MEETING DATE: 9/24/07

AGENDA ITEM: Authorization to Solicit Bids for the Underground Storage Tank Replacement Project at Fire Station No. 2.

ATTACHMENTS

		Pages
1	Copy of the RFB	1-17

REQUEST FOR BIDS

REMOVE EXISTING UNDERGROUND STORAGE TANKS AND PROVIDE & INSTALL ABOVEGROUND DIESEL FUEL TANK AND EMERGENCY GENERATOR

SPECIFICATIONS

It is the intent of these specifications and provisions to secure for the City of Culver City the following services and equipment at Fire Station #2 located at 11252 West Washington Boulevard in Culver City, California:

1. Removal of one existing 2,000-gallon gasoline Underground Storage Tank (UST) and one existing 4,000-gallon diesel UST in compliance with AQMD and other regulatory agency requirements.

2. Installation of one new 2,500 gallon Aboveground Storage Tank (AST) for diesel fuel including fuel dispensing and tank monitoring systems and alarms, all site preparation work, all underground and aboveground electrical installations and components between AST and City power source, diesel fuel piping between AST and emergency generator, and a concrete foundation pad including secondary containment berms, bumper posts, signage and permits. The AST installation shall meet or exceed the construction and performance specifications described in the following specifications. Contractor shall also prepare a Spill Prevention, Control, and Countermeasures (SPCC) Plan. The SPCC Plan shall be certified as meeting applicable regulatory requirements by a California registered Professional Engineer.

3. Installation of one new Duthie Katolight 40KW Liquid Cooled Diesel Engine Generator Model SED40FPJ4T2 (or approved equivalent meeting current state environmental compliance regulations) including all site preparation work, day tank, diesel fuel piping between AST and emergency generator, concrete foundation pad for generator and day tank, bollards, signage and permits. All underground and aboveground electrical installations and components between the generator and City power source is INCLUDED. Electrical installations, alarms, and components associated with the day tank are INCLUDED.

The bidder shall provide proof of having completed at least three (3) projects in the last two (2) years similar to the scope requested under this contract and preferably in the Southern California area.

Any deviation from these written specifications shall be noted in the Exceptions Section of the Quote.

GENERAL SPECIFICATIONS

A. Use of Premises

The project site is an operational fire station. Contractor to understand fire station operational activities prior to mobilizing to the Site. Construction activities cannot interfere with the use of premises as an operational fire station. Limit use of premises to work in area indicated. Do not disturb portions of project site beyond areas in which the work is indicated. Keep driveways and entrances serving premises clear and available to City, City's staff and authorized persons at all times. Schedule deliveries to minimize use of driveways and entrances and to minimize space and time requirements for storage of materials and equipment on site. Work site to maintain all OSHA safety requirements. Contractor to coordinate site safety and logistics with Fire Department personnel.

B. Traffic Control

The contractor shall furnish, install and maintain at his expense all barricades, signs, lights or other devices necessary to adequately warn of any obstructions to the traveled and pedestrian way and provide flagmen as necessary for the safety of public traffic and pedestrians and to provide access to property adjacent to the work.

The contractor shall comply with the State of California, Department of Transportation *Manual on Uniform Traffic Control Devices (MUTCD) 2003 Edition* and *MUTCD California Supplement* (MUTCD and CA Supplement) for all items related to traffic within the job site.

The fact that rain or other causes, either within or beyond the control of the contractor, may force suspension or delay of the work shall in no way relieve the contractor of his responsibility for maintaining traffic through the project and providing local access as specified herein. The contractor shall at all times keep on the job such materials, forces and equipment as may be necessary to keep roads, streets, and driveways within the project open to traffic and in good repair and shall expedite the passage of such traffic, using such forces and equipment as may be necessary.

The contractor shall be responsible for keeping the City Police and City Fire Department informed of obstructions to either public or private roads caused by reason of his operations. The contractor shall make provisions for the safe passage of pedestrians around the area of work at all times.

Full compensation for conforming to the requirements of this article shall be considered as included in the prices paid for the various contract items of work and no additional allowance will be made therefore.

C. Obstructions

There is the possible existence of underground gas mains, high voltage lines, telephone ducts, storm drains, water mains, and sanitary sewers, the location of which are not shown on the plans. Location of obstructions and costs of repairs or replacement in the event of damage by contractor shall be the contractor's responsibility.

D. Unfavorable Work Conditions

During unfavorable weather, or other unsuitable conditions, the contractor shall confine operations to work which will not be effected adversely thereby. No portions of the work shall be performed under conditions which would affect adversely the quality of efficiency thereof, unless special means or precautions are taken by the contractor to perform the work in a proper and satisfactory manner.

E. Safety Equipment

Contractor shall provide all necessary safety equipment, including but not limited to helmets, glasses, ear plugs, and to ensure that his crews use this safety equipment when working on the job. Contractor shall be held accountable for any infraction of safety equipment use.

F. Preservation of Property

All improvements consisting of fences, gates, landscaping, drainage ditches, sidewalks, irrigation systems, or other improvements which are injured, removed or destroyed by reasons of the contractor's operations shall be replaced in kind or restored to a condition as good as when the contractor entered upon the work, all at the contractor's expense. Full compensation for conforming to the provisions of this article, including removing and relocating fences, shall be considered as included in the prices paid for the various contract items of work and no additional allowance will be made therefore.

G. Housekeeping

Before acceptance of the work, the contractor shall clean the work site and all grounds occupied by him in connection with the work of all rubbish, excess materials, temporary structures, and equipment, and all parts of the work shall be left in a neat and presentable condition. Full compensation for cleaning up as herein specified shall be considered as included in the prices paid for the various contract items of work and no additional allowance will be made.

H Guarantee

All material and equipment shall be guaranteed free from defects in material and workmanship for a minimum period of one (1) year from the City's acceptance of the installed system as a whole and the contractor's bid shall reflect this condition.

Should any equipment or material fail during this guarantee period, the contractor shall repair or replace it at no cost to the City for material and/or services, if such failure is, at the decision of the City, due to faulty workmanship or quality of material furnished.

I Quality of Material

All equipment and materials used on this job shall be new and of the best quality. When specific trade names are used in connection with materials, they are mentioned as standards, but this implies no right on the part of the contractor to substitute other materials or methods without the permission of the City.

J Printed Manuals

One set of printed manuals covering operation, maintenance and repair of all components furnished by the contractor shall be provided. Manuals shall include parts lists, wiring diagrams where applicable and complete procedures for trouble shooting and repairing the components.

PROJECT SPECIFIC SPECIFICATIONS

1.0 UST REMOVAL

1.1 General

Prior to tank removal, establish temporary fuel source for existing back-up generator (minimum 50 gallons). Decontaminate both tanks per UST regulations, remove, and dispose existing steel, double wall, 2,000-gallon gasoline and 4,000-gallon diesel Underground Storage Tanks (USTs), associated dispensers, and polymer fuel lines from the diesel UST to the dispensers and emergency generator located in Fire Station #2. Backfill excavations with clean imported soil and re-pave to match existing conditions. The approximate locations of the existing USTs, dispensers, and supply/return lines are depicted on the Site Figure, Attachment 1.

1.2 Submittals

A. Certification of backfill as clean, native materials. Source of backfill shall be identified in the Certification.

B. Proposed facility for disposal of rinse water.

C. Proposed facility for recycling of USTs.

D. Manifest for disposal of residual product in UST and rinse water.

E. Unified Program Consolidated Form, Hazardous Waste Tank Closure Certification by Marine Chemist or equivalent.

F. Recycling certificate for steel USTs.

G. Compaction report including professional engineer certification and all laboratory and field test results.

H. Tank Closure Report documenting all activities and certifying compliance with Los Angeles County, Department of Public Works Closure Application requirements.

I. Pavement design by professional engineer including mix design and base course and pavement section.

J. All documentation regarding environmental processes, procedures and compliance with legislation and regulations, including, but not limited to, soil sampling and analysis, hazardous material manifests, UST product movement, chain of custody documentation, and other certifications.

K. Plans, drawings, and submittals in electronic and hard-copy formats.

1.3 Qualifications

The Contractor shall demonstrate a) necessary State contractors license and certifications for removal of USTs and b) necessary State professional registration to comply with Los Angeles County, Department of Public Works Closure Application requirements.

1.4 Permitting

The Contractor shall obtain and be required to pay for all permits required for closure of the existing USTs including, but not limited to, permits from Los Angeles County, Department of Public Works, South Coast Air Quality Management District, Culver City Fire Department, and Culver City Public Works. Contractor responsible for all permit notifications required by any regulatory agency having jurisdiction over this project.

1.5 Overburden Removal

Concrete or asphalt pavement overlying the USTs and associated piping shall be saw cut at the limits of removal, excavated and disposed off-site as construction debris.

Gravel and soil overlying USTs and associated piping shall be excavated and stockpiled onsite for eventual re-use as backfill in the UST excavation. One representative soil sample shall be collected from the stockpiled soil and the sample shall be analyzed per Los Angeles County, Department of Public Works closure permit requirements (contractor to run same analyses as those required for soil samples required below the USTs). Analytical results shall be provided to the City for approval prior to reuse of the stockpiled soil as backfill in the UST excavation. Bidder to assume that the City will approve reuse of the stockpiled soil as backfill in the UST excavation.

Stockpiled soil to be protected in accordance with all relevant local, State, and Federal rules and regulations.

1.6 UST System Removal

Existing dispensers and dispenser sumps shall be removed, cleaned as appropriate, and disposed/recycled in accordance with all relevant local, State, and Federal rules and regulations.

The existing card reader and its associated components to be saved and re-used as part of the new AST installation (see Section 2.13 of these Specifications).

Existing polymer fuel lines between the dispenser and the USTs and between the emergency generator and the USTs shall be flushed to remove all product prior to removal of the fuel lines. City shall witness flushing operation and shall provide approval prior to removal of the fuel lines.

Existing polymer fuel lines and vent lines shall be removed, after flushing, and disposed/recycled in accordance with all relevant local, State, and Federal rules and regulations..

Existing USTs shall be triple rinsed, degassed (as appropriate), dry iced, and all product/rinse water shall be removed and disposed in accordance with all relevant local, State, and Federal rules and regulations. Contractor to assume less than 6 inches of product exists in the USTs. Contractor to provide completed manifest for City to sign. Marine chemist or equivalent shall certify USTs are clean and shall provide a Unified Program Consolidated Form, Hazardous Waste Tank Closure Certification.

USTs shall be removed from the excavation with equipment of an appropriate size to lift the USTs in a safe manner in accordance with all relevant local, State, and Federal rules and regulations. Upon removal, the exterior of the USTs shall be cleaned to remove all soil and inspected for signs of corrosion, structural damage, or leakage. The USTs shall then be loaded onto a truck and transported off-site for recycling. A recycling certificate shall be provided documenting appropriate disposition of the USTs.

1.7 Closure Permit Sampling

After the USTs have been removed, the adjacent and underlying soil shall be examined for any evidence of leakage. Soil samples shall be collected and analyzed from below the USTs, fuel piping, and dispensers in accordance with Los Angeles County, Department of Public Works Closure Permit requirements. All sampling procedures to comply with Los Angeles County, Department of Public Works Closure Permit requirements. In the event of soil contamination, Contractor to immediately notify and consult with City's Project Manager regarding mitigation strategies.

1.8 Backfill

The UST and piping excavations shall be backfilled after the soil test results (Section 1.7) have been approved by the City. Contractor to assume that no special handling or excavation is required due to the presence of contaminated soil. Stockpiled soil shall be used as backfill upon receipt of City approval in accordance with Section 1.5 of these specifications.

Backfill consisting of clean fill shall be imported to the Site as required to raise the grade to level consistent with the Contractors pavement section design. All backfill (clean imported soils and soil stockpiled during Section 1.5 - Overburden Removal) shall be placed and compacted to 90 percent of the maximum density as determined for each soil type in accordance with ASTM D 1557-02. Field in-place density shall be determined in accordance with ASTM D 1556-02 or ASTM D 2922-05/D3017-05 at a frequency specified by the Contractors California registered Geotechnical Engineer providing backfill oversight. A compaction report shall be provided to the City, signed by a California registered Geotechnical Engineer, that documents that the backfill was placed and compacted in a manner suitable for the continued use of the area as a parking lot.

1.9 Base Course

A. Contractor's California registered Geotechnical Engineer shall certify the sub grade before proceeding with the base course.

B. Base course to consist of Class 2 Aggregate Base in accordance with Section 26 of the State of California, Department of Transportation, May 2006 Standard Specifications.

C. Base course thickness per design by Contractor (see Section 1.2 (I)). Base course shall be minimum uniform thickness of 6 inches after compaction.

D. Base course shall be placed over finished sub grade and compacted. Where the required thickness is 6 inches or less, the base material may be spread and compacted in one layer. Where the required thickness is more than 6 inches, the base material shall be spread and compacted in 2 or more layers of approximately equal thickness, and the maximum compacted thickness of any one layer shall not exceed 6 inches. The relative compaction of each layer of compacted base material shall be not less than 95 percent of the maximum density as determined in accordance with ASTM D 1557-02. Field in-place density shall be determined in accordance with ASTM D 1556-02 or ASTM D 2922-05/D3017-05 at a frequency specified by the Contractors California registered Geotechnical Engineer providing backfill oversight.

1.10 Paving

A. Contractors California registered Geotechnical Engineer shall certify the base course before proceeding with paving.

B. All paving operations shall be completed in accordance with relevant sections of the State of California, Department of Transportation, May 2006 Standard Specifications.

C. Design of asphaltic concrete mixes shall be provided by the Contractor, and shall be obtained from a qualified independent testing laboratory or agency, properly equipped to design asphaltic concrete mixes. Costs of obtaining mix designs shall be at the Contractor's expense. Design of asphaltic concrete mixes, including aggregate quality and gradation, shall conform with the quality requirements of Section 39 of the Caltrans Standard Specifications.

D. Before placing asphalt concrete on untreated base, a liquid asphalt prime coat shall be applied to the base course in the areas to be surfaced in accordance with Section 39-4 of the State of California, Department of Transportation, May 2006 Standard Specifications. Prime coat shall be applied at the rate of 0.25 gallons per square yard.

E. Before placing asphalt concrete, a tack coat (paint binder) shall be applied to all vertical surfaces against which asphalt concrete surfacing will be placed. Tack coat (paint binder) shall be applied in accordance with Section 39-4 of the of the State of California, Department of Transportation, May 2006 Standard Specifications at the rate of from 0.02 to 0.10 gallons per square yard.

F. Asphaltic concrete thickness per design by Contractor (see Section 1.2 (I)). Asphaltic concrete thickness shall be minimum uniform thickness of 4 inches after compaction. Asphalt concrete shall be spread and compacted in the number of layers of the thicknesses indicated in Section 39 of the State of California, Department of Transportation, May 2006 Standard Specifications.

G. Asphaltic concrete shall be delivered, laid, rolled, compacted, and finished in accordance with Section 39 of the State of California, Department of Transportation, May 2006 Standard Specifications.

H. Finish surface of the wearing course shall be thoroughly compacted, smooth, and free from ruts, humps, depressions, cold joints, or other irregularities.

I. Finish paving shall conform to slopes, lines, and finish grades indicated, and shall drain properly. Where adjacent surfaces are intended to be flush (as at concrete gutters, walks, and paving), they shall conform smoothly at all joints.

J. Ridges, indentations, and other objectionable marks left in the surface of the asphalt concrete by paving or rolling equipment shall be eliminated by rolling. The use of equipment that leaves ridges, indentations, or other objectionable marks in the asphalt concrete shall be discontinued, and other acceptable equipment shall be employed.

K. Where cold joints are indicated or necessary, cut back the placed and compacted cold asphalt with a concrete or masonry power saw, so that a vertical face of compacted full thickness material is exposed. Treat this surface with a tack coat before proceeding with the placement of new asphaltic concrete surfacing.

L. Finish paving shall conform to finish elevations within plus or minus 0.01 of a foot and shall be level to within plus or minus 1/4 inch in 10 feet when measured with a 10-foot straightedge in any direction.

1.11 Seal Coat

Apply seal coat over finished paving surface in conformance with Section 37 of the State of California, Department of Transportation, May 2006 Standard Specifications.

1.12 Field Quality Control

A. The Contractor shall control the quality of the Work and shall provide adequate testing to assure compliance with these Specifications.

B. After completion of paving work, all paving shall be flooded with water, and any resulting "ponds" shall be ringed with chalk. Such hollows shall be corrected with addition of asphalt paving materials and re-rolling until all paving is completely level and free from hollows and high spots.

1.13 Maintenance of Pavement

A. Upon completion of final rolling, traffic shall not be permitted on the finished pavement for at least six hours, and until the asphalt concrete has cooled sufficiently to withstand traffic without being deformed.

B. Finished pavement shall be maintained in finished clean condition until the Work is accepted by the City.

1.14 Tank Closure Report

Tank Closure Reports shall include the following information as a minimum:

A. A cover letter signed by a Professional Engineer or Geologist registered in the State of California certifying that all services involved have been performed in accordance with the terms and conditions of these specifications and Los Angeles County, Department of Public Works Closure Permit requirements.

B. A narrative report describing, at a minimum, the following

(1) condition of the USTs

(2) any visible evidence of leaks or stained soils

(3) results of vapor monitoring readings

(4) sample activities and locations

(5) backfilling activities including backfill source and compaction testing

C. Copies of all analytical reports and Chain-of-Custody documentation.

D. Copies of all waste profile sheets and manifests.

E. Copies of all certifications of final disposal/recycling signed by the responsible facility.

F. Progress photographs showing such things as the location of each tank, entrance/exit road, and any other notable site condition before work begins. After work has been started at the site, the Contractor shall photographically record activities including:

(1) Soil removal, handling, and sampling

(2) Soil stockpile area

(3) Exposed USTs, UST cleaning and degassing, and UST removal and loading for offsite disposal/recycling

(4) Fill placement and grading

(5) Post-construction

1.15 Salvage Rights

The Contractor shall retain the rights to salvage value of all UST system components, with the exception of the following: usable petroleum products; reusable card reader equipment, to be reinstalled; reusable monitoring panel to be reinstalled, if feasible.

1.16 Electrical

All electrical to be removed back to existing panels located in the fire station. Terminations shall conform to the 2001 Edition of the California Electrical Code, published by the California Building Standards.

2.0 2,500 GALLON AST INSTALLATION

2.1 General

Contractor to install one new 2,500 gallon single compartment double walled diesel AST, MINIMUM 2 HOURS FIRE RATING, including electric dispensing pump and equipment for diesel fuel, monitoring system, fuel piping to emergency generator, concrete foundation, bollards, placards and all electrical from City power source. Provide factory assembled and integrated AST Fueling systems with spill containment deck , dispensers, suction pumps, automatic overfill shut-off valve, integrated tank gauge and monitoring sensors (contractor to utilize existing monitoring panel, if feasible), factory installed vents, valves, fill box, and other components and appurtenances necessary for a complete system. All dispensers, pumps, and solenoids to be pre-wired and plumbed at factory to facilitate site installation. All attaching hardware, steel, pipe, and other materials not specifically mentioned, yet required for a functioning system, are to be included as part of the factory turn-key system. In the event that certain items are not called out in these specifications but are necessary for operation and/or regulatory compliance, they shall also be included as part of this contract. This specification requires that the system design, manufacture, and integration to be the responsibility of one specialized supplier in order to maintain quality through the steps of procurement, manufacture, integration, and painting. Non-factory assembled, pre-wired, and finished substitutions are not acceptable and will not be considered for this project. Field assembly to be limited to the final assembly of vent riser, calibration, and installation tie-in of monitoring options and power.

2.2 Governing Standards/References

Equipment and installation necessary to accomplish the work specified herein shall comply with the latest revisions of the applicable federal, state, and local codes and regulations concerning aboveground fuel storage including, but not limited to, the following:

A. Steel Tank Institutes Publications No. F921 - Standard for Aboveground Tanks With Integral Secondary Containment; and, No. R893 - Recommended Practice for External Corrosion Protection of Shop Fabricated Aboveground Tank Floors

B. National Fire Protection Association: Flammable and Combustible Liquids Code. (NFPA 30), Automotive and Marine Service Station Code (NFPA 30A) and NFPA 407

C. National Electric Code (NEC)

D. NFPA 70

E. Petroleum Equipment Institute, Recommended Practices for Installation of Aboveground Storage Systems for Motor Vehicle Fueling (RP200-03)

F. Underwriters Laboratories 142 - Steel Aboveground Tanks for Flammable and Combustible Liquids; 2085 - Protected Aboveground Tanks for Flammable and Combustible Liquids; and, 2244 - Aboveground Flammable Liquid Tank Systems

G. Uniform Fire Code

H. City of Culver City ordinances

I. Most recent edition of the California Building Code

J. Most recent edition of the California Mechanical Code

K. Most recent edition of the California Plumbing Code

L. Most recent edition of the California Electrical Code

M. Most recent edition of the Fire Code of the City of Culver City

All work specified herein shall conform to or exceed the requirements of the above referenced codes, regulations and standards; provided, that whenever the provisions of said publications are in conflict with the requirements specified herein, the stringent requirement shall apply. The Contractor shall procure all required permits and licenses, pay all charges and fees, and give all notices necessary and incident to the due and lawful prosecution of the work.

2.3 Qualifications

The Contractor shall have a minimum of five (5) years of relevant experience and shall demonstrate necessary State contractors license and certifications for the required work.

2.3 Drawings

Required drawings should be suitable for submittal to obtain all required permits. Drawings should include the following at a minimum:

A. Show details, sizes, capacities, flow rates, and dimensions for all components.

B. Show piping and instrumentation details.

C. Show AST system and foundation pad location to scale on facility plot plan including dispenser orientation.

D. Provide manufacturer's part numbers, including integrated components.

E. Show foundation design, containment calculations, anchorage type and locations, and all required seismic calculations.

****Contractor to receive City approval of drawings prior to procurement of AST system****

2.4 Primary and Secondary Containment

Primary tank shall be U.L. listed equipped with atmospheric and emergency vents. Secondary containment to be vented with the capability of physical monitoring for leaks from primary containment and containing a means to remove liquid from the annular space.

2.5 Exterior Surface

Exterior surface of the AST assembly shall be painted white, with two (2) coats of petroleum resistant epoxy paint in accordance with manufacturer specifications.

2.6 Fuel Transfer Pumps

A. The AST shall be fitted with a single dispensing system for diesel fuel including electric pump, 15' hose with overhead retractor, multi plan hose end swivels, automatic nozzle and fuel filter, all items UL listed and shall be installed in accordance with Section 2.2, Governing Standards/References.

B. All fuel hoses that may hang below the top of the primary tank top must be protected from siphoning with a suction line or pump discharge anti-siphon valve (integral nozzle check valve is not an acceptable anti-siphon valve).

2.7 Fill Ports

Fill ports shall be provided with over fill shut off protection and fuel fill overfill containment. Containment shall have a minimum of 5-gallon capacity and manual drain valve to allow drainage back to the tank.

2.8 Additional Equipment

The AST shall be fitted with the required emergency shut-off valve, emergency vents, main and interstitial pressure/vacuum vents with rain cap, interstitial leak detection gauge, anti-siphon valve, fill drop tube, cap and adaptor, and tank gauge. The entire AST assembly shall otherwise be furnished with all required and necessary fittings and piping as should render the AST system fully operational and in strict compliance with all applicable regulatory requirements. All caps, adapters, vents, valves, gauges and the specified remote-fill/spill container shall be manufactured by OPW or an approved equal.

Electronic monitoring for both the annular and primary tank shall be included. Monitoring to be both audible and visual with a ninety percent (90%) full alarm on the primary tank. The monitoring and alarm panel shall be installed at a location approved by the Fire Department. The existing monitoring and alarm panel may be utilized if deemed to meet all applicable standards and specifications.

At least one portable fire extinguisher having a rating of not less than 20-B units shall be located not less than 25 feet, nor more than 75 feet, from the AST.

2.9 Installation

Installation shall be done in accordance with manufacturer specifications and shall be installed in accordance with Section 2.2, Governing Standards/References.

2.10 Foundation

A. The contractor will be responsible for installing the AST upon a concrete base within the area where the existing USTs are currently located. The AST and dispenser must be oriented in a manner that allows for access to all fire trucks and other vehicles anticipated to use the AST. Contractor to

propose location and orientation in Drawings (Section 2.6) submittal. City to approve final location and orientation of AST system prior to system procurement.

B. The contractor will be responsible for designing a concrete foundation that includes secondary containment for any spills that could occur during both fuel delivery and system operation including the emergency generator system. A concrete drainage course exists immediately adjacent to the proposed location of the foundation. The concrete foundation must be designed to prevent potential releases of petroleum to this drainage course. Secondary containment should be designed to contain 100% of the capacity of the largest tanker truck anticipated to deliver fuel to the AST.

C. The foundation must be designed to support the AST plus 100% of its contents when full. The foundation design shall also take into account the type of support that is being used and the point load associated with that support. The foundation must include provisions in its design to prevent AST movement. The foundation should include any provisions necessary for seismic design. Complete design calculations for the foundation stamped by a professional civil or structural engineer licensed to practice in the State of California shall be included with the drawing submittal.

D. Concrete and reinforcing steel shall conform to the specifications of the designing engineer.

E. The foundation design must also include provision for draining surface water (e.g. rain water) away from the AST secondary containment system. The containment area shall be sloped, as needed, to insure that all liquids may be drained from the containment slab without any areas of residual ponding.

F. The concrete and berms shall be coated with a sealant resistive to fuels. The Contractor shall complete all preparation work required to ensure sealant is applied in accordance with manufactures specifications and that no bubbling or other blemishes exist in the finished product. Contractor will repair any disturbed surfaces in the coating.

2.11 Tank Supports

AST is to be equipped with integral supports and seismic restraints, installed in accordance with manufacturer specifications.

2.12 Bumper Poles

Contractor shall be responsible for installing 4" concrete filled bumper poles on 4' centers. Posts should be 3 feet deep in a concrete footing and 15 inches in diameter. Top of post should be 3 feet above ground. Located not less 5 feet (4 feet on dispensing side) from the AST. All bumper posts shall be painted with two (2) coats yellow paint around front of AST (access side).

2.13 Electrical

All electrical equipment and connections proposed to be used shall conform to the 2001 Edition of the California Electrical Code, published by the California Building Standards. Obtain an electrical permit from the Building Department.

Install Emergency Shut-Off device at building, with signage. Emergency Shut-Off to be procured as part of the AST system.

Install existing card reader salvaged during UST demolition. Card reader to provide same functionality with the AST system as it does with the current UST system. Contractor to inform City prior to AST system procurement if use of the existing card reader is not considered appropriate with the new AST system. Justification for not re-using the existing card reader to be provided.

2.14 Labeling

AST and fuel dispensing area shall be labeled with

A. The specific name of the material contained (Ultra Low Sulfur Diesel Fuel Only)

B. Warning signs: "FLAMMABLE" or "NO SMOKING"

C. Tank volume

D. Placarded with hazard identification signs (i.e. diamond placard) as specified in UFC Standard No.79-3. Placards shall be no smaller than fifteen inches by fifteen inches (15"x15")

2.15 Testing Equipment

Testing, in accordance with the manufacturer specifications, shall include, but is not limited to the AST, equipment for overfill protection and all AST monitoring equipment including sensors, alarms, and control panel. Testing is to be done prior to use in the presence of a Culver City official.

2.16 Field Quality Control

A. Perform system inspection as outlined in manufacturer's installation manual.

B. Test fueling distribution in accordance with NFPA 30 and other applicable codes. Properly dispose of any fuel generated in adherence to environmental regulations.

C. The final AST system installation shall be inspected and certified by the contractor for meeting the specifications presented herein.

D. Pressure test of tank and annular space shall be conducted per manufacturer's specifications. Not to exceed 5psi/30min. duration, witnessed by Fire Department.

2.17 System Activation

Prior to activating the AST system perform the following procedure:

A. Flush system piping with grade of fuel to be used by City to remove any debris and foreign matter in piping prior to filling AST for the first time.

B. Service all system filters and screens and dispose of fuel in accordance with EPA and NFPA regulations after flushing.

C. Open valves to correct position for system operation.

2.18 Operational Training

A. Perform training of City personnel per the materials included with the AST system manufacturer's installation manual.

B. Review local requirements for system inspection, reporting, and registration, as well as administrative paperwork requirements.

C. Review maintenance considerations such as filter replacement with City representative.

2.19 Spill Prevention, Control, and Countermeasures (SPCC) Plan

Contractor shall prepare a SPCC Plan in accordance with Title 40, Parts 109 through 112 of the Code of Federal Regulations (CFR). Subparts A through C of part 112 are often referred to as the "SPCC rule." Focusing on oil spill prevention, preparedness, and response, the SPCC rule is designed to protect public health, public welfare, and the environment from potential harmful effects of oil discharges to navigable waters and adjoining shorelines. The rule requires facilities that could reasonably be expected to discharge oil in quantities that may be harmful into navigable waters of the United States and adjoining shorelines to develop and implement SPCC Plans. The Plans ensure that these facilities put in place containment and countermeasures that will prevent oil discharges. Contractor to provide Professional Engineer certification that the plan meets referenced CFR requirements.

3.0 EMERGENCY GENERATOR INSTALLATION

3.1 General

Install one new Duthie Katolight 40KW Liquid Cooled Diesel Engine Generator Model SED40FPJ4T2 (or approved equivalent meeting current state environmental compliance regulations) including all site preparation work, day tank, diesel fuel piping between AST and emergency generator, concrete foundation pad for generator, bollards, signage and permits. All underground and aboveground electrical installations and components between the generator and City power source is INCLUDED. The following optional equipment to be included with the Duthie Katolight generator:

A. Unit Vibration Isolators

B. Weather Enclosure

C. Automatic Transfer Switch

3.2 Submittals

A. Duthie Katolight or equivalent quote specifying all generator components including optional equipment.

B. Tramont TRS Series or equivalent quote specifying all day tank components.

C. AQMD Certification and Permitting

3.3 Qualifications

The Contractor shall demonstrate necessary State contractors license and certifications for the required work.

3.4 Drawings

Required drawings should be suitable for submittal to obtain all required permits. Drawings should include the following at a minimum:

A. Show details, sizes, capacities, flow rates, and dimensions for all components including day tank system.

B. Show piping details.

C. Show day tank and emergency generator location to scale on facility plot plan.

D. Provide manufacturer's part numbers, including integrated components.

E. Show foundation design, anchorage type and locations, and all required seismic calculations.

Contractor to receive City approval of drawings prior to procurement of the generator and day tank.

3.5 Permitting

The Contractor shall obtain all required permits for installation including, but not limited to, permits from Culver City Fire Department and Culver City Public Works. Contractor responsible for all permit notifications required by any regulatory agency having jurisdiction over this project. Contractor also shall include preparation, submittal and permit fees for SCAQMD permit 400-E-13a.

3.6 Primary and Secondary Containment

Primary piping with secondary containment required for supply/return lines between generator and AST. A means to remove liquid from the annular space of the secondary containment shall be provided. All piping shall be installed aboveground and shall be properly supported.

3.7 Day Tank

Install Tramont TRS Series or equivalent Day Tank with the following at a minimum:

A. 1/3 HP, 1 phase, 115 VAC, 60 Hz thermally protected motor

B. 2GPM, high lift gear pump with 3/8" NPT inlet discharge

C. System 2000PLUS™ Electronic Control Module (ECM)

D. 100 gallon capacity

E. Heavy gauge steel construction

F. Gray painted exterior, rust-inhibitor coated interior

G. Double wall weatherproof basin with fuel-in-basin alarm

H. Reverse pumping system with critical high level alarm

I. Solenoid valve for supply line

J. City of Los Angeles Fire Code Approval Option Package

K. Installation and operating instructions, and maintenance manuals

This specification requires that the system design, manufacture, and integration to be the responsibility of one specialized supplier in order to maintain quality through the steps of procurement, manufacture, integration, and painting. Non-factory assembled, pre-wired, and finished substitutions are not acceptable and will not be considered for this project.

The day tank should be located near the engine at an elevation with maximum tank fuel level 5 inches below the injector pump such that a positive head is not applied to the engine fuel injectors. All plumbing and electrical connections between the day tank, emergency generator, and AST to be provided.

Fuel strainers or pre-filter water separator with a clear reservoir shall be installed between the AST and day tank.

Day tank shall be vented in accordance with all relevant local, State, and Federal rules and regulations. Venting shall be protected from water, debris, insects and other foreign objects.

3.8 Foundation

The contractor will be responsible for installing the emergency generator and day tank on the foundation specified in Section 2.10 of these Specifications. The foundation must include provisions in its design to prevent generator and day tank movement. Contractor to propose location and orientation in Drawings (Section 3.4) submittal. City to approve final location and orientation of day tank and emergency generator prior to system procurement.

3.9 Bumper Poles

Contractor shall be responsible for installing 4" concrete filled bumper poles on no less than 4' centers. Posts set not less than 3 feet deep in a concrete footing not less than 15 inches in diameter. Top of post not less than 3 feet above ground. Located not less 5 feet from the day tank and emergency generator. All bumper posts shall be painted with two (2) coats yellow paint.

3.10 Testing Equipment

Testing, in accordance with the manufacturer specifications, shall include, but is not limited to:

A. The day tank including all alarms, switches, and manual operational capabilities

B. The emergency generator

Testing is to be done prior to use in the presence of a Culver City official.

3.11 Field Quality Control

A. Perform system inspection as outlined in manufacturer's installation manual.

B. Test fueling distribution in accordance with NFPA 30 and other applicable codes. Properly dispose of any fuel generated in adherence to environmental regulations.

C. The final day tank/emergency generator installation shall be inspected and certified by the contractor for meeting the specifications presented herein.

D. Pressure test of day tank and annular space shall be conducted per manufacturer's specifications. Not to exceed 5psi/30min. duration, witnessed by Fire Department.

3.12 System Activation

Prior to activating the day tank/emergency generator, perform the following procedure:

A. Flush system piping with grade of fuel to be used by City to remove any debris and foreign matter in piping prior to filling tank for the first time.

B. Service all system filters and screens and dispose of fuel in accordance with EPA and NFPA regulations after flushing.

C. Open valves to correct position for system operation.

3.13 Operational Training

A. Perform training of City personnel per the materials included with the AST system manufacturer's installation manual.

B. Review local requirements for system inspection, reporting, and registration, as well as administrative paperwork requirements.

C. Review maintenance considerations such as filter replacement with City representative.

BID SHEET

FIRE STATION #2, CULVER CITY, CALIFORNIA
REMOVE EXISTING USTS AND PROVIDE & INSTALL DIESEL AST AND EMERGENCY GENERATOR

1. **Obtain Project Permitting (itemize):**

   _____ $_____.
   _____ $_____.
   _____ $_____.
   _____ $_____.
   _____ $_____.

2. **Remove Existing USTs, Piping, and Dispensers and Backfill and Re-Pave per Project Specific Specifications Section 1, Inclusive:** $_____ LS[1]

3. **Prepare All Drawings for New 2,500 gallon AST per Project Specific Specifications Section 2.3 Drawings:** $_____ LS

4. **Install New 2,500 gallon AST per Project Specific Specifications Section 2, Inclusive Except Section 2.3 Drawings:** $_____ LS

5. **Install New Emergency Generator and Day Tank per Project Specific Specifications Section 3, Inclusive:** $_____ LS

[1] LS – Lump Sum

EXCEPTIONS

FIRE STATION #2, CULVER CITY, CALIFORNIA
REMOVE EXISTING USTS AND PROVIDE & INSTALL DIESEL AST AND EMERGENCY GENERATOR