ELECTRICAL EQUIPMENT SUPPORT SCHEDULE

SEALS AND APPROVALS								
EQ. NO./ SHEET NO.	EQUIPMENT OR SYSTEM DESCRIPTION	MAX WT (LBS)	HGT (IN)	LGTH (IN)	WIDTH (IN)	TYPE OF MOUNT	ANCHORAGE DETAIL	STRUCTURAL CALCULATION REFERENCE
DP1 / E0.6	DISTRIBUTION PANELBOARD	400	48"	36"	24"	WALL MOUNTED WOOD STUD	6/E0.6	
IDF / E0.6	TEL/DATA/TV RACK	120	72"	24"	24"	FLOOR SLAB	7/E0.6	
EXP1 / E0.6	FIRE ALARM EXPANDER PANEL	100	24"	12"	6"	WALL MOUNTED WOOD STUD	3/E0.6	
STC / E0.6	SIGNAL SYSTEM TERM.CAB.	100	24"	20"	6"	WALL MOUNTED WOOD STUD	3/E0.6	
FIXTURE SCHED. / E0.5	PENDANT MOUNTED CYLINDER	40				SURFACE ON ROOF DECK	1/E0.6	

LAMP AND BALLAST SPECIFICATIONS

LAMPS & BALLASTS

1 FLUORESCENT BALLASTS SHALL BE ELECTRONIC TYPE PARALLEL LAMP OPERATION AND SHALL OPERATE LAMPS AT A FREQUENCY ABOVE 40 kHz. BALLAST MANUFACTURER MUST HAVE A MINIMUM OF 10 YEARS EXPERIENCE MANUFACTURING ELECTRONIC BALLASTS. MINIMUM STARTING TEMPERATURE SHALL BE -18 DEGREES C. BALLASTS SHALL BE GUARANTEED AGAINST SERVICE FAILURE FOR 5 YEARS AND SHALL BE UL LISTED. BALLASTS SHALL BE SYLVANIA QUICKTRONIC PROSTART PSX PROGRAMMED RAPID START ELECTRONIC BALLASTS, UNIVERSAL VOLTAGE AND SHALL BE USED WITH OCTRON XPS 4100K LAMPS. BALLASTS SHALL BE AS FOLLOWS:

A. OSRAM SYLVANIA NO. 51420, QTP 1X32T8/UNV PSX-TC, 120-277V., 1 LAMP, 25 INPUT WATTS, 0.71 BALLASTS FACTOR, LESS THAN 10 PERCENT THD.

B. OSRAM SYLVANIA NO. 51425, QTP 2X32T8/UNV PSX-TC, 120-277V., 2 LAMP, 47/46 INPUT WATTS, 0.71 BALLASTS FACTOR, LESS THAN 10 PERCENT THD.

C. OSRAM SYLVANIA NO. 51430, QTP 3X32T8/UNV PSX-TC, 120-277V., 3 LAMP, 73/71 INPUT WATTS, 0.71 BALLASTS FACTOR, LESS THAN 10 PERCENT THD.

D. OSRAM SYLVANIA NO. 51435, QTP 4X32T8/UNV PSX-TC, 120-277V., 4 LAMP, 93/91 INPUT WATTS, 0.71 BALLASTS FACTOR, LESS THAN 10 PERCENT THD.

2 FLUORESCENT LAMPS SHALL BE OCTRON XPS EXTENDED PERFORMANCE ECOLOGIC LAMPS (F032) HAVING MEDIUM BI-PIN BASES. LAMPS SHALL BE DESIGNED TO PASS THE FEDERAL TCLP TEST IN FORCE AT THE TIME OF MANUFACTURE. LAMP(S) SHALL HAVE A CORRELATED COLOR TEMPERATURE OF (4100K) AND CRI OF 85. LAMP(S) SHALL HAVE A 95% LUMEN MAINTENANCE AT 8,000 HOURS AND AN AVERAGE RATED LIFE OF 30,000 HOURS ON DEDICATED QUICKTRONIC PSX HIGH FREQUENCY BALLASTS. XPS/PSX SYSTEM SHALL BE PROVIDED WITH A COMPLETE WARRANTY FROM ONE MANUFACTURER COVERING BOTH LAMP(S) AND BALLAST(S).

GENERAL

1 LAMP AND BALLAST COMBINATIONS SHALL BE SUITABLE FOR USE WITH THE SPECIFIED LIGHTING CONTROLS.

FIXTURE SCHEDULE NOTES

1. IT IS THE CONTRACTOR'S RESPONSIBILITY TO VERIFY ACTUAL CEILING CONSTRUCTION TYPE AS DEFINED ON THE ARCHITECTURAL DRAWINGS AND FURNISH ALL LIGHTING FIXTURES WITH THE CORRECT MOUNTING DEVICES AND PROPER OPERATING VOLTAGES WHETHER OR NOT SUCH VARIATIONS ARE INDICATED BY THE FIXTURE CATALOG NUMBER.
2. THE CONTRACTOR SHALL VERIFY DEPTH OF ALL RECESSED LIGHTING FIXTURES WITH ARCHITECTURAL DRAWINGS PRIOR TO ORDERING FIXTURES. ANY DISCREPANCIES THAT WOULD CAUSE RECESSED LIGHTING FIXTURES NOT TO FIT INTO CEILING SHALL BE REPORTED TO THE ARCHITECT PRIOR TO ORDERING OF THE FIXTURES.
3. H.I.D. LIGHTING FIXTURES SHALL HAVE FUSED BALLAST.
4. COMPACT FLUORESCENT DOWNLIGHT FIXTURES SHALL BE PROVIDED WITH ELECTRONIC BALLASTS.
5. FIXTURE FINISHES SHALL BE AS SELECTED BY ARCHITECT.
6. VERIFY VOLTAGE SUPPLIED TO FIXTURE PRIOR TO ORDERING.
7. PROVIDE SLOPE ADAPTERS FOR ALL RECESSED DOWNLIGHTS IN SLOPED CEILING AREAS.
8. VERIFY MOUNTING HEIGHT OF ALL WALL MOUNTED FIXTURES WITH ARCHITECTURAL ELEVATIONS.
9. PROVIDE WIREGUARDS ON ALL FLUORESCENT STRIP FIXTURES WITH EXPOSED LAMPS.
10. COMPACT FLUORESCENT LAMPS USED IN FIXTURES OUTDOORS SHALL BE 3500°K COLOR TEMPERATURE.
11. THE EXACT LOCATIONS OF EXIT SIGNS SHALL BE IN COMPLIANCE WITH LOCAL FIRE DEPARTMENT STANDARDS AND COORDINATION WITH ARCHITECTURAL DRAWINGS. PROVIDE SINGLE OR DOUBLE FACE AS INDICATED ON DRAWINGS. PROVIDE FLOOR LEVEL EXIT SIGNS AT EACH STANDARD HEIGHT EXIT SIGN LOCATION IN THE GYMNASIUM. REFER TO ARCHITECTURAL DRAWINGS FOR BACKING AND ATTACHMENT REQUIREMENTS.

FIXTURE SCHEDULE

TYPE	DESCRIPTION	TOTAL WATTS	LAMP QUAN	LAMP WATTS	LAMP TYPE	MOUNTING
1	FLUORESCENT LINEAR LIGHTING SYSTEM IN WHITE FINISH; DIRECT/INDIRECT DISTRIBUTION; 4' OR 8' SECTIONS IN CONTINUOUS ROWS FOR TOTAL LENGTHS AS INDICATED ON DRAWINGS; THREE LAMP CROSS SECTION; CABLE MOUNTED, GALVANIZED CROSS BLADE LOUVERS, ELECTRONIC BALLAST(S); FINISH AS SELECTED BY ARCHITECT; PROVIDE ALL MOUNTING HARDWARE FOR A COMPLETE INSTALLATION.			32	SEE SPECS	CABLE (SEE DRAWINGS FOR MOUNTING HEIGHTS)
	LITE CONTROL P-ID-9700 SERIES (TO MATCH CAMPUS STANDARD)					
	TYPE 1A: 20'-0" LENGTH	250	10			
	TYPE 1B: 8'-0" LENGTH	150	6			
2	COMPACT FLUORESCENT DOWNLIGHT WITH HORIZONTAL LAMPS, NOM. 8 IN. APERTURE; CLEAR SPECULAR REFLECTOR; ELECTRONIC BALLASTS.	35	1	32	TRT 4100K	RECESSED
	INTENSE #IFV8-32-E-IC800 OR APPROVED EQUAL BY LITHONIA, PORTFOLIO					
3	FLUORESCENT SUSPENDED DIRECT/INDIRECT LIGHT FIXTURE; NOMINAL 24 IN. ROUND STEEL HOUSING IN FINISH AS SELECTED BY ARCHITECT; THREE (3) AIRCRAFT CABLES SUSPENSION; FLAT DIFFUSER; FUSING; ELECTRONIC BALLAST.	129	4	26	TTT 4100K	CABLE. LENGTH AS REQUIRED TO MATCH MOUNTING HEIGHT
			1	21	2D 4100K	
	LITE CONTROL 'ECHELON JR' SERIES #P-ID-36JR-4-0-T26-21-2D-FP-X-ELB-F-P65/ACC					
4	FLUORESCENT 4'-0" VANDAL RESISTANT FIXTURE WITH ALUMINUM HOUSING IN FINISH AS SELECTED BY ARCHITECT; HIGH IMPACT ACRYLIC PEARLESCENT LENS; LENS SECURED WITH CAPTIVE STAINLESS STEEL TAMPER PROOF SCREWS; ELECTRONIC BALLAST(S).	46	2	25	SEE SPECS	SURFACE
	KENALL 'MILLENIUM STRETCH' SERIES OR APPROVED EQUAL BY FAIL-SAFE, LUMINAIRE					
5	FLUORESCENT 8 IN. X 4 FOOT WRAPAROUNDS LIGHT FIXTURE WITH PRISMATIC LENS; STEM KIT IN LENGTH TO MATCH MOUNTING HEIGHT; ELECTRONIC BALLAST.	46	2	25	SEE SPECS	PENDANT
	DAYBRITE #DW-N-2-32-X-X OR EQUAL BY METALUX, LITHONIA					
6	FLUORESCENT 4'-0" STRIP FIXTURE WITH DIE-FORMED 22 GAUGE STEEL HOUSING. PAINTED AFTER FABRICATION WITH PHOSPHATE RUST INHIBITOR PRIMER AND WHITE FINISH COAT. 11 GAUGE WIRE GUARD SECURED WITH SIX HINGE CLIPS.	46	2	25	SEE SPECS	SURFACE OR CHAIN HUNG
	DAYBRITE #HDS SERIES; METALUX #SN SERIES; LITHONIA #UN SERIES;					
7	EXIT SIGN, LED, DIE-CAST ALUMINUM HOUSING (NOMINAL 1 3/4" THICK) WITH BLACK FINISH, HINGED AND LATCH BRUSHED ALUMINUM STENCIL FACE PLATES, 6" LETTERS WITH 3/4" STROKE, GREEN DIFFUSER LENS (NO LED IMAGE), SINGLE OR DOUBLE FACE PANEL AND DIRECTIONAL ARROW(S) AS SHOWN ON THE DRAWINGS. EMERGENCY BATTERY PACK FOR 90 MINUTES OF EMERGENCY ILLUMINATION; TWO CIRCUIT CAPACITY AND DUAL VOLTAGE 120/277 VOLTS.	5	1	5	LED	WALL OR CEILING
	McPHILBEN #ERSSL SERIES DUAL-LITE #SEMPRA SERIES LITHONIA SIGNATURE #LES SERIES					
8	METAL HALIDE SHARP CUTOFF PARKING LOT LUMINAIRE WITH EXTRUDED ALUMINUM HOUSING; ARM MOUNT; IMPACT RESISTANT SEALED AND GASKETED GLASS LENS; TYPE III DISTRIBUTION; SEGMENTED REFLECTOR ASSEMBLY; HOUSE SIDE SHIELD MOUNT ON 20'- 0", 4 IN. SQUARE STEEL POLE; FIXTURE HEAD, ARM AND POLE FINISH AS SELECTED BY ARCHITECT.	310	1	250	MH	POLE BASE
	COOPER INVUE 'EXM' SERIES; GARDCO FORM 10 'EH' SERIES; LITHIONIA 'KSF' SERIES					
9	METAL HALIDE POST-TOP SYMMETRICAL FIXTURE WITH CUT OFF DIFFUSER TO PROVIDE OPTIMAL AND GLAREFREE ILLUMINANCE. MOUNTED ON 12'-0" HIGH POLE. FIXTURE AND POLE FINISH AS SELECTED BY ARCHITECT.	188	1	150	CMH T-6 G-12	POST TOP
	LOUIS POULSEN #KIPP SERIES WITH 18A-5-3-12 POLE. TO MATCH DISTRICT STANDARDS.					
10	SIMILAR TO TYPE 2 EXCEPT CLEAR TEMPERED LENS; WET LOCATION LISTED.	35	1	32	TRT 3500K	RECESSED
	INTENSE #IFV8-32-E-IC802 OR APPROVED EQUAL BY LITHONIA, PORTFOLIO					
11	COMPACT FLUORESCENT WALL CYLINDER WITH EXTRUDED ALUMINUM HOUSING IN FINISH AS SELECTED BY ARCHITECT; ELECTRONIC BALLAST; WET LOCATION LISTED.	45	1	42	TRT 3500K	WALL
	INTENSE #IVWCSCF-42-X					
12	FLUORESCENT 5 IN. X 4'-0" WALL LIGHT WITH STEEL HOUSING IN FINISH AS SELECTED BY ARCHITECT; POLYCARBONATE LENS; ELECTRONIC BALLASTS.	25	1	32	SEE SPECS	WALL
	KENALL #ESS-48-1-F32TE-SB-1-X					
13	SIMILAR TO TYPE 2 EXCEPT LAMP; CLEAR TEMPERED LENS; WET LOCATION LISTED.	30	1	26	TRT 4100K	RECESSED
	INTENSE #IFV8-26-E-IC802 OR APPROVED EQUAL BY LITHONIA, PORTFOLIO					
14	EMERGENCY BATTERY EGRESS LIGHTING FIXTURE WITH ABS THERMOPLASTIC HOUSING. SEALED MAINTENANCE-FREE LEAD CALCIUM BATTERY; WITH 90 MINUTES OF EMERGENCY ILLUMINATION.	72	2	20	MR16	WALL
	MCPHILBEN CAX SERIES FOR APPROVED EQUAL.					
15	LINEAR FLUORESCENT 6 IN. BY 6 IN. BY 8' LONG; DIE FORMED STEEL REFLECTOR. 20 - GAUGE STEEL HOUSING WITH FINISH AS SELECTED BY ARCHITECT. SILVER PARABOLIC LOUVRE; DIRECT DISTRIBUTION.	46	2	25	SEE	PENDANT
	PRUDENTIAL P-60 SERIES FOR APPROVED EQUAL					

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Del Mar High School

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LIGHTING FIXTURE SCHEDULE AND DETAILS

Project Number	20318
Date	FEBRUARY, 2010
Drawn By	JBM
Checked By	RR

E0.4

Scale