GENERAL SERVICES ADMINISTRATION
FEDERAL SUPPLY SERVICES

Authorized Federal Supply Schedule Price List

See GSA Advantage™ at
http://www.gsaadvantage.gov/advgsa/main_pages/start_page.jsp
For easy internet access to ordering information, pricing and company profile.

GSA PROFESSIONAL ENGINEERING SERVICES CONTRACT

Special Item Number:

871-1; 871-2;871-3;871-4;871-5;871-6: Professional Engineering Services

Contract Number: GS-23F-0044R

Contract Period: November 24, 2004 – November 23, 2009
One option period: November 24, 2009 – November 23, 2014

See http://www.fss.gsa.gov for ordering information. The following link has ordering procedures; http://www.fss.gsa.gov/schedules/sched-so.cfm. For First Principles Inc. specific contract information, see
http://www.gsaelibrary.gsa.gov/ElibMain/SearchResults;jsessionid=www.gsaelibrary.gsa.gov-fe7%3A41d5bc28%3Af8884e374bbdcff0?searchText=first+principles&searchType=allWords&x=0&y=0

First Principles, Inc.

13204 Windy Leaf Ct.
Woodbridge, VA 22192
703-927-9775 (Phone) 703-730-9617 (Fax)

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Services Information

Awarded Special Item Numbers: 871-1; 871-2; 871-3; 871-4; 871-5; 871-6 (Professional Engineering Services)

Labor Category Descriptions: See Pages Below.

Maximum Order: $750,000

Minimum Order: $100.00

Discounts from List Prices: FPI offers GSA discount net prices.

Payment Terms: Net 30; 0.5% discount if payment is received within 15 days

Credit Cards: Accepts credit cards for purchases equal to or under micro-purchase threshold per FAR Clause 552.232-77

Ordering Address: First Principles, Inc.
13204 Windy Leaf Ct.
Woodbridge, VA 22192

Ordering Procedures: See GSA site: http://www.fss.gsa.gov/schedules/sched-so.cfm.

Payment Address: Fitzwater and Dean PLC
12701 Marblestone Dr.
Woodbridge, VA 22192

Data Universal Number System (DUNS): 153676700

Central Contractor Registration: FPI is registered under the DUNS number above.

Price List: See pages below.

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DESCRIPTION OF SERVICES

1.0 SCOPE OF WORK

FPI provides a variety of engineering and technical services to government customers and their contractors. This work includes the management team, personnel and supplies necessary to meet the tasking in 2.0 below.

2.0 SPECIAL ITEM NUMBER 871 – PROFESSIONAL ENGINEERING SERVICES

Strategic planning for technology programs/activities (e.g., define and interpret high-level organizational engineering performance requirements such as projects, systems, missions, etc., and the objectives and approaches to their achievement. Typical associated tasks include, but are not limited to an analysis of mission, program goals and objectives, requirements analysis, organizational performance assessment, special studies and analysis).

Concept development and requirements analysis (e.g., abstract or concept studies and analysis, requirements definition, preliminary planning, the evaluation of alternative technical approaches and associated costs for the development or enhancement of high level general performance specifications of a system, project, mission or activity. Typical associated tasks include, but are not limited to requirements analysis, cost/cost-performance trade-off analysis, feasibility analysis, regulatory compliance support, technology conceptual designs).

System design, engineering and integration (e.g., translation of a system (or subsystem, program, project, activity) concept into a preliminary and detailed design (engineering plans and specifications), performing risk identification/analysis/mitigation, traceability, and then integrating the various components to produce a working prototype or model of the system. Typical associated tasks include, but are not limited to computer-aided design, design studies and analysis, high level detailed specification preparation, configuration management and document control, fabrication, assembly and simulation, modeling).

Test and evaluation (e.g., demonstrate that a prototype system (subsystem, program, project or activity) performs in accordance with the objectives outlined in the original design. Typical associated tasks include, but are not limited to testing of a prototype and first article(s) testing, environmental testing, independent verification and validation, reverse engineering, simulation and modeling (to test the feasibility of a concept), system safety, quality assurance, physical testing of the product or system).

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Integrated logistics support (e.g., analysis, planning and detailed design of all engineering specific logistics support including material goods, personnel, and operational maintenance and repair of systems throughout their life cycles. Typical associated tasks include, but are not limited to ergonomic/human performance analysis, feasibility analysis, logistics planning, requirements determination, policy standards/procedures development, long-term reliability and maintainability).

Acquisition and life cycle management (e.g., planning, budgetary, contract and systems/program management functions required to procure and/or produce, render operational and provide life cycle support (maintenance, repair, supplies, engineering specific logistics) to technology-based systems, activities, subsystems, projects, etc. Typical associated tasks include, but are not limited to operation and maintenance, program/project management, technology transfer/insertion); training, privatization and outsourcing.

3.0 PRIMARY ENGINEERING DISCIPLINES

- **Electrical Engineering**: Planning, design, development, evaluation and operation of electrical principles, models and processes. It includes, but is not limited to, the design, fabrication, measurement and operation of electrical devices, equipment and systems (e.g., signal processing; telecommunication; sensors, microwave, and image processing; micro-fabrication; energy systems and control; micro- and nano-electronics; plasma processing; laser and photonics; satellites, missiles and guidance systems, space vehicles, fiber optics, robotics, etc.).

  Within the electrical engineering discipline, there are several specialties within the scope of this work; a partial listing follows:

✓ Aerospace and Electronic Systems	✓ Antennas and Propagation	✓ Broadcast Technology
✓ Circuits and Systems	✓ Communications	✓ Components Packaging, and Manufacturing Technology
✓ Computer*	✓ Consumer Electronics	
✓ Dielectrics and Electrical Insulation	✓ Education	✓ Control Systems
✓ Geoscience & Remote Sensing	✓ Engineering Management	✓ Electromagnetic Compatibility
✓ Information Theory	✓ Industrial Electronics	✓ Engineering in Medicine and Biology
✓ Lasers & Electro-Optics	✓ Intelligent Transportation Systems	
✓ Nuclear and Plasma Sciences	✓ Magnetics	✓ Industry Applications
✓ Power Electronics	✓ Neural Networks Council	✓ Instrumentation and Measurement
✓ Reliability	✓ Power Engineering	✓ Microwave Theory and Techniques
✓ Solid-State Circuits	✓ Robotics & Automation	✓ Oceanic Engineering
✓ Vehicular Technology	✓ Systems, Man, and	✓ Professional Communication

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✓ Signal Processing	✓ Cybernetics ✓ Ultrasonics, Ferroelectrics, and Frequency Control	✓ Other Chemical Engineering Specialties not listed in the "Services not Included Paragraph"

- **Mechanical Engineering:** Planning, development, evaluation and control of systems and components involving the production and transfer of energy and with the conversion of one form of energy to another. It includes, but is not limited to, planning and evaluation of power plants, analysis of the economical combustion of fuels, conversion of heat energy into mechanical energy, use of mechanical energy to perform useful work, analysis of structures and motion in mechanical systems, and conversion of raw materials into a final product, etc. (e.g., thermodynamics, mechanics, fluid mechanics, jets, rocket engines, internal combustion engines, steam and gas turbines, continuum mechanics, dynamic systems, dynamics fluid mechanics, heat transfer, manufacturing, materials, solid mechanics, reactors, etc.).

✓ ASME Heat Transfer/K16	✓ Advanced Energy Systems	✓ Aerospace Engineering
✓ Applied Mechanics	✓ Bioengineering	✓ Design Engineering*
✓ Dynamic Systems and Control	✓ Electrical and Electronic Packaging	✓ Environmental Engineering*
✓ Fluids Engineering	✓ Fluids Power Systems and Technology Systems	✓ Fuels and Combustion Technologies
✓ Heat Transfer	✓ Information Storage and Processing Systems	✓ Internal Combustion Engine
✓ International Gas Turbine	✓ Manufacturing Engineering *	✓ Microchannel flow and heat transfer
✓ Materials	✓ Management	✓ Nuclear Engineering
✓ Noise Control and Acoustics	✓ Materials Handling Engineering*	✓ Petroleum
✓ Ocean Engineering	✓ Non-Destructive Evaluation Engineering	✓ Pressure Vessels and Piping
✓ Plant Engineering and Maintenance	✓ Offshore Mechanics and Arctic Engineering	✓ Safety Engineering and Risk Analysis
✓ Process Industries	✓ Rail Transportation	✓ Technology and Society
✓ Solar Energy	✓ Power	✓ Solid Waste Processing
✓ Textile Engineering	✓ Other Chemical Engineering Specialties not listed in the "Services not Included Paragraph"	
✓ Tribology		

The following non-inclusive list represents a sampling of the types of engineering tasks contemplated:

- Acquisition and life cycle management
- Analysis of program goals, mission, objectives, performance
- Assessment Support
- Computer Aided Design (CAD)

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- Computer Aided Engineering (CAE)
- Computer Aided Management (CAM)
- Concept development
- D&D (decontamination and decommissioning)
- Demonstration and Validation
- Design/Specifications
- Documentation and Information Dissemination
- Economic/Business case analysis
- Economic impact evaluations
- Education/training
- Environmental control for electrical units (e.g., cooling units)
- Forensic engineering
- Independent Verification and Validation (IV&V)
- Information services (studies, impact statements, program development, project documentation, data collection, data analysis/evaluation, etc.)
- Instrumentation
- Integration
- Investigative Engineering Service
- Life Cycle Costing
- Logistics
- Long-term Reliability and Maintainability
- Migration Strategy
- National Academy of Sciences studies
- O&M (operation and maintenance)
- Operations Research (Non R&D)
- Operational & Control
- Permitting and Licensing
- Plan, organize, establish, implement, manage, maintain, upgrade and control of technical systems
- Privatization
- Program and Project management
- Prototype development and first article(s) production
- Radar/Sonar
- Regulatory compliance support
- Reliability and Maintainability Analysis
- Reverse engineering
- Signal processing
- Simulation and modeling
- Site development
- Source data development (forward engineering hardware and software systems)
- Source data validation (existing hardware and software systems)

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- Special projects and studies
- Statistical analysis
- Support services
- Survivability
- Systems engineering data base development, maintenance, and analysis
- Technical analysis
- Technical and management support
- Technical writing/editorial support
- T&E (test and evaluation) of products and systems

Personnel categories for professional engineering services anticipated include, but are not limited to:

- Administrative
- Biologists
- Chemists
- Consultants
- Documentation specialists
- Economists
- Engineering and technical analysts
- Engineering software developers and analysts
- Engineers
- Information specialists
- Logistics engineers and technical specialists
- Material management engineers and technical specialists
- Naval architects
- Operations research specialists
- Physicists
- Project/program analysts/leaders/managers
- Scientists
- Statisticians/mathematicians
- Support
- Technicians
- Trainers
- Writers

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4.0 LABOR CATEGORIES

Each labor category specified below is defined with regard to education, general experience and specific experience. Training and certification requirements for a labor category are specified in the specific experience description. The duties normally performed by a person filling a labor category position are defined.

First Principles Inc. recognizes that successful performance depends on having the right skills and experience. These skills and experience, in turn, are acquired through the proper mix of education and professional experience. We find that the skills needed to support advanced technology efforts, and to meet today's problems and tomorrow's challenges, are not always supported by a traditional education and work experience combination. Therefore, FPI may substitute between equivalent experience and education in order to provide the quality of services required by the client.

1. PROGRAM MANAGER

Description: Extensive experience in managing and providing direction to personnel on varied projects. Must be capable on managing cost, tracking schedule and executing performance requirements. Must have ability to inspire teams to meet common goals. Responsible for fiscal tracking and financial health of the program. Experience includes research and development (R&D), system design and development (SDD) or production programs. Must be highly independent and capable of directing complex tasks, developing program schedules and creating work breakdown structures. Must have experience applying the principles of program management, such as creating exit criteria, measurement criteria, budget management and resource allocation. Capabilities must include leading diverse groups of individuals with conflicting ideas and creating consensus through the integrated product team (IPT) team building construct. Must be capable of effective customer communications to provide program briefings and resolve problems or program related issues.

Functional Responsibilities: Responsible for all aspects of performance in program development, to include technical, schedule and financial considerations. Lead R&D, development or production efforts to successful conclusion to meet customer requirements. Ensure compliance with contractual obligations and submissions. Manage personnel and resources allocated to the project. Prepare financial, technical and schedule status reports

Education: BS required, MS desired. At least 15 years experience required. Top Secret SSBI required.

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2. SENIOR OPERATIONS ANALYST

Description: Extensive experience in developing analysis schema for multi-dimensional, complex operational attributes. Analysis must directly tie in operational performance to desired objectives, threshold level requirements, top level system requirements and subsystem derived requirements. Must be able to direct multi-disciplined analysis teams, convey detailed results at the most senior levels and possess excellent briefing skills. Bachelor's degree requires, master's degree desired.

Functional Responsibilities: Responsible for all aspects of developing analysis methodologies across internal and external customer teams. Ensure validity of data inputs and model outputs. Create senior level DoD decision maker briefings from complex operational analysis data. Brief senior executives on analysis results. Integrate operational requirements into engineering trade studies. Define current and future requirements using OA methodologies. Direct teams of analysts across multiple disciplines.

Education: At least 12 to 25 years experience required for this position. Top Secret SSBI required.

3. SENIOR SYSTEMS ENGINEER III

Description: Extensive experience in developing analysis methodologies, modeling of environment, statistical or engineering treatment of problems, and providing insightful or unique solutions. Intimately familiar with operations research concepts and tools, their applicability to DoD studies and choosing toolsets to solve problem at hand. Must be a skilled analyst capable of independent thought with little to no direction, capable of translating complex customer requirements into coherent, understandable strategies and solutions. Minimum bachelor's degree required, master's degree desired; experience may be substituted for education.

Functional responsibilities: Develop and design trade studies, system architectures, conduct ops research. Model system environment and effects. Create display tools to convey detailed messages in uncomplicated format. Manage or supervise activities of other analysts and engineers. Create briefings, write data packages, reports and proposals. Apply methodologies to a wide variety of defense applications to include, but not limited to, joint suppression of enemy air defenses (JSEAD), electronic attack (EA), integrated air defense (IADS) modeling, tactical aircraft performance analysis, effectiveness studies, countermeasures, sensor development and application and other topics of interest.

Education: Ten to twenty years experience in the design, development, testing and analysis of complex air, ground, sea and/or space based vehicles. Top Secret SSBI required.

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4. SENIOR SYSTEMS ENGINEER II

Description: Significant experience in developing analysis methodologies, modeling of environment, statistical or engineering treatment of problems, and providing insightful or unique solutions. Intimately familiar with operations research concepts and tools, their applicability to DoD studies and choosing toolsets to solve problem at hand. Must be a skilled analyst capable of independent thought with little to no direction, capable of translating complex customer requirements into coherent, understandable strategies and solutions. Minimum bachelor's degree; experience may be substituted for education.

Functional responsibilities: Develop and design trade studies, system architectures, conduct ops research. Model system environment and effects. Create display tools to convey detailed messages in uncomplicated format. Manage or supervise activities of other analysts and engineers. Create briefings, write data packages, reports and proposals. Apply methodologies to a wide variety of defense applications to include, but not limited to, joint suppression of enemy air defenses (JSEAD), electronic attack (EA), integrated air defense (IADS) modeling, tactical aircraft performance analysis, effectiveness studies, countermeasures, sensor development and application and other topics of interest.

Education: Ten to twenty years experience in the design, development, testing and analysis of complex air, ground, sea and/or space based vehicles. Secret clearance required. Top Secret SSBI desired.

5. SYSTEMS ENGINEER I

Description: Experience in developing analysis methodologies to support product development, validation, verification, design and test activities. Must be able to translate numerous program requirements into testable objectives. Must be able to work effectively with various organizations and personalities to execute a successful test program. Must have an understanding of test methodologies, limitations and restrictions.

Functional Tasks: Develop trade studies for recommended inclusion. Initiate modeling of system environment and effects. Create display tools to convert model outputs. Create briefings, write data packages and proposal support. Support test program manager for complex, state-of-the-art test programs. Conduct analysis efforts to dissect output data, provide results and recommendations. Independently assess system performance against stated requirements.

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Education: Minimum bachelor's degree; experience may be substituted for education. Four to eight years experience in variety of testing of complex air, ground, sea or space vehicles. Secret clearance desired.

6. SENIOR MAINTENANCE/LOGISTICS ANALYST

Description: Must be able to assess overall engineering design and translate them into maintainable subpieces that require minimum LO maintenance. Substitute BS for experience. Experience should include maintaining radar absorbing materials, radar absorbing structures, special materials and operating measurement systems.

Functional tasks: Assist in design of supportable low observable platforms. Design frequently accessed panels for minimal LO restoration. Establish criteria for proper measurement techniques. Support development of subcomponent databases and signature assessment modules. Provide experience to design teams on proper maintenance techniques. Derive logistics trail information to minimize the logistics footprint. Must be able to work closely with design engineers and systems analysts to bring total solution to fruition.

Education: Minimum of 10 years experience direct hands-on field maintenance of low observable platforms. Secret clearance required. Top Secret SSBI desired.

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PRICE LIST

RATES LISTED BELOW INCLUDE REDUCED GSA FUNDING FEE AS OF 11/24/2004

	Position	Unit	On Site	Off Site
Base Period 1	Program Manager	1 Hour	N/A	$134.51
24 Nov 04 -	Senior Operations Analyst		N/A	$139.05
23 Nov 05	Senior Systems Engineer III		N/A	$131.89
	Senior Systems Engineer II		N/A	$122.74
	Systems Engineer I		N/A	$93.24
	Senior Maintenance/Logistics Analyst		N/A	$102.75
24 Nov 05 -	Program Manager	1 Hour	N/A	$139.89
23 Nov 06	Senior Operations Analyst		N/A	$144.61
	Senior Systems Engineer III		N/A	$137.17
	Senior Systems Engineer II		N/A	$127.65
	Systems Engineer I		N/A	$96.97
	Senior Maintenance/Logistics Analyst		N/A	$106.86
24 Nov 06 -	Program Manager	1 Hour	N/A	$145.48
23 Nov 07	Senior Operations Analyst		N/A	$150.40
	Senior Systems Engineer III		N/A	$142.65
	Senior Systems Engineer II		N/A	$132.76
	Systems Engineer I		N/A	$100.85
	Senior Maintenance/Logistics Analyst		N/A	$111.13
24 Nov 07 -	Program Manager	1 Hour	N/A	$151.30
23 Nov 08	Senior Operations Analyst		N/A	$156.41
	Senior Systems Engineer III		N/A	$148.36
	Senior Systems Engineer II		N/A	$138.07
	Systems Engineer I		N/A	$104.88
	Senior Maintenance/Logistics Analyst		N/A	$115.58
24 Nov 08 -	Program Manager	1 Hour	N/A	$157.35
23 Nov 09	Senior Operations Analyst		N/A	$162.67

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	Senior Systems Engineer III		N/A	$154.29
	Senior Systems Engineer II		N/A	$143.59
	Systems Engineer I		N/A	$109.07
	Senior Maintenance/Logistics Analyst		N/A	$120.20
Option Period 1 24 Nov 09 - 23 Nov 10	Program Manager	1 Hour	N/A	$163.65
	Senior Operations Analyst		N/A	$169.18
	Senior Systems Engineer III		N/A	$160.46
	Senior Systems Engineer II		N/A	$149.33
	Systems Engineer I		N/A	$113.44
	Senior Maintenance/Logistics Analyst		N/A	$125.01
24 Nov 10 - 23 Nov 11	Program Manager	1 Hour	N/A	$170.19
	Senior Operations Analyst		N/A	$175.94
	Senior Systems Engineer III		N/A	$166.88
	Senior Systems Engineer II		N/A	$155.31
	Systems Engineer I		N/A	$117.97
	Senior Maintenance/Logistics Analyst		N/A	$130.01
24 Nov 11 - 23 Nov 12	Program Manager	1 Hour	N/A	$177.00
	Senior Operations Analyst		N/A	$182.98
	Senior Systems Engineer III		N/A	$173.56
	Senior Systems Engineer II		N/A	$161.52
	Systems Engineer I		N/A	$122.69
	Senior Maintenance/Logistics Analyst		N/A	$135.21
24 Nov 12 - 23 Nov 13	Program Manager	1 Hour	N/A	$184.08
	Senior Operations Analyst		N/A	$190.30
	Senior Systems Engineer III		N/A	$180.50
	Senior Systems Engineer II		N/A	$167.98
	Systems Engineer I		N/A	$127.60
	Senior Maintenance/Logistics Analyst		N/A	$140.62
24 Nov 13 - 23 Nov 14	Program Manager	1 Hour	N/A	$191.44
	Senior Operations Analyst		N/A	$197.91
	Senior Systems Engineer III		N/A	$187.72
	Senior Systems Engineer II		N/A	$174.70

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Systems Engineer I		N/A	$132.71
Senior Maintenance/Logistics Analyst		N/A	$146.25

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