



**ELECTRICAL SYMBOL LEGEND**

LIGHTING		POWER CONT.		ABBREVIATIONS		DEMOLITION NOTES:		LIGHTING & POWER NOTES:		EQUIPMENT NOTES:	
	2x4 LIGHT FIXTURE		CIRCUIT BREAKER PANEL	1P	1 POLE (2P, 3P, 4P, ETC.)	1	THE DEMOLITION DRAWINGS ARE DERIVED FROM FIELD OBSERVATIONS AND EXISTING DRAWINGS. THIS CONTRACTOR SHALL BE RESPONSIBLE FOR ALL ELECTRICAL DEMOLITION WORK REQUIRED FOR THE INSTALLATION OF NEW ELECTRICAL WORK AND WORK REQUIRED BY OTHER TRADES.	1	LIGHT FIXTURES DESIGNATED AS "NIGHT LIGHTS" SHALL BE ON UNSWITCHED CIRCUIT, UNLESS NOTED.	1	PROVIDE 4" HIGH, SMOOTH FINISH CONCRETE HOUSEKEEPING PADS UNDER ALL TRANSFORMERS (45KVA AND LARGER) AND MAIN DISTRIBUTION SWITCHBOARDS. PAD SHALL BE 4" LARGER THAN TRANSFORMER AND SWITCHBOARD IN EACH DIRECTION.
	RECESSED DOWNLIGHT SHADING DENOTES EMERGENCY OPERATION		POWER OR DISTRIBUTION PANEL	AC	AIR CONDITIONER	2	THE ELECTRICAL CONTRACTOR SHALL NOTE ANY EXISTING DAMAGE ON CEILING TILES, LIGHT FIXTURES, WALLS, FLOORS, FURNITURE, PAVING, ETC. PRIOR TO THE START OF ANY WORK. THE CONTRACTOR SHALL PHOTOGRAPH THESE ITEMS AND SUBMIT THEM TO THE ENGINEER BEFORE BEGINNING WORK.	2	LIGHT FIXTURES DESIGNATED AS "EMERGENCY LIGHTS" SHALL BE SWITCHED AND PROVIDED WITH EMERGENCY BALLAST ON UNSWITCHED CIRCUIT (SAME CIRCUIT AS SWITCH LEG), UNLESS NOTED.	2	PROVIDE A 6" THICK STRUCTURAL SUPPORT PAD UNDER EACH GRADE MOUNTED TRANSFORMER. PAD SHALL BE 6" LARGER THAN EQUIPMENT IN EACH DIRECTION. USE #40 REBAR, 3000 PSI, 28 DAY COMPRESSIVE STRENGTH CONCRETE. CHAMFER ALL EDGES. USE 90° CORNERS OF CONCRETE PAD. TRANSFORMERS TO BE A MINIMUM OF 6" FROM WALLS. VERIFY PLACEMENT REQUIREMENTS OF TRANSFORMER WITH MANUFACTURER PROVIDED.
	EXTERIOR WALL SCONCE		TRANSFORMER (TYPE DENOTED)	AF	AMP FRAME	3	ALL EXISTING CEILING TILES TO REMAIN WHICH ARE DAMAGED BY THIS CONTRACTOR DURING CONSTRUCTION SHALL BE REPLACED WITH NEW CEILING TILES (MATCHING EXISTING) AT THIS CONTRACTOR'S EXPENSE.	3	EXIT LIGHTS SHALL BE ON UNSWITCHED CIRCUIT, UNLESS NOTED.	3	VERIFY CEILING TYPES PER THE ARCHITECTURAL REFLECTED CEILING PLAN. PROVIDE APPROPRIATE TYPE FIXTURE. LAY-IN FOR GRID, FLANGE FOR DRYWALL, ETC.
	STRIP LIGHT		POWER POLE (OPEN OFFICE STYLE)	AFG	ABOVE FINISHED FLOOR	4	ALL LIGHT FIXTURES, RECEPTACLES, FIRE ALARM DEVICES, ETC. TO BE REMOVED SHALL HAVE OPENINGS PATCHED TO MATCH EXISTING CONDITIONS. ALL CUTTING AND PATCHING OF ELECTRICAL WORK SHALL BE BY THE ELECTRICAL CONTRACTOR.	4	ALL RECESSED DOWNLIGHTS MOUNTED IN GRID CEILING SHALL BE CENTERED IN CEILING TILE, UNLESS NOTED.	4	IN ALL MECHANICAL ROOMS COORDINATE EXACT LOCATION OF LIGHT FIXTURES WITH HVAC AND PLUMBING EQUIPMENT AND HVAC DUCTWORK.
	EXIT SIGN		MULTIOUTLET ASSEMBLY (TYPE DENOTED)	AL	ALUMINUM	5	ALL DEMO'D CIRCUITS WITH NO REMAINING LOAD SHALL BE RE-LABELLED "SPARE" IN EXISTING PANELS.	5	VERIFY CEILING TYPES PER THE ARCHITECTURAL REFLECTED CEILING PLAN. PROVIDE APPROPRIATE TYPE FIXTURE. LAY-IN FOR GRID, FLANGE FOR DRYWALL, ETC.	5	CONDUCTORS FOR BRANCH CIRCUITRY ARE #12 AWG MINIMUM, UNLESS NOTED.
	EXTERIOR REMOTE HEAD		HOME RUN TO PANEL	APFX	APPROXIMATELY	6	THE ELECTRICAL CONTRACTOR SHALL BE RESPONSIBLE FOR MOVING AND PROTECTING ALL OWNER OWNED FURNITURE, EQUIPMENT ETC. AS REQUIRED TO PERFORM THE WORK OF THIS PROJECT.	6	ALL WIRING SHALL BE INSTALLED IN 3/4" CONDUIT, MINIMUM, UNLESS NOTED OTHERWISE. CONDUIT SHALL BE CONCEALED IN CEILING OR WALLS WHEREVER POSSIBLE.	6	ALL UNDERGROUND CONDUIT SHALL BE SCHEDULE 40 PVC, UNLESS NOTED OTHERWISE. UNDERGROUND PVC CONDUITS SHALL HAVE RIGID GALVANIZED STEEL EMBLEM.
	EMERGENCY FIXTURE		GROUNDING	ARCH	ARCHITECT, ARCHITECTURAL	7	THE ELECTRICAL CONTRACTOR SHALL DISPOSE OF ALL DEMOLISHED EQUIPMENT EXCEPT WHERE NOTED OTHERWISE.	7	PROVIDE A GREEN GROUND CONDUCTOR IN ALL BRANCH CIRCUITS. REFER TO NOTES FOR OTHER GROUNDING CONDUCTOR TYPES. GROUNDING MEANS RACEWAY SHALL NOT BE PERMITTED.	7	WHEN A DEDICATED NEUTRAL CONDUIT IS REQUIRED FOR ALL SINGLE POLE CIRCUITS, SHARING OF NEUTRALS SHALL NOT BE PERMITTED.
	LIGHT FIXTURE CALLOUT DENOTES SWITCH LEG DENOTES CIRCUIT NUMBER DENOTES FIXTURE TYPE		LIGHTNING PROTECTION AIR TERMINAL	AT	AUTOMATIC TRANSFER SWITCH	8	WHEN A DEVICE IS REMOVED THE ELECTRICAL CONTRACTOR SHALL PROVIDE ALL REQUIRED CIRCUITRY TO MAINTAIN CONTINUITY OF ALL DOWNSTREAM DEVICES TO REMAIN.	8	PROVIDE A GREEN GROUND CONDUCTOR IN ALL BRANCH CIRCUITS. REFER TO NOTES FOR OTHER GROUNDING CONDUCTOR TYPES. GROUNDING MEANS RACEWAY SHALL NOT BE PERMITTED.	8	ALL CONDUIT DROPPED FOR PLENUM RATED CABLE SHALL BE PROVIDED WITH A CONDUIT BUSHING ABOVE THE CEILING.
	SINGLE POLE SW.		GROUND ROD	AV	AUXILIARY	9	ALL ITEMS TO BE REMOVED SHALL BE DISPOSED OF PROPERLY OFFSITE OR TURNED OVER TO THE OWNER AT THE OWNER'S DISCRETION.	9	WHERE TERMINATED IN A BOX ALL WIRE CIRCUITRY SHALL BE LABELED WITH PANEL AND CIRCUIT NUMBER.	9	FOR CLARITY, THE QUANTITY OF BRANCH CIRCUIT CONDUCTORS ARE NOT SHOWN. CONTRACTOR SHALL BE RESPONSIBLE FOR PROVIDING ALL BRANCH CIRCUITRY. RECORD AS BUILT CIRCUIT PATHS AND PRESENT DRAWINGS FOR ENGINEER VERIFICATION WHEN REQUESTED BY ENGINEER.
	3-WAY SW.		GROUND BAR	AVG	AUDIO VISUAL	10	EXISTING CIRCUITS WITH NEW OR REVISED LOADS SHALL HAVE THE CIRCUIT DIRECTORY UPDATED TO REFLECT NEW LOAD.	10	COORDINATE ELECTRICAL REQUIREMENTS FOR NEW OR RENOVATED WORK WITH THE PLUMBING AND MECHANICAL CONTRACTORS. VERIFY VOLTAGE, PHASE AND ACCESSORY REQUIREMENTS, SUCH AS MOTOR STARTERS AND DISCONNECTS. PROVIDE ALL NECESSARY AUXILIARY CONTACTS, RELAY, ETC. IN MOTOR STARTERS FOR REQUIRED CONTROL OF MECHANICAL EQUIPMENT.	10	FOR CLARITY, ONLY EXISTING LIGHT FIXTURES, SWITCHES, RECEPTACLES, ETC. ARE SHOWN WHICH ARE PERTINENT TO THIS WORK.
	4-WAY SW.		GROUND	AVX	AMERICAN WIRE GAUGE	11	REFER TO ARCHITECTURAL SHEETS FOR ALL FIRE-RATED PARTITION LOCATIONS AND RATINGS.	11	CONTRACTOR SHALL PROVIDE ALL FIRESTOPPING FLOOR PENETRATIONS OF ALL RATED PENETRATIONS THAT PENETRATE ACOUSTIC RATED CEILING AND FIRE RATED ASSEMBLIES. SEE ARCHITECTURAL DRAWINGS FOR LOCATION OF ALL RATED ASSEMBLIES. ALL RATED PENETRATIONS SHALL BE FIRESTOPPED TO ORIGINAL LISTED RATING. ALL NON-RATED FLOOR PENETRATIONS SHALL BE SEALED WATER TIGHT WITH FLEXIBLE SEALANT.	11	CONTRACTOR SHALL PROVIDE ALL FIRESTOPPING FLOOR PENETRATIONS OF ALL RATED PENETRATIONS THAT PENETRATE ACOUSTIC RATED CEILING AND FIRE RATED ASSEMBLIES. SEE ARCHITECTURAL DRAWINGS FOR LOCATION OF ALL RATED ASSEMBLIES. ALL RATED PENETRATIONS SHALL BE FIRESTOPPED TO ORIGINAL LISTED RATING. ALL NON-RATED FLOOR PENETRATIONS SHALL BE SEALED WATER TIGHT WITH FLEXIBLE SEALANT.
	KEYED SW.		SYSTEMS	AWG	AUTOMATIC TRANSFER SWITCH	12	OPENINGS IN NEW WALLS AND FLOORS SHALL BE PLANNED AND COORDINATED WITH GENERAL CONTRACTOR FOR THE INSTALLATION OF APPROPRIATE SLEEVES. ELECTRICAL CONTRACTOR IS RESPONSIBLE FOR ALL COSTS WILL BE REQUIRED FOR INSTALLATION OF ELECTRICAL WORK.	12	VERIFY AND COORDINATE MOUNTING HEIGHTS AND LOCATIONS OF ALL DEVICES MOUNTED IN CASEWORK OR ABOVE COUNTERS WITH SPECIFIC EQUIPMENT FURNISHED. CONTRACTOR SHALL COORDINATE EXACT HEIGHT OF DEVICES DESIGNED AS OVER COUNTER WITH CASEWORK AND FURNITURE DRAWINGS. ROUTING OF CIRCUITRY INSTALLED IN CASEWORK, CABINETS, ETC. SHALL BE COORDINATED FOR PROPER CONCEALMENT AND FUNCTION OF CASEWORK, CABINETS, ETC.	12	VERIFY THE LOCATION OF ALL UTILITIES PRIOR TO EXCAVATION, TRENCHING OR DRILLING.
	DIMMER SWITCH		TELEPHONE OUTLET (TYPE DENOTED)	AT	ATS	13	ON ALL ELECTRICAL TRENCHING THE ELECTRICAL CONTRACTOR SHALL REVISIT SITE IN 6 MONTHS AND CHECK TRENCHES FOR SETTLEMENT. ADDITIONAL BACKFILL AND RE-SEEDING SHALL BE DONE FOR PROPER GRADE LEVELING. THE ELECTRICAL CONTRACTOR SHALL BEAR ALL COSTS.	13	THE ELECTRICAL CONTRACTOR SHALL PROVIDE ALL ACCESS PANELS REQUIRED FOR ELECTRICAL WORK.	13	CONTRACTOR SHALL PERFORM ALL CUTTING AND PATCHING AS REQUIRED FOR HIS WORK. OPENINGS IN WALLS, FLOORS AND CEILINGS SHALL BE FILLED IN, PATCHED, PAINTED AND FINISHED IN A MANNER TO MATCH THE QUALITY OF THE EXISTING AREA.
	TIMER SWITCH		WALL TELEPHONE OUTLET (TYPE DENOTED)	AT	ATS	14	ALL EXPOSED METAL CONDUITS ARE TO BE PAINTED TO MATCH THE ADJACENT SURFACE. PAINTING OF CONDUIT IS TO BE BY THE ELECTRICAL CONTRACTOR.	14	ELECTRICAL CONTRACTOR SHALL BE RESPONSIBLE FOR PROVIDING ALL REQUIRED JUNCTION BOXES, PULL BOXES, ETC. FOR A COMPLETE INSTALLATION PER THE N.E.C. AND LOCAL CODES.	14	ALL CONDUCTORS AND EQUIPMENT LUGS SHALL BE RATED FOR 75 DEGREE CELSIUS MINIMUM.
	OCCUPANCY SENSOR SWITCH		WIRELESS ACCESS POINT	AT	AUXILIARY	15	ELECTRICAL CONTRACTOR SHALL BE RESPONSIBLE FOR PROVIDING ALL REQUIRED JUNCTION BOXES, PULL BOXES, ETC. FOR A COMPLETE INSTALLATION PER THE N.E.C. AND LOCAL CODES.	15	ALL ITEMS INCLUDED ON THESE DRAWINGS AND THE SPECIFICATIONS SHALL BE INCLUDED IN THE CONTRACTORS BID. ANY ITEMS THAT ARE UNCLEAR OR FOUND TO BE INCORRECT BY THE CONTRACTOR SHALL BE BROUGHT TO THE ATTENTION OF THE ARCHITECT/ENGINEER AT LEAST 7 CALENDAR DAYS PRIOR TO THE BID DUE DATE.	15	COORDINATE WORK WITH OTHER TRADES. COORDINATION OR SCHEDULING SHALL BE THE RESPONSIBILITY OF THE INVOLVED CONTRACTORS.
	POLE MOUNTED LIGHT (TYPE DENOTED)		TELEVISION OUTLET	AT	AUXILIARY	16	ALL CIRCUIT DIRECTORIES SHALL BE COORDINATED WITH OWNER FOR CORRECT CALL-OUT OF ROOM NUMBERS/ROOM NAMES.	16	IN AREAS WHERE SYSTEM CABLING GOES THROUGH CMU WALLS THE ELECTRICAL CONTRACTOR SHALL PROVIDE 3/4" CONDUIT STUB (MINIMUM) FOR ROUTING OF CABLES. ELECTRICAL CONTRACTOR TO SEAL AROUND CONDUIT OPENING.	16	
	POLE MOUNTED AREA LIGHT (TYPE DENOTED)		CLOCK (TYPE DENOTED)	AT	AUXILIARY	17		17		17	
	END OF LINE RESISTOR		P.A. SPEAKER	AT	AUXILIARY	18		18		18	
	ELECTRIC STRIKE		MAGNETIC LOCK	AT	AUXILIARY	19		19		19	
	MAGNETIC LOCK		DOOR CONTACTS	AT	AUXILIARY	20		20		20	
	CARD READER		GENERAL PURPOSE RECEPTACLE	AT	AUXILIARY	21		21		21	
	KEYPAD		GALVANIZED RIGID STEEL (CONDUIT)	AT	AUXILIARY	22		22		22	
	CCTV CAMERA		HORSEPOWER	AT	AUXILIARY	23		23		23	
	CCTV CAMERA WITH PAN/TILT/DRIVE		HEIGHT	AT	AUXILIARY	24		24		24	
	KEYED NOTE (SEE SCHEDULE)		HOT WATER BOILER	AT	AUXILIARY	25		25		25	
	UTILITY COMPANY OVERHEAD POWER LINE		HOT WATER PUMP	AT	AUXILIARY	26		26		26	
	TELEPHONEDATA BACKBOARD		ISOLATED GROUND	AT	AUXILIARY	27		27		27	
	SIMPLEX RECEPT.		LIGHTING	AT	AUXILIARY	28		28		28	
	DUPLICATE RECEPT.		MECHANICAL CONTRACTOR	AT	AUXILIARY	29		29		29	
	SWITCHED DUPLICATE RECEPT.		MINIMUM CIRCUIT AMPACITY	AT	AUXILIARY	30		30		30	
	ISOLATED GROUND RECEPT.		MAIN CIRCUIT BREAKER	AT	AUXILIARY	31		31		31	
	FOURPLEX RECEPT.		MAIN DISTRIBUTION PANEL	AT	AUXILIARY	32		32		32	
	MULTI-POLE RECEPT.		MANHOLE	AT	AUXILIARY	33		33		33	
	JUNCTION BOX		MISCELLANEOUS	AT	AUXILIARY	34		34		34	
	DUPLICATE FLOOR RECEPT.		MAIN LUGS ONLY	AT	AUXILIARY	35		35		35	
	PULL BOX		MAIN SWITCHBOARD	AT	AUXILIARY	36		36		36	
	PUSH BUTTON		MANUAL TRANSFER SWITCH	AT	AUXILIARY	37		37		37	
	MOTOR RATED TOGGLE SWITCH		NORMALLY CLOSED	AT	AUXILIARY	38		38		38	
	SAFETY DISC. SW. (NON-FUSED)		NOT IN CONTRACT	AT	AUXILIARY	39		39		39	
	SAFETY DISC. SW. (FUSED)		NIGHT LIGHT	AT	AUXILIARY	40		40		40	
	COMB. MOTOR STARTER (FUSED)		NORMALLY OPEN	AT	AUXILIARY	41		41		41	
	MOTOR (SEE SCHEDULE)		NOT TO SCALE	AT	AUXILIARY	42		42		42	
	RELAY		PULL BOX OR PUSHBUTTON	AT	AUXILIARY	43		43		43	
	HALFTONE SYMBOLS INDICATES EXISTING		PLUMBING CONTRACTOR	AT	AUXILIARY	44		44		44	
	DASHED SYMBOLS INDICATES TO BE REMOVED		PHASE	AT	AUXILIARY	45		45		45	
			POWER POLE	AT	AUXILIARY	46		46		46	
			POTENTIAL TRANSFORMER	AT	AUXILIARY	47		47		47	
			RECEPTACLE	AT	AUXILIARY	48		48		48	
			RIGID STEEL CONDUIT	AT	AUXILIARY	49		49		49	
			RACEWAY	AT	AUXILIARY	50		50		50	
			RACEWAY	AT	AUXILIARY	51		51		51	
			RACEWAY	AT	AUXILIARY	52		52		52	
			RACEWAY	AT	AUXILIARY	53		53		53	
			RACEWAY	AT	AUXILIARY	54		54		54	
			RACEWAY	AT	AUXILIARY	55		55		55	
			RACEWAY	AT	AUXILIARY	56		56		56	
			RACEWAY	AT	AUXILIARY	57		57		57	
			RACEWAY	AT	AUXILIARY	58		58		58	
			RACEWAY	AT	AUXILIARY	59		59		59	
			RACEWAY	AT	AUXILIARY	60		60		60	
			RACEWAY	AT	AUXILIARY	61		61		61	
			RACEWAY	AT	AUXILIARY	62		62		62	
			RACEWAY	AT	AUXILIARY	63		63		63	
			RACEWAY	AT	AUXILIARY	64		64		64	
			RACEWAY	AT	AUXILIARY	65		65		65	
			RACEWAY	AT	AUXILIARY	66		66		66	
			RACEWAY	AT	AUXILIARY	67		67		67	
			RACEWAY	AT	AUXILIARY	68		68		68	
			RACEWAY	AT	AUXILIARY	69		69		69	
			RACEWAY	AT	AUXILIARY	70		70		70	
			RACEWAY	AT	AUXILIARY	71		71		71	
			RACEWAY	AT	AUXILIARY	72		72		72	
			RACEWAY	AT	AUXILIARY	73		73		73	
			RACEWAY	AT	AUXILIARY	74		74		74	
			RACEWAY	AT	AUXILIARY	75		75		75	
			RACEWAY	AT	AUXILIARY	76		76		76	
			RACEWAY	AT	AUXILIARY	77		77		77	
			RACEWAY	AT	AUXILIARY	78		78		78	
			RACEWAY	AT	AUXILIARY	79		79		79	
			RACEWAY	AT	AUXILIARY	80		80		80	
			RACEWAY	AT	AUXILIARY	81		81		81	
			RACEWAY	AT	AUXILIARY	82		82		82	
			RACEWAY	AT	AUXILIARY	83		83		83	
			RACEWAY	AT	AUXILIARY	84		84		84	
			RACEWAY	AT	AUXILIARY	85		85		85	
			RACEWAY	AT	AUXILIARY	86		86		86	
			RACEWAY	AT	AUXILIARY	87		87		87	
			RACEWAY	AT	AUXILIARY	88		88		88	
			RACEWAY	AT	AUXILIARY	89		89		89	
			RACEWAY	AT	AUXILIARY	90		90		90	
			RACEWAY	AT	AUXILIARY	91		91		91	
			RACEWAY	AT	AUXILIARY	92		92			