

PRIMARY: 480V DELTA						SECONDARY: 120/208V WYE							
KVA	C/B	CONDUCTORS-C.	GRD	C/B	CONDUCTORS-C.	GRD	KVA	C/B	CONDUCTORS-C.	GRD	KVA		
30	3P50A	3#6-3/4"C	#10	3P100A	4#1-2"C	#6	45	3P70A	3#4-1/4"C	#8	3P175A	4#2/0-2"C	#4
75	3P100A	3#3-1/4"C	#8	3P225A	4#4/0-2 1/2"C	#2							

- TRANSFORMER NOTES:**
- GROUND PRIMARY & SECONDARIES PER NEC.
 - ALL CONDUITS SHALL BE FLEXIBLE.
 - SECONDARY CONDUCTORS SHALL NOT EXCEED 10 FEET LONG TO FIRST OVERCURRENT PROTECTION DEVICE.

DRAWING NOTES

- EXISTING INCOMING 200A, 277/480V, 3Φ, 4W ELECTRICAL SERVICE.
- EXISTING 120/208V, 100A PANEL TO REMAIN.
- EXISTING 277/480V, 100A PANEL TO REMAIN.
- DISCONNECT AND REMOVE EXISTING PANEL. (TURN OVER TO OWNER). EXTEND EXISTING CIRCUITS TO REMAIN TO NEW PANEL A.
- DISCONNECT AND REMOVE EXISTING 45KVA TRANSFORMER, (TURN OVER TO OWNER)
- VERIFY EXISTING WIRE IS SIZED PROPERLY (REFER TO SCHEDULE).
- EXISTING 200A 277/480V, 3Φ, 4W PANEL.
- EXISTING 225A ENCLOSED CIRCUIT BREAKER.
- EXISTING (4) #4/0, #2 GROUND TO REMAIN.
- EXISTING 30KVA TRANSFORMER.
- NEW 225A 120/208V PANEL REFER TO SCHEDULE THIS SHEET.
- NEW 75KVA TRANSFORMER.

CKT QTY	DESCRIPTION	DEMAND	NON/CONT	PNL KVA	SUBPNL KVA	DEMAND KVA	TOTAL KVA	COND.
1	Lighting [L]	1	C	2.0	2.0	2.5	2.5	
1	Receptacles [R] *	0.5	N	38.8	24.4	24.4	24.4	
1	Motors [M]	1	<M/H>					
1	Motors (alternate) [M2]	1	<M/H>					
1	Multimotor/Combination [MM]	1	<M/H>					
1	Heating [H] **	1	<M/H>			**	**	
1	Air Conditioning [A] **	1	<M/H>	12.8	12.8	12.8	12.8	
5	Other (appliances, etc.) [O]	1	N	103.6	1.6	105.2	105.2	
1	Auxiliary [X]	1	C					
6	Kitchen [K]	0.65	N					
6	CIRCUITS							

PANEL CONNECTED LOAD	158.8 KVA	@ 200 AMPS
PANEL DEMAND LOAD	144.4 KVA	166.3 CB MAX KVA
TOTAL PANEL LOAD	144.9 KVA	
	174.3 AMPS	
SPARE CAPACITY =	21.4 KVA	
(BASED ON CB)	25.7 AMPS	
	12.9 %	

FOR CONT. LOADS (C), TOTAL KVA=DEMAND KVA*1.25; FOR NONCONT. (N) & MOTOR/HEATING <M/H> LOADS, TOTAL KVA=DEMAND KVA
 * IF RECEPTACLE LOAD IS >10KVA, RECEPTACLE DEMAND LOAD IS (CONNECTED LOAD - 10KVA) * .5 + 10KVA
 ** INDICATES GREATER OF HEATING OR COOLING. GREATEST SEASONAL LOAD = SAME

EXISTING SURFACE MOUNTED PANEL MDP 277/480 VOLT 3 PHASE 4 WIRE 225 AMP BUS MAIN LUGS ONLY A.I.C.																			
TYPE	KVA	HP	CKT NO.	FOR	BRANCH BREAKERS	#	WIRING	COND.	CKT NO.	FOR	BRANCH BREAKERS	#	WIRING	COND.	TYPE	KVA	HP		
O	12.8		1	EX RETURN AIR	100	3	12 3/4"	20 1	3 12	3/4"	2	EX AHU-1	100	3	12 3/4"	A	12.8		
			3						4										
			5						6										
			7	EX SURGE PROTECTOR	100	3	30 1	3 10	10 3/4"	8	75KVA XFMR PANEL A	100	3	100 1	3 3	8 1 1/4"	O		
			9						10										
			11						12										
O	18.0		13	EX 30KVA XFMR PANEL B	100	3	40 1	3 8	10 3/4"	14	EX XFMR PANEL E	100	3	50 1	3 8	10 3/4"	O	18.0	
			15						16										
			17						18										
O	50.0		19	EX PANEL C	100	3	100 1	4 3	8 1 1/4"	20	SPACE	100	1						
			21						22	SPACE	100	1							
			23						24	SPACE	100	1							

CKT QTY	DESCRIPTION	DEMAND	NON/CONT	PNL KVA	SUBPNL KVA	DEMAND KVA	TOTAL KVA	COND.
2	Lighting [L]	1	C	2.0	2.0	2.5	2.5	
49	Receptacles [R] *	0.5	N	39.2	24.6	24.6	24.6	
1	Motors [M]	1	<M/H>					
1	Motors (alternate) [M2]	1	<M/H>					
1	Multimotor/Combination [MM]	1	<M/H>					
1	Heating [H] **	1	<M/H>					
3	Air Conditioning [A] **	1	<M/H>			**	**	
1	Other (appliances, etc.) [O]	1	N	1.7	1.7	1.7	1.7	
1	Auxiliary [X]	1	C					
54	Kitchen [K]	0.65	N					
54	CIRCUITS							

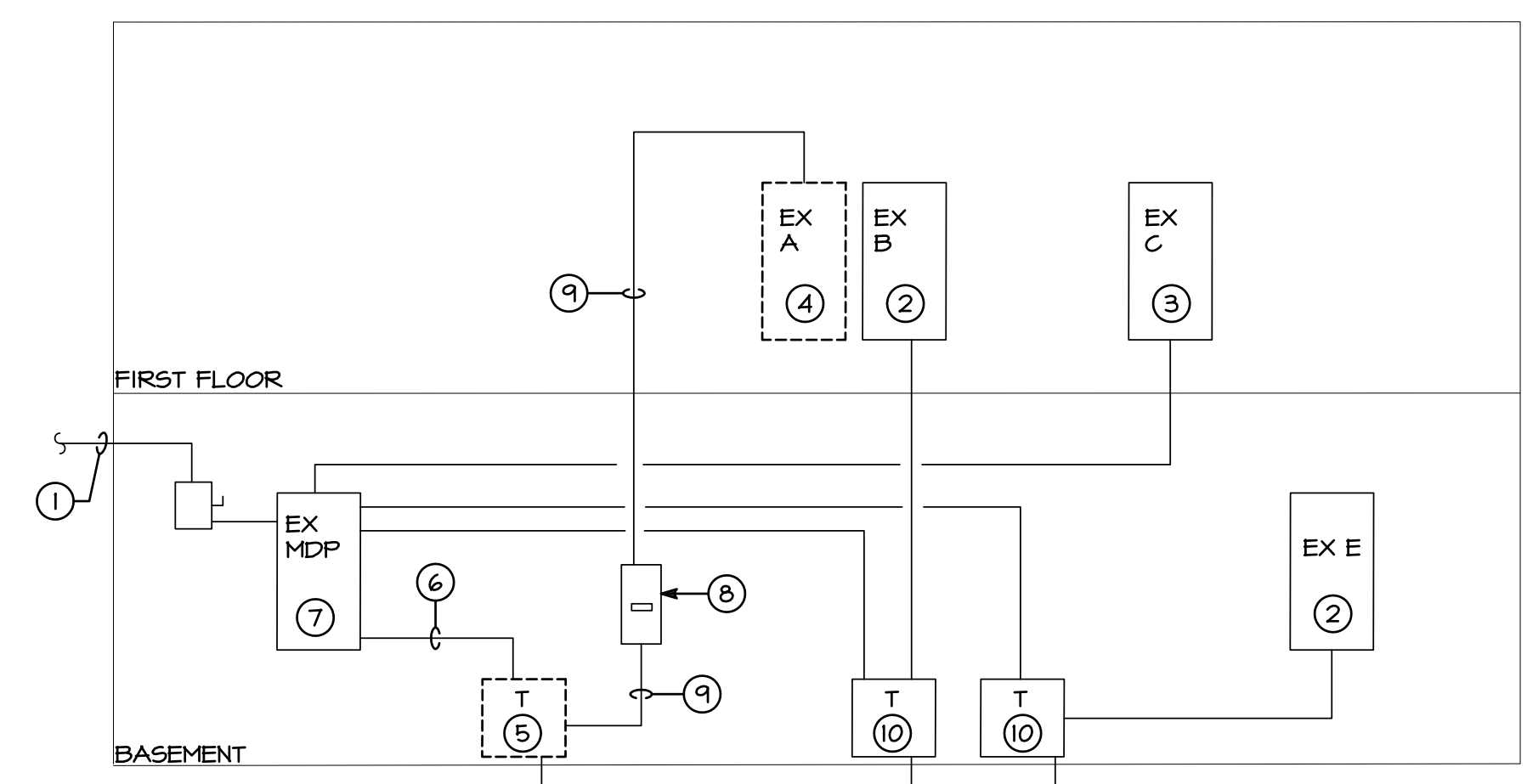
PANEL CONNECTED LOAD	42.9 KVA	@ 200 AMPS
PANEL DEMAND LOAD	28.3 KVA	72.1 CB MAX KVA
TOTAL PANEL LOAD	28.8 KVA	
	79.9 AMPS	
SPARE CAPACITY =	43.3 KVA	
(BASED ON CB)	120.1 AMPS	
	60.0 %	

FOR CONT. LOADS (C), TOTAL KVA=DEMAND KVA*1.25; FOR NONCONT. (N) & MOTOR/HEATING <M/H> LOADS, TOTAL KVA=DEMAND KVA
 * IF RECEPTACLE LOAD IS >10KVA, RECEPTACLE DEMAND LOAD IS (CONNECTED LOAD - 10KVA) * .5 + 10KVA
 ** INDICATES GREATER OF HEATING OR COOLING. GREATEST SEASONAL LOAD = SAME

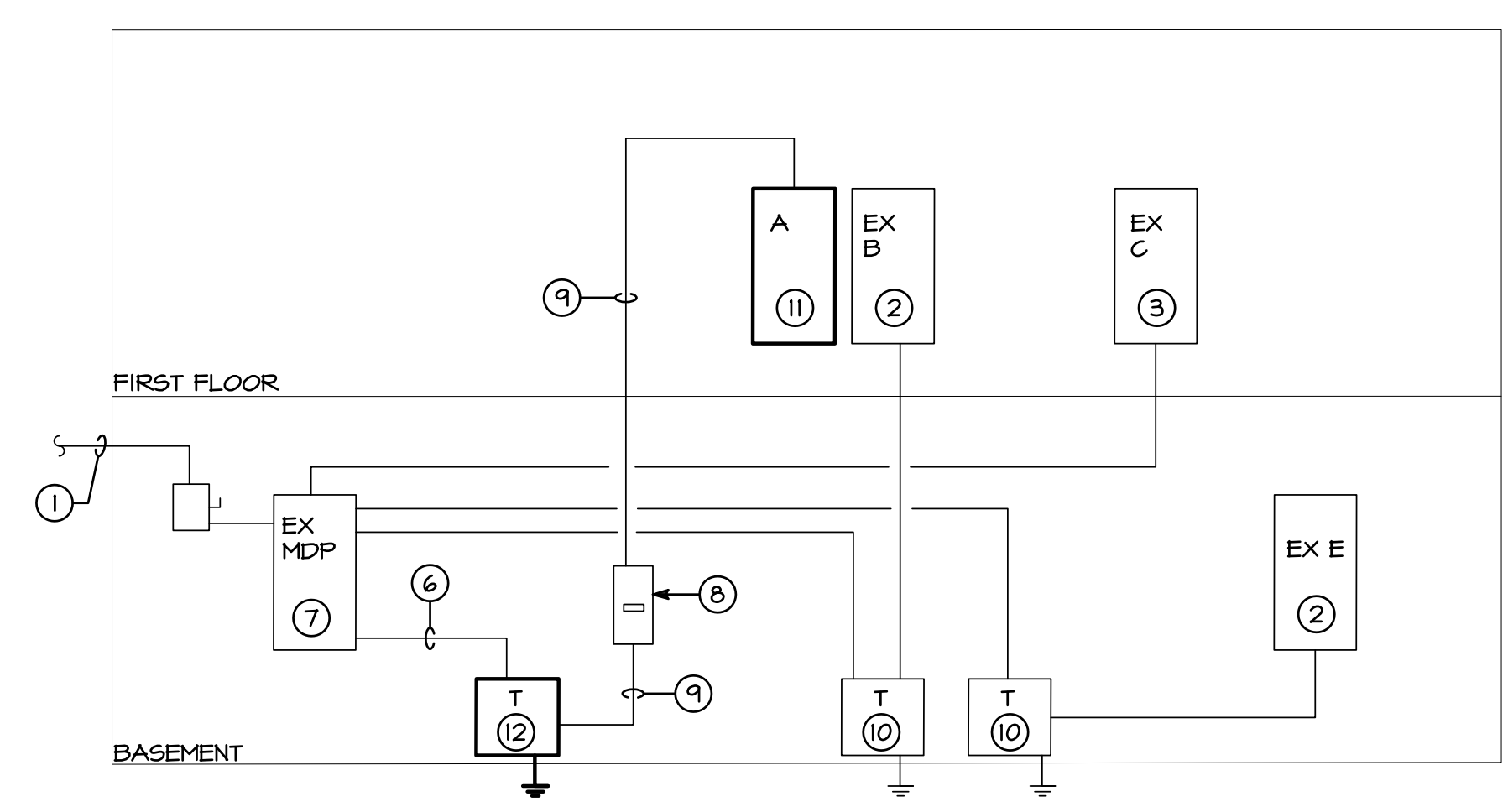
FLUSH MOUNTED PANEL A 120/208 VOLT 3 PHASE 4 WIRE 225 AMP BUS MAIN LUGS ONLY 22,000 A.I.C.																		
TYPE	KVA	HP	CKT NO.	FOR	BRANCH BREAKERS	#	WIRING	COND.	CKT NO.	FOR	BRANCH BREAKERS	#	WIRING	COND.	TYPE	KVA	HP	
R	0.8		1	EX RECEPTS	100	1	20 1	2 12	12 3/4"	2	EX RECEPTS	100	1	20 1	2 12	12 3/4"	R	1.0
R	1.2		3	EX RECEPTS	100	1	20 1	2 12	12 3/4"	4	EX RECEPTS	100	1	20 1	2 12	12 3/4"	R	0.8
R	1.0		5	EX RECEPTS	100	1	20 1	2 12	12 3/4"	6	EX RECEPTS	100	1	20 1	2 12	12 3/4"	R	0.8
R	0.9		7	EX RECEPTS	100	1	20 1	2 12	12 3/4"	8	EX RECEPTS	100	1	20 1	2 12	12 3/4"	R	0.8
R	0.8		9	EX RECEPTS	100	1	20 1	2 12	12 3/4"	10	EX RECEPTS	100	1	20 1	2 12	12 3/4"	R	0.8
R	1.0		11	EX RECEPTS	100	1	20 1	2 12	12 3/4"	12	EX CARD READER	100	1	20 1	2 12	12 3/4"	O	0.8
R	1.0		13	EX DISPLAY CASE	100	1	20 1	2 12	12 3/4"	14	EX DOOR OPERATOR	100	1	20 1	2 12	12 3/4"	O	0.8
R	0.8		15	EX COMP RM	100	1	20 1	2 12	12 3/4"	16	EX COMP RM	100	1	20 1	2 12	12 3/4"	R	1.0
R	1.0		17	EX COMP RM	100	1	20 1	2 12	12 3/4"	18	EX COMP RM	100	1	20 1	2 12	12 3/4"	R	1.0
R	1.0		19	EX COMP RM	100	1	20 1	2 12	12 3/4"	20	EX RECEPTS	100	1	20 1	2 12	12 3/4"	R	0.8
R	1.0		21	EX COMP RM	100	1	20 1	2 12	12 3/4"	22	EX LTG SOFFIT	100	1	20 1	2 12	12 3/4"	L	1.0
R	1.0		23	EX COMP RM	100	1	20 1	2 12	12 3/4"	24	EX LTG SOFFIT	100	1	20 1	2 12	12 3/4"	L	1.0
R	1.0		25	EX COMP RM	100	1	20 1	2 12	12 3/4"	26	EX RECEPTS	100	1	20 1	2 12	12 3/4"	R	1.0
O			27	EX TVSS	100	3				28	SPARE	100	1					
			29						30	RECEPT: CORRIDOR	100	1	20 1	2 12	12 3/4"	R	0.8	
			31						32	RECEPT: PRIVATE/SUPER	100	1	20 1	2 12	12 3/4"	R	0.8	
R	1.0		33	RECEPT: TEST RM 113	100	1	20 1	2 12	12 3/4"	34	RECEPT: WAITING/FRONT DESK	100	1	20 1	2 12	12 3/4"	R	0.6
R	0.6		35	RECEPT: TEST RM 113	100	1	20 1	2 12	12 3/4"	36	RECEPT: FRONT DESK	100	1	20 1	2 12	12 3/4"	R	0.6
R	0.8		37	RECEPT: TEST RM 113	100	1	20 1	2 12	12 3/4"	38	RECEPT: BREAK RM	100	1	20 1	2 12	12 3/4"	R	0.5
R	0.8		39	RECEPT: TEST RM 113	100	1	20 1	2 12	12 3/4"	40	RECEPT: BREAK RM	100	1	20 1	2 12	12 3/4"	R	0.5
R	1.0		41	RECEPT: TEST RM 113	100	1	20 1	2 12	12 3/4"	42	RECEPT: BREAK RM	100	1	20 1	2 12	12 3/4"	R	0.4
R	1.0		43	RECEPT: TEST RM 112	100	1	20 1	2 12	12 3/4"	44	RECEPT: COPIER	100	1	20 1	2 12	12 3/4"	R	0.5
R	0.8		45	RECEPT: TEST RM 112	100	1	20 1	2 12	12 3/4"	46	RECEPT: PRIVATE TEST	100	1	20 1	2 12	12 3/4"	R	0.8
R	0.8		47	RECEPT: TEST RM 112	100	1	20 1	2 12	12 3/4"	48	RECEPT: PRIVATE TEST	100	1	20 1	2 12	12 3/4"	R	0.8
R	0.8		49	RECEPT: TEST RM 112	100	1	20 1	2 12	12 3/4"	50	RECEPT: SUPERVISOR	100	1	20 1	2 12	12 3/4"	R	0.6
R	1.2		51	RECEPT: TEST RM 112	100	1	20 1	2 12	12 3/4"	52	RECEPT: SUPERVISOR	100	1	20 1	2 12	12 3/4"	R	0.6
R	0.8		53	RECEPT: TEST RM 112	100	1	20 1	2 12	12 3/4"	54	EXTERIOR RECEPT	100	1	20 1	2 12	12 3/4"	R	0.2
R	0.6		55	RECEPT: TEST RM 112	100	1	20 1	2 12	12 3/4"	56	WAV BOX	100	1	20 1	2 12	12 3/4"	O	0.4
R	0.6		57	RECEPT: TEST RM 112	100	1	20 1	2 12	12 3/4"	58	EXTERIOR RECEPT	100	1	20 1	2 12	12 3/4"	R	0.2
			59	SPARE	100	1	20 1	2 12	12 3/4"	60	SPARE	100	1	20 1	2 12	12 3/4"		

GENERAL DEMOLITION NOTES

- THE EXISTING FACILITY SHALL REMAIN IN OPERATION DURING CONSTRUCTION. ALL INTERRUPTIONS TO THE UTILITIES OR SERVICES MUST BE COORDINATED WITH THE OWNER TO MINIMIZE DISRUPTIONS. WORK REQUIRING OUTAGES SHALL BE DONE AFTER NORMAL HOURS OR ON WEEKEND



DEMOLITION POWER RISER DIAGRAM
NO SCALE



NEW WORK POWER RISER DIAGRAM
NO SCALE

REV#	DATE	DESCRIPTION
1	7.10.18	COLLEGE COMMENTS
2	7.31.18	COLLEGE COMMENTS

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RISER DIAGRAM AND PANEL SCHEDULES

RENOVATIONS
 FOR
HCC MARYLAND HALL
 401 THOMAS RUN RD
 BEL AIR, MD 21015

DATE: 06/18/2018
 SCALE: AS NOTED
 DRAWN BY: JCF/DJC
 CHECKED BY: JWR/TEF

DRAWING NO:
E-5

FWA JOB NUMBER
 2181033.00

JLR JOB NUMBER 18-057