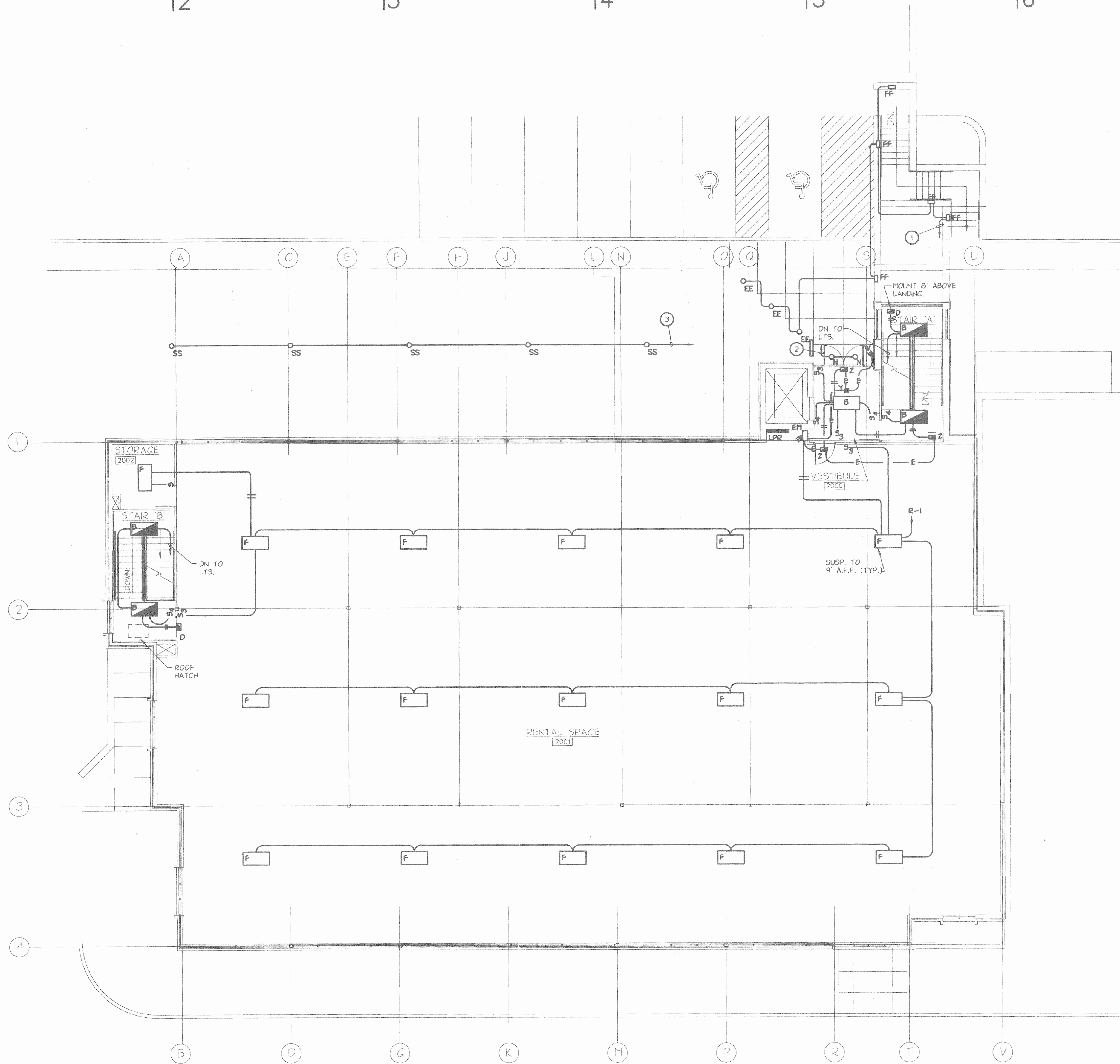
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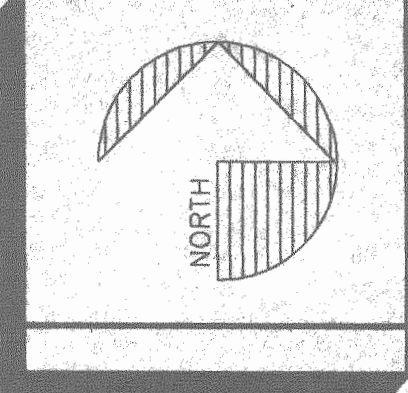
## NOTES:

- ① CIRCUIT TO B1-14 VIA CONTACTOR #1,2, OR 3 AS DIRECTED BY OWNER.
- ② CIRCUIT TO B1-20 VIA CONTACTOR #1,2, OR 3 AS DIRECTED BY OWNER.
- ③ CIRCUIT TO B1-15 VIA CONTACTOR #2.

## SECOND FLOOR LIGHTING PLAN

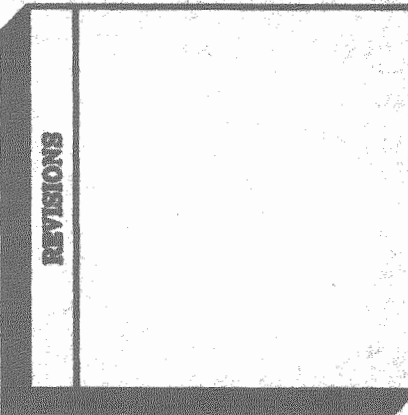
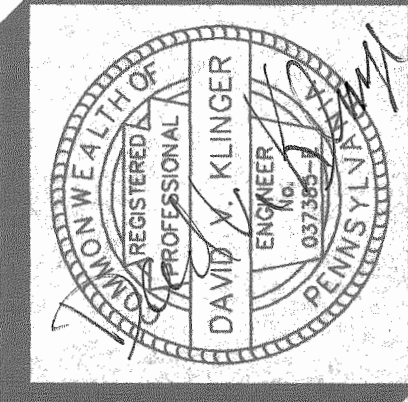
SCALE: 1/8" = 1'-0"

FILE: 0032263  
 JOB #: 00322  
 DATE: 2-8-1999  
 TIME: 10:00a



**WILLIGEROD & MAC AVOY  
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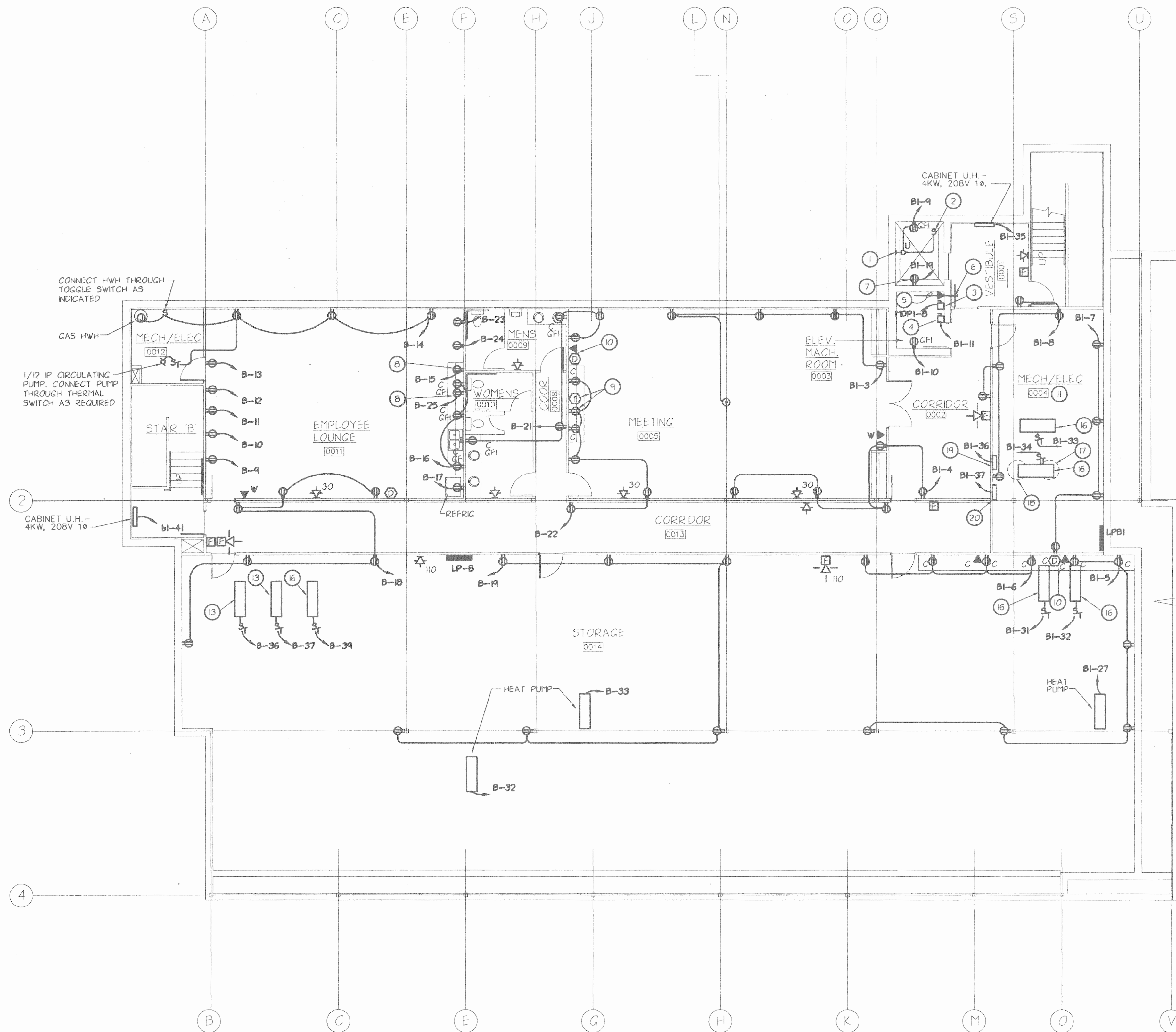


ADDITION AND RENOVATIONS TO EXISTING MEDICAL FACILITY FOR  
**TRISTAN ASSOCIATES**  
 4518 UNION DEPOSIT ROAD DAUPHIN COUNTY, PENNSYLVANIA  
**SECOND FLOOR LIGHTING PLAN**

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 DATE: 4-2-1999  
 SHEET NO.  
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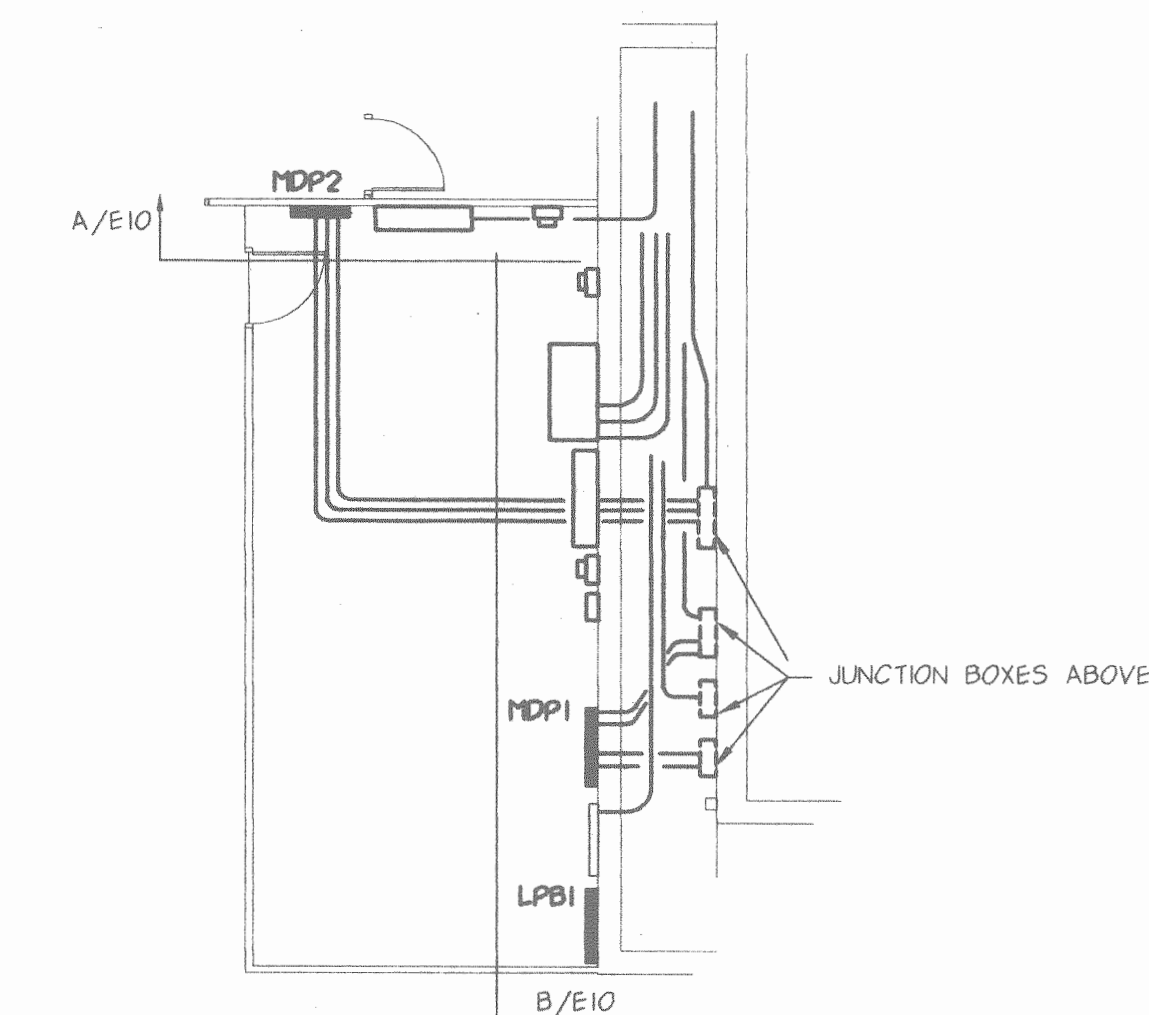




**BASEMENT POWER PLAN**  
SCALE: 1/8" = 1'-0"

# NOTES

- 1 MOUNT IN PIT 12" BELOW BASEMENT FLOOR LEVEL.
- 2 MOUNT ON STRIKE SIDE OF DOOR, 3' ABOVE PIT FLOOR.
- 3 100A, 3P, 3F - DISCONNECT SWITCH FOR ELEVATOR. FUSE AT 100A, WITH DUAL ELEMENT TYPE TIME DELAY FUSES. EXTEND 3#2 AND #8 GND IN 1 1/4" C. TO CONTROLLER. FINAL CONNECTION BY ELEVATOR CONTRACTOR. PROVIDE 18" OF FLEXIBLE METALLIC CONDUIT AT CONTROLLER.
- 4 30A, 1P, IF DISCONNECT SWITCH FOR ELEVATOR LIGHTS. FUSE AT 15A. LOCATE DISCONNECT AS DIRECTED BY ELEVATOR CONTRACTOR. EXTEND 2#12 AND #12 GND IN 3/4" C. TO CONTROLLER. PROVIDE 18" OF FLEXIBLE METALLIC CONDUIT AT CONTROLLER. IF REQUIRED BY ELEVATOR MANUFACTURER, PROVIDE MECH. AUX. CONTACT IN SWITCH. AUX. CONTACT TO BE SPST AT 1 AMP., 110V (MIN.). THE AUX. CONTACT SHALL BE OPEN WHEN THE DISCONNECT IS OPEN.
- 5 EXTEND 3/4" C. TO CONTROLLER. FINAL CONNECTION BY ELEVATOR CONTRACTOR. PROVIDE 18" OF FLEXIBLE METALLIC CONDUIT AT CONTROLLER. TELEPHONE WIRING BY OWNER.
- 6 EXTEND 3/4" C. TO ABOVE ACCESSIBLE CEILING AND BUSH.
- 7 FOR SUMP PUMP. LOCATE AS DIRECTED.
- 8 MOUNT RECEPT. FOR MICROWAVE ABOVE MICROWAVE SHELF 5± A.F.F.
- 9 MOUNT IN TV CABINET 5± A.F.F.
- 10 WHERE DATA AND TELEPHONE OUTLETS ARE SHOWN SIDE-BY-SIDE AND AT THE SAME HEIGHT PROVIDE ONE (1) SINGLE GANG BOX (W/O COVER) AND A 3/4" C. TO ABOVE CEILING. BUSH END OF CONDUIT. A COMBINATION TELEPHONE/DATA PLATE SHALL BE PROVIDED AND INSTALLED BY OTHERS.
- 11 SEE PARTIAL PLAN THIS SHEET FOR ADDITIONAL WORK IN THIS ROOM.
- 12 NOT USED.
- 13 1/3 HP, 120V. GAS FURNACES. MOUNT THERMAL SWITCH ADJACENT UNIT AND CIRCUIT AS INDICATED.
- 14 NOT USED
- 15 NOT USED
- 16 3/4 HP, 120V AIR HANDLER, MOUNT THERMAL SWITCH ADJACENT UNIT AND CIRCUIT AS INDICATED.
- 17 PIT FOR DEWATERING PUMPS.
- 18 PIT FOR SEWAGE EJECTORS
- 19 CONTROL PANEL FOR SEWAGE EJECTORS. PANEL SHALL BE PROVIDED AND INSTALLED BY M.C. E.C. SHALL CONNECT PANEL AS REQUIRED AND SHALL CIRCUIT AS INDICATED. ALL LOAD SIDE CONNECTIONS SHALL BE BY THE M.C.
- 20 CONTROL PANEL FOR DEWATERING PUMPS. PANEL SHALL BE PROVIDED AND INSTALLED BY M.C. E.C. SHALL CONNECT PANEL AS REQUIRED AND SHALL CIRCUIT AS INDICATED. ALL LOAD SIDE CONNECTIONS SHALL BE BY THE M.C.



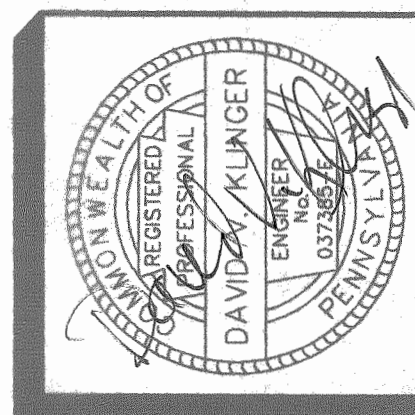
**PARTIAL PLAN - MECHANICAL/  
ELECTRICAL ROOM 0004**  
SCALE: 1/8" = 1'-0"

NOTE:  
CONTRACTOR SHALL PROVIDE THREE(3) LAMINATED I.D. TAGS WITH 3/8" HIGH LETTERS. TWO TAGS SHALL READ:  
"THIS PANEL CONTAINS ONE OF THREE MAIN POWER DISCONNECTS IN THIS ROOM"  
ONE TAG SHALL READ:  
"THIS BREAKER IS ONE OF THREE MAIN POWER DISCONNECT IN THIS ROOM"  
THE TAGS SHALL BE INSTALLED ON PANEL MDP1, MDP2, AND THE 400A BREAKER FOR PANEL R.

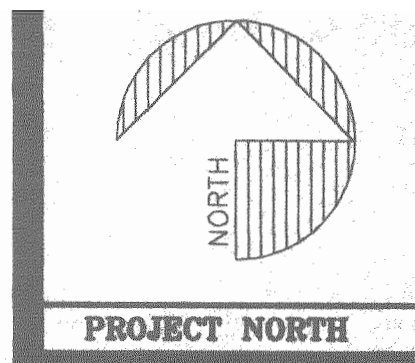
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**E-4**  
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ADDITION AND RENOVATIONS TO EXISTING MEDICAL FACILITY FOR  
**TRISTAN ASSOCIATES**  
4518 UNION DEPOSIT ROAD  
LOWER PAXTON TOWNSHIP DAUPHIN COUNTY PENNSYLVANIA  
**BASEMENT POWER PLAN**



**WILLIGEROD & MAC AVOY**  
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FILE: 9832264 JOB #: 98322  
DATE: 2-12-1999 TIME: 2:40p



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## NOTES:

- 1 CONTRACTOR SHALL CONFIRM THE LOCATION OF ALL RECEPTACLES, TELEPHONE, DATA, CABLE TV, DICTAPHONE, AND EQUIPMENT OUTLETS WITH OWNER BEFORE ROUGH-IN.
- 2 MOUNT 12" BELOW CEILING. UNLESS DIRECTED OTHERWISE.
- 3 CONNECT TO EQUIP. AS REQUIRED.
- 4 NOT USED
- 5 6-30R TWIST-LOCK RECEPT.
- 6 FOR LASER PRINTER INPUT.
- 7 BLANK OUTLET WITH 1" BUSHED OPENING IN PLATE. EXTEND 3/4" C. TO ABOVE CEIL. AND BUSH. INSTALL FIBER OPTIC CABLES PROVIDED BY VENDOR FROM OUTLET TO LASER PRINTER LOCATED IN RM. 1023
- 8 SPECIAL RECEPTACLE FOR LASER PRINTER PROVIDED BY VENDOR AND INSTALLED BY E.C.
- 9 FOR DICTAPHONE SYSTEM. PROVIDE FLUSH OUTLET BOX (WITHOUT COVER) AND EXTEND 3/4" TO ABOVE CEIL AND BUSH
- 10 MOUNT IN TV CABINET 5± A.F.F.
- 11 WHERE DATA AND TELEPHONE OUTLETS ARE SHOWN SIDE-BY-SIDE AND AT THE SAME HEIGHT, PROVIDE ONE (1) SINGLE GANG BOX (W/O COVER) AND A 3/4" C. TO ABOVE CEILING. BUSH END OF CONDUIT. A COMBINATION TELEPHONE/DATA PLATE SHALL BE PROVIDED AND INSTALLED BY OTHERS.
- 12 FOR ULTRA SOUND MACHINE.
- 13 30A 2P SURFACE MOUNTED TOTALLY ENCLOSED CIRCUIT BREAKER. MOUNT CENTER LINE 5'-6" A.F.F.
- 14 ALL FIBER OPTIC CABLES SHALL BE DROPPED IN WALL TO 18" A.F.F. IN THIS AREA. PROVIDE REQUIRED RACEWAYS FROM ABOVE CEILING TO BLANK OUTLETS AS REQUIRED.
- 15 INSTALL FIBER OPTIC CABLES PROVIDED BY VENDOR FROM THIS ROOM TO THE LASER PRINTER LOCATED IN THE LASER CAMERA ROOM IN THE EXISTING BLDG. SEE DWG E-9.
- 16 ALL RECEPTACLES IN THIS ROOM SHALL BE HOSPITAL GRADE RECEPTACLES.
- 17 WIREMOLD G-4000 SURFACE METAL RACEWAY (G-4000B BASE, G-4000C COVER AND G-4000D DIVIDER). BOTH ENDS ARE TO BE LEFT OPEN AND EACH END SHALL BE GROMMETED. MOUNT IMMEDIATELY ABOVE BASE OR 4" A.F.F.
- 18 6-20R RECEPTACLE. MOUNT 12" A.F.F.
- 19 E.C. SHALL GROUND THE G-4000 RACEWAY. CIRCUIT BREAKER ENCLOSURE, ALL CONDUIT AND X-RAY EQUIPMENT (COORDINATE WITH EQUIPMENT VENDOR) WITH #8 GND. WIRE BONDED TO EACH ITEM AS REQUIRED.
- 20 SEE LARGE SCALE PLANS THIS SHEET FOR ADDITIONAL WORK THIS ROOM.
- 21 EXHAUST FAN. MOUNT THERMAL SWITCH ADJACENT FAN AND CIRCUIT AS INDICATED
- 22 250W., 120V. RADIANT HEATER. INSTALL TOGGLE SWITCH ADJACENT HEATER AND CONNECT AS REQUIRED.
- 23 DIMENSIONS SAME AS ROOM 1070.

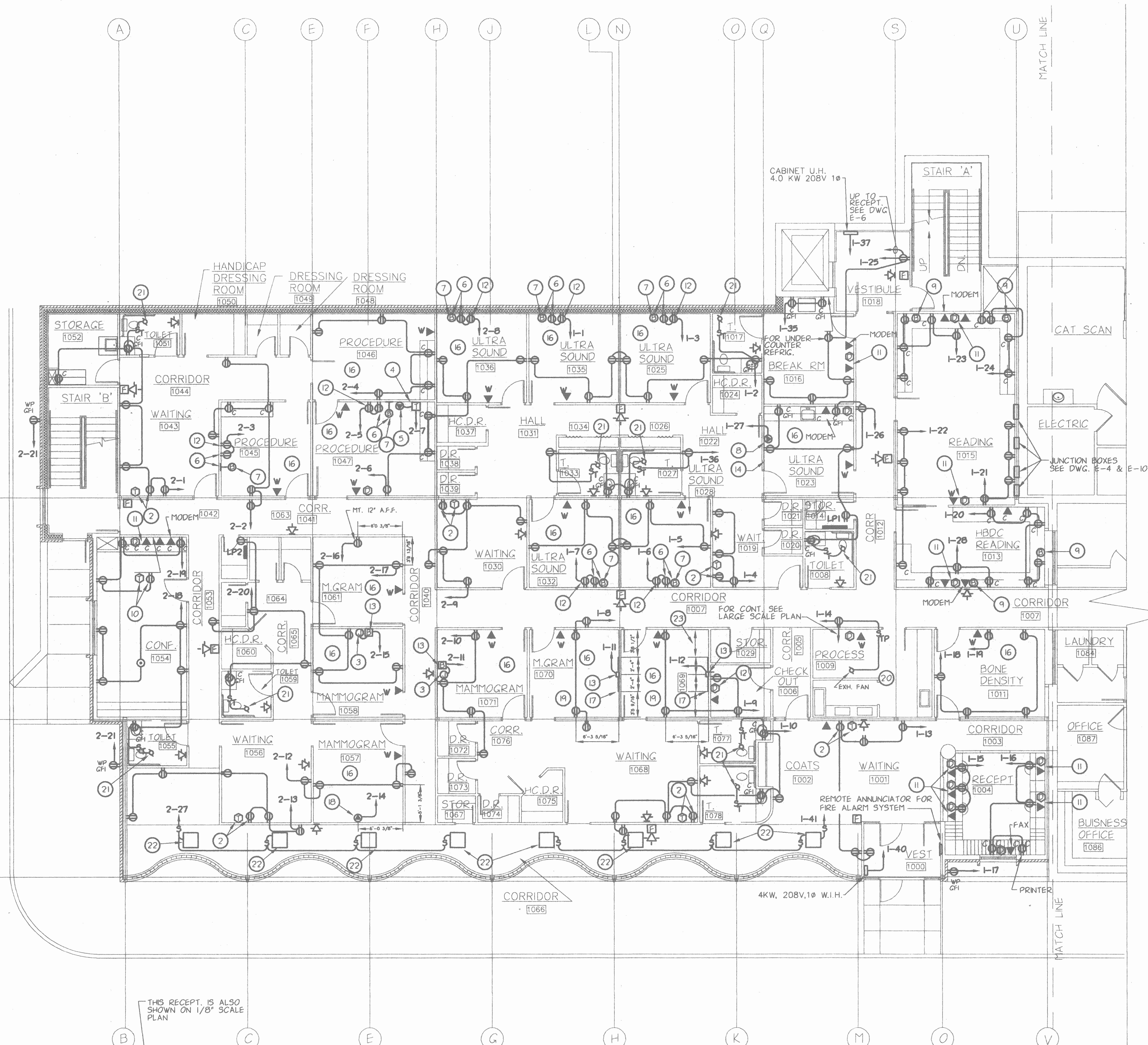
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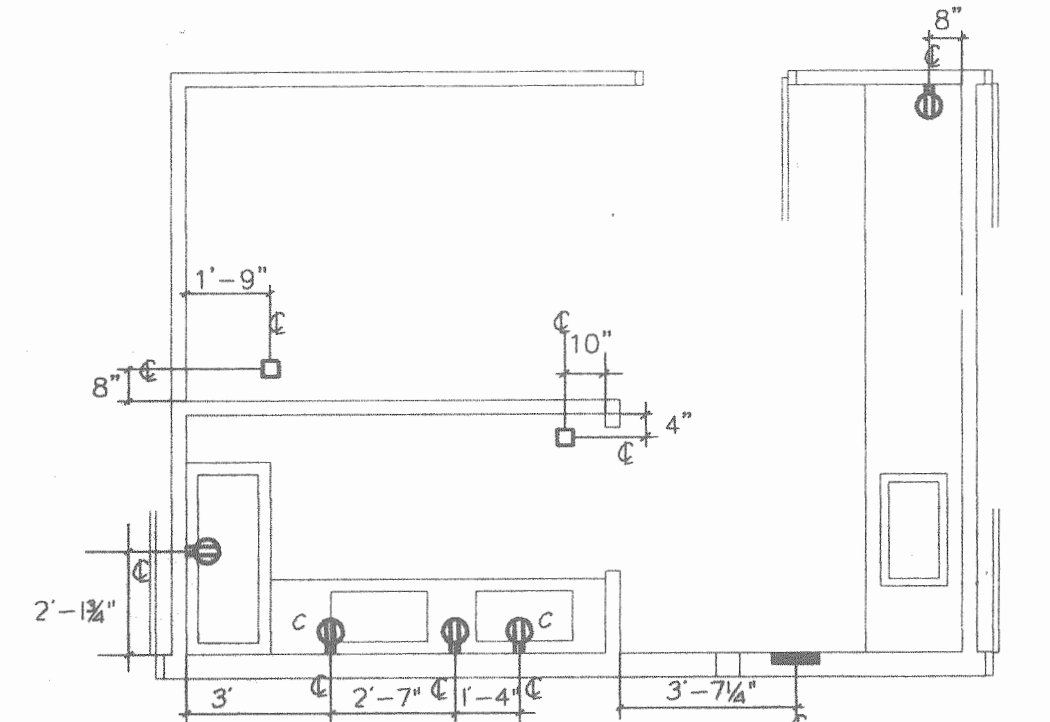


## FIRST FLOOR POWER PLAN

SCALE: 1/8" = 1'-0"

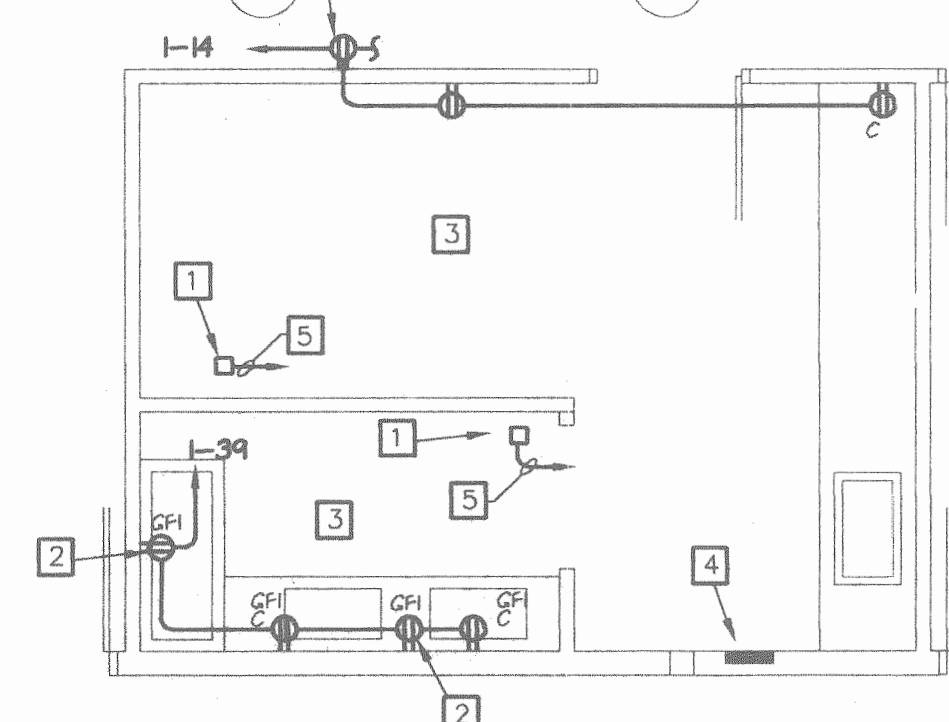
## NOTES - LARGE SCALE PLANS- PROCESS 1009

- 1 4"x4"x4" DEEP JUNCTION BOX. FLUSH MOUNT IN FLOOR. BOX TO BE LIQUID TIGHT. PROVIDE 24" OF 3/4" SEALTITE WITH CONNECTORS. VENDOR SHALL CONNECT SEALTITE.
- 2 MOUNT 18" A.F.F.
- 3 ALL RECEPTACLES THIS ROOM SHALL BE HOSPITAL GRADE.
- 4 60A 120/208V 1Ø 3W LOAD CENTER WITH 60 AMP 2P MAIN BREAKER AND 2-30A-2P BRANCHES. PANEL SHALL INCLUDE GND. BUSS. ALL BUSS SHALL BE COPPER. MT. CENTER LINE 5'6" A.F.F.
- 5 3 #10 & 1 #10 GND. IN 3/4" C. TO 30A 2P BREAKER IN LOAD CENTER. LEAVE 4' OF SLACK CABLE AT FLOOR BOX.
- 6 E.C. SHALL FURNISH AND INSTALL ONE (1) #8AWG GREEN EQUIPMENT GROUND WIRE BETWEEN ALL EQUIPMENT. CONSULT WITH EQUIPMENT VENDOR REGARDING CENTRAL GROUND POINT LOCATION.



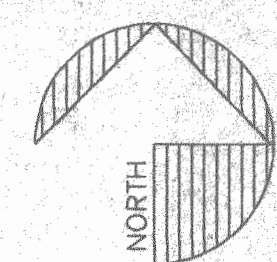
LARGE SCALE PLAN - PROCESS 1009

SCALE: 1/8" = 1'-0"



LARGE SCALE PLAN - PROCESS 1009

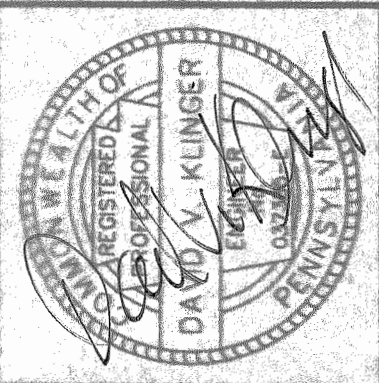
SCALE: 1/8" = 1'-0"



PROJECT NORTH

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ADDITION AND RENOVATIONS TO EXISTING MEDICAL FACILITY FOR  
**TRISTAN ASSOCIATES**  
 4518 UNION DEPOSIT ROAD  
 LOWER PAXTON TOWNSHIP, DAUPHIN COUNTY, PENNSYLVANIA  
**FIRST FLOOR POWER PLAN**

DRAWN BY: AVK  
 CHECKED BY: RED  
 DATE: 4-2-1999  
 SHEET NO.

E-5

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MECHANICAL - ELECTRICAL ENGINEERING



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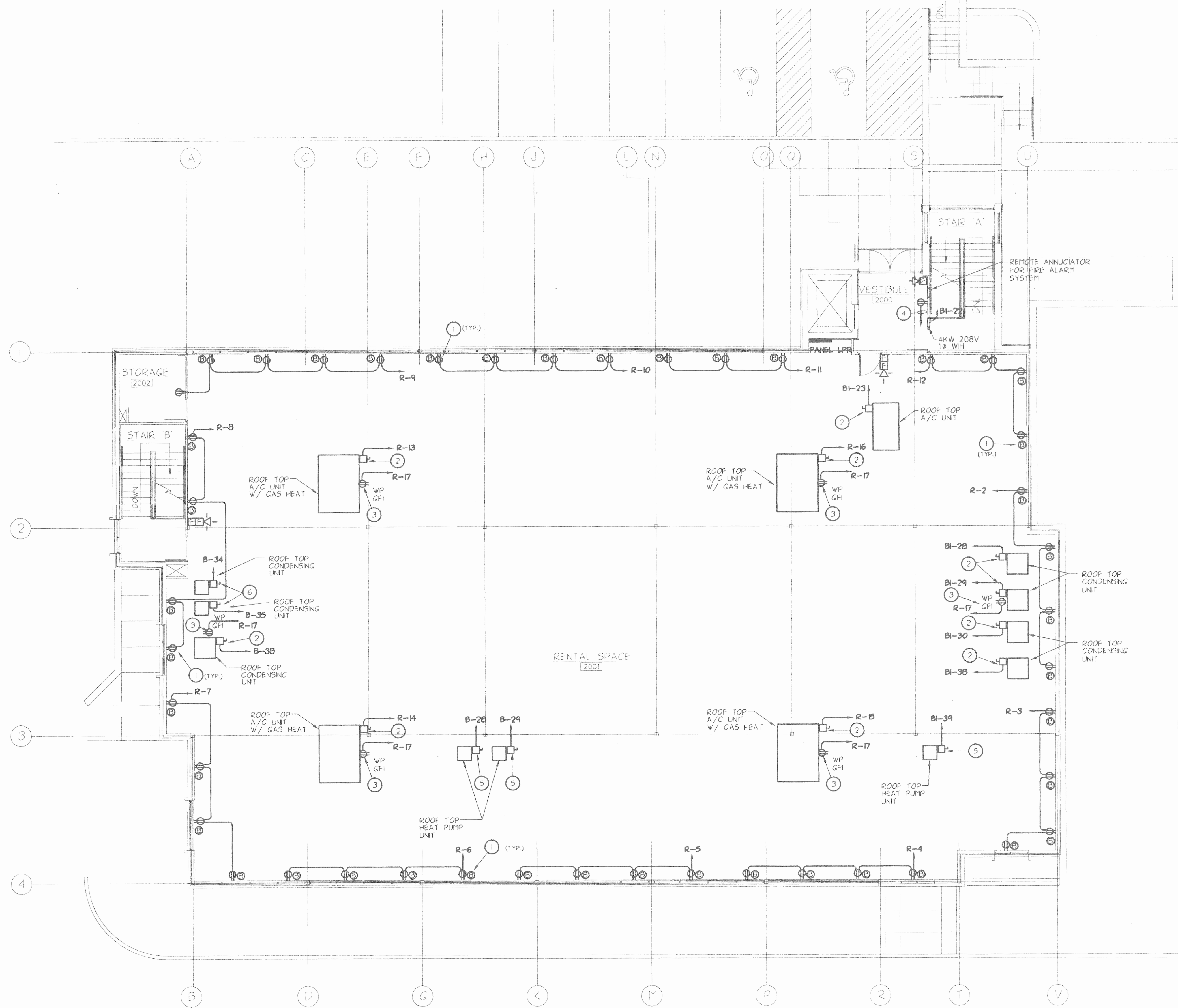
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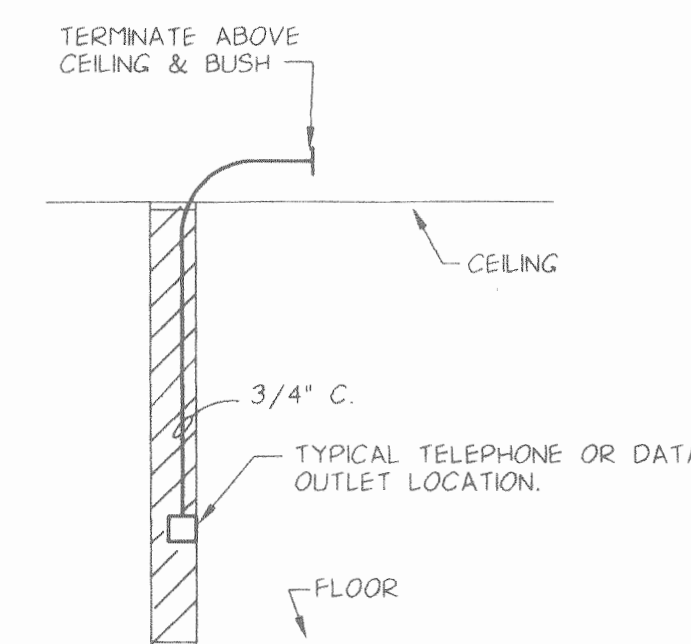
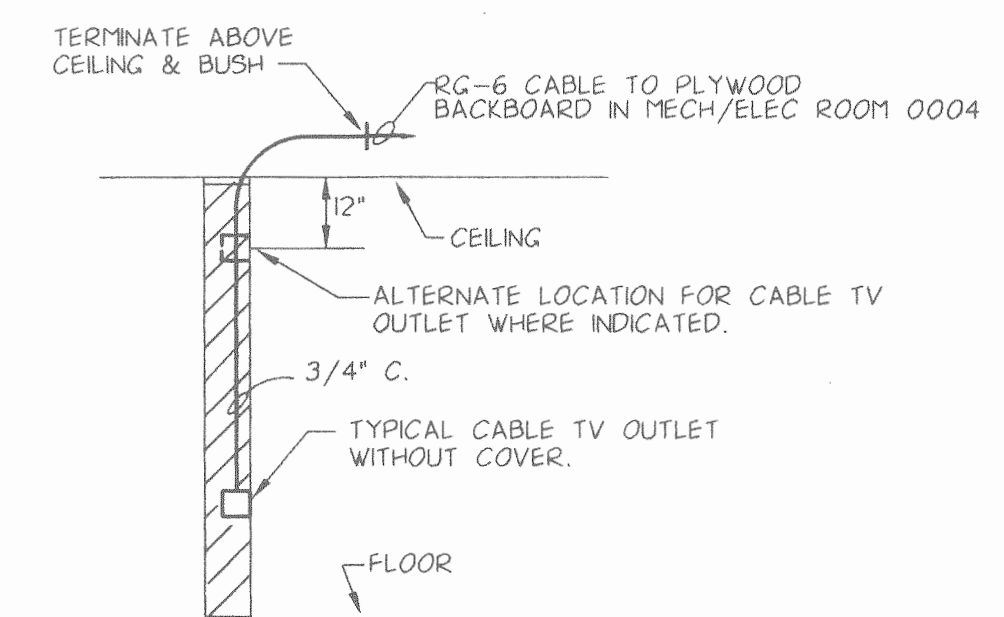
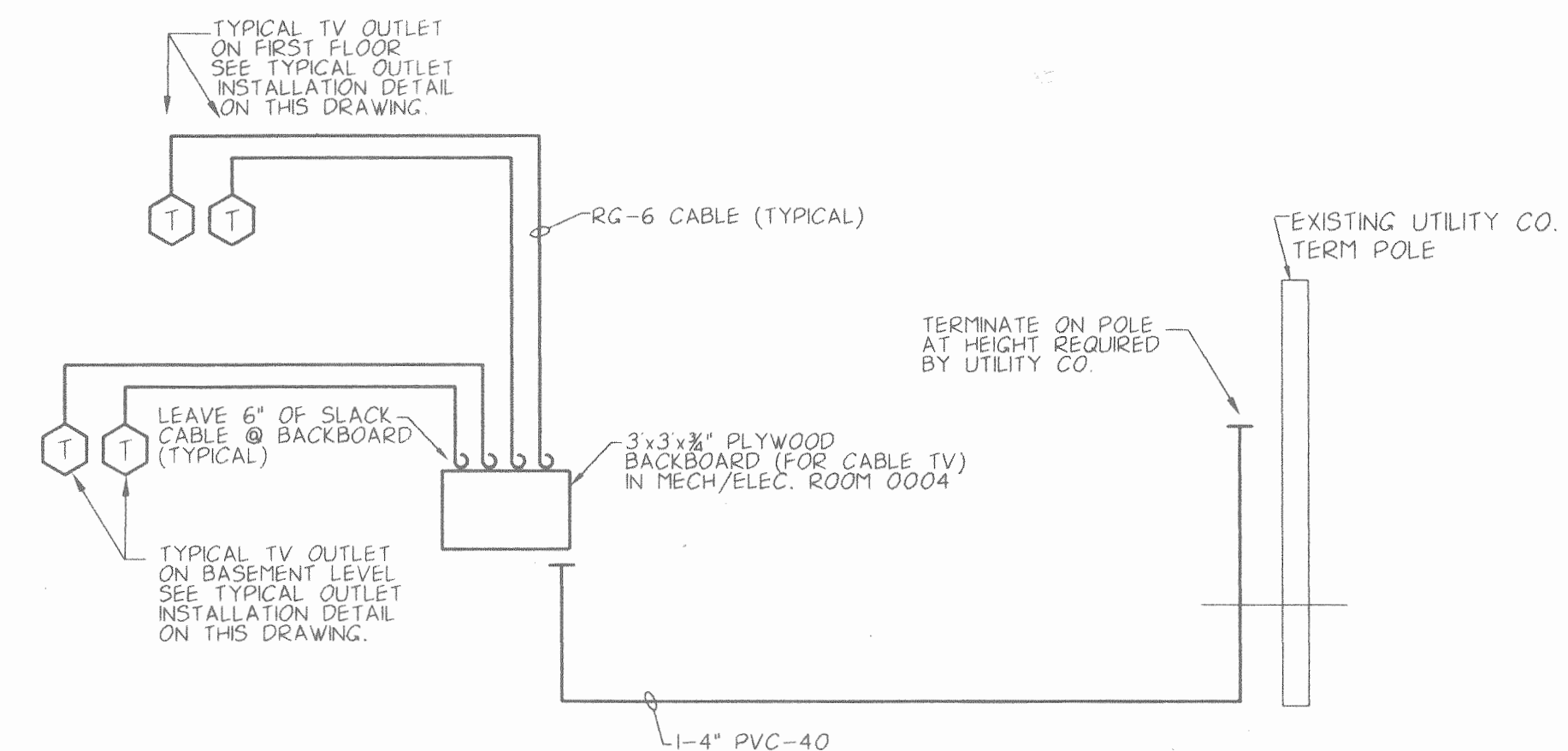


SECOND FLOOR POWER PLAN

SCALE: 1/8" = 1'-0"

## NOTES:

1. INSTALL BLANK OUTLET ADJACENT TO RECEPTACLE, EXTEND 3/4" C. TO ABOVE CEILING HEIGHT AND BUSH.
2. 60A 3P NF 3R
3. MOUNT ADJACENT ROOF-TOP UNIT AS REQUIRED.
4. DOWN TO RECEPTACLE IN LOBBY BELOW. SEE DWG E-5.
5. 60A 2P NF 3R
6. 30A 2P NF 3R

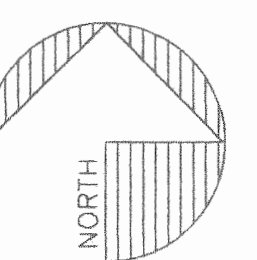
INDIVIDUAL TELEPHONE OR DATA OUTLET INSTALLATION DETAIL  
NO SCALECABLE TELEVISION INSTALLATION DETAIL  
NO SCALECABLE TV RISER DIAGRAM  
NO SCALE

- A. CONTRACTOR SHALL OBTAIN CABLE FROM THE THE SUBURBAN CABLE TV CO.  
 B. SUBURBAN WILL TERMINATE ALL CABLES AT THE BACKBOARD LOCATION.  
 C. SUBURBAN WILL PROVIDE, INSTALL, AND CONNECT OUTLETS AND PLATES AT EACH OUTLET LOCATION VIA A SEPARATE CONTRACT WITH THE OWNER.

FILE: 04322E3 JOB #: 04322  
 DATE: 2-8-1994 TIME: 10:00a

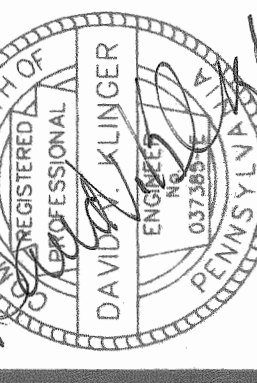
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MECHANICAL - ELECTRICAL ENGINEERING



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ADDITION AND RENOVATIONS TO EXISTING MEDICAL FACILITY  
**TRISTAN ASSOCIATES**  
 4518 UNION DEPOSIT ROAD PENNSYLVANIA  
 LOWER PAXTON TOWNSHIP DAUPHIN COUNTY  
**SECOND FLOOR POWER PLAN**

DRAWN BY: dvk  
 CHECKED BY: RED  
 DATE: 4-2-1999  
 SHEET NO.

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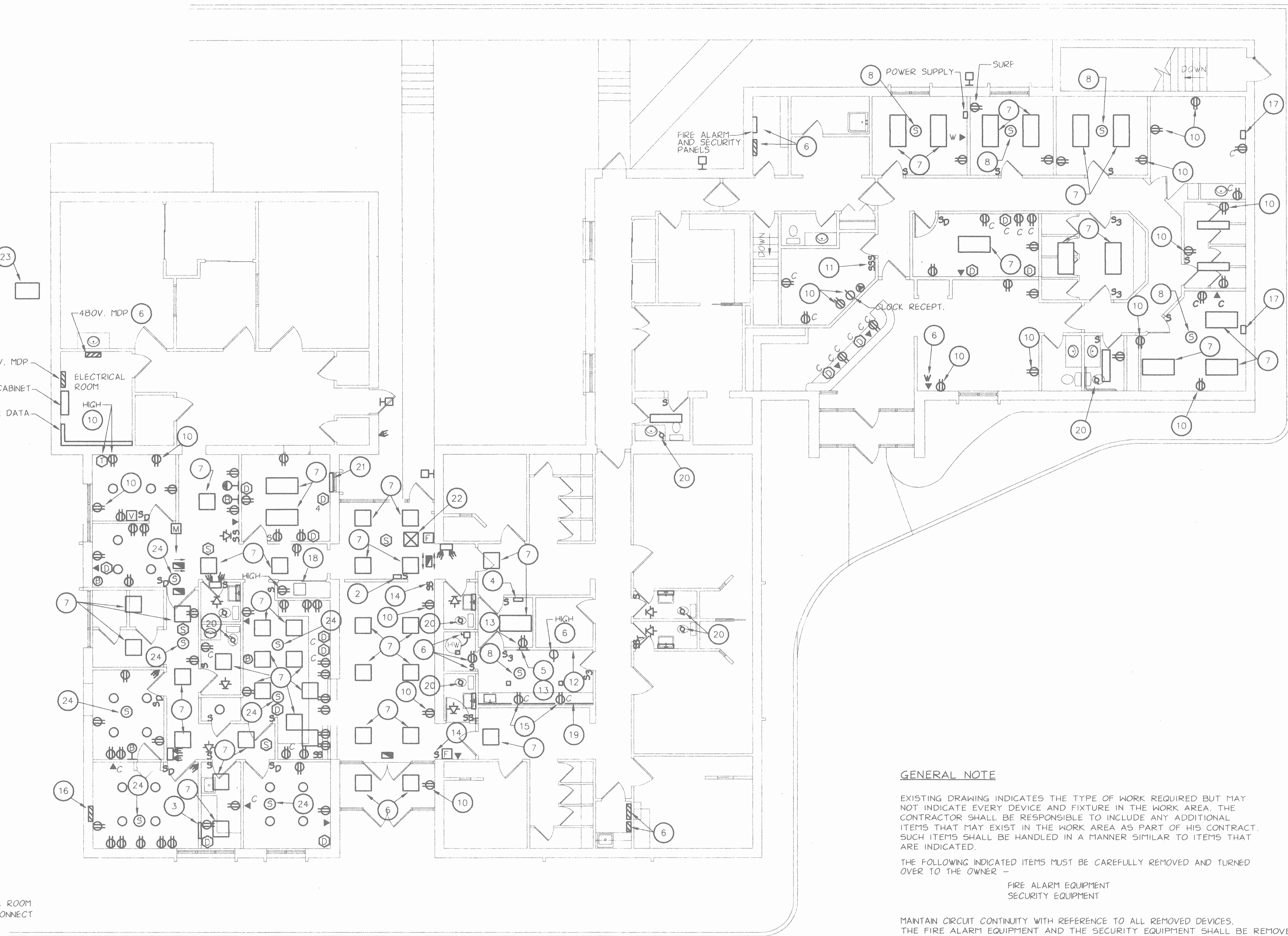
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NOTES:

- 1 DISCONNECT AND REMOVE ALL ITEMS SHOWN UNLESS NOTED OTHERWISE. REMOVE BRANCH CIRCUIT BACK TO SOURCE OR NEXT RETAINED OUTLETS.
- 2 AMERITECH SECURITY SYSTEM KEY PAD.
- 3 PATCH PANEL. REMOVE AFTER NEW PATCH PANEL IS COMPLETED.
- 4 NUTONE SPEAKER W/ PUSH-TO-TALK SWITCH AND VOLUME CONTROL. REMOVE
- 5 30A TOTALLY ENCLOSED CIRCUIT BREAKER. - FLUSH MOUNTED. SHIFT TO EAST AS REQUIRED TO MISS NEW DOOR CONSTRUCTION.
- 6 RETAIN
- 7 RELOCATE AND RECONNECT. SEE DWGS E2 & E8 FOR NEW FOR NEW LOCATION. MAINTAIN CIRCUIT CONTINUITY.
- 8 REMOVE TO ALLOW NEW CEILING TO BE INSTALLED. THEN REINSTALL AND RECONNECT IN THIS ROOM.
- 9 RETAIN IN THIS AREA.
- 10 RETAIN RECEPTACLE AND RECONNECT AS NOTED ON DWG E-9. MAINTAIN CIRCUIT CONTINUITY.
- 11 RELOCATE AS REQUIRED TO ALLOW FOR WIDER DOOR FRAME.
- 12 RETAIN SERVICE TO DEVELOPING EQUIP.
- 13 RELOCATE AND RECONNECT TO MISS DOOR RELOCATION.
- 14 REMOVE SWITCH(ES), SWITCH LEG(S) AND PLATE(S). INSTALL NEW SWITCH(ES) IN EXISTING OUTLETS BOXES. SEE DWG. E8.
- 15 REPLACE RECEPTS. WITH NEW CFI RECEPTACLES.
- 16 DISCONNECT AND REMOVE PANEL. CAPTURE ALL RETAINED BRANCH CIRCUITS AND EXTEND TO SPARE BREAKERS ON NEW PANEL LP4. REMOVE SUBFEEDER BACK TO SOURCE.
- 17 30A TOTALLY ENCLOSED CIRCUIT BREAKER. DISCONNECT AND REMOVE. TURN OVER TO OWNER.
- 18 EXISTING SOUND EQUIPMENT - SHELF MTD. - RELOCATE. SEE DWG. E-9 FOR NEW LOCATION IN RECEPTION 1081. ALL EXISTING RETAINED AND/OR RELOCATED SPEAKERS SHALL BE RECONNECTED TO THE EXISTING RELOCATED EQUIPMENT.
- 19 PLUGMOLD ALONG TOP OF COUNTER. REDUCE LENGTH TO 12" SHORT OF SINK. RECONNECT AS NOTED ON DWG. E9.
- 20 DISCONNECT AND REMOVE BRANCH CIRCUIT TO FAN. M.C. WILL REMOVE FAN.
- 21 DISCONNECT AND REMOVE BRANCH CIRCUIT TO ELECTRIC BASEBOARD. M.C. WILL REMOVE UNIT.
- 22 CEILING MOUNTED ELECTRIC HEATER TO BE RELOCATED TO CORRIDOR 1094 BY M.C. EXTEND BRANCH CIRCUIT AND RECONNECT UNIT AS REQUIRED. SEE DWG. E9.
- 23 EXISTING CONDENSER TO BE RELOCATED TO THE ROOF OVER THE ELECTRICAL ROOM BY THE M.C. REROUTE THE BRANCH CIRCUIT TO THE NEW LOCATION AND RECONNECT UNIT THROUGH NEW 3R DISCONNECT SWITCH AS REQUIRED. SEE DWG E9.
- 24 RELOCATE AND RECONNECT. SEE DWG. E8 FOR NEW LOCATION.

- 23
- 6 480V. MDP
- 6 208V. MDP
- 6 C.T. CABINET
- 6 TELE. & DATA EQUIP.
- 10



GENERAL NOTE

EXISTING DRAWING INDICATES THE TYPE OF WORK REQUIRED BUT MAY NOT INDICATE EVERY DEVICE AND FIXTURE IN THE WORK AREA. THE CONTRACTOR SHALL BE RESPONSIBLE TO INCLUDE ANY ADDITIONAL ITEMS THAT MAY EXIST IN THE WORK AREA AS PART OF HIS CONTRACT. SUCH ITEMS SHALL BE HANDLED IN A MANNER SIMILAR TO ITEMS THAT ARE INDICATED.

THE FOLLOWING INDICATED ITEMS MUST BE CAREFULLY REMOVED AND TURNED OVER TO THE OWNER -

- FIRE ALARM EQUIPMENT
- SECURITY EQUIPMENT

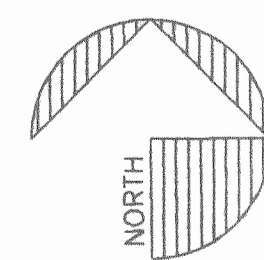
MAINTAIN CIRCUIT CONTINUITY WITH REFERENCE TO ALL REMOVED DEVICES. THE FIRE ALARM EQUIPMENT AND THE SECURITY EQUIPMENT SHALL BE REMOVED UNDER THE DIRECTION OF SECURITYLINK FROM AMERITECH, THE OWNER'S FIRE ALARM AND SECURITY SYSTEM VENDOR.

ALL FIXTURES INDICATED TO BE RELOCATED SHALL BE CLEANED, RELAMPED AND REPAIRED AS REQUIRED TO BRING THEM INTO FIRST CLASS OPERATING CONDITION.

EXISTING BUILDING ELECTRICAL DEMOLITION PLAN 1

SCALE: 1/8" = 1'-0"

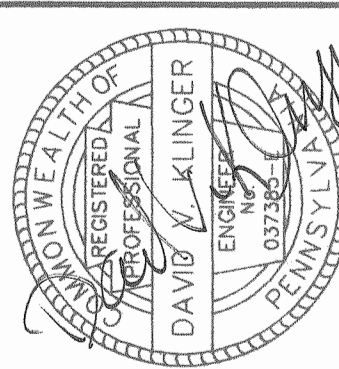
FILE: 98322E7 JOB #: 98322  
DATE: 2-14-1999 TIME: 12:02p



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LOWER PAXTON TOWNSHIP DAUPHIN COUNTY  
EXISTING BUILDING ELECTRICAL DEMOLITION PLAN

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MECHANICAL - ELECTRICAL ENGINEERING

DRAWN BY: AVK  
CHECKED BY: RED  
DATE: 4-2-1999

SHEET NO.

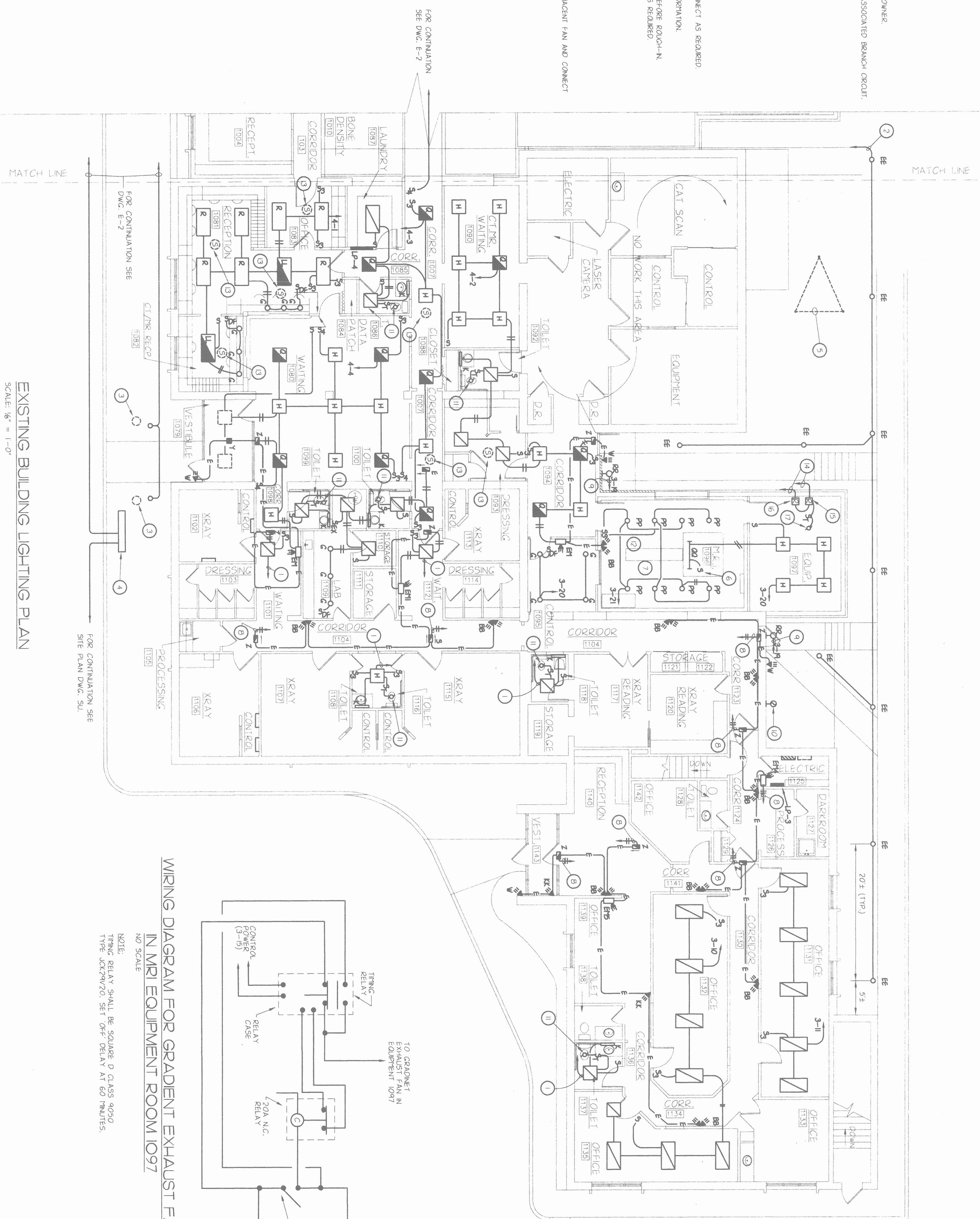
E-7

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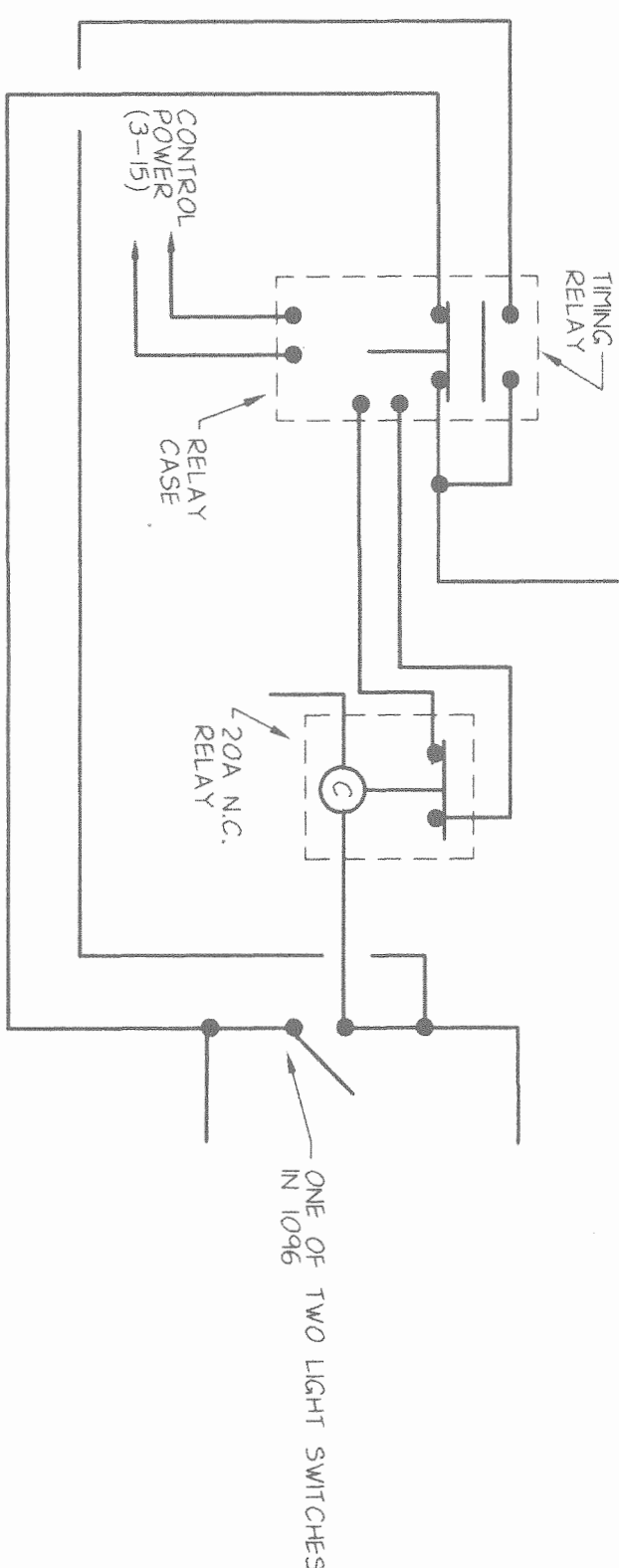


NOTES:

1. RECONNECT TO EXISTING BRANCH CIRCUIT THIS AREA.
2. CIRCUIT TO B1-24 VIA CONTRACTOR #1, 2 OR 3 AS DIRECTED BY OWNER.
3. DISCONNECT AND REMOVE EXISTING LIGHT STANDARDS. REMOVE ASSOCIATED BRANCH CIRCUIT
4. NEW SIGN. CONNECT AS REQUIRED.
5. CONNECTPOOSE GROUNDING SYSTEM. SEE DETAIL ON DWG E-10.
6. SEE HED DWGS. FOR LOCATION AND INSTALLATION INFORMATION.
7. ALL LIGHTING FIXTURES MUST INCLUDE RP POWER FILTERS
8. CONNECT TO LOCAL CORRIDOR LIGHTING CIRCUIT.
9. CIRCUIT THROUGH PHOTOCELL AS REQUIRED.
10. MOUNT AS HIGH AS POSSIBLE.
11. EXHAUST FAN INSTALL THERMAL SWITCH ADJACENT FAN AND CONNECT AS REQUIRED
12. SEE NOTE 30 ON DWG E-4 FOR EQUIPMENT AND INSTALLATION INFORMATION.
13. EXISTING RELOCATED SPEAKER. CONFORM LOCATION WITH OWNER BEFORE ROUGH-IN. CONNECT TO RELOCATED SOUND EQUIPMENT IN RECEPTION 10B1 AS REQUIRED.
14. TO LIGHT SWITCH IN 1046. SEE WIRING DIAGRAM THIS SHEET.
15. TYPING RELAY. SEE WIRING DIAGRAM THIS SHEET.
16. RELAY. SEE WIRING DIAGRAM THIS SHEET.
17. 27V WATT GRADIENT EXHAUST FAN INSTALL THERMAL SWITCH ADJACENT FAN AND CONNECT FAN THROUGH THERMAL SWITCH AS REQUIRED.



# WIRING DIAGRAM FOR GRADIENT EXHAUST FAN IN MRI EQUIPMENT ROOM 1097



NOTE:  
TIMING RELAY SHALL BE SQUARE D CLASS 9050  
TYPE JCK29V20. SET OFF DELAY AT 60 MINUTES

NO SCALE

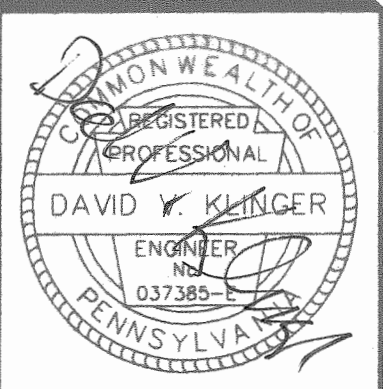
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MECHANICAL - ELECTRICAL ENGINEERING

ADDITION AND RENOVATIONS TO EXISTING MEDICAL FACILITY FOR  
**TRISTAN ASSOCIATES**  
 4518 UNION DEPOSIT ROAD  
 LOWER PAXTON TOWNSHIP DAUPHIN COUNTY PENNSYLVANIA  
**EXISTING BUILDING LIGHTING PLAN**

## REVISIONS



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PROJECT NORTH

