STATE OF CALIFORNIA
Department of General Services - Office of Procurement
PURCHASE ORDER

Form GSOP 1-PIN (04/98)

Purchase Order No.	Rev.	Date
62268		12/ 8/2008

Supplier No.	Solicitation No.	Delivery Date	FOB Point	Invoice Terms
812627	57155	180 Days ARO	Destination	

BLUE EAGLE ENTERPRISES
POB 8819
RED BLUFF, CA 96080
Attn: RANDY STRATTON

Phone: 530-529-1295

Ship To: EDD - MAIN
800 CAPITAL MALL
SACRAMENTO, CA 95814

Charge To: GENERAL SERVICES Z-01
RESD-DIRECT CONSTRUCTION
707 3RD ST, SUITE 6-325
WEST SACRAMENTO, CA 95605

Agency Billing	Agency Purchase Estimate	Purchase Estimate	Revision
30320	76118	67301	1

Agency Contact	Phone	Date Received

Item No.	Quantity	Unit	Commodity Code	Description	Unit Price	Extension
				The general provisions for Non-IT commodities are hereby incorporated by reference. These General Provisions can be obtained by phoning (916) 375-4400 or by accessing our website at: www.documents.dgs.ca.gov/pd/modellang/GPnonIT0407.pdf		
				THE FOLLOWING INFORMATION IS PROVIDED FOR AGENCY USE ONLY: Prime Contractor: SB		
1	2	EA	6115-000-0000-5	GENERATOR & GENERATOR SET ELECTRICAL 500 kW Emergency Generator with 800 gallon integrated fuel tank shall be furnished as described on bid specification 6115-0274R1.	118,500.0000	237,000.00
2	1	EA	5820-000-0067-0	CONTROL SYSTEM COMPONENT System Controller shall be furnished as described on bid specification 6115-0274R1.	0.0000	0.00
					Total Value:	237,000.00

FOR THE PURPOSE OF THIS AWARD

Only Free On Board (F.O.B.) Destination shall be accepted.

TRAINING

Upon completion of equipment installation by the State, supplier shall provide training on the operation of the emergency generator and system controller to a minimum of eight (8) State personnel. Duration of training shall be a minimum four (4) hours and shall take place at the installation site.

Sales and/or use tax to be extra unless noted above

Buyer	Phone	BOC Number
SHANNON KELLER	916-375-4606	

STATE OF CALIFORNIA
Department of General Services - Office of Procurement

PURCHASE ORDER CONTINUATION

Form GSOP 2-PIN (04/98)

Purchase Order No.	*Revision*	*Date*	*Supplier No.*	*Supplier Name*
62268		12/ 8/2008	812627	BLUE EAGLE ENTERPRISES

Item No.	*Quantity*	*Unit*	*Commodity Code*	*Description*	*Unit Price*	*Extension*

SUBMITTALS

Submittals shall be provided within ten (10) working days of the State's request.

Detailed requirements for the submittals is outlined in the Bid Specification 6115-0274 Section 1.3.

SALES TAX

Sales tax was not included in the bid pricing and is not part of this award. Sales tax should be added at time of invoicing. The sales tax rate applied should be based on the rate of the area the product is to be delivered to.

CHANGE ORDERS

This Purchase Order may be amended, modified, or terminated at any time by mutual agreement of the parties, in writing. Change orders amending, modifying or terminating the Purchase Order, including any modifications of the compensation payable, may be issued only by the State Procurement Officer. All such change orders shall be in writing and issued only upon written concurrence of the supplier. Termination, as that term is used in this section, does not include termination for default of the supplier.

SCPRS

This Purchase Order has been registered into the State Contract and Procurement Registration System (https://www.scprs.dgs.ca.gov/). The registration number is 17601208346282.

PART 1 - GENERAL

1.1 SUMMARY

A. This Section includes packaged engine-generator sets for standby power supply with the following features:

1. Diesel engine. Provide a 1000 KW (2-500KW) integrated Standby modular power system (MPS) to supply electrical power at 277/480 VAC 3 PHASE in event of failure of normal supply. The generator(s) shall consist of liquid cooled engine(s), with AC alternator(s) and system controls with all necessary accessories for a complete operating system, including but not limited to the items as specified hereinafter.
2. Unit-mounted cooling system.
3. System controller that provides load management capabilities and single point of communication and control.
4. Outdoor enclosure.

1.2 DEFINITIONS

A. Operational Bandwidth: The total variation from the lowest to highest value of a parameter over the range of conditions indicated, expressed as a percentage of the nominal value of the parameter.

B. LP: Liquid petroleum.

1.3 SUBMITTALS

A. Product Data: For each type of packaged engine generator indicated. Include rated capacities, operating characteristics, and furnished specialties and accessories. In addition, include the following:

1. Thermal damage curve for generator.
2. Time-current characteristic curves for generator protective device.

B. Shop Drawings: Detail equipment assemblies and indicate dimensions, weights, loads, required clearances, method of field assembly, components, and location and size of each field connection.

1. Dimensioned outline plan and elevation drawings of engine-generator set and other components specified.
2. Wiring Diagrams: Power, signal, and control wiring.

C. Source quality-control test reports.

1. Certified summary of prototype-unit test report.

2. Certified Test Reports: For components and accessories that are equivalent, but not identical, to those tested on prototype unit.
3. Certified Summary of Performance Tests: Certify compliance with specified requirement to meet performance criteria for sensitive loads.
4. Report of factory test on units to be shipped for this Project, showing evidence of compliance with specified requirements.
5. Report of sound generation.
6. Report of exhaust emissions showing compliance with applicable regulations.
7. Certified Torsional Vibration Compatibility: Comply with NFPA 110.

D. Field quality-control test reports.

E. Operation and Maintenance Data: Three (3) sets of owner's manuals specific to the product supplied must accompany delivery of the equipment. General operating instruction, preventive maintenance, wiring diagrams, schematics and parts exploded views specific to this model must be included.

1.4 QUALITY ASSURANCE

A. Installer Qualifications: Manufacturer's authorized representative who is trained and approved for installation oversight and technical support for State installation of the units required for this Project.

B. Manufacturer Qualifications: This system shall be supplied by a manufacturer who has been regularly engaged in the production of engine-alternator sets, automatic transfer switches, and associated controls for a minimum of five years, thereby identifying one source of supply and responsibility. Maintain, within 200 miles (321 km) of Project site, a service center capable of providing training, parts, and emergency maintenance repairs.

C. Source Limitations: Obtain packaged generator sets and auxiliary components through one source from a single manufacturer.

D. Electrical Components, Devices, and Accessories: Listed and labeled as defined in NFPA 70, Article 100, by a testing agency acceptable to authorities having jurisdiction, and marked for intended use.

E. Comply with ASME B15.1.

F. Comply with NFPA 37.

G. Comply with NFPA 70.

H. Comply with NFPA 99.

I. Comply with NFPA 110 requirements for Level 1 emergency power supply system.

J. Comply with UL 2200.

K. Engine Exhaust Emissions: The generator set(s) must meet EPA federal emission guidelines for stationary standby power generation and comply with applicable state and local government requirements CARB Tier 2 for Sacramento Downtown Region.

L. Noise Emission: Comply with applicable state and local government requirements for maximum noise level at adjacent property boundaries due to sound emitted by generator set including engine, engine exhaust, engine cooling-air intake and discharge, and other components of installation.

1.5 EXTRA MATERIALS

A. Furnish extra materials described below that match products installed and that are packaged with protective covering for storage and identified with labels describing contents.

1. Fuses: One for every 10 of each type and rating, but no less than one of each.
2. Indicator Lamps: Two for every six of each type used, but no fewer than two of each.
3. Filters: One set each of lubricating oil, fuel, and combustion-air filters.

1.6 TYPICAL SEQUENCE OF OPERATION - PARALLELING GENERATORS

A. Upon the failure of utility power, the automatic transfer switch (ATS) provides a two-wire start signal to the system controller. The system controller sends a start command to the generators. The first generator that reaches rated voltage and frequency will close into the "dead" generator bus and the second generator will parallel.

B. The system controller shall provide load-shed capability if one generator can handle the load.

C. Once utility power has returned, the two-wire start signal will be removed. The generator paralleling contactors will open, generators will run in a cool down mode, and then generators shut down.

PART 2 - PRODUCTS

2.1 MANUFACTURERS

A. Manufacturers: Subject to compliance with the requirements of these specifications.

B. Basis-of-Design Product for the Engine-Generator as an assembly.

2.2 ENGINE-GENERATOR SET

A. General: Factory-assembled and -tested, engine-generator set.
1. The system shall consist of engine-generator set modules with internal paralleling equipment.

B. Mounting Frame: Maintain alignment of mounted components without depending on concrete foundation; and have lifting attachments.

1. Rigging Diagram: Inscribed on metal plate permanently attached to mounting frame to indicate location and lifting capacity of each lifting attachment and generator-set center of gravity.

2. The electric plant (engine and alternator) shall be mounted on a welded steel base and supported by spring type vibration isolators. Units that include a sub-base fuel tank will have the isolators factory installed between the unit and base tank.

C. Capacities and Characteristics:

1. Power Output Ratings: Nominal ratings as indicated.
2. Output Connections: Three-phase, four wire.
3. Nameplates: For each major system component to identify manufacturer's name and address, and model and serial number of component.

D. Generator-Set Performance for Sensitive Loads:

1. Over sizing generator compared with the rated power output of the engine is permissible to meet specified performance.

   a. Nameplate Data for Oversized Generator: Show ratings required by the Contract Documents rather than ratings that would normally be applied to generator size installed.

2. Steady-State Voltage Operational Bandwidth: 1 percent of rated output voltage from no load to full load.
3. Transient Voltage Performance: Not more than 10 percent variation for 50 percent step-load increase or decrease. Voltage shall recover and remain within the steady-state operating band within 0.5 second.
4. Steady-State Frequency Operational Bandwidth: Plus or minus 0.25 percent of rated frequency from no load to full load.
5. Steady-State Frequency Stability: When system is operating at any constant load within the rated load, there shall be no random speed variations outside the steady-state operational band and no hunting or surging of speed.
6. Transient Frequency Performance: Less than 2-Hz variation for 50 percent step-load increase or decrease. Frequency shall recover and remain within the steady-state operating band within three seconds.
7. Output Waveform: At no load, harmonic content measured line to neutral shall not exceed 2 percent total with no slot ripple. Telephone influence factor, determined according to NEMA MG 1, shall not exceed 50 percent.
8. Sustained Short-Circuit Current: For a 3-phase, bolted short circuit at system output terminals, system shall supply a minimum of 300 percent of rated full-load current for not less than 10 seconds and then clear the fault automatically, without damage to winding insulation or other generator system components.
9. Start Time: 30 seconds.

2.3 ENGINE

A. Fuel: Fuel oil, Grade DF-2.

1. A primary fuel filter, manual fuel priming pump, fuel shutoff solenoid and all fuel lines must be installed at the point of manufacture.

B. Rated Engine Speed: 1800 rpm.

C. Lubrication System: The following items are mounted on engine or skid:

1. Filter and Strainer: Rated to remove 90 percent of particles 5 micrometers and smaller while passing full flow.
2. Thermostatic Control Valve: Control flow in system to maintain optimum oil temperature. Unit shall be capable of full flow and is designed to be fail-safe.
3. Crankcase Drain: Arranged for complete gravity drainage to an easily removable container with no disassembly and without use of pumps, siphons, special tools, or appliances.

D. Engine Fuel System:

1. Main Fuel Pump: Mounted on engine. Pump ensures adequate primary fuel flow under starting and load conditions.
2. Relief-Bypass Valve: Automatically regulates pressure in fuel line and returns excess fuel to source.
3. The primary diesel fuel filter shall be capable of removing contaminants of 10 microns. Element shall be replaceable paper type.

E. Coolant Jacket Heater: The engine shall have (a) unit mounted, thermostatically controlled water jacket heater(s) to aid in quick starting. The wattage shall be as recommended by the manufacturer. Comply with NFPA 110 requirements for Level 1 equipment for heater capacity.

F. Governor: Adjustable isochronous, with speed sensing.

G. The engine is to be cooled with a unit mounted radiator, fan, water pump, and closed coolant recovery system providing visual diagnostic means to determine if the system is operating with a normal engine coolant level. The radiator shall be designed for operation in ambient temperature.

H. Muffler/Silencer: Critical type, sized as recommended by engine manufacturer and selected with exhaust piping system to not exceed engine manufacturer's engine backpressure requirements.

1. Minimum sound attenuation of 25 dB at 500 Hz.
2. Sound level measured at a distance of 23 feet (7 m) from exhaust discharge after installation is complete shall be 85 dBA or less.
3. Backpressure calculations shall include vertical run of exhaust piping of approximately 80 feet.

I. Air-Intake Filter: Standard-duty, engine-mounted air cleaner with replaceable dry-filter element and "blocked filter" indicator. The intake air filter(s) with replaceable element must be mounted on the unit.

J. Starting System: 24-V electric, with negative ground.

1. Components: Sized so they will not be damaged during a full engine-cranking cycle with ambient temperature at maximum.
2. Cranking Motor: Heavy-duty unit that automatically engages and releases from engine flywheel without binding.
3. Cranking Cycle: As required by NFPA 110 for system level specified.
4. Battery: Adequate capacity within ambient temperature range of the site to provide specified cranking cycle at least twice without recharging.
5. Battery Cable: Size as recommended by engine manufacturer for cable length indicated. Include required interconnecting conductors and connection accessories.
6. Battery Compartment: Factory fabricated of metal with acid-resistant finish and thermal insulation. Include accessories required to support and fasten batteries in place.
7. Battery-Charging Alternator: Factory mounted on engine with solid-state voltage regulation.

a. Battery Charger: Current-limiting, automatic-equalizing and float-charging type. Unit shall comply with UL 1236.

2.4 ALTERNATORS

A. The alternators on each 500 kW module shall be a 4 pole revolving field type, lead, wired for 277/480 VAC 3 phase, 60 Hz, rated at 500 kW with permanent magnet generator (PMG) excitation support.

B. Provide the following items installed at the factory:

A main line circuit breaker carrying the UL mark shall be factory installed. The breaker shall be rated per the manufacturer's recommendations unless specified below and mounted in the genset connection box. The breaker shall be connected between the alternator output and the generator's paralleling switch. The breaker shall include auxiliary contacts and shunt trip. The breaker shall provide a means of disconnect at the generator and provide a redundant means of generator bus separation.

2.5 GENERATOR CONTROLLER

A. The generator control system shall be a fully integrated microprocessor based control system for standby emergency engine generators meeting all requirements of NFPA 110 level 1.

B. The generator control system shall be a fully integrated control system enabling remote diagnostics and easy building management integration of all generator functions. The generator controller shall provide integrated and digital control over all generator functions including: engine protection, alternator protection, speed governing, voltage regulation, synchronizing, load-sharing (real and reactive) and all related generator operations. The generator controller must also provide seamless digital integration with the engine's electronic management system if so equipped. Generator controllers that utilize separate voltage regulators and speed governors or do not provide seamless integration with the engine management system are considered less desirable.

C. Communications shall include internet and intranet connectivity.

D. The control system shall provide an environmentally sealed design including encapsulated circuit boards and sealed automotive style plugs for all sensors and circuit board connections. The use of non-encapsulated boards, edge cards, and pc ribbon cable connections are considered unacceptable.

E. Circuit boards shall utilize surface mount technology to provide vibration durability. Circuit boards that utilize large capacitors or heat sinks must utilize encapsulation methods to securely support these components.

F. The control panel will provide a touch screen display to provide intuitive access to all user pertinent unit parameters including:

- Engine and alternator operating conditions
- Oil pressure and optional oil temperature
- Coolant temperature and level alarm
- Fuel level (where applicable)
- Engine speed
- DC battery voltage
- Run time hours
- Generator voltages, amps, frequency, kilowatts, and power factor

- Alarm status
- Current alarm(s) condition per NFPA 110 level 1
- Alarm log of last twenty alarm events (date and time stamped)

2.6 SYSTEM CONTROLLER

A. The system controller shall be an integrated microprocessor based solution providing full digital integration with the generator controllers. The system controller shall utilize standard hardware and firmware manufactured by the generator supplier. The use of PLC based solutions will be considered less desirable.

B. The control panel will provide a touch screen display to provide intuitive access to all user pertinent system status information.

C. The power for the system controller shall utilize redundant DC sources - an internal DC source inclusive of charging system and an external DC source from one of the generator's cranking batteries.

D. The system controller shall interface with the generators using digital communications. Any of the generator(s) status, operation conditions, or configuration parameters shall be accessible with a single point communication via the system controller.

E. In addition to the communication requirements identified above, the system controller shall provide modem communications as standard.

2.7 FUEL OIL STORAGE

A. Comply with NFPA 30.

B. Base-Mounted Fuel Oil Tank: Factory installed and piped, complying with UL 142 fuel oil tank. Features include the following:

1. Electronic and manual tank level indicator.
2. Capacity: Fuel for 24 hours' continuous operation at 100 percent rated power output.
3. Vandal-resistant fill cap.
4. Containment Provisions: Double wall base mounted fuel tank. It shall have the structural integrity to support the engine-generator set and carry the UL 142 mark.
5. Minimum features shall include all welded construction, electric fuel level sensor, fuel line check valve, vent and fittings for fuel supply, return, fill and emergency vent. This tank must be supplied by the engine-generator set manufacturer and be installed before shipment.
6. Supply the base tank with emergency venting per NFPA 37.

2.8 CONTROL AND MONITORING

A. Automatic Starting System Sequence of Operation: When mode-selector switch on the control and monitoring panel is in the automatic position, remote-control contacts in one or more separate automatic transfer switches initiate starting and stopping of generator set. When mode-selector switch is switched to the on position, generator set starts. The off position of same switch initiates generator-set shutdown. When generator set is running, specified system or equipment failures or derangements automatically shut down generator set and initiate alarms. Operation of a remote emergency-stop switch also shuts down generator set.

B. Manual Starting System Sequence of Operation: Switching on-off switch on the generator control panel to the on position starts generator set. The off position of same switch initiates generator-set shutdown. When generator set is running, specified system or equipment failures or derangements automatically shut down generator set and initiate alarms. Operation of a remote emergency-stop switch also shuts down generator set.

C. Microprocessor-Based Generator Set Monitoring, Metering, and Control System: As required by NFPA 110 for Level 1 system, and providing the following data:

1. AC volts.
2. AC amps.
3. AC frequency.
4. DC volts (alternator battery charging).
5. Engine-coolant temperature.
6. Engine lubricating-oil pressure.
7. Running-time.
8. Amps-volts, phase-selector.
9. Generator-voltage adjustment.
10. Fuel tank derangement alarm.
11. Fuel tank high-level shutdown of fuel supply alarm.
12. Generator overload.

D. Supporting Items: Include sensors, transducers, terminals, relays, and other devices and include wiring required to support specified items. Locate sensors and other supporting items on engine or generator, unless otherwise indicated.

E. Connection to Data Link: A separate terminal block, factory wired to Form C dry contacts for each alarm and status indication, reserved for connections for data-link transmission of indications to remote data terminals or alarm and status indication via digital communications to remote data terminals.

F. Common Remote Audible Alarm: Comply with NFPA 110 requirements for Level 1 systems. Include necessary contacts and terminals in control and monitoring panel.

1. Over crank shutdown.
2. Coolant low-temperature alarm.
3. Control switch not in auto position.
4. Battery-charger malfunction alarm.
5. Battery low-voltage alarm.

G. Common Remote Audible Alarm: Signal the occurrence of any events listed below without differentiating between event types. Connect so that after an alarm is silenced, clearing of initiating condition will reactivate alarm until silencing switch is reset.

1. Engine high-temperature shutdown.
2. Lube-oil, low-pressure shutdown.
3. Over speed shutdown.
4. Remote emergency-stop shutdown.
5. Engine high-temperature prealarm.
6. Lube-oil, low-pressure prealarm.
7. Fuel tank, low-fuel level.
8. Low coolant level.

H. Remote Alarm Annunciator: Comply with NFPA 99. An LED labeled with proper alarm conditions shall identify each alarm event and a common audible signal shall sound for each alarm condition. Silencing switch in face of panel shall silence signal without altering visual indication. Connect so that after an alarm is silenced, clearing of initiating condition will reactivate alarm until silencing switch is reset. Cabinet and faceplate are surface- or flush-mounting type to suit mounting conditions indicated.

I. Remote Emergency-Stop Switch: Flush, wall mounted, unless otherwise indicated, and labeled. Push button shall be protected from accidental operation.

2.9 GENERATOR OVERCURRENT AND FAULT PROTECTION

A. Generator Circuit Breaker: Molded-case, thermal-magnetic type; 100 percent rated; complying with NEMA AB 1 and UL 489.

1. Tripping Characteristic: Designed specifically for generator protection.
2. Trip Rating: Matched to generator rating.
3. Shunt Trip: Connected to trip breaker when generator set is shut down by other protective devices.
4. Mounting: Adjacent to or integrated with control and monitoring panel.

B. Ground-Fault Indication: Comply with NFPA 70, "Emergency System" signals for ground-fault. Integrate ground-fault alarm indication with other generator-set alarm indications.

2.10 GENERATOR, EXCITER, AND VOLTAGE REGULATOR

A. Comply with NEMA MG 1.

B. Drive: Generator shaft shall be directly connected to engine shaft. Exciter shall be rotated integrally with generator rotor.

C. Electrical Insulation: Class H or Class F.

D. Construction shall prevent mechanical, electrical, and thermal damage due to vibration, over speed up to 125 percent of rating, and heat during operation at 110 percent of rated capacity.

E. Enclosure: Drip proof.

F. Voltage Regulator: Solid-state type, separate from exciter, providing performance as specified.

1. Adjusting rheostat on control and monitoring panel shall provide plus or minus 5 percent adjustment of output-voltage operating band.

2.11 OUTDOOR GENERATOR-SET ENCLOSURE

A. Description: Vandal-resistant, weatherproof steel housing, wind resistant up to 100 mph (160 km/h). Multiple panels shall be lockable and provide adequate access to components requiring maintenance. Panels shall be removable by one person without tools. Instruments and control shall be mounted within enclosure.

B. Description: Prefabricated or pre-engineered enclosure with the following features:

1. Construction: Galvanized-steel, metal-clad, integral structural-steel-framed building erected on concrete foundation.
2. Structural Design and Anchorage: Comply with ASCE 7 for wind loads.
3. Space Heater: Thermostatically controlled and sized to prevent condensation.
4. Louvers: Equipped with bird screen and filter arranged to permit air circulation when engine is not running while excluding exterior dust, birds, and rodents.
5. Hinged Doors: With padlocking provisions.
6. Ventilation: Louvers equipped with bird screen and filter arranged to permit air circulation while excluding exterior dust, birds, and rodents.
7. Thermal Insulation: Manufacturer's standard materials and thickness selected in coordination with space heater to maintain winter interior temperature within operating limits required by engine-generator-set components.
8. Muffler Location: Within or External to enclosure.

C. Engine Cooling Airflow through Enclosure: Maintain temperature rise of system components within required limits when unit operates at 110 percent of rated load for 2 hours with ambient temperature at top of range specified in system service conditions.

1. Louvers: Fixed-engine, cooling-air inlet and discharge. Storm-proof and drainable louvers prevent entry of rain and snow.
2. Automatic Dampers: At engine cooling-air inlet and discharge. Dampers shall be closed to reduce enclosure heat loss in cold weather when unit is not operating.

D. Convenience Outlets: Factory wired, GFCI. Arrange for external electrical connection.

2.12 FINISHES

A. Indoor and Outdoor Enclosures and Components: Manufacturer's standard finish over corrosion-resistant pretreatment and compatible primer.

2.13 SOURCE QUALITY CONTROL

A. Prototype Testing: Factory test engine-generator set using same engine model, constructed of identical or equivalent components and equipped with identical or equivalent accessories.

1. Tests: Comply with NFPA 110, Level 1 Energy Converters and with IEEE 115.

PART 3 - EXECUTION

3.1 FIELD QUALITY CONTROL

A. Manufacturer's Field Service: Engage a factory-authorized service representative to inspect, test, and adjust components, assemblies, and equipment installations, including connections. Report results in writing.

B. Perform tests and inspections and prepare test reports.

1. Manufacturer's Field Service: Engage a factory-authorized service representative to inspect components, assemblies, and equipment installations, including connections, and to assist in testing.

C. Tests and Inspections:

1. Perform tests to validate operations as described under 1.6 Typical Sequence of Operation – Paralleling Generators.
2. System Integrity Tests: Methodically verify proper installation, connection, and integrity of each element of engine-generator system before and during system operation. Check for air, exhaust, and fluid leaks.

D. Coordinate tests with tests for transfer switches and run them concurrently.

E. Test instruments shall have been calibrated within the last 12 months, traceable to standards of NIST, and adequate for making positive observation of test results. Make calibration records available for examination on request.

F. Leak Test: After installation, charge system and test for leaks. Repair leaks and retest until no leaks exist.

G. Operational Test: After electrical circuitry has been energized, start units to confirm proper motor rotation and unit operation.

H. Test and adjust controls and safeties. Replace damaged and malfunctioning controls and equipment.

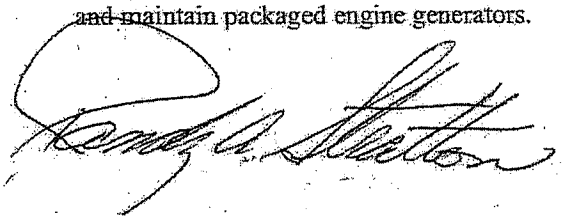
I. Remove and replace malfunctioning units and reinspect as specified above.

J. Retest: Correct deficiencies identified by tests and observations and retest until specified requirements are met.

K. Report results of tests and inspections in writing. Record adjustable relay settings and measured insulation resistances, time delays, and other values and observations. Attach a label or tag to each tested component indicating satisfactory completion of tests.

3.2 DEMONSTRATION

A. Engage a factory-authorized service representative to train Owner's maintenance personnel to adjust, operate, and maintain packaged engine generators.



ABBREVIATIONS

<	Centerline
~	Diameter
#	Number
AMP	Ampere
AC	Air Conditioning, or Alternating Current, or
AHU	Air Handling Unit
AIC	Amps Interrupting Capacity
AWG	American Wire Gauge
BAT	Battery
BC	Bare Copper, or
C	Conduit, or Degrees Celcius
CB	Circuit Breaker
CLG	Ceiling
CLR	Clear
CL	Center Line
CU	Copper
DC	Direct Current
DEPT	Department
DIA	Diameter
DIM	Dimension
DISC	Disconnect
DWG	Drawing
DWR	Drawer
(E)	Existing
EA	Each
ELEC	Electrical
EMER	Emergency
EMT	Electrical Metallic Tubing
EQ	Equal
EQPT	Equipment
F	Fahrenheit
FA	Fire Alarm
FAAP	Fire Alarm Annunciator Panel
FACP	Fire Alarm Control Panel
FCD	Fire Control Damper
FD	Fire Damper, or Floor Drain
FFE	Finish Floor Elevation
FG	Finish Grade
FG	Finish Grade
FLR	Floor
GA	Gage
HT	Height
HVAC	Heating, Ventilation, and Air Conditioning
IMC	Intermediate Metal Conduit
JB	Junction Box
KCMIL	Thousand Circular Mil
KV	Kilovolts
KVA	Kilovolt-Ampere
KW	Kilowatt
KWH	Kilowatt-Hour
MAX	Maximum
MECH	Mechanical
MFR	Manufacturer
MIN	Minimum
MISC	Miscellaneous
MTD	Mounted
MTG	Mounting
(N)	New
NC	Normally Closed
NIC	Not in Contract
NO	Normally Open
NTS	Not to Scale
PH	Phase
PIV	Post Indicator Valve
POC	Point of Connection
PVC	Polyvinyl Chloride
REQ	Required
RR	Restroom
SF	Square Feet, or Square Foot
SIM	Similar
SPKLR	Sprinkler
SQ	Square
STD	Standard
STRUCT	Structural
TTB	Telephone Terminal Board
TTC	Telephone Terminal Cabinet
TYP	Typical
UPS	Uninterruptable Power Supply
V	Volt
VA	Volt Ampere
W	Watt
W/	With
W/O	Without
WP	Weatherproof
XFMR	Transformer
Z	Impedance

SYMBOL LIST

- TWISTLOCK RECEPTACLE, RECEPTACLE, COORDINATE RECEPTACLE CONFIGURATION WITH EQUIPMENT BEING SUPPLIED, +18" U.O.N.
- DUPLEX RECEPTACLE, +18" U.O.N.
- WEATHER PROOF DUPLEX RECEPTACLE, +18" U.O.N.
- MOTOR CONNECTION
- FUSED DISCONNECT SWITCH
- UTILITY METER BASE
- JUNCTION BOX
- TRANSFORMER
- UNDERGROUND PULL BOX, SIZE AS INDICATED ON THE PLANS
- CONDUIT ELLED UP
- CONDUIT ELLED DOWN
- CONDUIT/WIRING STUBBED OUT WITH END CAP OR INSULATED PLASTIC BUSHING
- CONDUIT/WIRING CONTINUATION
- GROUND ROD
- WATER PIPE GROUND CONNECTION
- GROUNDING POINT DRY TYPE TRANSFORMER
- LANDING LUG
- CURRENT TRANSFORMER
- FUSED DISCONNECT SWITCH OR SWITCH/FUSE IN SWITCHBOARD
- FUSE
- SWITCH
- CIRCUIT BREAKER
- CIRCUIT BREAKER WITH GROUND FAULT INTERRUPTING (GFI)
- CONDUIT CONCEALED IN WALL OR CEILING SPACE
- CONDUIT ROUTED BELOW FLOOR / GRADE
- EXISTING CONDUIT CONCEALED IN WALL OR CEILING SPACE
- EXISTING CONDUIT ROUTED BELOW FLOOR / GRADE
- REFERENCE NOTE
- SURFACE MOUNT EQUIPMENT ENCLOSURE AS NOTED
- BRANCH PANEL
- MAIN DISTRIBUTION PANEL / SUB DISTRIBUTION PANEL
- FLEXIBLE CONDUIT
- UNDERGROUND PRIMARY SERVICE
- UNDERGROUND SECONDARY SERVICE
- B-27,29: BRANCH CIRCUIT WIRING. ARROW INDICATES HOME RUN TO PANEL WITH CIRCUITS AS NOTED. WIRE SIZE IS #12 AWG MINIMUM UNLESS NOTED OTHERWISE. SHORT TICK MARKS INDICATE PHASE CONDUCTORS. LONG TICK MARKS INDICATE NEUTRAL CONDUCTORS. A SINGLE CURVED TICK MARK INDICATES INSULATED GREEN GROUND CONDUCTOR. SECOND CURVED TICK MARK INDICATES "ISOLATED GROUND" (GREEN INSULATION WITH YELLOW STRIPE) CONDUCTOR.

GENERAL NOTES:

1. DO NOT SCALE DRAWINGS FOR FIXTURES, DEVICES, OR APPLIANCE LOCATIONS. USE FIGURED OR GIVEN DIMENSIONS ONLY.
2. TRENCHING AND BACKFILLING SHALL BE IN ACCORDANCE WITH THE SPECIFICATIONS. PRIOR TO INSTALLATION, TRENCHING, ETC. FOR UNDERGROUND SYSTEM, WORK SHALL BE STAKED OUT FOR APPROVAL BY THE STATE. NO SITE WORK SHALL START UNTIL STAKE-OUT IS APPROVED BY THE STATE.
3. PROVIDE CONDUIT SYSTEM TO ENSURE A NEAT AND PROPER FINAL INSTALLATION, WITH CONDUITS ROUTED TIGHT TO THE STRUCTURE AND PARALLEL TO OR PERPENDICULAR TO STRUCTURAL MEMBERS. AFTER INSTALLATION IS COMPLETE, PROPERLY CLEAN CONDUIT FITTINGS, J-BOXES AND SUPPORT BRACKETS.
4. ELECTRICAL MATERIAL SHALL BE NEW AND LISTED WITH THE UNDERWRITERS LABORATORIES, INC. (UL), SHALL MEET THEIR REQUIREMENTS, AND SHALL BEAR THEIR LABEL.
5. CONDUIT PENETRATIONS THROUGH FIRE RATED WALLS AND FLOORS SHALL BE SEALED WITH SUITABLE SEALANT TO MAINTAIN FIRE SEPARATION RATING. 3M MOLDABLE PUTTY, NELSON, OR EQUAL.
6. MECHANICAL AND ELECTRICAL EQUIPMENT SHALL BE BRACED OR ANCHORED TO RESIST A HORIZONTAL FORCE ACTING IN ANY DIRECTION PER SECTION 1632A AND TABLE 16A-O OF 2001 CBC.
7. WHERE ANCHORAGE DETAILS ARE NOT SHOWN ON THE DRAWING, THE FIELD INSTALLATION SHALL BE SUBJECT TO THE APPROVAL OF THE STATE IN WRITING.

SHEET INDEX:

T-1	LOCATION MAP, SHEET INDEX, SYMBOL LIST, ABBREVIATIONS, SCOPE OF WORK, GENERAL NOTES
E-1	ELECTRICAL SITE PLAN
E-2	PARTIAL POWER FLOOR PLAN
E-3	PARTIAL ELECTRICAL FLOOR PLAN
E-4	DETAILS
E-5	DETAILS AND ONE LINE DIAGRAM
M2.0	MECHANICAL FLOOR PLAN, LEGEND AND KEY PLAN

SCOPE OF WORK

THE SCOPE OF THIS PROJECT IS TO MAKE THE FOLLOWING CHANGES TO THE BUILDING STAND-BY EMERGENCY POWER SYSTEM:

1. PROVIDE TWO NEW TEMPORARY 500KW GENERATORS AND ATS SWITCHES IN A FIXED LOCATION ON A NEW CONCRETE HOUSEKEEPING PAD.
2. PROVIDE GENERATORS WITH "BELLY" MOUNTED DAY TANKS FOR 24 HOUR FUEL STORAGE.
3. PROVIDE NEW UPS UNITS IN DATA SERVER ROOMS SHOWN.
4. PROVIDE A NEW AUTOMATIC DISCONNECT SWITCHES INTERCONNECTED INTO THE EXISTING MAIN SWITCHBOARD.
5. MODIFY THE EXISTING PARKING LOT STRIPING IN THE LOCATION OF THE NEW GENERATORS.
6. REMOVAL OF ALL EQUIPMENT AND COMPONENTS INDICATED.

BUILDING CODE INFORMATION

BUILDING CODES:	2001 CALIFORNIA ADMINISTRATIVE CODE 2001 CALIFORNIA BUILDING CODE 2001 CALIFORNIA MECHANICAL CODE 2001 CALIFORNIA PLUMBING CODE 2004 CALIFORNIA ELECTRICAL CODE 2001 CALIFORNIA FIRE CODE
OCCUPANCY TYPE:	B
CONSTRUCTION TYPE:	I
FIRE SPRINKLERS:	YES
ACTUAL FLOOR AREA:	722 CAPITOL MALL = 29,472 SQ. FT. 800 CAPITOL MALL = 41,248 SQ. FT.
STORIES:	7 TOTAL
ACTUAL HEIGHT:	+45'-0"

State of California
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West Sacramento, California 95605

Project Manager: DEAN HUNT
916 375-4287 Voice
916 375-4195 Fax
Dean.Hunt@dgs.ca.gov

DGS
Department of General Services

PROJECT TITLE: **UPS UPGRADE AND TEMPORARY GENERATORS**

W.O. NUMBER: ED 125245
ED 125246

PROJECT LOCATION: 800 CAPITOL MALL & 750 N STREET SACRAMENTO, CALIFORNIA

REGISTERED PROFESSIONAL ENGINEER — DEAN L. HUNT — No. E-010297 — Exp. 9-30-08 — ELECTRICAL — STATE OF CALIFORNIA

CLIENT AGENCY: EMPLOYMENT DEVELOPMENT DEPARTMENT

PROJECT MANAGER: DEAN HUNT, SUPERVISING ENGINEER

PROJECT TEAM: JAMES BECKER, SENIOR ELECTRICAL ENGINEER (916) 375-4290
DAVID BROWN, SENIOR MECHANICAL ENGINEER (916) 375-4277

California State Fire Marshal
APPROVED
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App.No.:
Reviewed by: ____________
Date: ____________

LOCATION MAPS:

PROJECT LOCATION

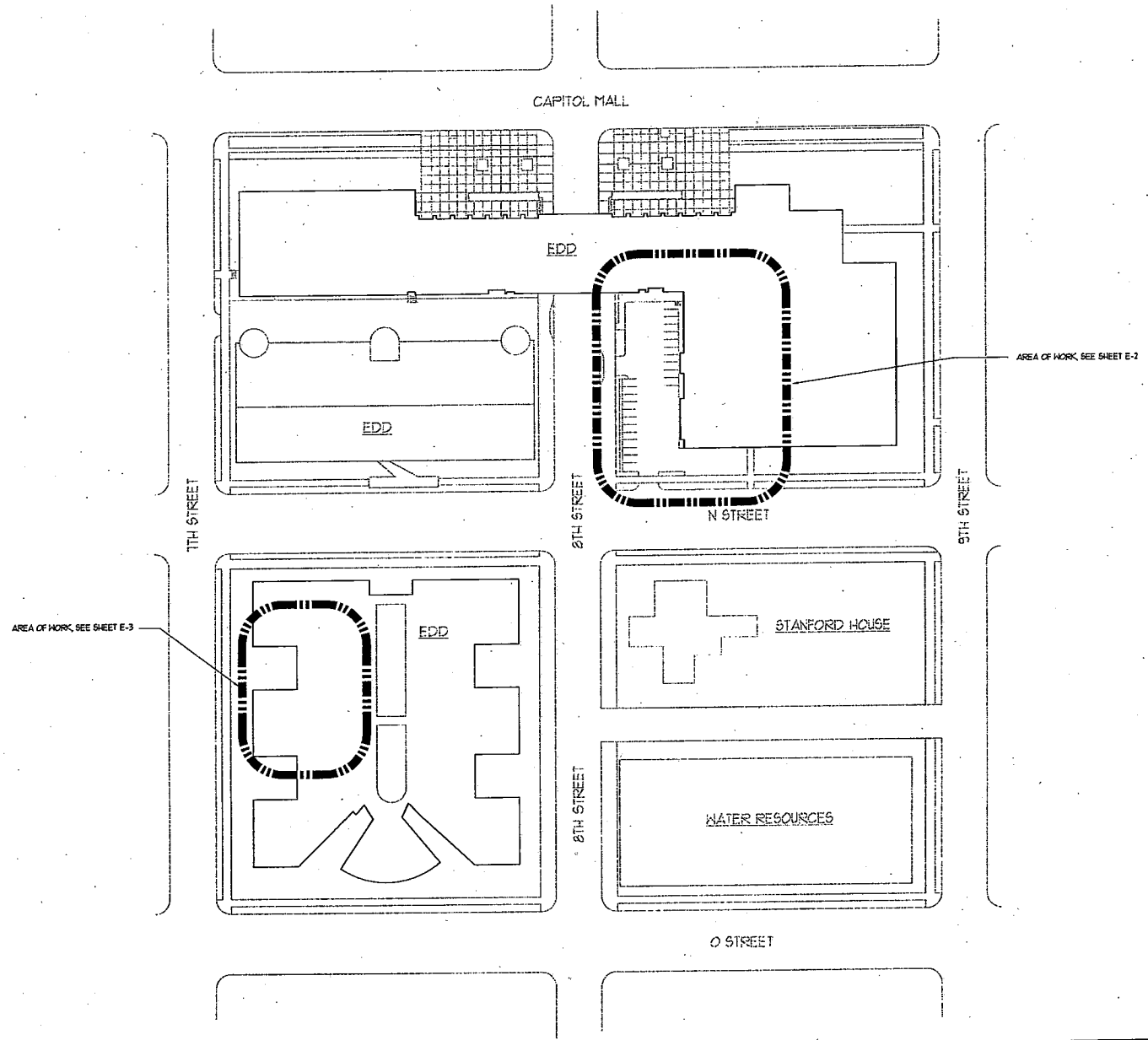
SACRAMENTO, CALIFORNIA

NO SCALE

N

#125246

FINAL SET	OCTOBER 23, 2007	SHEET 1 OF 7	T-1



1 ELECTRICAL OVERALL SITE PLAN

1" = 60'

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REGISTERED PROFESSIONAL ENGINEER
DEAN L. HUNT
No. E-010297
Exp. 9-30-08
ELECTRICAL
STATE OF CALIFORNIA

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App.No.:
Reviewed by:
Date :

Issue No.	Date	Description

Project
UPS UPGRADE AND TEMPORARY GENERATI
800 CAPITOL MALL
SACRAMENTO, CA 95814
SACRAMENTO COUNTY
EMPLOYMENT DEVELOPMENT DEPARTMENT

Supervisor	Designed	Drawn	Checked
DH	JB	JB	DH

File Date | Vault File Number

Sheet Title
ELECTRICAL SITE PLAN

OSA Building Number	Work Order
25/13SUB	12545 12546

Reference North | Sheet Scale: AS NOTED

Sheet Number: E-1
2 of 7

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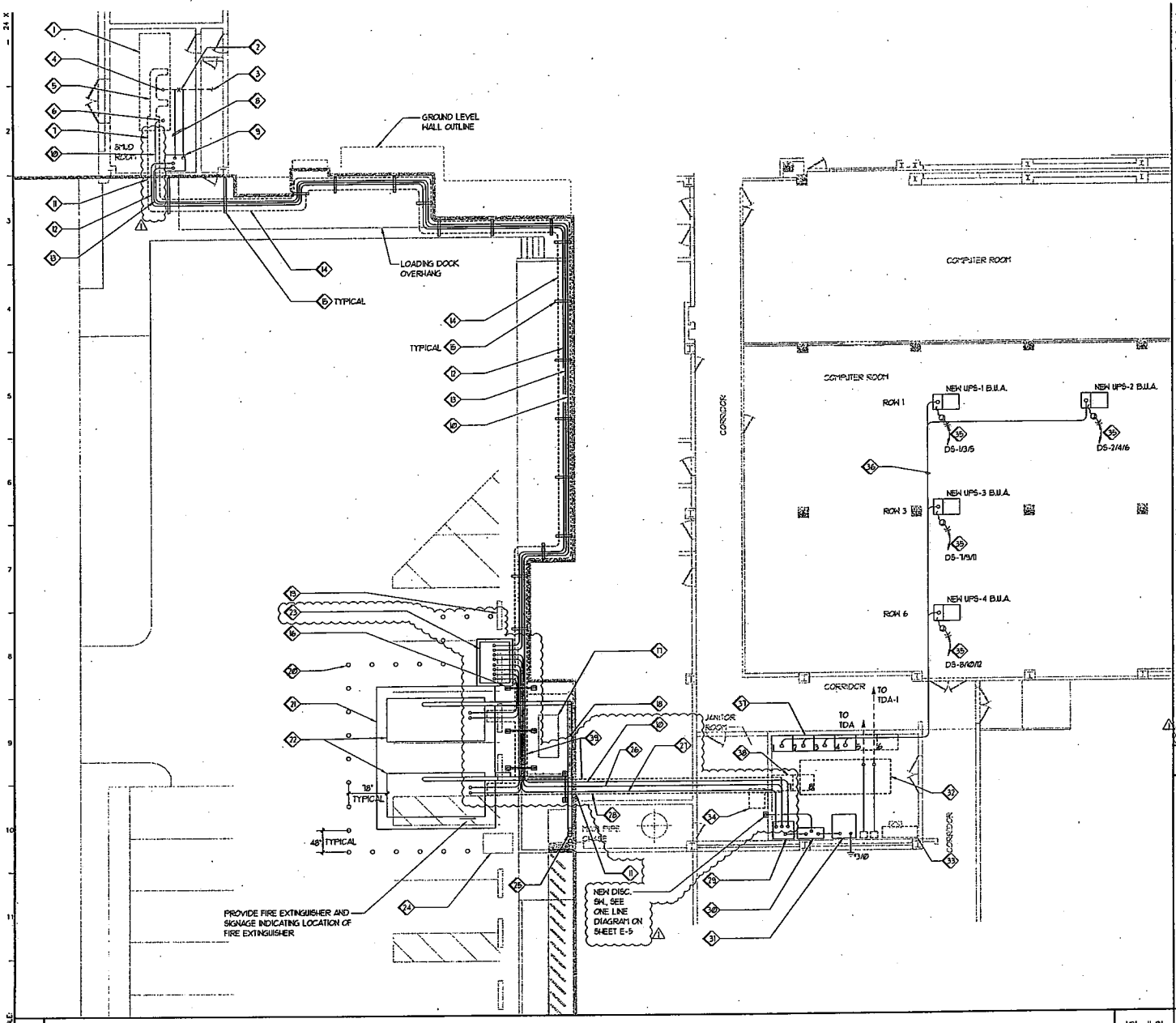
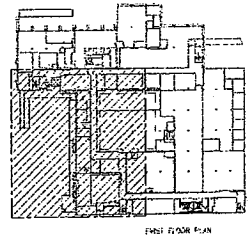
CAD FILE:



1. INTERCEPT THE EXISTING FEEDER AND RE-FEED FROM NEW "ATS-1".
2. EXISTING FEEDER TO PANEL "2P".
3. EXISTING WESTINGHOUSE BREAKER TO BE RE-USED "3P" CERTIFY, TEST, FM, RECALIBRATE. VERIFY AND SET THE G.F.I. (BREAKER IS "DS50" 1600A WITH AMPTECTOR I-A MODEL "LIG") SET MOCP:400AMPS ⚠
4. 18" CABLE TRAY SUSPENDED DOWN FROM CEILING.
5. CONNECT NEW "ATS-2" TO EXISTING SPARE 1200A BREAKER. CERTIFY TEST, FM, RECALIBRATE. VERIFY AND SET THE G.F.I. (BREAKER IS "DS50" 1600A MINI AMPTECTOR I-A MODEL "LIG") SET MOCP:1200AMPS ⚠
6. 24" CABLE TRAY SUSPENDED DOWN FROM CEILING.
7. (4) DLO (DIESEL LOCOMOTIVE CABLE) 313.7MCM BETWEEN MSB & ATS-1. ⚠
8. NEW "ATS-1" AUTOMATIC TRANSFER SWITCH, 400A, 3 PH, 4 POLE.
9. 2 SETS OF (4) DLO (DIESEL LOCOMOTIVE CABLE) 444.4 MCM BETWEEN MSB & ATS-2.
10. SAW CUT 24"x12" RECTANGULAR OPENING IN CONCRETE WALL FOR CABLE TRAY, SEAL PENETRATION WATERTIGHT.
11. 2 SETS OF #8-2 TWISTED SHIELDED GENERATOR CONTROL CABLES FROM ATS-1 TO NEW GEN SET CONTROL PANEL.
12. 1 SET OF (4) DLO (DIESEL LOCOMOTIVE CABLE) 313.7 MCM BETWEEN ATS-1 & GEN SET CONTROL PANEL. ⚠
13. 24" COVERED & VENTED CABLE TRAY MOUNTED ABOVE LOADING DOCK CANOPY, APPROX. 12 FEET ABOVE FINISHED FLOOR.
14. WALL MOUNTED CABLE TRAY SUPPORT, CANTILEVERED OFF WALL, SEE DETAIL ON SHEET E-5.
15. CABLE TRAY SUPPORT RACK, "H" SHAPE, MOUNTED FROM GRADE, SEE DETAIL ON SHEET E-5 FOR DETAIL.
16. EXISTING GENERATOR TO REMAIN.
17. NEW GENERATOR EXHAUST PIPES MOUNTED ON CONCRETE WALL, SEE SHEET E-4 FOR DETAIL.
18. EXISTING CONCRETE TIRE STOP, TO REMAIN.
19. NEW CONCRETE IMPACT BOLLARD, SEE SHEET E-4 FOR DETAIL.
20. NEW CONCRETE GENERATOR PAD, SEE SHEET E-4 FOR DETAIL.
21. NEW 500KW GENERATOR, N.I.C., PROVIDE INSTALLATION.
22. NEW PARALLEL GEN SET CONTROL PANEL, N.I.C., PROVIDE INSTALLATION.
23. EXISTING UNDERGROUND PULL BOX TO REMAIN.
24. ROUTE NEW GENERATOR EXHAUST PIPE EXPOSED UP BUILDING TO ABOVE ROOF, SEE SHEET E-4 FOR DETAIL.
25. 2 SETS OF (4) DLO (DIESEL LOCOMOTIVE CABLE) 444.4 BETWEEN ATS-2 & GEN SET CONTROL PANEL. ⚠
26. 2 SETS OF #8-2 TWISTED SHIELDED GENERATOR CONTROL CABLES FROM ATS-2 TO NEW GEN SET CONTROL PANEL.
27. 36" CABLE TRAY SUSPENDED DOWN FROM CEILING.
28. NEW "ATS-2" AUTOMATIC TRANSFER SWITCH, 1200A, 3 PH, 4 POLE.
29. NEW DISTRIBUTION BOARD "DS-2", 1200A, 480V, 3 PH, 4 WIRE, NEMA 1 ENCLOSURE.
30. NEW 112.5KVA DRY TYPE, 480V-208/120V, 3PH TRANSFORMER.
31. REMOVE EXISTING POWER CONDITIONING UNIT "LIEBERT DATA WAVE".
32. EXISTING PANEL "DS".
33. EXISTING 75KVA TRANSFORMER 480V-208/120V, 3PH.
34. 2"C. - 4"#0 THHN CU & #6 GND.
35. BATTERY CABLES - VERIFY SIZE AND CONDUIT REQUIREMENTS WITH MANUFACTURER.
36. NEW BATTERY CABINET - TYPICAL
37. FUTURE BATTERY CABINET - TYPICAL
38. (1) #10 CU CONTINUOUS TRAY BONDING CONDUCTOR. ⚠

2 SHEET NOTES — NO SCALE



FIRST FLOOR PLAN

3 KEY PLAN — NO SCALE

1 PARTIAL POWER FLOOR PLAN — 1/8" = 1'-0"

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REGISTERED PROFESSIONAL ENGINEER DEAN L. HUNT No. E-010297 Exp. 8-31-08 ELECTRICAL STATE OF CALIFORNIA

California State Fire Marshal APPROVED

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App.No.:
Reviewed by:
Date :

Issue

No.	Date	Description
1	10/14/07	PLAN CHECK REVISIONS

Project
UPS UPGRADE AND TEMPORARY GENERATOR
800 CAPITOL MALL
SACRAMENTO, CA 95814
SACRAMENTO COUNTY
EMPLOYMENT DEVELOPMENT DEPARTMENT

Supervisor	Designed	Drawn	Checked
DH	JB	JB	DH

File Date | Vault File Number

Sheet Title
PARTIAL POWER FLOOR PLAN

DSA Building Number: 25/13SUB
Work Order: 12545 12546
Reference North
Sheet Scale: AS NOTED
Sheet Number: E-2
3 of 7

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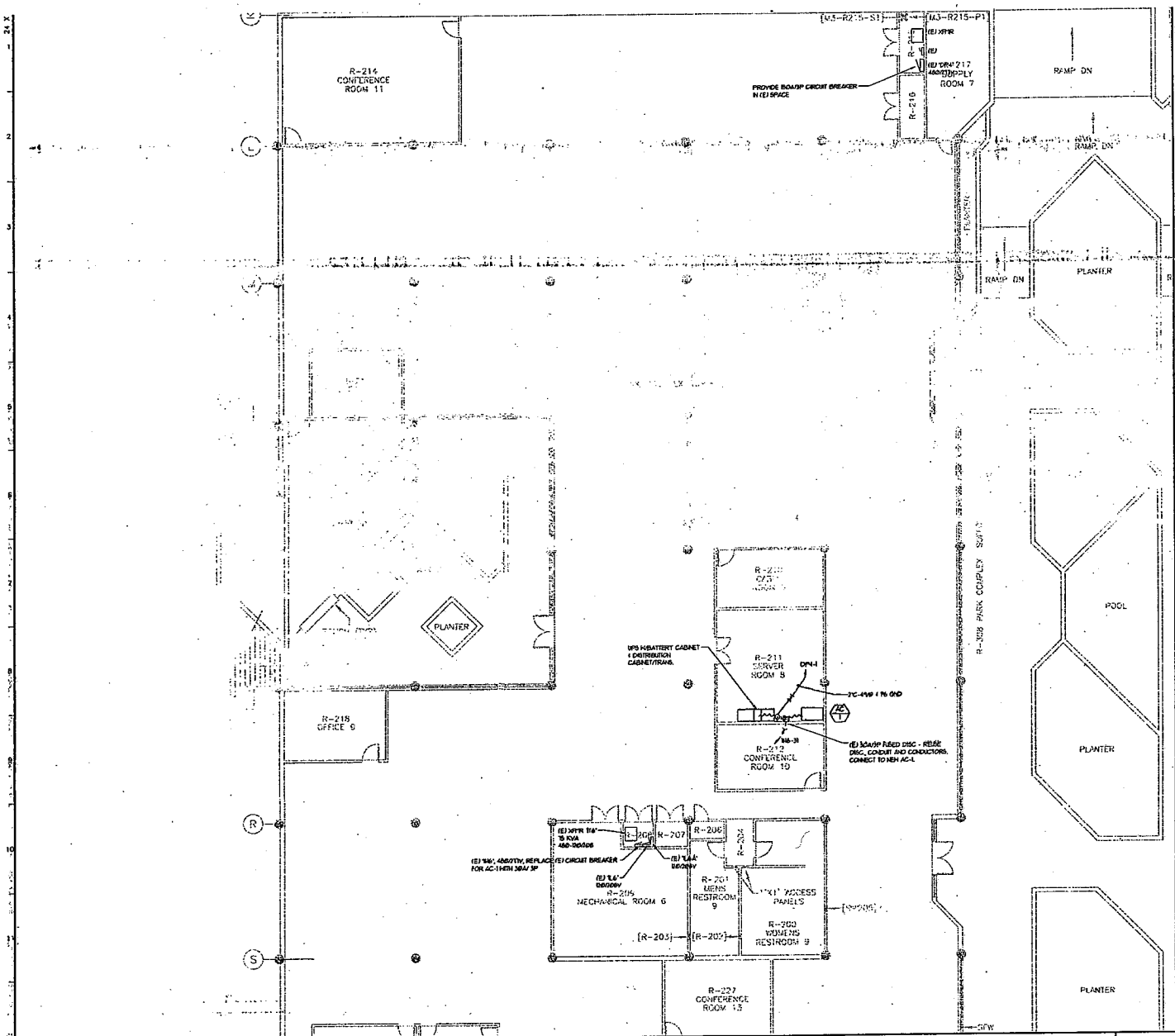
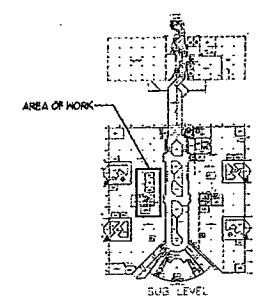


1 PARTIAL ELECTRICAL FLOOR PLAN 3/32" = 1'-0"



2 KEY PLAN NO SCALE

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Exp. 9-30-08
ELECTRICAL
STATE OF CALIFORNIA

California State Fire Marshal
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Date

Issue

No.	Date	Description

Project
UPS UPGRADE AND TEMPORARY GENERAT
800 CAPITOL MALL
SACRAMENTO, CA 95814
SACRAMENTO COUNTY
EMPLOYMENT DEVELOPMENT DEPARTMENT

Supervisor	Designed	Drawn	Checked
DH			

File Date
Vault File Number

Sheet Title
PARTIAL ELECTRICAL FLOOR PLAN

DSA Building Number 25/13SUB
Work Order 12545 12546

Reference North
Sheet Scale AS NOTED
Sheet Number E-3
4 of 7

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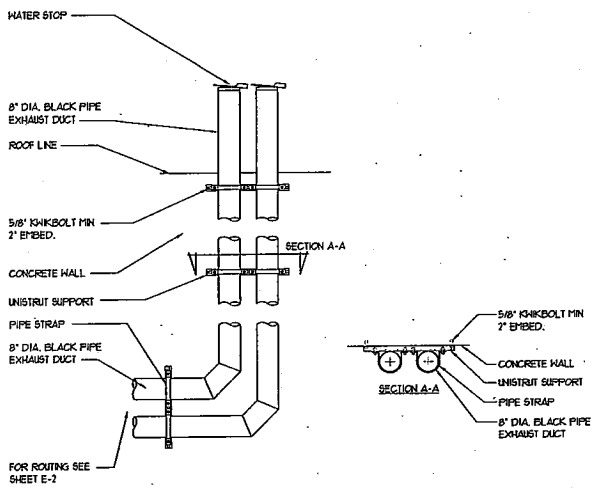
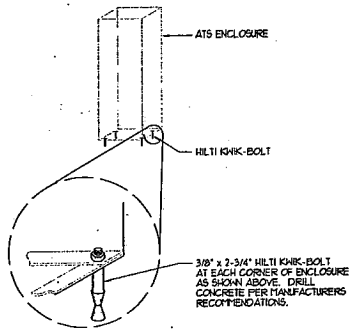
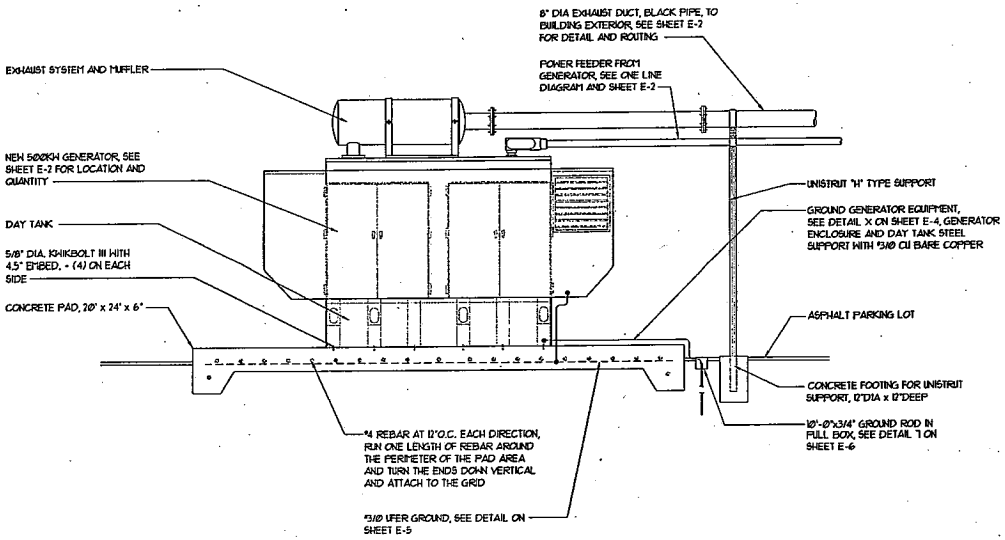


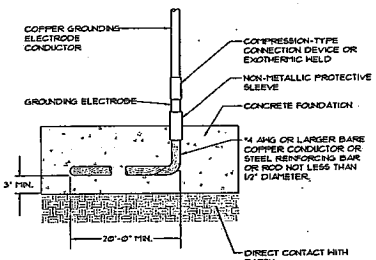
2 EXHAUST PIPE MOUNTING DETAIL — NO SCALE



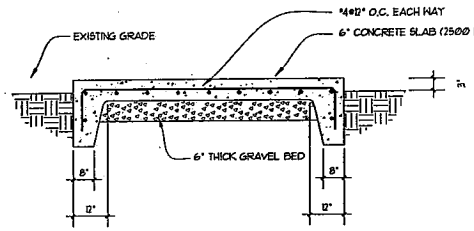
3 ATS MOUNTING DETAIL — NO SCALE



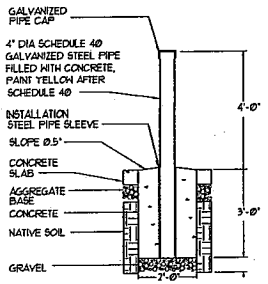
1 GENERATOR TANK AND GROUNDING DETAIL — NO SCALE



4 CONCRETE PAD GROUNDING — NO SCALE



5 CONCRETE PAD DETAIL — NO SCALE



6 PROTECTIVE BOLLARD DETAIL — NO SCALE

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REGISTERED PROFESSIONAL ENGINEER — DEAN L. HUNT — No. E-010297 — Exp 8-31-09 — ELECTRICAL — STATE OF CALIFORNIA

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Date :

Issue		
No.	Date	Description

Project
UPS UPGRADE AND TEMPORARY GENERATOR
800 CAPITOL MALL
SACRAMENTO, CA 95814
SACRAMENTO COUNTY
EMPLOYMENT DEVELOPMENT DEPARTMENT

Supervisor	Designed	Drawn	Checked
DH	JB	JB	DH
File Date		Vault File Number	

Sheet Title
DETAILS

DSA Building Number	Work Order
25/13SUB	12545 12548
Reference North	Sheet Scale: AS NOTED
	Sheet Number: E-4
	5 of 7

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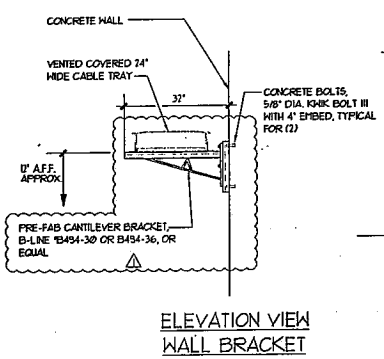
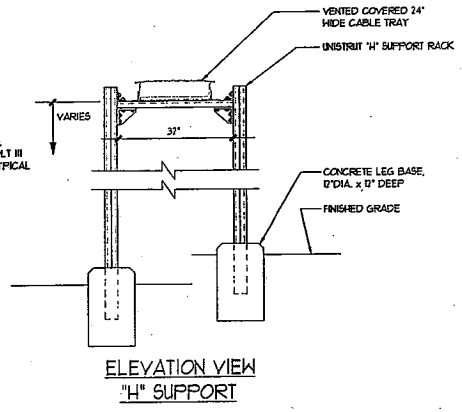
CAD FILE



ELEVATION VIEW
WALL BRACKET



ELEVATION VIEW
"H" SUPPORT

1 CABLE TRAY EXTERIOR SUPPORTS — NO SCALE

DS-2

PANEL: ELECTRICAL ROOM LOCATION:

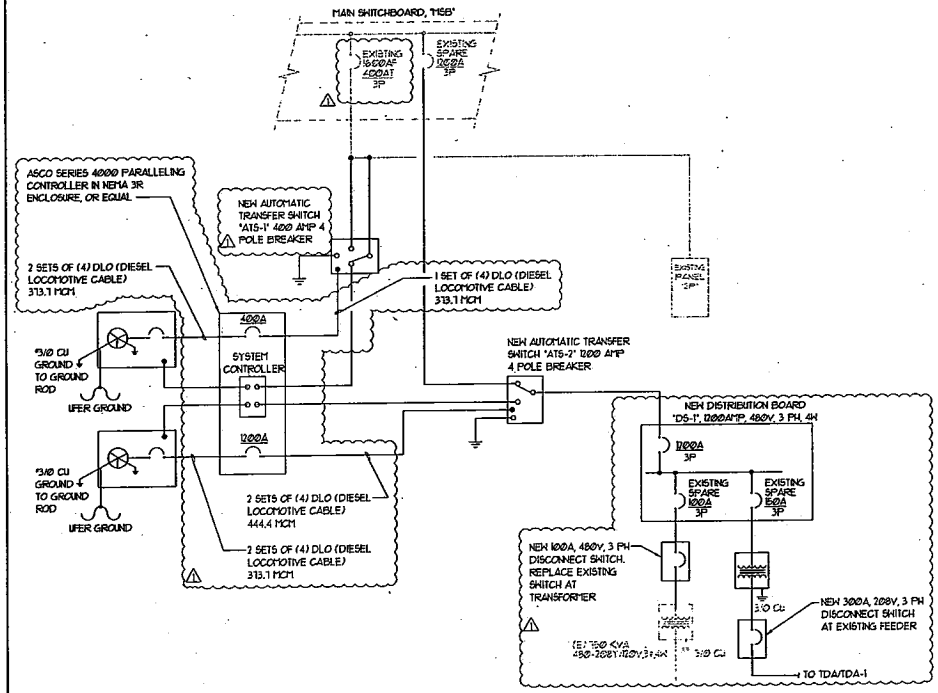
CODE	DESCRIPTION	LOAD	BKR	CB	A	B	C	CB	BKR	LOAD	DESCRIPTION	CODE
G	UPS-1	26700	150/3	1	53400			2	150/3	26700	UPS-5	G
G		26700		3		53400		4		26700		G
G		26700		5			53400	6		26700		G
G	UPS-3	26700	150/3	7	53400			8	150/3	26700	UPS-6	G
G		26700		9		53400		10		26700		G
G		26700		11			53400	12		26700		G
G	(E) 75 KVA TRANS.	25000	100/3	13	62500			14	150/3	37500	(E) 112.5 KVA	G
G		25000		15		62500		16		37500	TRANS	G
G		25000		17			62500	18		37500		G
	FUTURE UPS-8		/3	19	0			20	/3		FUTURE UPS-8	
				21		0		22				
				23			0	24				
	FUTURE UPS-7		/3	25	0			26	/3		FUTURE UPS-8	
				27		0		28				
				29			0	30				
				31	0			32				
				33		0		34				
				35			0	36				
				37	0			38				
				39		0		40				
				41			0	42				
					188300	188300	153700					

SIZE:	1200A	GROUND:	STANDARD
VOLTAGE:	480/277	MOUNTING:	SURFACE
PHASE:	3	ENCLOSURE:	NEMA 1
WIRE:	4	FED FROM:	MS
MAIN:	1200/3	CONNECTED KVA:	507.8
BREAKER AIC RATING:	10K	CONNECTED AMPS:	611.2
BUS:	COPPER/AL	DEMAND KVA:	507.8
NEUTRAL:	STANDARD	DEMAND AMPS:	611.2

NOTES:

CODE DESCRIPTIONS: L = LIGHTING, R = RECEPTACLE, G = GENERAL EQUIPMENT, C = CONTINUOUS, H = HVAC, M = MOTOR

3 PANEL SCHEDULE — NO SCALE



2 ONE LINE DIAGRAM — NO SCALE

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REGISTERED PROFESSIONAL ENGINEER — DEAN L. HUNT — No. E-010297 Exp. 9-30-08 — ELECTRICAL — STATE OF CALIFORNIA

California State Fire Marshal
APPROVED

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App.No.:
Reviewed by:
Date :

Issue No.	Date	Description
1	10/14/07	PLAN CHECK COMMENTS

Project
UPS UPGRADE AND TEMPORARY GENERATO
800 CAPITOL MALL
SACRAMENTO, CA 95814
SACRAMENTO COUNTY
EMPLOYMENT DEVELOPMENT DEPARTMENT

Supervisor	Designed	Drawn	Checked
DH	JB	JB	DH

File Date | Vault File Number

Sheet Title
DETAILS, PANEL SCHEDULE & ONE LINE DIAGRAM

DSA Building Number 25/13SUB | Work Order 12545 12545

Reference North | Sheet Scale AS NOTED

Sheet Number E-5
6 of 7

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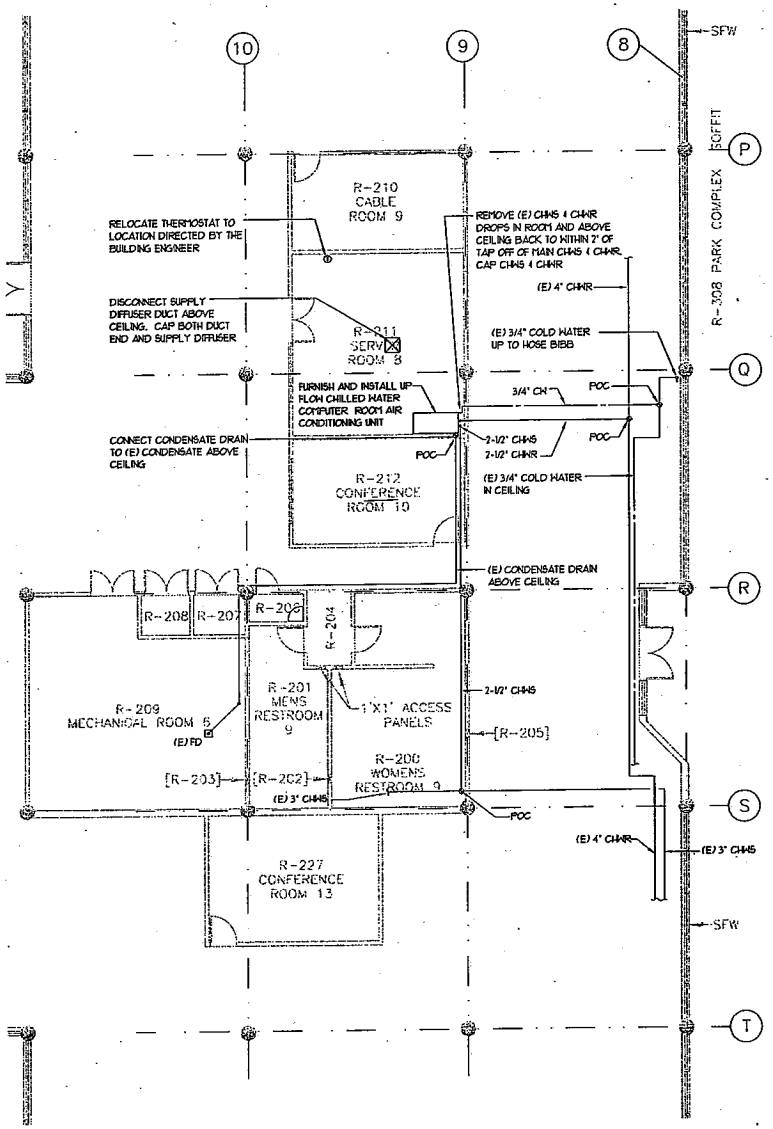
CAD FILE



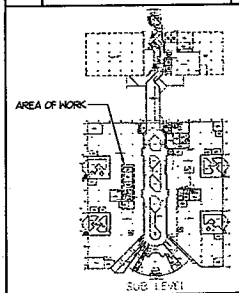
FILE: MFP013FSUB

3 PARTIAL MECHANICAL BASEMENT FLOOR PLAN — 1/8"=1'-0"

◆	POINT ON CONNECTION, POC
(E)	EXISTING
CHWR	CHILLED WATER RETURN
CHWS	CHILLED WATER SUPPLY
POC	POINT OF CONNECTION
CD	
CHWR	
CHWR (E)	
CHWS	
CHWS (E)	
CW	
CW (E)	

M15_LG01

2 LEGEND — NO SCALE



KEY PLAN

1 KEY PLAN — NO SCALE

DGS
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REGISTERED PROFESSIONAL ENGINEER — DAVID W. BROWN — No. M27743 — Exp. 6-30-09 — STATE OF CALIFORNIA

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Date :

Issue

No.	Date	Description

Project
UPS UPGRADE AND TEMPORARY GENERATO
800 CAPITOL MALL
SACRAMENTO, CA 95814
SACRAMENTO COUNTY
EMPLOYMENT DEVELOPMENT DEPARTMENT

Supervisor	Designed	Drawn	Checked
PW	DWB	JJ	DWB

File Date | Vault File Number

Sheet Title
MECHANICAL FLOOR PLAN, LEGEND AND KEY PLAN

DSA Building Number	Work Order
25/13SUB	12545 12546

Reference North | Sheet Scale: AS SHOWN | Sheet Number: M2.0 | 7 of 7

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CAD FILE:

GENERAC®
POWER SYSTEMS, INC.

December 3, 2008

TO: **Don Richter**, E.S., Inc. dba Energy Systems

From: Warren Buchter Generac Power Systems, Inc

RE: Authorized California Dealer Status

The purpose of this letter to state your company's position in the Generac's National Dealer Network in which Energy Systems is the Authorized Industrial Dealer for Northern CA, Western Nevada and the Hawaiian Islands. This coverage is from the Kern County line to the Oregon Border and the Greater Bay Area.

Within the Energy Systems Network they have numerous Authorized Sub-Dealers that can provide Generac Industrial Product for new sales, perform warranty work and provide field support when required. Blue Eagle of Red Bluff is one of the dealers under the ES umbrella.

Should you have any questions please feel free to contact us or Don Richter at Energy Systems (209-870-1900).

Warren Buchter

Warren Buchter

Mg Technical Information
Generac Power Systems, Inc.