LIGHTING FIXTURE SCHEDULE

SYMBOL	DESCRIPTION	VOLTAGE	LAMPS	MFR	CATALOG # (* = VOLTAGE)	NOTES
A	2X4, 2 LAMP, LAY-IN PRISMATIC WITH (1) 2 LAMP ELECTRONIC INSTANT START BALLAST.	277V	(GE) F32T8/XL/SPX41/HL/ECO	COOPER	2GC8-232A125-UNV-EB81-U	3,4
AE	SAME AS (A) BUT PROVIDE (1) 1-LAMP "IS" BALLAST WIRED TO NL CKT & (1) 1-LAMP INSTANT START ELECTRONIC BALLAST ON NORMAL POWER	277V	(GE) F32T8/XL/SPX41/HL/ECO	COOPER	2GC8-232A125-UNV-EB82-U	1,3,4
HC	70W HPS WALL PACK (LAMP INCLUDED)	277V	INCLUDED	COOPER	HPWL-70-MT-LL	
EM	6V 2-HEAD EMERGENCY LIGHT	6V	INCLUDED	MULE	SQ-80	
EM1	THERMO-PLASTIC BATTERY CASE MOUNTED INSIDE.	6V	INCLUDED	MULE	KES-6-54-0	
EM1-REM	2-50 WATT, 6 VOLT WET LOCATION REMOTE HEADS	6V	INCLUDED	MULE	6X7DWWH	
F	MINI-STRIP W/2 LAMP ELECTRONIC BALLAST AND REFLECTOR FOR WALL GRAPHIC ILLUMINATION	277V	(GE) FP54/T5HO	NULITE	NSCM254T5HO-2W-CMRASY/ASY-UNV	
K	8' PREMIUM INDUSTRIAL WITH (1) 4-LAMP ELECTRONIC INSTANT START BALLAST	277V	(GE) F32T8/XL/SPX41/HL/ECO	COOPER	8TDCIM-232-UNV-EB81-U	2
KE	SAME AS K BUT PROVIDE (1) 1-LAMP "IS" BALLAST WIRED TO NL CKT & (1) 3-LAMP INSTANT START ELECTRONIC BALLAST ON NORMAL POWER	277V	(GE) F32T8/XL/SPX41/HL/ECO	COOPER	8TDCIM-232-UNV-EB82-U	1,2
K1	4' PREMIUM INDUSTRIAL WITH (1) 2-LAMP ELECTRONIC INSTANT START BALLAST	277V	(GE) F32T8/XL/SPX41/HL/ECO	COOPER	DCIM-232-UNV-EB81-U	2,9
KEMER	8' PREMIUM INDUSTRIAL WITH (1) 4-LAMP ELECTRONIC INSTANT START BALLAST AND (1) EMERGENCY BALLAST OPERATING (2) 4' LAMPS	277V	(GE) F32T8/XL/SPX41/HL/ECO	COOPER	8TDCIM-232-UNV-EL-FBP240H-EB81-U	
TL-8	8' TRACK W/3 TRACK HEADS FOR DISPLAY SIGNAGE	120V	CREE LED PAR38 LAMP #LRP38A92-20D40	HALO	L901P L652P L1730PX	6
W	4' VAPORLUME WET LOCATION FIXTURE	277V	(GE) F32T8/XL/SPX41/HL/ECO	COOPER	VT2-232DR-UNV-EB81-WL-U	4,8
X	UNIVERSAL LED EXIT	277V	RED LED	MULE	MXBRU	5
X1	CEILING OR BACK MOUNT LED EXIT WITH 2 HEAD EMERGENCY LIGHT	277V	RED LED	MULE	SQRXU	5
S	ULTRASONIC OCCUPANCY SENSOR AND POWER PACK (CONTRACTOR MUST LOCATE AND INSTALL PER WATT STOPPER'S SPECIFICATIONS)	277V	NONE	WATT STOPPER	W500A SENSOR B*EP POWER PACK	7
S2	PASSIVE INFRARED SENSOR AND POWER PACK (CONTRACTOR MUST LOCATE AND INSTALL PER WATT STOPPER'S SPECIFICATIONS)	277V	NONE	WATT STOPPER	WPIR B*EP POWER PACK	7
SL	LIGHTSAVER CONTROLLER AND POWER PACK (CONTRACTOR MUST LOCATE AND INSTALL PER WATT STOPPER'S SPECIFICATIONS)	277V	NONE	WATT STOPPER	LS101 B*EP POWER PACK	7

LIGHTING FIXTURE SCHEDULE NOTES

1. Night Light - circuit 1 lamp on 1-lamp ballast always "on" (unswitched). Connect 2-lamp ballast to normal (switched) circuit. Switch normal circuit as shown on drawings.
2. Provide junction box high overhead and flexible metal conduit connection.
3. Provide DFK2448W mounting frame when fixture is installed in gypsum board ceiling.
4. Provide junction box above ceiling and flexible metal conduit connection.
5. Exit signs:
   a. Thermoplastic housing, single- or double-face, universal mount (ceiling, flat wall, or end mount), with or without directional arrows.
   b. Shaded quadrant(s) denote position of faces. Arrow symbol on plans denotes orientation of directional arrows.
   c. Specified unit is available in red letters only. If other colors are required by Local Authorities, E.C. to provide alternate fixture.
   d. Mount on wall 4" above door frame. Confirm mounting height with local jurisdiction. Provide stem where required; mount so top of exit sigh is below bottom of light fixtures.
6. Suspend track with allthread from unistrut spanning bottom chord of bar joist.
7. Furnished and installed by Electrical Contractor.
8. Use knockouts on top of fixture only. Use of side knockouts is prohibited (no exposed conduit).
9. Provide cage for the K1 fixture that will be located above the door in the Janitor's closet.

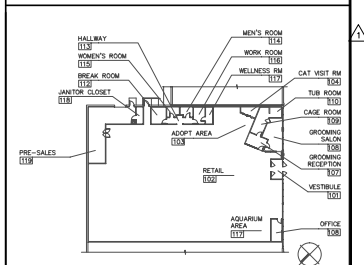
LIGHTING MOUNTING HEIGHTS

Space		Mounting
Retail Area	Fluorescent	13'-6" AFF
Aquatics Area	F	Top of tanks
1 Retail Area	Track Lighting	12'-6" AFF To Track
Rooms With Suspended Ceilings	Fluorescent Lay-In	Ceiling
Pre-Sales	Fluorescent	13'-6"AFF
Outside Wall Packs	HID	Refer To Shell Drawings
Outside Emergency Heads	6VDC	9'-4" AFF
Inside Emergency Packs	6VDC	12" below ceiling

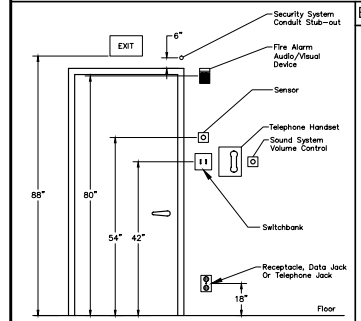
ELECTRICAL SYMBOLS

Identifier	Description
	Electrical Conduit
	Electrical Conduit Run Concealed Via Floors, Walls, Underground (Plan View)
	Duplex Receptacle, 20A, 120V - 18" AFF
GFI	Ground Fault Interrupting Receptacle, 20A, 120V - 18" AFF
IG	Isolated Ground Receptacle, 20A, 120V - 18" AFF
	Duplex Receptacle Mounted High Or Above Counter, 20A, 120V - 6" Above Counter
	Double Duplex (Quad) Receptacle, 20A, 120V - 18" AFF
	Special Purpose Receptacle, Rating As Noted
	Telephone Outlet - 18" AFF (U.O.N.)
	Data Outlet - 18" AFF (U.O.N.)
	Junction Box
	Panel Board - 72" To Top Of Enclosure (See Schedules For Mounting Type)
	Ground
S	AC General Use Snap Switch, 20A, 120-277 VAC - 42" AFF
S_3	Three-Way Switch, 20A, 120-277 VAC - 42" AFF
S_T	Thermal Switch, Square D #2510-FG-IP
	Exit Light Fixture
	Emergency Light Fixture
TS FS	Tamper Switch and Flow Switch
$F_{30/NF}$	Non-Fused Safety Switch (Amp. Rating)
$F_{30/20}$	Fused Safety Switch (Switch Rating/Fuse Rating)
	Combination Motor Starter
UH 1	Mechanical Equipment (Motor, HVAC, Plumbing, Etc.)
Tc	Time Clock
	Circuit Breaker
	Fused Switch
	Current Transformer
	Push Button
	Buzzer
S S	Sound System Speaker (By Petco's Vendor)
S2 S	Ceiling Mounted Occupancy Sensor
SL	Ceiling Mounted Light Sensor
WT	Watts Transducer

Note: See sheet EMS1.1 for energy managment system (EMS) symbols legend



KEY PLAN 01 (NO SCALE)



Notes:
1. This Detail Is A Typical Composite View Of Some Devices Located In The Common Areas. See Plan For Actual Locations.
2. Install Devices On Common Vertical Centerline Where Applicable
3. Install Devices At Indicated Heights Unless Otherwise Noted. All Device Location Shall Meet Or Exceed ADA Requirements.

TYPICAL DEVICE MOUNTING HEIGHTS 05 (NO SCALE)

ELECTRICAL GENERAL NOTES

1. Electrical Wiring:
   A. In general, branch circuit wiring is not shown on the plan drawings. Numerals adjacent to item symbols for lighting fixtures, receptacles, motors, appliances, etc. Indicate the circuit number to which the item is to be connected. Provide branch circuit wiring for all items shown in accordance with these general notes and the electrical specifications.
   B. Lighting branch circuit wiring, where shown, is intended to show switching arrangement of fixtures.
   C. Lower case letter adjacent to switch symbol and inside of light fixture symbol indicates switching arrangement of fixtures.
   D. All 1 pole, 15 and 20 ampere branch circuits serving receptacles or lighting shall be 2 wire circuits providing an individual neutral conductor for each unground (hot) circuit conductor. Do not share neutral conductors. Branch circuit wiring shall be 2#12, #12G in ¾" conduit unless noted otherwise.
2. Equipment Grounding:
   Hatch marks, if shown, do not indicate ground wires. Ground wires shall be provided as follows:
   A. Equipment ground wires shall be provided in all feeders and all branch circuits.
   B. All flexible metal or liquidtight conduit connections to equipment motors, transformers, lighting fixtures, etc. Shall contain equipment ground wires. Flexible metal conduit shall not be used as an equipment ground conductor.
   C. Where type 'MC' metal clad cable is specified, the cable shall be equipped with an insulated (green) copper equipment ground wire equal in size to the insulated circuit conductors.
   D. Isolated ground wire insulation shall be colored green with a yellow stripe to differentiate it from equipment or system ground wires.
3. Disconnect switches shall be heavy duty type with lockable handle. One manufacturer shall be used throughout the project. Acceptable manufacturers are Square D, General Electric, Siemens and Cutler Hammer.
4. Conduit Routing
   A. All conduits shall be run above the slab. No under slab conduits are permitted (to allow for future flexibility of power relocation and avoidance of conflict with future plumbing, if needed).
   B. All exposed conduits shall be run parallel to or perpendicular to building structure.
5. Wiring Methods:
   A. General
   • In finished areas, conceal all wiring in building walls, floors, and above ceilings. Conduits may be run exposed only where shown specifically on the drawings or where existing conditions preclude concealing.
   • No wiring shall be installed exposed on the outside surfaces of the building(s).
   • Final connections to mechanical equipment, fixtures, motors, transformers, instruments, and control devices shall be flexible conduit.
   B. Below grade (underground in earth or fill):
   • Service transformer secondary lateral and all feeders shall consist of pulled conductors in concrete encased schedule 40 PVC conduits. Provide magnetic marker tape 6" below grade. Concrete encasement shall be 3" minimum all around and between conduits.
   • Branch circuits shall consist of pulled conductors in direct buried schedule 40 PVC conduits.
   • Minimum burial depth shall be 24".
   • All elbows used with PVC conduit shall be RGS.
   • Refer to site plans for additional site underground wiring requirements.
   C. Indoors (unclassified):
   • Exposed subject to damage: RGS conduit.
   • In dry walls/above ceilings and exposed not subject to damage: EMT conduit. (Where permitted by code, type MC metal clad cable may be used for lighting branch circuits above suspended ceilings and in stud partitions for whips to individual devices. Maximum 6' length. MC cable must be installed neatly and orderly, parallel with or perpendicular to building structure, to the satisfaction of the PETCO Project Manager or cable may be subject to removal and replacement at no additional cost to PETCO. Circuits must be labeled every 10'.
   • In concrete walls/floors: RGS conduit.
   • Final connections: flexible metal conduit (liquid-tight flexible conduit in damp or wet areas).
   D. Outdoors:
   • Exposed: RGS conduit.
   • Underground: concrete encased schedule 40 PVC conduit.
   • Final connections: liquid-tight flexible conduit, maximum 18" in length.
   E. Indoors classified 'damp' or 'wet' locations:
   • All feeders and branch circuits shall consist of pulled conductors in RGS conduit. Connections to vibrating equipment shall be liquid tight flexible conduit, maximum 18" in length.
   F. Cast outlet boxes shall be used in areas where conduit is run exposed. PVC coated cast outlet boxes shall be used with PVC coated conduit.
   G. All low voltage wiring shall be rated for its specific use.
   All exposed wiring and wiring in any area which may be considered a plenum, shall be plenum rated. All exposed wiring with the exception of fire alarm system wiring shall be white.
6. Electrical equipment enclosures shall be provided as listed below unless noted otherwise.
   • Indoors unclassified areas: NEMA 1
   • Indoors classified 'damp': NEMA 1
   • Indoors classified 'wet': NEMA 4
   • Outdoors: NEMA 3R6.
7. Terminations (lugs, terminals, etc.) on all equipment shall be rated for use with 75c conductors.
8. Continuity of existing systems and circuits to remain shall remain intact during and after construction. Any interruption of service of any kind shall be coordinated with the Owner, Architect, and other trades.
9. Contractor shall coordinate activities with local utilities (power, telephone) and shall include all utility requirements including, but not limited to, materials, labor, and metering clearances. Contractor shall secure, pay, and schedule all required permits, fees, and required inspections.
10. Refer to architectural plans and Project Manual for trenching detail and slab repair.

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ADDENDUM #2	03-11-10

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09147	09277
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DRAWING TITLE: ELECTRICAL GENERAL INFORMATION AND SCHEDULES

E1.1

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