

SECTION 16020
EMERGENCY GENERATOR

PART 1 – GENERAL

- 1.01 Description of Work: Deliver one (1) 3-phase, 120/208 volt standby rated at 62KW, 78KVA generator set, two (2) automatic transfer switches, two (2) 3 phase circuit breakers, and associated appurtenant equipment, instruction, and operating manuals to the Oxford Highway Facility located at 34 Charlton Street in Oxford, Massachusetts.

PART 2 – PRODUCTS

- 2.01 Generator Set – Provide Kohler Model 60REOZJB, or approved equal, generator set that meets the following minimum requirements:
- a. General – The generator set shall be a skid mounted unit with 172 gallon sub-base fuel tank with flexible fuel lines and two (2) unit mounted circuit breakers (NEMA type 1 enclosure): one at 200 amps; one at 125 amps. The generator set shall be rated 120/208 volts, 3 phase, 60 Hz, 62kW/78kVA, 215 amps.
 - b. Alternator – 1800 rpm, 4-pole, rotating field type with brushless permanent magnet exciter. Voltage regulation shall be $\pm 2\%$ for any constant load between no-load and full-load.
 - c. Engine – John Deere 4-cycle turbocharged 4-cylinder in-line diesel having a displacement of 4.5 liters (276 cu.in.). The engine shall be water cooled with radiator mounted on the generator unit and include an engine block heater. The engine starting system shall include a 12-volt heavy duty lead acid storage battery, a 12-volt starter, and 12-volt battery charging alternator.
 - d. Generator Control Panel – Control panel shall provide complete control operation of generator set. Panel to have automatic start control, AC volt meter, AC ammeter, pointer type frequency meter, volt meter, ammeter and selector switch. Alarm signals to indicate pre-low oil pressure, pre-high coolant temperature, and alarm signals to shut down engine in event of a low oil pressure, high coolant temperature, engine overspeed, or overcrank. Lights on face of panel to indicate failure. Include dry contacts for remote failure signal transmittal.
 - e. The generator set shall be provided with vibration isolators for installation between the steel base of the unit and the concrete foundation.
- 2.02 Additional Equipment and Services – The generator set equipment provider shall also provide:
- a. Sound shield enclosure with enclosed critical silencer.
 - b. Stainless steel flexible exhaust connector.
 - c. Exhaust wall thimble properly sized for the generator set exhaust system.
 - d. Two (2) MAPC automatic transfer switches: one rated at 150 amps; one rated at 260 amps.
 - e. All manufacturer instructions for installation and maintenance.
 - f. A certified on-site 2 hour load test of the installed equipment and operating instructions both to be coordinated with the Highway Superintendent and his staff.

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PART 3 – EXECUTION

- 3.01 The Contractor shall closely coordinate the delivery of the generator set and associated equipment and services with the Owner to assure that delivery takes place when the facility is ready for acceptance and installation.

END OF SECTION