BOROUGH OF SEASIDE PARK
OCEAN COUNTY, NEW JERSEY
OUR FILE: 1528-U-088

NJIB CLEAN WATER APPLICATION STORMWATER MAINTENANCE EQUIPMENT REBID

ADDENDUM #2

April 15, 2026

The following additions to the Contract Documents will be written into any Contract for the "**NJIB CLEAN WATER APPLICATION STORMWATER MAINTENANCE EQUIPMENT REBID**" project and must be taken into account in rendering a Proposal for the work.

The following items shall be revised as follows at this time:

1. **The Bid Opening Date shall be changed to from April 16, 2026 to April 28th, 2026 at 1:00 PM.** Said Bids will be received, opened and read aloud in public at the **Borough Of Seaside Park**, **1701 N OCEAN AVE, SEASIDE PARK 08752** on **April 28, 2026 At 1:00 P.M.**
2. Section 11500 "11500 - Towable Emergency Diesel Generator and Enclosure Rev 4_9_26" of the technical specifications has been revised. The revised Section 11500 "11500 - Towable Emergency Diesel Generator and Enclosure Rev 4_9_26" can be found attached to this addendum.

All specifications and bids shall be revised accordingly.

Please complete the "Acknowledgement of Receipt of Addenda" (Page P-3), attached hereto, for receipt of this Addendum letter and include with bid documents submission.

The Acknowledgement of receipt of addenda page is a mandatory required document and failure to submit shall be deemed a fatal defect.

Alan B. Dittenhofer, PE, PP, CME
NJ PE License #37672

SEAL

SECTION 11500

TOWABLE EMERGENCY DIESEL GENERATOR AND ENCLOSURE REVISED 4/9/26

PART 1 - GENERAL

1.01 SCOPE

A. Provide complete factory assembled portable generator set equipment with digital electronic generator set controls, digital governor, and digital voltage regulator.

B. Provide factory test, startup by a supplier authorized by the equipment manufacturer and on-site testing of the system.

C. The generator set manufacturer shall warrant all equipment provided under this section, whether or not it is manufactured by the generator set manufacturer, so that there is one source for warranty and product service.

D. Technicians specifically trained and certified by the manufacturer to support the product and employed by the generator set supplier shall service the generator sets.

1.02 Codes and Standards

A. The generator set installation and on-site testing shall conform to the requirements of the following codes and standards, as applicable. The generator set shall include necessary features to meet the requirements of these standards.

1. 40 CFR 89, Nonroad (Mobile Off Highway)
2. IEEE446 – Recommended Practice for Emergency and Standby Power Systems for Commercial and Industrial Applications
3. NFPA37 –
4. NFPA70 – National Electrical Code. Equipment shall be suitable for use in systems in compliance to Article 700, 701, and 702.
5. NFPA99 – Essential Electrical Systems for Health Care Facilities
6. NFPA110 – Emergency and Standby Power Systems. The generator set shall meet all requirements for Level 1 systems. Level 1prototype tests required by this standard shall have been performed on a complete and functional unit, component level type tests will not substitute for this requirement.

B. The generator set and supplied accessories shall meet the requirements of the following standards:

1. NEMA MG1-1998 part 32. Alternator shall comply with the requirements of this standard.
2. UL142 – Sub-base Tanks
3. UL1236 – Battery Chargers
4. UL2200. The generator set shall be listed to UL2200 or submit to an independent third party certification process to verify compliance as installed..

C. The control system for the generator set shall comply with the following requirements.

1. CSA C22.2, No. 14 – M91 Industrial Control Equipment.
2. EN50082-2, Electromagnetic Compatibility – Generic Immunity Requirements, Part 2: Industrial.
3. EN55011, Limits and Methods of Measurement of Radio Interference Characteristics of Industrial, Scientific and Medical Equipment.
4. FCC Part 15, Subpart B.
5. IEC8528 part 4. Control Systems for Generator Sets
6. IEC Std 801.2, 801.3, and 801.5 for susceptibility, conducted, and radiated electromagnetic emissions.
7. UL508. The entire control system of the generator set shall be UL508 listed and labeled.
8. UL1236 –Battery Chargers.

D. The generator set manufacturer shall be certified to ISO 9001 International Quality Standard and shall have third party certification verifying quality assurance in design/development, production, installation, and service, in accordance with ISO 9001.

1.03 Acceptable Manufacturers

All generator manufacturers will be considered however the proposed generator must comply with the specification in its entirety. The equipment must be BABA (Build America, Buy America) compliant. Federal infrastructure investments obligated on or after May 14, 2022, must comply with the Build America, Buy America (BABA) Act, which requires the use of domestic iron and steel, manufactured products, and construction materials in covered infrastructure projects. Products that qualify for a de minimis waiver cumulatively may comprise no more than a total of five percent of the total project cost, otherwise a project specific SRF Waiver must be obtained.

PART 2 - MATERIALS

2.01 Generator set: Trailer mounted diesel generator with on-board fuel tank:

Voltage: 3 – position switch
- Three Phase, Switchable: 120/208, 277/480
- Single Phase, Switchable: 120/240

Frequency Capability:60 Hertz

A. Ratings

1. The generator set shall operate at 1800 rpm and with multi-voltage field selection option.
2. The generator set shall be rated, based on site conditions of: Altitude 499 ft. ambient temperatures up to 40 degrees C.
3. The generator set rating shall be based on emergency/standby service at 150°C Rise.

A. Performance

1. Voltage regulation shall be plus or minus 0.5 percent for any constant load between no load and rated load. Random voltage variation with any steady load from no load to full load shall not exceed plus or minus 0.5 percent.

2. Frequency regulation shall be isochronous from steady state no load to steady state rated load. Random frequency variation with any steady load from no load to full load shall not exceed plus or minus 0.5%.

3. The diesel engine-generator set shall accept a single step load of 100% nameplate kW and power factor, less applicable derating factors, with the engine-generator set at operating temperature.

4. The alternator shall produce a clean AC voltage waveform, with not more than 5% total harmonic distortion at full linear load, when measured from line to neutral, and with not more than 3% in any single harmonic, and no 3rd order harmonics or their multiples. Telephone influence factor shall be less than 50 per Nema MG1-22.43.

5. The generator set shall be certified by the engine manufacturer to be suitable for use at the installed location and rating, and shall meet all applicable exhaust emission requirements at the time of commissioning.

B. Construction

1. The engine-generator set shall be mounted on a heavy-duty steel base to maintain alignment between components. The base shall incorporate a battery tray with hold-down clamps within the rails.

2. All switches, lamps, and meters in the control system shall be oil-tight and dust-tight. All active control components shall be installed within a UL/NEMA 3R enclosure. There shall be no exposed points in the control (with the door open) that operate in excess of 50 volts.

C. Connections

1. The generator set load connections shall be supplied with Camlock Connection.

2. Power connections to auxiliary devices shall be made at the devices, with required protection located at a wall-mounted common distribution panel.

3. Generator set control interfaces to other system components shall be made on a permanently labeled terminal block assembly. Labels describing connection point functions shall be provided.

2.02 Engine and Engine Equipment

The engine shall be electronic direct injection 4-cycle liquid cooled diesel engine. The engine shall be turbo charged and have a turbo after cooler. A. the Diesel Engine must EPA Tier level 4 compliant. Minimum displacement shall be based on rating/engine size, 74 HP 2.9L. Engine accessories and features shall include:

A. An electronic governor system shall provide automatic isochronous frequency regulation. The governing system dynamic capabilities shall be controlled as a function of engine coolant temperature to provide fast, stable operation at varying engine operating temperature conditions. The control system shall actively control the fuel rate and excitation as appropriate to the state of the generator set. Fuel rate shall be regulated as a function of starting, accelerating to start disconnect speed, accelerating to rated speed. The governing system shall include a programmable warm up at idle and cool down at idle function. While operating in idle state, the control system shall disable the alternator excitation system.

B. Compliance and certifications: 110% Fluid containment required, USA DOT Compliant system, CSA listed, Transport Canada Compliant, and the Diesel Engine must EPA Tier level 4 compliant.

C. Electric starter(s) capable of three complete cranking cycles without overheating.

D. Positive displacement, mechanical, full pressure, lubrication oil pump.

E. Full flow lubrication oil filters with replaceable spin-on canister elements and dipstick oil level indicator.

F. An engine driven, mechanical, positive displacement fuel pump. Fuel filter with replaceable spin-on canister element. Fuel cooler, suitable for operation of the generator set at full rated load in the ambient temperature specified shall be provided if required for operation due to the design of the engine and the installation.

G. Provide a 120 volt block heater accordance with the manufacture's recommendation to prevent humidity and corrosion damage of the electrical and mechanical components.

H. Replaceable dry element air cleaner with restriction indicator.

I. Flexible supply and return fuel lines. Unit will draw and return fuel from the sub-based fuel tank located below the generator skid frame. Fuel supply and return lines provided and installed by installing mechanical contractor must limit the fuel restriction of the return fuel line 5.9Hg maximum with a maximum fuel flow capable of 14.1gph.

J. Engine mounted battery charging alternator, per manufactures requirements.

K. Coolant heater

1. Engine mounted, thermostatically controlled, coolant heater(s) for each engine. Heater voltage shall be as shown on the project drawings. The coolant heater shall be UL499 listed and labeled.

2. The coolant heater shall be installed on the engine with silicone hose connections. Connections into the engine coolant system shall be per manufacturers recommendation. The coolant heater installation shall be specifically designed to provide proper venting of the system. The coolant heaters shall provisions to isolate the heater for replacement of the heater element without draining the coolant from the generator set. The quick disconnect/automatic sealing couplers shall allow the heater element to be replaced without draining the engine cooling system or significant coolant loss.

3. The coolant heater shall be provided with a DC thermostat, installed at the engine thermostat housing. An AC power connection box shall be provided for a single AC power connection to the coolant heater system. : The unit shall include one (1) 12 VDC to 110VAC volt single-phase inverter, 1750 watts, mounted inside enclosure, dual continuous duty 10-amp GFI outlets, one (1) fusible link.

4. The coolant heater(s) shall be sized as recommended by the engine manufacturer to warm the engine to a minimum of 104F (40C) in a 40F (4C) ambient, in compliance with NFPA110 requirements, or the temperature required for starting and load pickup requirements of this specification**.**

L. Provide vibration isolators, spring/pad type, quantity as recommended by the generator set manufacturer. Isolators shall include seismic restraints if required by site location.

M. Starting and Control Batteries shall be calcium/lead antimony type, 12 volt DC, sized as recommended by the engine manufacturer but not less than 450 cold cranking amps at 18°C each with a reserve capacity of 100 amps (minimum), complete with battery cables, 120 watt heater, battery box and connectors. The batteries shall be capable of a minimum of two complete 15-second cranking cycles at 40F ambient temperature when fully charged.

N. Provide exhaust silencer for each engine of size and type as recommended by the generator set manufacturer and approved by the engine manufacturer. The mufflers shall be critical grade. Exhaust system shall be installed according to the engine manufacturer's recommendations and applicable codes and standards. All exposed exterior exhaust systems shall be stainless steel to prevent corrosion.

O. A UL listed/CSA certified 10 amp @ 12 volt Four-Stage fully automatic battery charger shall be provided with the engine-generator set. The charger may be wall mounted, at the discretion of the installer. Input AC voltage and 20 amp DC output breaker shall be provided. Chargers shall be equipped with float, taper and equalize charge settings. No operational motintors.

P. Charger shall include an LED DC voltmeter and ammeter, 12 hour equalize charge timer, and AC and DC fuses.

2.03 AC Generator

A. The AC generator shall be; synchronous, four pole, 2/3 pitch, revolving field, drip-proof construction, single prelubricated sealed bearing, air cooled by a direct drive centrifugal blower fan, and directly connected to the engine with flexible drive disc. All insulation system components shall meet NEMA MG1 temperature limits for Class H insulation system and shall be UL1446 listed. Actual temperature rise measured by resistance method at full load shall not exceed 80 degrees Centigrade.

B. The generator shall be capable of delivering rated output (kVA) at rated frequency and power factor, at any voltage not more than 5 percent above or below rated voltage.

C. A permanent magnet generator (PMG) shall be included to provide a reliable source of excitation power for optimum motor starting and short circuit performance. The PMG and controls shall be capable of sustaining and regulating current supplied to a single phase or three phase fault at approximately 300% of rated current for not more than 10 seconds.

D. The subtransient reactance of the alternator shall not exceed 12 percent, based on the standby rating of the generator set.

2.04 Generator set Control. The generator set shall be provided with a microprocessor-based control system that is designed to provide automatic starting, monitoring, and control functions for the generator set. The control system shall also be designed to allow local monitoring and control of the generator set, and remote monitoring and control as described in this specification.

The control shall be mounted on the generator set, or may be mounted in a free-standing panel next to the generator set if adequate space and accessibility is available. The control shall be vibration isolated and prototype tested to verify the durability of all components in the system under the vibration conditions encountered.

The generator set mounted control shall include the following features and functions:

A. Control Switches

1. Mode Select Switch. The mode select switch shall initiate the following control modes. When in the RUN or MANUAL position the generator set shall start, and accelerate to rated speed and voltage as directed by the operator. A separate push-button to initiate starting is acceptable. In the OFF position the generator set shall immediately stop, bypassing all time delays. In the AUTO position the generator set shall be ready to accept a signal from a remote device to start and accelerate to rated speed and voltage.

2. EMERGENCY STOP switch. Switch shall be Red "mushroom-head" push-button. Depressing the emergency stop switch shall cause the generator set to immediately shut down, and be locked out from automatic restarting.

3. RESET switch. The RESET switch shall be used to clear a fault and allow restarting the generator set after it has shut down for any fault condition.

4. PANEL LAMP switch. Depressing the panel lamp switch shall cause the entire panel to be lighted with DC control power. The panel lamps shall automatically be switched off 10 minutes after the switch is depressed, or after the switch is depressed a second time.

B. Generator Set AC Output Metering. The generator set shall be provided with a metering set including the following features and functions:

1. Digital metering set, 1% accuracy, to indicate generator RMS voltage and current, frequency, output current, output KW, KW-hours, and power factor. Generator output voltage shall be available in line-to-line and line-to-neutral voltages, and shall display all three-phase voltages (line to neutral or line to line) simultaneously.

2. The control system shall monitor the total load on the generator set, and maintain data logs of total operating hours at specific load levels ranging from 0 to 110% of rated load, in 10% increments. The control shall display hours of operation at less than 30% load and total hours of operation at more than 90% of rated load.

3. The control system shall log total number of operating hours, total kWH, and total control on hours, as well as total values since reset.

C. Generator Set Alarm and Status Display.

1. The generator set control shall indicate the existence of the warning and shutdown conditions on the control panel. All conditions indicated below for warning shall be field-configurable for shutdown. Conditions required to be annunciated shall include:

low oil pressure (warning)

low oil pressure (shutdown)
oil pressure sender failure (warning)
low coolant temperature (warning)
high coolant temperature (warning)
high coolant temperature (shutdown)
high oil temperature (warning)
engine temperature sender failure (warning)
low coolant level (warning)
fail to crank (shutdown)
fail to start/overcrank (shutdown)
overspeed (shutdown)
low DC voltage (warning)
high DC voltage (warning)
weak battery (warning)
low fuel-daytank (warning)
high AC voltage (shutdown)
low AC voltage (shutdown)
under frequency (shutdown)
over current (warning)
over current (shutdown)
short circuit (shutdown)
over load (warning)
emergency stop (shutdown)
(4) configurable conditions

2. Provisions shall be made for indication of four customer-specified alarm or shutdown conditions. Labeling of the customer-specified alarm or shutdown conditions shall be of the same type and quality as the above-specified conditions. The non-automatic indicating lamp shall be red, and shall flash to indicate that the generator set is not able to automatically respond to a command to start from a remote location.

D. Engine Status Monitoring.

1. The following information shall be available from a digital status panel on the generator set control :
   - engine oil pressure (psi or kPA)
   - engine coolant temperature (degrees F or C)
   - engine oil temperature (degrees F or C)
   - engine speed (rpm)
   - number of hours of operation (hours)
   - number of start attempts
   - battery voltage (DC volts)

2. The control system shall also incorporate a data logging and display provision to allow logging of the last 10 warning or shutdown indications on the generator set, as well as total time of operation at various loads, as a percent of the standby rating of the generator set.

E. Engine Control Functions.

1. The control system provided shall include a cycle cranking system, which allows for rest time, and # of cycles. Initial settings shall be

f or 3 cranking periods of 15 seconds each, with 15-second rest period between cranking periods.

2. The control system shall include an idle mode control, which allows the engine to run in idle mode in the RUN position only. In this mode, the alternator excitation system shall be disabled.

3. The control system shall include an engine governor control, which functions to provide steady state frequency regulation as noted elsewhere in this specification. The governor control shall include adjustments for gain, damping, and a ramping function to control engine speed and limit exhaust smoke while the unit is starting.

3. The control system shall include time delay start (adjustable 0-300 seconds) and time delay stop (adjustable 0-600 seconds) functions.

F. Alternator Control Functions:

1. The generator set shall include a full wave rectified automatic digital voltage regulation system that is matched and prototype tested by the engine manufacturer with the governing system provided. It shall be immune from misoperation due to load-induced voltage waveform distortion and provide a pulse width modulated output to the alternator exciter. The voltage regulation system shall be equipped with three-phase line to neutral RMS sensing and shall control buildup of AC generator voltage to provide a linear rise and limit overshoot. The system shall include a torque-matching characteristic, which shall reduce output voltage in proportion to frequency below an adjustable frequency threshold. Torque matching characteristic shall be adjustable for roll-off frequency and rate, and be capable of being curve-matched to the engine torque curve with adjustments in the field. The voltage regulator shall include adjustments for gain, damping, and frequency roll-off. Adjustments shall be broad range, and made via digital raise-lower switches, with an alphanumeric LED readout to indicate setting level. Rotary potentiometers for system adjustments are not acceptable.

2. Controls shall be provided to monitor the output current of the generator set and initiate an alarm (over current warning) when load current exceeds 110% of the rated current of the generator set on any phase for more than 60 seconds. The controls shall shut down and lock out the generator set when output current level approaches the thermal damage point of the alternator (over current shutdown). The protective functions provided shall be in compliance to the requirements of NFPA70 article 445.

3. Controls shall be provided to individually monitor all three phases of the output current for short circuit conditions. The control/protection system shall monitor the current level and voltage. The controls shall shut down and lock out the generator set when output current level approaches the thermal damage point of the alternator (short circuit shutdown). The protective functions provided shall be in compliance to the requirements of NFPA70 article 445.

4. Controls shall be provided to monitor the KW load on the generator set, and initiate an alarm condition (over load) when total load on the generator set

exceeds the generator set rating for in excess of 5 seconds. Controls shall include a load shed control, to operate a set of dry contacts (for use in shedding customer load devices) when the generator set is overloaded.

5. An AC over/under voltage monitoring system that responds only to true RMS voltage conditions shall be provided. The system shall initiate shutdown of the generator set when alternator output voltage exceeds 110% of the operator-set voltage level for more than 10 seconds, or with no intentional delay when voltage exceeds 130%. Under voltage shutdown shall occur when the output voltage of the alternator is less than 85% for more than 10 seconds.

G. Other Control Functions

1. The generator set shall be provided with a network communication module to allow remote communication through a PC for communication with the generator set control by remote devices.
2. A battery monitoring system shall be provided which initiates alarms. During engine cranking (starter engaged), the low voltage limit shall be disabled, and DC voltage shall be monitored as load is applied to the battery, to detect impending battery failure or deteriorated battery condition.

H. Control Interfaces for Remote Monitoring:

1. The control system shall provide four programmable output relays. These relay outputs shall be configurable for any alarm, shutdown, or status condition monitored by the control. The relays shall be configured to indicate: (1) generator set operating at rated voltage and frequency, (2) common warning, (3) common shutdown, (4) load shed command.
2. A fused 10 amp switched 12VDC power supply circuit shall be provided for customer use. DC power shall be available from this circuit whenever the generator set is running.
3. A fused 10 amp 12VDC power supply circuit shall be provided for customer use. DC power shall be available from this circuit at all times from the engine starting/control batteries.

2.05 Other equipment to be provided with the generator set

A. The generator set shall be provided with a mounted main line circuit breaker, sized to carry the rated output current of the generator set. The circuit breaker shall incorporate an electronic trip unit that operates to protect the alternator under all overcurrent conditions, or a thermal-magnetic trip with other overcurrent protection devices that positively protect the alternator under overcurrent conditions. The supplier shall submit time overcurrent characteristic curves and thermal damage curve for the alternator, demonstrating the effectiveness of the protection provided.

B. Outdoor Weather-Protective Sound Attenuated Enclosure

1. The generator set shall be provided with an outdoor, weather tight, critical sound attenuating enclosure, with the entire package listed under UL2200. The package shall comply with the requirements of the National Electrical Code for all wiring materials and component spacing. The total assembly of generator set, enclosure, and sub-base fuel tank shall be designed to be lifted into place using spreader bars.

Housing shall provide ample airflow for generator set operation at rated load in an ambient temperature of 110F. The housing shall have Stainless Steel hinged access doors as required to maintain easy access for all operating and service functions. All doors shall be lockable, and include retainers to hold the door open during service. Enclosure roof shall be cambered to prevent rainwater accumulation. Openings shall be screened to limit access of rodents into the enclosure. All electrical power and control interconnections shall be made within the perimeter of the enclosure.

2. All sheet metal shall be primed for salt spray corrosion protection and finish painted with the manufacturer's standard color using a two step electrocoating paint process, or equal meeting the performance requirements specified below. All surfaces of all metal parts shall be primed and painted. The painting process shall result in a coating that meets the following requirements:

   Primer thickness, 0.5-2.0 mils. Top coat thickness, 0.8-1.2 mils.

   Gloss, per ASTM D523-89, 80% plus or minus 5%. Gloss retention after one year shall exceed 50%.

   Crosshatch adhesion, per ASTM D3359-93, 4B-5B.

   Impact resistance, per ASTM D2794-93, 120-160 inch-pounds.

   Salt Spray, per ASTM B117-90, 1000+ hours.

   Humidity, per ASTM D2247-92, 1000+ hours.

   Water Soak, per ASTM D2247-92, 1000+ hours.

3. Painting of hoses, clamps, wiring harnesses, and other non-metallic service parts shall not be acceptable. Fasteners used shall be corrosion resistant, and designed to minimize marring of the painted surface when removed for normal installation or service work.

4. Enclosure shall be constructed of minimum 12 gauge steel for framework and Aluminum for panels. All hardware and hinges shall be stainless steel.

5. A factory-mounted exhaust silencer shall be installed inside the enclosure. The exhaust shall exit the enclosure through a rain collar and terminate with a rain cap. Exhaust connections to the generator set shall be through seamless flexible connections.

6. The enclosure shall include the following maintenance provisions:

   - External radiator fill provision.

7. Inlet ducts shall include rain hoods.

8. The generator set shall be provided with a Level II sound-attenuated housing which allows the generator set to operate at full rated load in an ambient temperature of up to 100F. The enclosure shall reduce the sound level of the generator set while operating at full rated load to a maximum of 71 dBA at any location 7 meters from the generator set in a free field environment.

9. The enclosure shall be insulated with non-hydroscopic materials.

C. Convenience Package Option

a. Battery Charger
b. Camlock Style color coded connectors.
c. Cold Weather Package Includes block heater, battery heater and wrap.
d. (2) Duplex 120V 15A receptacles in weatherproof boxes w/circuit breaker.
e. (2) 50Amp twistlock receptacles 250V Single Phase w/ circuit breaker.
f. Two-way fuel valve (for connection of a user-supplied external fuel tank)
g. Voltage Selector Switch: Multi-voltage selector switch hardwired to alternator output for selection of 120/240 single phase, 120/240 three phase or 277/480 three phase VAC with lockable handle. Load side wired to input of generator mounted Circuit breaker (CB).

D. Dual axle trailer with integral fuel base

1. 10,000lb GVWR, 5000lb capacity per axle
2. The dry weight shall not exceed 3,500lbs, the operating weight shall not exceed 4,500lbs and th3e operating weight including the trailer shall not exceed 5,500lbs.
3. 10,000lb tongue jack capacity
4. Lunette Eye hitch with safety chains
5. Electric brake system and battery back-up breakaway system.
6. Department of Transportation (DOT) light package with 7 wire harness and connector.
7. Spare tire, tire changing jack and storage mounting assembly.
8. Rear stabilizer jacks.
9. Weight bearing wheel fenders (500 lbs. minimum)
10. Tool & cable storage box, lockable and bolted to base frame.
11. under deck dual wall 192 gallon capacity fuel tank with alarms for high/low level and 110% secondary containment for fuel and a 125% environmental containment for oil and coolant.

PART 3 – EXECUTION

3.01 Sequence of Operation

B. The generator set shall complete a time delay start period as programmed into the control.

D. The generator set control shall initiate the starting sequence for the generator set. The starting sequence shall include the following functions:

E. The control system shall verify that the engine is rotating when the starter is signaled to operate. If the engine does not rotate after two attempts, the control system shall shut down and lock out the generator set, and indicate “fail to crank” shutdown.

F. The engine shall fire and accelerate as quickly as practical to start disconnect speed. If the engine does not start, it shall complete a cycle cranking process as described elsewhere in this specification. If the engine has not started by the completion of the cycle cranking sequence, it shall be shut down and locked out, and the control system shall indicate “fail to start”.

G. The engine shall accelerate to rated speed and the alternator to rated voltage. Excitation shall be disabled until the engine has exceeded programmed idle speed, and regulated to

prevent over voltage conditions and oscillation as the engine accelerates and the alternator builds to rated voltage.

H. On reaching rated speed and voltage, the generator set shall operate as dictated by the control system in isochronous state.

I. When all start signals have been removed from the generator set, it shall complete a time delay stop sequence. The duration of the time delay stop period shall be adjustable by the operator.

I. On completion of the time delay stop period, the generator set control shall switch off the excitation system and shall shut down.

J. Any start signal received after the time stop sequence has begun shall immediately terminate the stopping sequence and return the generator set to isochronous operation.

PART 4 - OTHER REQUIREMENTS

4.01 Submittals.

A. Within 10 days after award of contract, provide six sets of the following information for review:

- Manufacturer's product literature and performance data, sufficient to verify compliance to specification requirements.
- A paragraph by paragraph specification compliance statement, describing the differences between the specified and the proposed equipment.
- Manufacturer's certification of prototype testing.
- Manufacturer's published warranty documents.
- Shop drawings showing plan and elevation views with certified overall dimensions, as well as wiring interconnection details.
- Interconnection wiring diagrams showing all external connections required; with field wiring terminals marked in a consistent point-to-point manner.
- Manufacturer's installation instructions.

4.02 Factory Testing.

A. The generator set manufacturer shall perform a complete operational test on the generator set prior to shipping from the factory. A certified test report shall be provided. Equipment supplied shall be fully tested at the factory for function and performance.

B. Generator set factory tests on the equipment shall be performed at rated load and rated power factor. Generator sets that have not been factory tested at rated power factor will not be acceptable. Tests shall include: run at full load, maximum power, voltage regulation, transient and steady-state governing, single step load pickup, and function of safety shutdowns.

4.03 Installation

D. Equipment shall be initially started and operated by representatives of the manufacturer or supplier. All equipment shall be physically inspected for damage. Scratches and other installation damage shall be repaired prior to final system testing. Equipment shall

be thoroughly cleaned to remove all dirt and construction debris prior to initial operation and final testing of the system.

4.04 In shop Acceptance Test:

A. The complete installation shall be tested for compliance with the specification following completion of all site work. Testing shall be conducted by representatives of the manufacturer, with required fuel supplied by Contractor. The Engineer shall be notified in advance and shall have the option to witness the tests.

B. Installation acceptance tests to be conducted on-site shall include a "cold start" test, a two hour full load test, and a one step rated load pickup test in accordance with NFPA 110. Provide a resistive load bank and make temporary connections for full load test, if necessary.

4.05 Training

A. The equipment supplier shall provide training for the facility operating personnel covering operation and maintenance of the equipment provided. The training program shall be not less than 4 hours in duration and the class size shall be limited to 5 persons. Training date shall be coordinated with the facility owner.

4.06 Service and support

A. The manufacturer of the generator set shall maintain service parts inventory at a central location which is accessible to the service location 24 hours per day, 365 days per year.

B. The generator set shall be serviced by a local service organization within 60 miles of the project location that is trained and factory certified in generator set service. The supplier shall maintain an inventory of critical replacement parts at the local service organization, and in service vehicles. The service organization shall be on call 24 hours per day, 365 days per year.

C. The manufacturer shall maintain model and serial number records of each generator set provided for at least 20 years.

4.07 Warranty

A. The generator set and associated equipment shall be fully warranted for a period of not less than 3 years or 3000 run hours whichever comes first, from the date of commissioning against defects in parts, materials and workmanship.

B. The warranty shall be comprehensive. No deductibles shall be allowed for travel time, service hours, repair parts cost, etc.

C. The trailer package shall be warranted (limited) for a period of three years.

PART 5 – QUANTITY AND PAYMENT

5.01 Quantity and Payment

A. The item “'65kW Portable Diesel Generator, Trailer Mounted” shall be measured for payment on a Unit Basis.

END OF SECTION

ACKNOWLEDGEMENT OF RECEIPT OF CHANGES TO BID DOCUMENTS FORM

Borough Of Seaside Park

NJIB CLEAN WATER APPLICATION
STORMWATER MAINTENANCE EQUIPMENT **OUR FILE: 1528-U-088**
REBID
(Name of Project) (Project or Bid Number)

Pursuant to N.J.S.A. 40A:11-23.1a., the undersigned bidder hereby acknowledges receipt of the following notices, revisions, or addenda to the bid advertisement, specifications or bid documents. By indicating date of receipt, bidder acknowledges the submitted bid takes into account the provisions of the notice, revision or addendum. Note that the local unit's record of notice to bidders shall take precedence and that failure to include provisions of changes in a bid proposal may be subject for rejection of the bid.

Local Unit Reference Number Or Title of Addendum/Revision		How Received (mail, fax, pick-up, etc.)	Date Received	Bidder's Initials
Notice, Revision or Addenda No.	Title or Description			
Addendum #1	Section 11200 - Vacuum Storm Sewer	Email		
Addendum #2	Section 11500 - Towable Emergency Diesel Generator and Enclosure	Email		

Acknowledged by bidder:

Name of Bidder: _____

By Authorized Representative:

Signature: _____

Printed Name and Title: _____

Date: _____