

LIGHT FIXTURE SCHEDULE												
FIXT. LTR.	MANUFACTURER	CATALOG NUMBER	LAMPS		DRIVER		FIXT. VOLT.	FINISH	MOUNTING	FIXTURE VA	REMARKS/DESCRIPTION	SPECIFIC NOTES
(R)	EXISTING	-	#	TYPE	#	TYPE	120	-	-	0	RELOCATE EXISTING FIXTURE.	
A1	WILLIAMS	76-4-L32/835-DRV-UNV	-	LED	-	NON-DIM	120	STANDARD	SUSPENDED	23	4' LED LENSED STRIP.	
A1E	WILLIAMS	76-4-L32/835-DRV-UNV-EM/10W	-	LED	-	NON-DIM	120	STANDARD	SUSPENDED	23	SAME AS 'A1' WITH BATTERY.	
A2	COOPER	4VT2-LD5-4-DR-UNV-L35-CD1-WLSSL	-	LED	-	NON-DIM	120	STANDARD	SUSPENDED	23	4' LED LENSED STRIP, WET LISTED, STAINLESS STEEL LATCHES.	
B1	WILLIAMS	ILP-22-L50/840-DIM-UNV	-	LED	-	NON-DIM	120	STANDARD	RECESSED	40	2' X 2' LED FLAT PANEL.	
W1E	US ARCHITECTURAL	RZR-WM1-FL-ED-IV-20LED-700MA-C-W-277-RAL-9005-1-EM1	-	LED	-	NON-DIM	277	BRONZE	WALL	44	LED WALL PACK WITH BATTERY.	
W2E	US ARCHITECTURAL	RZR-WM1-FL-ED-IV-20LED-700MA-C-W-120-RAL-9005-1-EM1-PV120V	-	LED	-	NON-DIM	120	BRONZE	WALL	44	LED WALL PACK WITH BATTERY AND PHOTOCCELL.	
X1	SURE LITE	LPX7	-	LED	-	-	120	STANDARD	WALL/CEILING	1	EXIT SIGNAGE.	

GENERAL NOTES (APPLY TO ALL LIGHTING):

A. ALL LIGHTING FIXTURES SHALL BE RATED FOR LIGHTING POWER CIRCUIT VOLTAGE. CONTRACTOR MUST VERIFY ALL LOCATIONS.

B. ELECTRICAL CONTRACTOR SHALL CHECK AND COORDINATE ALL LIGHTING FIXTURE CATALOG NUMBERS WITH THE INTENT OF FIXTURE DESCRIPTIONS, LISTED ACCESSORIES AND TYPE OF INSTALLATION.

C. ELECTRICAL CONTRACTOR SHALL PROVIDE EACH LIGHTING FIXTURE COMPLETE WITH PLASTER FRAMES AND ALL OTHER INSTALLATION AND HANGING HARDWARE AS REQUIRED FOR A COMPLETE AND FINISHED INSTALLATION AT EACH FIXTURE LOCATION.

D. ALL FIXTURES SHALL BE LISTED BY A NATIONALLY RECOGNIZED TESTING LABORATORY (NRTL) AND LABELED. ALL LIGHTING FIXTURES EXPOSED TO WEATHER, MOISTURE, OR OTHER ENVIRONMENTS SHALL BEAR THE APPLICABLE ENVIRONMENTAL OR APPLICATION LABEL.

E. ALL EXIT/DIRECTIONAL SIGNS SHALL BE INSTALLED COMPLETE WITH ALL INSTALLATION AND HANGING ACCESSORIES TO PROVIDE AN UNOBSTRUCTED VIEW OF EACH SIGN FACE. SIGNS WILL BE ADJUSTED AS NECESSARY WITHOUT ADDITIONAL COST TO THE OWNER.

F. SIGNS TO READ "EXIT" - SIGNS WILL BE SINGLE OR DOUBLE FACE, WITH OR WITHOUT DIRECTIONAL ARROWS, AS SHOWN ON PLANS. SIGNS IN GENERAL WILL BE CEILING MOUNTED, LOCATED AND ADJUSTED FOR BEST VIEW. PENDANTS SHALL NOT BE USED UNLESS SPECIFICALLY INDICATED ON PLANS. SHADED PORTION OF EXIT SYMBOL DENOTES ILLUMINATION FACE.

G. REFER TO APPLICABLE SECTIONS OF THE SPECIFICATIONS FOR ADDITIONAL REQUIREMENTS FOR LIGHTING FIXTURES.

H. VERIFY ALL LIGHTING FIXTURE LOCATIONS, FINISHES AND CEILING TYPES WITH ARCHITECT PRIOR TO INSTALLING. VERIFY VOLTAGE WITH ENGINEER PRIOR TO INSTALLING.

I. ELECTRICAL CONTRACTOR TO FIELD ADJUST AIMING PATTERN OF EXTERIOR LIGHTS AT NIGHT SESSION. OWNER & ARCHITECT TO DETERMINE TIME AND DATE.

J. INSTALLATION ELEVATION SHOWN IS FROM AFF OR AFG AS OBVIOUSLY APPLICABLE. TO CENTER OF OUTLET BOX, UNLESS OTHERWISE NOTED.

K. FIXTURE SUBSTITUTIONS: SHALL BE SUBMITTED IN WRITING TO THE ENGINEER FOR APPROVAL, 7 BUSINESS DAYS PRIOR TO BID. SUBMIT CUT SHEETS OF SPECIFIED ITEM ALONG WITH A CUT SHEET OF THE DESIRED SUBSTITUTION, WITH ALL DIFFERENCES NOTED. EMAIL CUT SHEETS INCLUDING PHOTOMETRIC INFORMATION TO ELECTRICAL ENGINEER. FAX TRANSMISSIONS ARE NOT ACCEPTABLE. SUBSTITUTIONS NOT SUBMITTED AS PER THIS PROCEDURE WILL NOT BE CONSIDERED. THE ENGINEER'S DECISION OF APPROVAL OR DISAPPROVAL OF A PROPOSED SUBSTITUTE SHALL BE FINAL.

L. SHOP DRAWINGS: DIFFERENCES SHALL BE SPECIFICALLY NOTED ON THE "SHOP DRAWINGS." THIS INCLUDES BUT IS NOT LIMITED TO: FIXTURE SUBSTITUTIONS, LAMPS, VOLTAGE, MOUNTING, PHYSICAL DIMENSIONS AND FINISHES. FAILURE TO COMPLY DOES NOT RELIEVE THE CONTRACTOR OF DESIGN DOCUMENT INTENTION AND WILL NOT BE REASON FOR ADDITIONAL REIMBURSEMENT. ADDITIONAL REQUIREMENTS MAY BE FOUND ELSEWHERE IN THE DRAWINGS OR SPECIFICATIONS.

SPECIFIC NOTES (AS REFERENCED TO IN SCHEDULE)

TRANSFORMER SCHEDULE								
MARK	EQUIPMENT SERVED	KVA RATING	PHASE	PRIMARY		SECONDARY		NOTES
				VOLTAGE	CONNECTION	VOLTAGE	CONNECTION	
TS-L4	PANEL 'L-4'	15 KVA	3	480V	DELTA	208Y/120V	WYE	1,2,3

NOTES:

- REFER TO SPECIFICATIONS FOR TRANSFORMER WINDING TYPE.
- INSTALL FLOOR MOUNTED TRANSFORMERS ON 4" HOUSEKEEPING PAD. REFER TO DRAWINGS FOR LOCATIONS.
- PROVIDE NEMA 3R ENCLOSURE.

EQUIPMENT CONNECTION SCHEDULE																		
MARK	DESCRIPTION	UNIT VOLTAGE	PHASE	FULL LOAD AMPS	MOCP	PANEL	CIRCUIT NUMBER	CIRCUIT TYPE	DISCONNECT			STARTER			FEEDER		CONTROLLER	REMARKS
									ENCL. RATING (NEMA)	FUSE SIZE (AMPS)	TYPE	ENCL. RATING (NEMA)	NEMA SIZE	WIRE AND CONDUIT	WIRE AND CONDUIT			
DSS-1A	DUCTLESS SPLIT SYSTEM #1 - INDOOR	240	1	1.0	30			T-20A	1	-	PWE	-	-	1	(2)#10, #10GND IN 0.5"C.	THERMOSTAT	2, 3	
DSS-1B	DUCTLESS SPLIT SYSTEM #1 - OUTDOOR	240	1	1.10	30	LCD	34,36	S-30A	3R	-	PWE	-	-	1	(2)#10, #10GND IN 0.5"C.	DSS-1A	2, 3	
DSS-2A	DUCTLESS SPLIT SYSTEM #2 - INDOOR	240	1	1.0	15			T-15A	1	-	PWE	-	-	1	(2)#12, #12GND IN 0.5"C.	THERMOSTAT	2	
DSS-2B	DUCTLESS SPLIT SYSTEM #2 - OUTDOOR	240	1	7.0	15	LCD	3,5	S-30A	3R	-	PWE	-	-	1	(2)#12, #12GND IN 0.5"C.	DSS-2A	2	
DSS-3A	DUCTLESS SPLIT SYSTEM #3 - INDOOR	240	1	1.0	15			T-15A	1	-	PWE	-	-	1	(2)#12, #12GND IN 0.5"C.	THERMOSTAT	2	
DSS-3B	DUCTLESS SPLIT SYSTEM #3 - OUTDOOR	240	1	7.0	15	LCD	7,9	S-30A	3R	-	PWE	-	-	1	(2)#12, #12GND IN 0.5"C.	DSS-3A	2	
EF-3	EXHAUST FAN #3 (R)	120	1	5.8	15	L-4	4	T-15A	1	-	PWE	-	-	1	(2)#12, #12GND IN 0.5"C.	CONTINUOUS	1	
EF-8	EXHAUST FAN #8	120	1	0.6	15	L-4	2	T-15A	1	-	PWE	-	-	1	(2)#12, #12GND IN 0.5"C.	SWITCH	WILTS	
EF-9	EXHAUST FAN #9	120	1	0.6	15	L-4	2	T-15A	1	-	PWE	-	-	1	(2)#12, #12GND IN 0.5"C.	SWITCH	WILTS	
EW-1	ELECTRIC WATER HEATER #1	480	1	75.0	100	MDP-A	11	2	CB	-	PWE	-	-	1	(2)#1, #8GND IN 1.25"C.	EM	4	
EW-3	ELECTRIC WALL HEATER #3	277	1	10.8	15	H-2	23	1	PWE	-	PWE	-	-	1	(2)#12, #12GND IN 0.5"C.	THERMOSTAT		
EW-4	ELECTRIC WALL HEATER #4	277	1	10.8	15	H-2	25	1	PWE	-	PWE	-	-	1	(2)#12, #12GND IN 0.5"C.	THERMOSTAT		
GW-1	GAS WATER HEATER #1	120	1	0.8	15	L-4	6	1	T-15A	-	PWE	-	-	1	(2)#12, #12GND IN 0.5"C.	EM		
GW-2	GAS WATER HEATER #2	120	1	0.8	15	L-4	6	1	T-15A	-	PWE	-	-	1	(2)#12, #12GND IN 0.5"C.	EM		
GW-3	GAS WATER HEATER #3	120	1	0.8	15	L-4	6	1	T-15A	-	PWE	-	-	1	(2)#12, #12GND IN 0.5"C.	EM		
RCP-1	RECIRCULATING PUMP #1	120	1	2.8	15	L-4	8	1	T-15A	-	PWE	-	-	1	(2)#12, #12GND IN 0.5"C.	AQUASTAT		
RTU-3	ROOFTOP UNIT #3	240	1	179.0	225	MDP-C	4	2	PWE	-	PWE	-	-	1	(2)#40, #4GND IN 1.5"C.	THERMOSTAT		
RTU-4	ROOFTOP UNIT #4	480	3	27.0	40	H-2	17,19,21	3	PWE	-	PWE	-	-	1	(3)#8, #10GND IN 0.75"C.	THERMOSTAT		

TABLE ABBREVIATIONS:

GENERAL: ENCL - ENCLOSURE; PWE - PROVIDED WITH EQUIPMENT. WIRING CONNECTIONS BY ELECTRICAL CONTRACTOR.

STARTERS: MS - MAGNETIC OR SOLID STATE; 2 - 2-SPEED, ADDED TO PREVIOUS; V - VARIABLE FREQUENCY DRIVE; C - COMBINATION STYLE; R - INTERPOSING RELAY.

DISCONNECTS: S - SAFETY SWITCH; T - TOGGLE TYPE; P - CORD AND PLUG.

CONTROLLERS: I - INTERLOCK; BCS - BUILDING CONTROL SYSTEM; EM - EQUIPMENT MANUFACTURER CONTROL.

PBO - PROVIDED BY OTHERS.

\* - SEE SPECIFICATIONS FOR TYPE.

M (OR T) - MANUAL - SEE DISCONNECT FOR T.

REMARKS:

- INTERLOCK FAN OPERATION WITH LOUVER L-14.
- INDOOR UNIT POWERED FROM OUTDOOR UNIT. SUPPLY INTERCONNECTION WIRE BETWEEN UNITS. RUN AN ADDITIONAL 1"C. BETWEEN UNITS FOR CONTROLS.
- UNIT TO BE RELOCATED. EXTEND CONDUIT AND WIRE AS NECESSARY TO NEW LOCATION.
- CIRCUIT BREAKER IN PANEL TO SERVE AS EQUIPMENT DISCONNECT. PROVIDE BREAKER CAPABLE OF LOCKING IN THE OPEN (OFF) POSITION.

PANEL: L-4		BRANCH PANELBOARD - NORMAL POWER											
LOCATION: EXISTING FIELDHOUSE 110		VOLTAGE: 120/208		A.I.C.: 10000		LOAD TYPE: L=LIGHTING, R=RECEPTACLE, M=MOTORS, H=HOSPITAL, K=KITCHEN, H=HEAT, M=MISC							
FED FROM: TS-L4		PHASE: 3		MAINS: 125 A									
MOUNTING: Surface		WIRES: 4		M.C.B.: 60 A									
ENCLOSURE: Type 1													
CKT	LOAD DESCRIPTION	TRIP	POLE	TYPE	A	B	C	TYPE	POLE	TRIP	LOAD DESCRIPTION	CKT	
1	R LOCKER RM NW	20 A	1	R	900	792		M, L	1	15 A	L LOCKER, EF-8, EF-9	2	
3	R R/R REF EXT	20 A	1	R		1080	696	M	1	15 A	EF-3, L-14	4	
5	R LOCKER RM NE	20 A	1	R			900	M	1	15 A	GW-1, -2, -3	6	
7	HAND DRYER	20 A	1	H	1500	336		M	1	15 A	RCP-1	8	
9	HAND DRYER	20 A	1	H		1500	0	--	1	20 A	Spare	10	
11	HAND DRYER	20 A	1	H			1500	0	--	1	20 A	Spare	12
13	HAND DRYER	20 A	1	H	1500	0		--	1	20 A	Spare	14	
15	HAND DRYER	20 A	1	H		1500	0	--	1	20 A	Spare	16	
17	HAND DRYER	20 A	1	H			1500	0	--	1	20 A	Spare	18
19	Spare	20 A	1	--	0	0		--	1	20 A	Spare	20	
21	Spare	20 A	1	--	0	0		--	1	20 A	Spare	22	
23	Spare	20 A	1	--	0	0		--	1	20 A	Spare	24	
25	Spare	20 A	1	--	0	0		--	1	20 A	Spare	26	
27	Spare	20 A	1	--	0	0		--	1	20 A	Spare	28	
29	Spare	20 A	1	--	0	0		--	1	20 A	Spare	30	
TOTAL LOAD / PHASE (VA)		5028 VA		4776 VA		4170 VA							
TOTAL AMPS / PHASE		42.7 A		40.6 A		34.8 A							
LOAD SUMMARY													
LOAD TYPES		CONNECTED LOAD		DEMAND FACTOR		DEMAND		PANEL TOTALS					
LIGHTS		648 VA		1.25 CONTINUOUS		810 VA		TOTAL CONN. LOAD (VA)					
RECEPTACLES		2880 VA		Per NEC Table 220.44		2880 VA		TOTAL DEMAND LOAD (VA)					
MOTORS		1176 VA		Per NEC 220.50		1350 VA		TOTAL CONN. CURRENT					
HOSPITAL				Per NEC Table 220.11		38.8		TOTAL DEMAND CURRENT					
KITCHEN				Per NEC Table 220.56		9000 VA							
HEAT		9000 VA		Per NEC 220.51		9000 VA							
MISC		270 VA		1.00		270 VA							

NOTES:

- PROVIDE PANEL WITH HINGED COVER.

PANEL: H-2		BRANCH PANELBOARD - NORMAL POWER										
LOCATION: EXISTING FIELDHOUSE 110		VOLTAGE: 277/480		A.I.C.: 14,000		LOAD TYPE: L=LIGHTING, R=RECEPTACLE, M=MOTORS, H=HOSPITAL, K=KITCHEN, H=HEAT, M=MISC						
FED FROM: MDP		PHASE: 3		MAINS: 125 A								
MOUNTING: Surface		WIRES: 4		M.C.B.: 125 A								
ENCLOSURE: Type 1												
CKT	LOAD DESCRIPTION	TRIP	POLE	TYPE	A	B	C	TYPE	POLE	TRIP	LOAD DESCRIPTION	CKT
1	LGTS INDOOR FIELDS	20 A	1	--	0	0		--	1	20 A	LGTS INDOOR FIELDS	2
3	LGTS INDOOR FIELDS	20 A	1	--	0	0		--	1	20 A	LGTS INDOOR FIELDS	4
5	LGTS INDOOR FIELDS	20 A	1	--	0	0		--	1	20 A	LGTS INDOOR FIELDS	6
7	LGTS INDOOR FIELDS	20 A	1	--	0	0		--	1	20 A	LGTS INDOOR FIELDS	8
9	LGTS INDOOR FIELDS	20 A	1	--	0	0		--	1	20 A	LGTS INDOOR FIELDS	10
11	LGTS INDOOR FIELDS	20 A	1	--	0	0		--	1	20 A	LGTS INDOOR FIELDS	12
13	LGTS INDOOR FIELDS	20 A	1	--	0	0		--	1	20 A	EXTERIOR LIGHTING	14
15	LGTS INDOOR FIELDS	20 A	1	--	0	0		--	1	20 A	EXTERIOR LIGHTING	16
17							7482				LCP-1	18
19	RTU-4 (2)	40 A	3	M	7482	5028						20
21							7482	4776				22
23	EW-3 (2)	15 A	1	H			2992			2992	4170	24
25	EW-4 (2)	15 A	1	H			2992			2992	4170	26
27	Spare	20 A	1	--	0	0		--	1	20 A	Spare	28
29	Spare	20 A	1	--	0	0		--	1	20 A	Spare	30

NOTES:

- EXISTING PANEL LOADS SHOWN FOR REFERENCE.
- PROVIDE NEW BREAKER AS SCHEDULED.

IMPROVEMENT					
CIRCUIT BREAKER DISTRIBUTION PANEL SCHEDULE					
BRANCH DISTRIBUTION - NORMAL POWER					
TYPE: I-LINE		MOUNTING: SURFACE		A.I.C. RATING: 6500	
MAIN SIZE: 800A		VOLTAGE: 240/120		LOCATION: MECH/ELEC 108	
MAIN BREAKER: 800A		PHASE: 1		SERVED BY: UTILITY	
MOUNTING SPACE: 54"		WIRES: 3			
CKT	LOAD DESCRIPTION	FRAME (AMPS/POLE)	TRIP (AMPS)	CIRCUIT BREAKER TYPE	MOUNTING HEIGHT
1	LCA		300		
2	LOC		600		
3	LCD		300		
4	RTU-3 (2)	250/2	225		
	SPACE				

NOTES:

- EXISTING PANEL LOADS SHOWN FOR REFERENCE.
- PROVIDE NEW BREAKER AS SCHEDULED. MATCH EXISTING PANEL BREAKER TYPE.

H-2 LOAD CALCULATION	
EXISTING LOAD PER PHASE 3/4 DRAWINGS	52.9 KW
ADDED LOAD	42.4 KW
NEW TOTAL LOAD (KW)	95.3 KW
NEW TOTAL LOAD (AMPS)	114.8 A
REMAINING SPARE CAPACITY (125A MCB)	10.2 A

IMPROVEMENT					
CIRCUIT BREAKER DISTRIBUTION PANEL SCHEDULE					
BRANCH DISTRIBUTION - NORMAL POWER					
TYPE: I-LINE		MOUNTING: SURFACE		A.I.C. RATING: 6500	
MAIN SIZE: 800A		VOLTAGE: 480/240		LOCATION: MECH/ELEC 108	