DRAWING NOTES

1. THE FOLLOWING NOTES ONLY APPLY TO THIS DRAWING.
2. REFER TO GENERAL NOTES, ELECTRICAL TRADE NOTES, LEGEND AND ABBREVIATIONS ON DRAWING E1.0.

PANELBOARD: MDP (EXISTING - LEWIS)

BUS SIZE: 400 AMPS
VOLTAGE: 208 Y/120V 3PH,4W
NEUTRAL: (X)100% ( )200% ( )NONE
ISOLATED GND BUS: ( )YES (X)NO
SHORT CIR. CURRENT RATING 22K
MAIN: (X)MCB ( )MLO
MCB AMPS: 400
LOCATION: BASEMENT ELECTRICAL ROOM 09A
MOUNTING: SURFACE
TVSS: ( ) YES (X) NO
SERVICE RATED: ( ) YES (X) NO

DIRECTORY	WATTS OF LOAD L1	L2	L3	CKT BKR AMPS	POLES		CKT BKR AMPS	WATTS OF LOAD L1	L2	L3	DIRECTORY
					1	2					
					3	4					
					5	6					
					7	8					
					9	10					
					11	12					
					13	14					
					15	16					
					17	18					
					19	20					
					21	22					
					23	24					
					25	26					
					27	28					
					29	30					
					31	32					
		12692			33	34			8912		
PANELBOARD "LPL"	12952		12202	100	35	36	100			7320	PANELBOARD "LPK"
					37	38		12512			
					39	40					
					41	42					
SUBTOTAL	12952	12692	12202					12512	8912	7320	SUBTOTAL

NOTES:
BRANCH BREAKER SHALL BE 100% RATED

TOTAL WATTS L1: 25464
TOTAL WATTS L2: 21604
TOTAL WATTS L3: 19522
TOTAL WATTS: 66590
TOTAL AMPS @ 100%: 185 AMPS
TOTAL AMPS @ 125%: 231 AMPS

TOTAL PANEL RECPT LOAD = 0 WATTS

C.B. TYPE
S=SHUNT TRIP G=GFCI
L=LOCK ON C.B. H=HACR C.B.
AF=AFCI

PANELBOARD: LPL (LEWIS)

BUS SIZE: 225 AMPS
VOLTAGE: 208 Y/120V 3PH,4W
NEUTRAL: (X)100% ( )200% ( )NONE
ISOLATED GND BUS: ( )YES (X)NO
SHORT CIR. CURRENT RATING 22K
MAIN: ( )MCB (X)MLO
MCB AMPS:
LOCATION: MECH 005D
MOUNTING: SURFACE
TVSS: ( ) YES (X) NO
SERVICE RATED: ( ) YES (X) NO

DIRECTORY	WATTS OF LOAD L1	L2	L3	CKT BKR AMPS	POLES		CKT BKR AMPS	WATTS OF LOAD L1	L2	L3	DIRECTORY
	552				1	2	30	2500			
SF-1L		552		15	3	4			2500		RECPT - DRYER - 005C
			552		5	6	30			2500	RECPT - DRYER - 005C
RECPT - DRYER - 005C	2500			30	7	8		2500			
		2500			9	10	30		2500		RECPT - DRYER - 005C
RECPT - DRYER - 005C			2500	30	11	12				2500	
	2500				13	14	20	800			RECPT - WASHER - 005C
RECPT - DRYER - 005C		2500		30	15	16	20		800		RECPT - WASHER - 005C
			2500		17	18	20			800	RECPT - WASHER - 005C
RECPT - WASHER - 005C	800			20	19	20	15	800			EF-1L
RECPT - WASHER - 005C		800		20	21	22	20		540		RECPT - TRASH 005B
RECPT - WASHER - 005C			800	20	23	24	20			50	CARD READER - 005C
SPARE				20	25	26	20				SPARE
SPARE				20	27	28	20				SPARE
SPARE				20	29	30	20				SPARE
SUBTOTAL	6352	6352	6352					6600	6340	5850	SUBTOTAL

NOTES:

TOTAL WATTS L1: 12952
TOTAL WATTS L2: 12692
TOTAL WATTS L3: 12202
TOTAL WATTS: 37846
TOTAL AMPS @ 100%: 105 AMPS
TOTAL AMPS @ 125%: 131 AMPS

TOTAL PANEL RECPT LOAD = 540 WATTS

C.B. TYPE
S=SHUNT TRIP G=GFCI
L=LOCK ON C.B. H=HACR C.B.
AF=AFCI

PANELBOARD: LPK (LEWIS)

BUS SIZE: 100 AMPS
VOLTAGE: 208 Y/120V 3PH,4W
NEUTRAL: (X)100% ( )200% ( )NONE
ISOLATED GND BUS: ( )YES (X)NO
SHORT CIR. CURRENT RATING 22K
MAIN: ( )MCB (X)MLO
MCB AMPS:
LOCATION: KITCHEN 12A
MOUNTING: SURFACE
TVSS: ( ) YES (X) NO
SERVICE RATED: ( ) YES (X) NO

DIRECTORY	WATTS OF LOAD L1	L2	L3	BKR AMPS	POLES		BKR AMPS	WATTS OF LOAD L1	L2	L3	DIRECTORY
ERU-1L (SUPPLY)	812			20	1	2	50	3600			RECPT - COOKTOP - 12A
		812			3	4			3600		
RECPT - COOKTOP - 12A			3600	50	5	6	30			2500	RECPT - WALL OVEN
	3600				7	8			2500		
RECPT - KITCHEN 12A		1500		20	9	10	20			1500	RECPT - CORRIDOR 099B
RECPT - KITCHEN 12A			1500	20	11	12	20				RECPT - CORRIDOR 099B
RECPT - CORRIDOR 099B	1500			20	13	14	20	1500			RECPT - KITCHEN 12A
HAND DRYER - TOILET 10		1500		20	15	16	20		720		RECPT - COMMON SPACE 12
SPARE				20	17	18	20			1500	HAND DRYER - TOILET 08
SPARE				20	19	20	20				SPARE
SPARE				20	21	22	20				SPARE
SPARE				20	23	24	20				SPARE
SPACE					25	26					SPACE
SPACE					27	28					SPACE
SPACE					29	30					SPACE
SUBTOTAL	5912	3812	5100					7600	5820	5500	SUBTOTAL

NOTES:
PROVIDE AS COLUMN WIDTH

TOTAL WATTS L1: 13512
TOTAL WATTS L2: 9632
TOTAL WATTS L3: 10600
TOTAL WATTS: 33744
TOTAL AMPS @ 100%: 94 AMPS
TOTAL AMPS @ 125%: 117 AMPS

TOTAL PANEL RECPT LOAD = 720 WATTS

C.B. TYPE
S=SHUNT TRIP G=GFCI
L=LOCK ON C.B. H=HACR C.B.
AF=AFCI

PANELBOARD: MDP (EXISTING - THATCHER)

BUS SIZE: 400 AMPS
VOLTAGE: 208 Y/120V 3PH,4W
NEUTRAL: (X)100% ( )200% ( )NONE
ISOLATED GND BUS: ( )YES (X)NO
SHORT CIR. CURRENT RATING 22K
MAIN: (X)MCB ( )MLO
MCB AMPS: 225
LOCATION: BASEMENT ELECTRICAL ROOM 001A
MOUNTING: SURFACE
TVSS: ( ) YES (X) NO
SERVICE RATED: ( ) YES (X) NO

DIRECTORY	WATTS OF LOAD L1	L2	L3	CKT BKR AMPS	POLES		CKT BKR AMPS	WATTS OF LOAD L1	L2	L3	DIRECTORY
					1	2					
					3	4					
					5	6					
					7	8					
					9	10					
					11	12					
					13	14					
					15	16					
					17	18					
					19	20					
					21	22					
					23	24					
					25	26					
				27	28				4412		
				29	30		100			2220	PANELBOARD "LPKT"
				31	32			5912			
				33	34						
				35	36						
				37	38						
				39	40						
				41	42						
SUBTOTAL	0	0	0					5912	4412	2220	SUBTOTAL

NOTES:

TOTAL WATTS L1: 5912
TOTAL WATTS L2: 4412
TOTAL WATTS L3: 2220
TOTAL WATTS: 12544
TOTAL AMPS @ 100%: 35 AMPS
TOTAL AMPS @ 125%: 44 AMPS

TOTAL PANEL RECPT LOAD = 0 WATTS

C.B. TYPE
S=SHUNT TRIP G=GFCI
L=LOCK ON C.B. H=HACR C.B.
AF=AFCI

PANELBOARD: LPKT (THATCHER)

BUS SIZE: 100 AMPS
VOLTAGE: 208 Y/120V 3PH,4W
NEUTRAL: (X)100% ( )200% ( )NONE
ISOLATED GND BUS: ( )YES (X)NO
SHORT CIR. CURRENT RATING 22K
MAIN: ( )MCB (X)MLO
MCB AMPS:
LOCATION: 013
MOUNTING: SURFACE
TVSS: ( ) YES (X) NO
SERVICE RATED: ( ) YES (X) NO

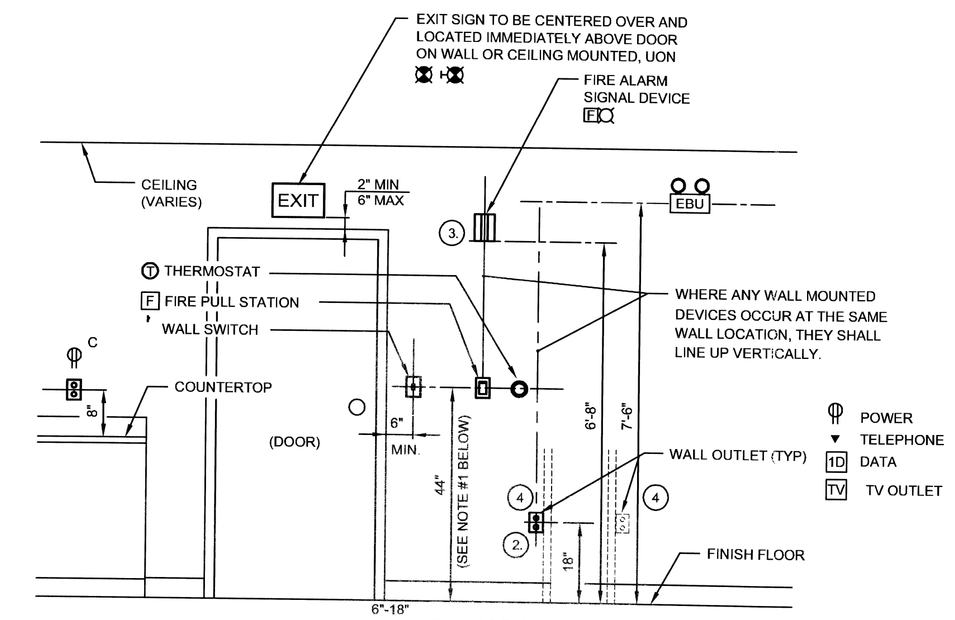
DIRECTORY	WATTS OF LOAD L1	L2	L3	CKT BKR AMPS	POLES		CKT BKR AMPS	WATTS OF LOAD L1	L2	L3	DIRECTORY
ERU-2L (SUPPLY)	812			20	1	2	50	3600			RECPT - COOKTOP - 014
		812			3	4			3600		
RECPT - WALL OVEN			2500	30	5	6	20			1500	RECPT - KITCHEN 014
	2500				7	8	20	1500			RECPT - KITCHEN 014
RECPT - COMMON SPACE 015		720		20	9	10	20				SPARE
SPARE				20	11	12	20				SPARE
SPARE				20	13	14	20				SPARE
SPARE				20	15	16	20				SPARE
SPACE					17	18					SPACE
SPACE					19	20					SPACE
SPACE					21	22					SPACE
SPACE					23	24					SPACE
SUBTOTAL	3312	1532	2500					5100	3600	1500	SUBTOTAL

NOTES:

TOTAL WATTS L1: 8412
TOTAL WATTS L2: 5132
TOTAL WATTS L3: 4000
TOTAL WATTS: 17544
TOTAL AMPS @ 100%: 49 AMPS
TOTAL AMPS @ 125%: 61 AMPS

TOTAL PANEL RECPT LOAD = 0 WATTS

C.B. TYPE
S=SHUNT TRIP G=GFCI
L=LOCK ON C.B. H=HACR C.B.
AF=AFCI



TYPICAL DEVICE LOCATIONS

NOT TO SCALE

NOTE:

1. HEIGHT GIVEN FOR THIS DEVICE IS THE MAXIMUM HEIGHT TO THE HIGHEST OPERABLE PART OF THE DEVICE
2. WHERE ELECTRICAL DEVICES ARE LOCATED ON EXTERIOR WALLS ABOVE FINTUBE, MOUNT DEVICES ABOVE FINTUBE. MOUNTING HEIGHT SHALL BE MINIMUM 18" AFF OR 4" ABOVE TOP OF FINTUBE ENCLOSURE. COORDINATE FINTUBE LOCATIONS, SIZE AND MOUNTING HEIGHT WITH MECHANICAL CONTRACTOR.
3. MOUNT SIGNAL DEVICE WITH BOTTOM OF LENS AT 80" AFF.
4. WHERE LOCATED ON OPPOSITE SIDES OF COMMON WALLS, DEVICE BOXES SHALL NOT BE INSTALLED BACK-TO-BACK IN THE SAME STUD BAY. WHERE POSSIBLE, ALL BOXES SHALL BE ONE COMPLETE STUD BAY APART.
5. COORDINATE LOCATIONS OF WAINSCOTING RECEPTACLES WITH ARCHITECTURAL DRAWINGS TO CENTER DEVICES IN PANEL FINISH.
6. COORDINATE ACTUAL LOCATIONS OF NEW AND RELOCATED EXIT SIGNS WITH THE ARCHITECTURAL DRAWINGS & DETAILS.
7. ELECTRICAL DEVICE LOCATIONS SHOWN ON THE ARCHITECTURAL DRAWINGS SHALL HAVE PRECEDENT OVER ELECTRICAL DRAWINGS. COORDINATE ACTUAL LOCATIONS WITH ARCHITECTURAL DETAILS.

23 MARCH 2011

ELECTRIC EQUIPMENT AND CONTROL SCHEDULE

EQUIPMENT ITEM NUM.	NAME	ROOM LOC.	HP.	KW.	PHASE	SYSTEM VOLTS	SUPPLY PANEL OR CONTROL CENTER	CIRCUIT BREAKER	POWER WIRING FROM PANEL TO CONTROL UNIT AND FROM CONTROL UNIT TO EQUIPMENT PHASE	GND	CONDUIT	REF. NOTES	ACCESSORIES DISCONNECT SWITCH	CONTROL DEVICES NOTES
ERU-1L (SUPPLY)	ENERGY RECOVERY UNIT	LEWIS MECHANICAL RM	1/2		1	208	LPK	20/2	2#12	1#12G	3/4"C	B	D	4
ERU-1L (EXHAUST)	ENERGY RECOVERY UNIT	LEWIS MECHANICAL RM	1/6		1	208	FED WITH ERU-1L (SUPPLY)	-	2#12	1#12G	3/4"C	-	-	-
ERU-1T (SUPPLY)	ENERGY RECOVERY UNIT	THATCHER 015B	1/2		1	208	LPKT	20/2	2#12	1#12G	3/4"C	B	D	4
ERU-1T (EXHAUST)	ENERGY RECOVERY UNIT	THATCHER 015B	1/6		1	208	FED WITH ERU-1T (SUPPLY)	-	2#12	1#12G	3/4"C	-	-	-
ERU-2T (SUPPLY)	ENERGY RECOVERY UNIT	THATCHER 005A	1/2		1	208	LP	20/2	2#12	1#12G	3/4"C	B	D	4
ERU-2T (EXHAUST)	ENERGY RECOVERY UNIT	THATCHER 005A	1/6		1	208	FED WITH ERU-2T (SUPPLY)	-	2#12	1#12G	3/4"C	-	-	-
EF-1L	FAN	LEWIS 005B		0.08	1	120	CKT WITH LTG	-	2#12	1#12G	3/4"C	I	D	1
EF-2L	FAN	LEWIS 118		0.08	1	120	CKT WITH LTG	-	2#12	1#12G	3/4"C	I	D	1
SF-1L	FAN	LEWIS 005D	1		3	208	LPL	15/3	3#12	1#12G	3/4"C	B	D	7
CUH-1L	CABINET UNIT HEATER	LEWIS 119	1/15		1	120	CKT WITH RECPT	-	2#12	1#12G	3/4"C	I	D	1

GENERAL NOTES:
1. ALL ACCESSORIES PROVIDED BY THE DIVISION 16 CONTRACTOR UON
2. ALL CONTROL DEVICES ARE TO BE SURFACE MOUNTED, UNLESS OTHERWISE NOTED.
3. PROVIDE OVERLOADS, SIZE AS REQUIRED, BY THE DIVISION 16 CONTRACTOR
4. IF DIFFERENT THAN INDICATED ON THIS SCHEDULE OR PANELBOARD SCHEDULE, PROVIDE NEW CIRCUIT BREAKER IN DESIGNATED PANELBOARD SIZED PER EQUIPMENT NAMEPLATE DATA.

REFERENCE NOTES:
A. PROVIDE PROPERLY SIZED DISCONNECT SWITCH
B. SINGLE-POINT CONNECTION; COORDINATE WITH MECHANICAL CONTRACTOR
C. PROVIDE TOGGLE SWITCH IN 4" SQUARE BOX FOR EQUIPMENT SERVICE DISCONNECT
D. UNIT PROVIDED WITH FACTORY MOUNTED DISCONNECT SWITCH
E. INSTALL MOTOR STARTER RELAY, SUPPLIED BY MECHANICAL CONTRACTOR
F. UNIT INSTALLED ABOVE CEILING
G. PROVIDE 2-#10,1-#10EG,3/4"CONDUIT FROM OUTDOOR UNIT TO INDOOR UNIT AND TERMINATE WIRING AS REQUIRED
H. UNIT PROVIDED WITH FACTORY MOUNTED DISCONNECT SWITCH AND CONTACTOR
I. CIRCUITED WITH OTHER EQUIPMENT, SEE PANEL SCHEDULE

CONTROL DEVICES NOTES

1. MANUAL MOTOR STARTER
2. COMBINATION MAGNETIC STARTER
3. VARIABLE SPEED DRIVE *
4. PACKAGED CONTROL UNIT
5. FIRE ALARM FAN SHUT DOWN
6. BOILER SHUTDOWN SWITCH & THERMAL CUTOUT
7. COMBINATION VFD *

* SUPPLIED BY MECHANICAL CONTRACTOR, INSTALLED AND WIRED BY ELECTRICAL CONTRACTOR

SPECIAL RECEPTACLE SCHEDULE

TYPE	NEMA CONFIG.	ELECTRICAL RATING	POWER SOURCE	WIRE	CONDUIT	REMARKS
CT	14-50	125/250V, 50A 2 POLE, 3 WIRE + GND	120/208V, 1Ø	3#6 & 1#10G	1"	COOKTOP (1)(2)(3)
D	14-30	125/250V, 30A 2 POLE, 3 WIRE + GND	120/208V, 1Ø	3#10 & 1#10G	3/4"	DRYER (1)(2)(3)
WO	14-30	125/250V, 30A 2 POLE, 3 WIRE + GND	120/208V, 1Ø	3#10 & 1#10G	3/4"	WALL OVEN (1)(2)(3)

1. COORDINATE EXACT NEMA CONFIGURATION REQUIRED WITH ACTUAL EQUIPMENT SUPPLIED.
2. PROVIDE PROPERLY SIZED POWER CORD, IF NOT FURNISHED WITH EQUIPMENT.
3. COORDINATE ACTUAL MOUNTING HEIGHT WITH ARCHITECT.

0 5 10 15 20 FT

PLAN NORTH
N

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COMMONWEALTH OF MASSACHUSETTS CHRISTOPHER M. SHUMWAY MECHANICAL No. 41163 REGISTERED PROFESSIONAL ENGINEER

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REV. NO.	DESCRIPTION	BY	APP'D	DATE

UMASS
UNIVERSITY OF MASSACHUSETTS
FACILITIES PLANNING DIVISION

LEWIS HALL & THATCHER HALL
FINISH UPGRADE 2011

PANELBOARD SCHEDULES, EQUIPMENT SCHEDULE & DETAILS

	BY	DATE
DRN.	CRN	
APP'D	LJE	
CKD.		
APP'D		

PROJECT NO. 10-00176501
CONTRACT NO. UMA 10-01D
SCALE NO SCALE
SHEET OF
DRAWING NUMBER LEWIS & THATCHER E6.1

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