

PART 1 - GENERAL

- 1.1 SCOPE: Provide all electrical work for a complete and operable system as shown on the drawings and as specified in this section including, but not limited to the following:
 - A. Site investigations prior to bidding to establish existing conditions.
 - B. Temporary power and lighting facilities for construction.
 - C. Electrical underground service at 240 volt, three phase, three wire.
 - D. Service metering and distribution system for 240 volt power and 120 volt lighting and convenience outlets.
 - E. Branch circuit wiring system including wiring devices, wiring, conduit, disconnect switches, pull boxes and equipment connections.
 - F. Lighting system including light fixtures, lamps, ballasts, required mounting hardware, dimmers, occupancy sensors, photocell controls and time switches.
 - G. Connection of mechanical equipment, check mechanical plans for additional work required. Air conditioning equipment shall be fused per manufacturer's recommendations. Use "RKS-ID" fuses at units.
 - H. Adjustment and test of the electrical work.
 - I. Guarantee.
- 1.2 QUALITY ASSURANCE:
 - A. All products and equipment herein specified or indicated on the drawings shall be new with UL label and in compliance with the California Electrical Code, state and local codes. Materials for similar use shall be of the same type and manufacture.
 - B. All work and materials shall be installed per the governing authorities. Nothing in the plans or specifications shall be deemed as permission to violate these codes or authorities and the Contractor shall be held responsible for any work which is not accepted. Violations shown on the plans are to be brought to the attention of the Electrical Engineer before work is done.
- 1.3 SITE VISITATIONS: Prior to the submission of the bid, the Contractor shall visit the site and make a thorough examination of the existing conditions and thereby include allowances for this work in his bid.
- 1.4 PERMITS AND LICENSES: Contractor shall pay for and obtain all necessary permits, inspections, insurance and licenses required for the Electrical work. Deliver certificates for all permits and inspections to the Architect.
- 1.5 COORDINATION: Contractor to coordinate the Electrical work with other trades. Review drawings and specifications of all equipment requiring electrical connections prior to installation of the electrical system. Verify space, ventilation and clearances required to install electrical equipment. Exact locations of lights and wiring devices are shown on architectural drawings.
- 1.6 SUBMITTALS: Within thirty (30) days after award of contract, submit to the Architect six (6) sets of shop drawings consisting of switchboards with interrupting capacity of all devices, product data sheets for light fixtures, panelboards, receptacles, switches, plates, disconnect switches, time switches, wiring devices, material list. Submittals not to include substitutions or deviations from the materials or methods specified unless prior approval has been given in writing. Make all submittals at one time in booklet form.
- 1.7 SUBSTITUTIONS: Where manufacturer's name and catalog number are called out, the phrase "or approved equal" can be assumed except the burden of proving equality is on the bidder.
- 1.8 DRAWINGS: During progress of work maintain a record of changes made on plans and "as-built" locations of buried conduits and ducts. On completion, present a professionally done reproducible drawing to the Architect.
- 1.9 VERIFICATION OF DIMENSIONS: All scaled and figured dimensions are approximate and are given for estimating purposes only. Where apparatus and equipment, particularly switchboards and transformer, have been taken from typical equipment of the class indicated and before proceeding with the work, the Contractor shall carefully check and verify all dimensions and sizes and shall assume all responsibility for the fitting of his materials and equipment to other parts of the equipment and to the structure.
- 1.10 LOCATION: Prior to rough-in, minor adjustments to outlet locations may be made without additional compensation.
- 1.11 PROTECTION OF FINISH: Fully protect all finished parts during the progress of the work and until final completion.
- 1.12 GUARANTEE: All electrical work and equipment (except lamps) shall be guaranteed for one year from the date of acceptance on Contractor's letterhead and turned over to the Owner at the completion and final acceptance of the job.

PART 2 - PRODUCTS

- 2.1 MAIN SWITCHBOARD: Main switchboard shall be 240 volt, three phase, three wire outdoor type, NEMA 3R floor-standing, dead front and rear sections of 29" depth and 90" height of unitized construction finished in grey by Challenger, G.E., Siemens, Square D, or Westinghouse. Under panel section shall be 36" wide. Service section shall be 36" wide with metering facilities, CT space, and the main disconnect. Distribution section shall be 36" wide with switches as indicated, full-length bussing and spaces. Install block on white microcote nameplates on all sections, switches and spaces. Each protective device shall be provided with provisions for padlocking in the "OFF" position. Include interconnections, instrumentation, control wiring, terminal blocks and clamp type terminals suitable for either copper or aluminum conductors. Control wire leaving the switchboard shall be provided with terminal blocks and numbering strips. Metering facilities shall be approved by the Southern California Edison Company. Bolt switchboard to the floor.
- 2.2 SWITCHES: Switches shall be quick-make, quick-break type QMB rated 600 volts with frame size, number of poles and fuses as shown.
- 2.3 CIRCUIT BREAKERS: Circuit breakers shall be bolt-on molded-case type with thermal magnetic trips. Provide with rated voltage, frame size, number of poles and trip setting as shown. NEMA interrupting capacity shall be series rated 42,000 AC at 240 volts unless otherwise noted.
- 2.4 PANELBOARDS: Panelboards shall be surface mounted, with bolt-on circuit breakers type NQOB, with hinged lockable doors, all locks keyed alike and typewritten directories. All multipole breakers shall be single handle common trip. Provide 4" minimum size gutter and 6" minimum top and bottom gutters. If double legs are shown, top or bottom member to be 12". Panelboard front shall be sheet steel, painted manufacturer's standard if surface mounted and prime coated if flush mounted. Branch circuits shall be clearly marked on the dead front shield. Provide a 1" X 2-1/2" phenolic nameplate screwed to the dead front shield. All terminals shall be solderless type connectors. Solid neutral bus shall have connectors numbered to agree with branch circuits. All circuit breakers to have lock-off device. Use "HACR" circuit breakers for air conditioning loads. Use "SMO" circuit breakers for lighting circuits controlled from panels. Manufacturer shall be Challenger, G.E., Siemens, Square D, or Westinghouse.
- 2.5 CONDUIT: Conduit shall be rigid steel galvanized IMC for underground, exposed up to +5'-0" or in damp locations. No running threads will be permitted. Galvanized EMT shall be used in dry concealed locations and exposed above +5'-0". EMT connectors shall be watertight compression type. Galvanized flexible conduit shall be used only for motor and fixture connections in lengths not to exceed 6'. Conduits penetrating the roof are to be flashed and counter flashed. PVC schedule 40 may be used under floor slabs or underground with ground wire. PVC underground to have 24 inch cover. Service conduits shall be PVC schedule 40 or as specified by utility companies. Install fittings, special devices and material which may be required for the proper installation of the conduit system.
- 2.6 At completion of underground conduit installation, pull a flexible mandrel (12 inches long by a diameter 1/4 in. less than the inside diameter of the conduit) through each conduit, followed by a stiff-bristle brush. Conduits at both ends. OUTLET BOXES: Outlet boxes shall be galvanized pressed steel of 4" square X 2-1/8" deep minimum with required device rings, bar hangers Rayco 900 series or secured to 2" X 4" blocking with two 1-1/2" #9 wood screws. Wall outlets with one conduit entry may be 2-1/8" square X 4" high. Boxes for multiple devices shall be ganged boxes. Outlet boxes shall be equipped with plaster rings, extension rings, or fixture studs as required. Boxes exposed to rain or other moisture shall be Crouse-Hinds type FS or FD conduit boxes with appropriate covers and gaskets.
- 2.7 PULL BOXES:
 - A. Sheet steel pull boxes shall be fabricated of code gauge steel finished with one coat of metal primer and one coat of manufacturer's standard baked enamel. Weatherproof boxes shall be NEMA 3R. Surface mounted boxes shall be provided with a removable screw cover lined up accurately with the edges of the box. Flush mounted boxes shall be provided with a removable screw cover extending 3/4" beyond the edges of the box and installed plumb. Cast metal pull boxes shall be fabricated of cast iron, hot-dipped galvanized, and provided with gasketed plain cast iron cover secured to the box with brass screws. Boxes shall be provided to insure five full conduit threads. Surface mounted boxes shall have flat flanged cover mounting. Flush mounted boxes shall have inside flange recessed cover mounting for 3" concrete encasement if installed in the earth.
- 2.8 CONDUCTORS: Conductors shall be 600 volt insulation type THHN/THWN copper. Conductors AWG #10 and smaller shall be solid, AWG #8 and larger to be stranded.
- 2.9 SPLICES: Splices on conductors #8 or smaller shall be Skotchlac spring connectors and for larger size cables use solderless connectors.
- 2.10 RECEPTACLES: Receptacles, 120 volt duplex grounding type, shall be specification grade 15 amp Leviton #5261-1 and isolated ground receptacles Leviton #5262-1G. Where indicated WP install weatherproof gasketed cover, mounted on FS box. Provide ground fault circuit interrupters where required by code. Dedicated receptacles shall be 20 amp, Leviton #5362-1.
- 2.11 LIGHT SWITCHES: Switches shall be toggle type specification grade 120/277 volts AC Leviton #1201-21 and #1203-21 for 3-way.
- 2.12 VOICE/DATA OUTLET: Device shall be a duplex jack outlet by Hubbell #DJ00, coordinate device with owner's equipment requirements. Color shall be as selected by Architect.
- 2.13 PLATES: Shall be ivory phenolic.
- 2.14 TIME SWITCHES: Time switches shall be in NEMA 1 enclosure with 24 hour dial, mechanical carry-over, omitting device and adjustable (or as specified under Section 15000) by Tork, Paragon or Sangamo.
- 2.15 PHOTO-ELECTRIC CONTROLLERS: As manufactured by Square D, Tork, Paragon or Sangamo.
- 2.16 CONTACTORS: As manufactured by Automatic Switch Company or Square D.
- 2.17 CHANNELS: Structural channels shall be by Kindorf, Kin-Line or Unistrut complete with all fittings, accessories, swivels, rods, etc. and installed to structural members as directed by the Structural Engineer.
- 2.18 DISCONNECT SWITCHES: Disconnect switches shall be horsepower rated, fused except where otherwise indicated 3 pole, 600 volt, quick make, quick break with lockable handle open or closed, in general purpose or weatherproof enclosures as required.

- 2.19 LIGHTING FIXTURES: Furnish and install complete with lamps, ballasts and required mounting hardware. Prior to ordering fixtures, verify mounting methods and finishes. All fluorescent fixtures mounted in "T" bar ceilings to be independently suspended diagonally with 2 #10 steel wires. Installations in fire-rated areas to be done according to code requirements. Recessed portions of fixture enclosures, other than at points of support, shall be spaced at least 1/2 inch from combustible material. Thermal insulation shall not be installed within 3 inches from the recessed fixture enclosure, wiring compartment, or ballast and shall not be so installed above the fixture as to entrap heat and prevent the free circulation of air unless the fixture is otherwise identified for installation within thermal insulation. For pendant mounted fixtures, align stems to ceiling with laser beams.
- 2.20 LAMPS: Lamps shall be as shown on the fixture schedule. Provide lamps suitable for the use intended. Fluorescent lamps shall be 32 watt energy saver G.E. F32TRSP35 or approved equal by Sylvania or Philips. Metal halide lamps to be coated. Provide minimum 100 hours of "burn-in" of all fluorescent lamps.
- 2.21 BALLASTS:
 - A. Fluorescent ballasts shall be rapid start, in-rush current limiting, electronic premium type CBM certified and ETL approved, high power factor and of voltage required. Ballasts shall be Advance, Universal, MagneTek or Motorola. Ballasts shall be compatible with occupancy sensors.
 - B. HID ballasts shall be UL listed for the source, wattage and position of the lamp provided.
- 2.22 LIGHT DIMMERS:
 - A. Incandescent dimmers shall be slide type, 2000 watts maximum, ivory, Lutron #N-2000.
 - B. Low voltage incandescent dimmers shall be 1500 watts maximum, ivory, Lutron #NLV-1500.
- 2.23 OCCUPANCY SENSORS: Dual technology (sonic and infrared) occupancy sensors shall be wall mounted with override switch capabilities, 120/277 volt by Leviton, Unenco, or Watt Stopper. Provide 5 year warranty. Sensors shall be compatible with fluorescent ballasts.
- 2.24 LENSES AND DIFFUSERS: 100% virgin acrylic with 0.125 inch minimum thickness. Outdoor lenses shall be vandal-/weather resistant.
- 2.25 FLOOR BOXES: Floor boxes shall be fully adjustable flush-floor type, Hubbell B-2506. Provide SF-3925 brass fitting and carpet flange for power and for telephone/data.
- 2.26 GROUND FAULT CIRCUIT INTERRUPTER (GFCI): Provide GFCI circuit breakers or outlets according to the National Electrical Code Section 210 (2) and (3), 210-8, and such ground fault circuit interrupter protection may be provided for other circuits, locations and occupancies, and where used, will provide additional protection against line-to-ground shock hazards.

PART 3 - EXECUTION

- 3.1 GENERAL:
 - A. The Electrical Drawings, which constitute an integral part of this contract, serve as the working drawings and indicate the general layout of the electrical systems. Field verifications of locations on plans is directed by field conditions. Check the Architectural, Structural and Mechanical Plans to avert possible installation conflicts and include all resulting cost in the bid.
 - B. Discrepancies between different plans, between plans and actual field conditions, or between plans and specifications shall be promptly brought to the attention of the Electrical Engineer for clarification or decision. Appearances and wiring not specifically indicated or referred to, but which are common to complete and operable electrical systems, shall be included in the bid.
 - C. Each empty conduit shall include a pull cord. All pull cords shall have a minimum diameter of 1/4" and a minimum average tensile strength of 1100 pounds. It shall be yellow in color. A contrasting tracer color may be included to identify the manufacturer. Flat braid is not acceptable.
- 3.2 INSTALLATION:
 - A. Installation of materials and equipment shall be in strict accordance with manufacturer's recommendations, instructions, industry standards, as indicated on the drawings and as specified herein.
 - B. Provide all mounting facilities for securing or hanging fixtures, equipment and outlets to the satisfaction of the Engineer. Details shown on the plans are for the purpose of establishing the extent and general methods required. Provide all sleeves, inserts, expansion joints, vibration fitting, etc.
 - C. Provide storage facilities and protect all work, materials and equipment from damage during process of work. Materials and equipment shall not be stored exposed to weather. Replace all damaged or defective work, materials and equipment without additional cost to the Owner.
 - D. Provide trenching, concrete encasement of duct and conduit, back-filling and compaction for the underground electrical system, all in accordance with applicable sections of this specification.
- 3.3 CONDUIT AND WIRING: All conduit and wiring shall be installed concealed in walls, above ceilings and below floor slabs or exposed in accordance with applicable regulations and the Electrical Drawings. All penetrations of fire-rated walls or ceilings to be coordinated with Owner. Conduit runs are shown diagrammatically. Exact routing and location of the equipment to be determined in the field.
- 3.4 EXTERIOR EQUIPMENT: All equipment and wiring outside to be weatherproof and tamperproof.
- 3.5 MOISTURE PROTECTION: Where required by regulations, all panelboards, main switchboards and electrical devices in the spray radius of sprinklers shall be installed with weatherproof enclosures in compliance with these regulations.
- 3.6 GROUNDING: All metallic conduits, supports and enclosures shall be grounded in compliance with the National Electrical Code. Grounding bushings shall be used wherever conduits are required to be grounded.
- 3.7 ELECTRICAL SERVICE FACILITIES: Electrical service and metering facilities shall be installed in compliance with all requirements of the Southern California Edison Company. Verify the point of connection, location of service poles, conduit stubs or manholes and include all construction cost in the bid. Apply for services in the same name of the Owner and pay all services and cable charges.
- 3.8 TESTING: All new circuits shall be tested for short and open circuit to ground with a megohm. Resistance to ground shall be in compliance with the requirements of the National Electrical Code. Furnish all necessary labor, instruments and equipment required for making tests to demonstrate that the operation of the system is in accordance with the intent of the contract documents. Also perform a complete "in service" operation of the entire electrical system to the full satisfaction of the Owner.



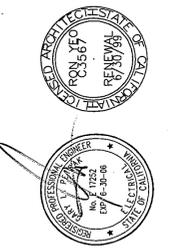
LIGHTING MANDATORY MEASURES		LTG-MM
PROJECT NAME	POINT VICENTE INTERPRETIVE CENTER	DATE 9-24-98
<input checked="" type="checkbox"/>	BUILDING LIGHTING SHUT-OFF THE BUILDING LIGHTING SHUT-OFF SYSTEM CONSISTS OF AN AUTOMATIC TIME SWITCH, WITH A ZONE FOR EACH FLOOR; OR THE BUILDING IS SEPARATELY METERED AND LESS THAN 5,000 SQUARE FEET; EXEMPT FROM THE SHUT-OFF REQUIREMENT.	NOT APPLICABLE
<input checked="" type="checkbox"/>	OVERIDE FOR BUILDING LIGHTING SHUT-OFF THE AUTOMATIC BUILDING SHUT-OFF SYSTEM IS PROVIDED WITH A MANUAL ACCESSIBLE OVERRIDE SWITCH IN SIGHT OF THE LIGHTS. THE AREA OF OVERRIDE IS NOT TO EXCEED 5,000 SQUARE FEET.	NOT APPLICABLE
<input checked="" type="checkbox"/>	AUTOMATIC CONTROL DEVICES CERTIFIED ALL AUTOMATIC CONTROL DEVICES SPECIFIED ARE CERTIFIED; ALL ALTERNATE EQUIPMENT SHALL BE CERTIFIED AND INSTALLED AS DIRECTED BY THE MANUFACTURER.	NOT APPLICABLE
<input checked="" type="checkbox"/>	FLUORESCENT BALLAST AND LUMINARIES CERTIFIED ALL FLUORESCENT FIXTURES SPECIFIED FOR THE PROJECT ARE CERTIFIED AND LISTED IN THE DIRECTORY; ALL INSTALLED FIXTURES SHALL BE CERTIFIED.	NOT APPLICABLE
<input checked="" type="checkbox"/>	TANDEM WIRING FOR TWO-LAMP BALLASTS ALL ONE AND THREE LAMP FLUORESCENT FIXTURES ARE TANDEM WIRED WITH TWO (2) LAMP BALLAST WHERE REQUIRED BY STANDARDS 1322 OR 1323.	NOT APPLICABLE
<input checked="" type="checkbox"/>	INDIVIDUAL ROOM/AREA CONTROLS EACH ROOM AND AREA ON THIS BUILDING IS EQUIPPED WITH A SEPARATE SWITCH OR OCCUPANCY SENSOR DEVICE FOR EACH AREA WITH FLOOR-TO-CEILING WALLS.	NOT APPLICABLE
<input checked="" type="checkbox"/>	UNIFORM REDUCTION FOR INDIVIDUAL ROOMS ALL ROOMS GREATER THAN 100 SQUARE FEET AND MORE THAN 1.2 WATTS PER SQUARE FOOT LIGHTING LOAD SHALL BE CONTROLLED WITH BI-LEVEL SWITCHING FOR UNIFORM REDUCTION OF LIGHTING WITHIN THE ROOM.	NOT APPLICABLE
<input checked="" type="checkbox"/>	DAYLIT AREA CONTROLS ALL ROOMS WITH WINDOWS AND SKYLIGHTS, THAT ARE GREATER THAN 250 SQUARE FEET, AND THAT ALLOW FOR THE EFFECTIVE USE OF DAYLIGHT IN THE AREAS SHALL HAVE SIZE OF THE LAMPS IN EACH DAYLIT AREA CONTROLLED WITHIN THE ROOM. THE EFFECTIVE USE OF THROUGH DAYLIGHT CANNOT BE ACCOMPLISHED BECAUSE THE WINDOWS ARE CONTINUOUSLY SHADED BY A BUILDING ON THE ADJACENT LOT. DIAGRAM OF SHADING DURING DIFFERENT TIMES OF YEAR IS INCLUDED ON PLANS.	NOT APPLICABLE
<input checked="" type="checkbox"/>	CONTROL OF EXTERIOR LIGHTS EXTERIOR MOUNTED FIXTURES WHICH ARE SERVED FROM THE ELECTRICAL PANEL INSIDE THE BUILDING ARE CONTROLLED WITH A DIRECTIONAL PHOTOCELL CONTROL ON THE ROOF AND A CORRESPONDING RELAY IN THE ELECTRICAL PANEL.	NOT APPLICABLE

LIGHTING COMPLIANCE SUMMARY		LTG-S
PROJECT NAME	POINT VICENTE INTERPRETIVE CENTER	DATE 9-24-98
ACTUAL LIGHTING POWER		
LUMINAIRE NAME	DESCRIPTION	TOTAL WATTS
B	FLUORESCENT DOWNLIGHT	1530
D	FLUSH UPLIGHT	500
G	FLUORESCENT DOWNLIGHT	1720
GD	FLUORESCENT DOWNLIGHT	387
GW	FLUORESCENT WALLWASHER	86
H/H1	2X2 FLUORESCENT	2176
K	SURFACE FLUORESCENT	896
N	STRIP FLUORESCENT	259
	TRACK LIGHTING	7920
SUBTOTAL FROM THIS PAGE		15474
PLUS SUBTOTAL FROM CONTINUATION PAGE		
LESS CONTROL CREDIT WATTS		
ADJUSTED ACTUAL WATTS		15474
ALLOWED LIGHTING POWER (CHOOSE ONE METHOD)		
COMPLETE BUILDING METHOD		
BUILDING CATEGORY (FROM TABLE 1-1)	WATTS PER SQ. FT.	ALLOWED WATTS
EXHIBIT	2.3	6565
OFFICE	1.6	1811
RESTROOM/SUPPORT AREAS	0.8	1190
RETAIL SALES	2.2	305
TOTAL		9871
		19621
TAILORED METHOD		
AREA CATEGORY (FROM TABLE 1-1)	WATTS PER SQ. FT.	ALLOWED WATTS
EXHIBIT	2.3	6565
OFFICE	1.6	1811
RESTROOM/SUPPORT AREAS	0.8	1190
RETAIL SALES	2.2	305
TOTAL		9871
		19621
NONRESIDENTIAL COMPLIANCE FORM		

CERTIFICATE OF COMPLIANCE - LIGHTING		LTG-1
PROJECT NAME	POINT VICENTE INTERPRETIVE CENTER	DATE 9-24-98
GENERAL INFORMATION		
PROJECT ADDRESS	31501 PALOS VERDES DRIVE WEST, RANCHO PALOS VERDES, CA	BUILDING PERMIT #
PRINCIPAL DESIGNER - LIGHTING	GARY L. PETRAK P.E.	TELEPHONE (949) 428-8800
DOCUMENTATION AUTHOR	GARY L. PETRAK P.E.	TELEPHONE (949) 428-8800
DATE OF PLANS	9-25-98	BUILDING CONDITIONED FLOOR AREA
		9871 SQ. FT.
		CLIMATE ZONE
		ZONE #6
BUILDING TYPE	<input checked="" type="checkbox"/> NONRESIDENTIAL	<input type="checkbox"/> HIGH RISE RESIDENTIAL
	<input type="checkbox"/> NEW CONSTRUCTION	<input checked="" type="checkbox"/> ADDITION
	<input type="checkbox"/> ALTERATION	<input type="checkbox"/> UNCONDITIONED (FILE APPLICANT)
METHOD OF LIGHTING COMPLIANCE	<input type="checkbox"/> COMPLETE BUILDING	<input checked="" type="checkbox"/> AREA CATEGORY
	<input type="checkbox"/> TAILORED	<input type="checkbox"/> PERFORMANCE
STATEMENT OF COMPLIANCE		
THIS CERTIFICATE OF COMPLIANCE LISTS THE BUILDING FEATURES AND PERFORMANCE SPECIFICATIONS NEEDED TO COMPLY WITH TITLE 24, PARTS 1 AND 9 OF THE CALIFORNIA CODE OF REGULATIONS. THIS CERTIFICATE APPLIES ONLY TO BUILDING LIGHTING REQUIREMENTS.		
THE DOCUMENTATION PREPARER HEREBY CERTIFIES THAT THE DOCUMENTATION IS ACCURATE AND COMPLETE.		
DOCUMENTATION AUTHOR	GARY L. PETRAK	SIGNATURE
DATE	12/1/04	
THE PRINCIPAL LIGHTING DESIGNER HEREBY CERTIFIES THAT THE PROPOSED BUILDING DESIGN REPRESENTED IN THIS SET OF CONSTRUCTION DOCUMENTS IS CONSISTENT WITH THE OTHER COMPLIANCE FORMS AND WORKSHEETS, WITH THE SPECIFICATIONS, AND WITH ANY OTHER CALCULATIONS SUBMITTED WITH THIS PERMIT APPLICATION. THE PROPOSED BUILDING HAS BEEN DESIGNED TO MEET THE DEVELOPER REQUIREMENTS CONTAINED IN SECTIONS 110,119,130 THROUGH 132, AND 146 AND 149 OF TITLE 24, PART 6.		
PLEASE CHECK ONE:		
<input checked="" type="checkbox"/> I HEREBY AFFIRM THAT I AM ELIGIBLE UNDER THE PROVISIONS OF DIVISIONS 3 OF THE BUSINESS AND PROFESSIONS CODE TO SIGN THIS DOCUMENT AS THE PERSON RESPONSIBLE FOR ITS PREPARATION; AND THAT I AM A CIVIL, ELECTRICAL, ELECTRICAL ENGINEER OR ARCHITECT.		
<input type="checkbox"/> I AFFIRM THAT I AM ELIGIBLE UNDER THE EXEMPTION TO DIVISION 3 OF THE BUSINESS AND PROFESSIONS CODE BY SECTION 56572.2 OF THE BUSINESS AND PROFESSIONS CODE TO SIGN THIS DOCUMENT AS THE PERSON RESPONSIBLE FOR ITS PREPARATION; AND THAT I AM A LICENSED CONTRACTOR PREPARING DOCUMENTS FOR WORK THAT I HAVE CONTRACTED TO PERFORM.		
<input type="checkbox"/> I AFFIRM THAT I AM ELIGIBLE UNDER THE EXEMPTION TO DIVISION 3 OF THE BUSINESS AND PROFESSIONS CODE BY SECTION 56572.2 OF THE BUSINESS AND PROFESSIONS CODE TO SIGN THIS DOCUMENT AS THE PERSON RESPONSIBLE FOR ITS PREPARATION; AND FOR THE FOLLOWING REASON:		
PRINCIPAL LIGHTING DESIGNER - NAME	GARY L. PETRAK	SIGNATURE
		LIC. NO. E-17252
		DATE 12/1/04
LIGHTING MANDATORY MEASURES		
INDICATE LOCATION ON PLANS OF NOTE BLOCK MANDATORY MEASURES		
THIS SHEET		
INSTRUCTIONS TO APPLICANT		
FOR DETAILED INSTRUCTIONS ON THE USE OF THIS AND ALL ENERGY STANDARDS COMPLIANCE FORMS, PLEASE REFER TO THE NONRESIDENTIAL MANUAL PUBLISHED BY THE CALIFORNIA ENERGY COMMISSION.		
LTG-1: REQUIRED ON PLANS FOR ALL SUBMITTALS. PART 2 MAY BE INCORPORATED IN SCHEDULES OR PLANS.		
LTG-2: REQUIRED FOR ALL SUBMITTALS.		
LTG-3: OPTIONAL. USE ONLY IF LIGHTING CONTROL CREDITS ARE TAKEN.		
LTG-4: OPTIONAL. USE ONLY IF TAILORED METHOD IS USED. PARTS 2 AND 3 ONLY IF APPLICABLE.		
NONRESIDENTIAL COMPLIANCE FORM		

CERTIFICATE OF COMPLIANCE - LIGHTING		LTG-2				
PROJECT NAME	POINT VICENTE INTERPRETIVE CENTER	DATE 9-24-98				
INSTALLED LIGHTING SCHEDULE						
LUMINAIRE NAME (EQ. TYPE-1, TYPE-2, ETC.)	TYPE	NO. OF LAMPS	WATTS / LAMP	TOTAL WATTS	BALLASTS	NOTE TO FIELD
B		2	42			
D		1	100		N/A	
G		1	42		1	
GD		1	42		1	
GW		1	42		1	
H/H1		2	32		1	
K		2	32		1	
N		1	32		1	
INDICATE SUPPORTING DOCUMENTATION						
MANDATORY AUTOMATIC CONTROLS						
CONTROL LOCATION (ROOM #)	CONTROL IDENTIFICATION	CONTROL TYPE (N/A TO THE SPECIFICATIONS)	SPACE CONTROLLED	NOTE TO FIELD		
ENTIRE	\$	BI-LEVEL SWITCHING	ENTIRE			
ENTIRE	\$	DAYLIT AREA SWITCHING	ENTIRE			
CONTROLS FOR CREDIT						
CONTROL LOCATION (ROOM OR ZONE #)	CONTROL IDENTIFICATION	CONTROL TYPE (OCCUPANCY/SENSOR/PHOTOCELL, ETC.)	LUMINAIRES CONTROLLED	NOTE TO FIELD		
			TYPE	# OF LAMPS		
NOTES TO FIELD - FOR BUILDING DEPARTMENT USE ONLY						
NONRESIDENTIAL COMPLIANCE FORM						

RON YEO, F.A.A. ARCHITECT INC.
500 JASMINE AVENUE, CORONA DEL MAR
CALIFORNIA 92625 P: 714-644-8111 F: 714-644-0449
PATRICK MARR, AIA, PE, ASSOCIATE ARCHITECT



GLP Engineering Inc.
Mechanical and Electrical Engineering
1751 East Coastway, Suite 100
San Jose, CA 95128-5514
Telephone (408) 428-8800
Fax (408) 428-8805

IT COORDINATION 11-23-04
APPROVED
REVISION

PVC EXPANSION Building Plans
IA Sheet Dec. 2003

TITLE 24
POINT VICENTE INTERPRETIVE
CENTER EXPANSION
31501 Palos Verdes Drive West
Rancho Palos Verdes, CA
SPECIFICATIONS

DRAWN BY
CHECKED BY
DATE 2-1-99
SCALE 1/8" = 1'-0"
JOB NO. 97358
SHEET E-6
69 OF 69 SHEETS