

Exhibit A
Scope of Services
Statewide Value Engineering

SECTION A-I. OBJECTIVE:

The objective of this contract is to provide Value Engineering (VE) services related to transportation facilities and to conduct training sessions in the principles of Value Engineering. Two categories of Value Engineering services may be required: A) Value Engineering Studies and B) Value Engineering Training. The Consultant may be required to provide Value Engineering training and/or conduct Statewide as well as District Value Engineering reviews. The nature of the Value Engineering studies may include, but not be limited to studies conducted on the following:

- Transportation Projects
- Department Design Standards
- Department Specifications
- Department Processes

The Consultant will use an approved Value Engineering Job Plan, in providing an independent review, developing reports, and making presentations of findings to Department management.

SECTION A-II. SERVICES:

Minimum requirements for each category are as follows.

A-II.1 Value Engineering Studies

When required, the Consultant shall provide team staffing and support to conduct Value Engineering studies on projects, standards, specifications or processes. Minimum service requirements are as follows:

- I. Value Engineering studies may be required at one or more of the following project phases, as outlined in [FDOT Procedure No. 625-030-002](#)
 - A. Concepts - immediately following the development of a recommended concept or corridor analysis.
 - B. Project Development and Environmental Studies (PD&E) - normally following the draft Preliminary Engineering Report, and prior to the public hearing, but may be held at other key times during the PD&E phase.

- C. Design – the desired time is following completion of Phase I (30%) design plans and prior to Phase II (60%) design plans, but can be held at other times during the projects design phase.
 - D. Design/Build – Prior to the release of the Request for Proposal (RFP) Document.
- II. The consultant shall be available to conduct Value Engineering studies for a period of time to be established jointly by the Department's State Value Engineer, District Value Engineer and the Consultant. The Consultant shall receive notice to proceed on each Value Engineering study prior to the start of the study.
- III. Services to be provided may involve any of the following, at the discretion of the Department's State Value Engineer.
 - A. A Value Engineering Team Leader with remaining team members comprised of personnel appointed by the Department.
 - B. A Value Engineering Team Leader with remaining team members comprised of specialists provided by the Consultant and personnel appointed by the Department.
 - C. A Value Engineering Team Leader with remaining team members comprised of specialists provided by the Consultant.
- IV. Value Engineering Team Leader Qualifications:
 - A. If only one person serves as the Value Engineering Team Leader, that person must meet the following requirements:
 - 1. Be certified as a Certified Value Specialist by SAVE International and have value engineering experience on transportation system facilities.
 - 2. Hold Registration as a Professional Engineer in accordance with Florida Statute 471 and have proficient knowledge and experience related to the design and/or construction of transportation system facilities.
 - B. If two people are to concurrently serve as The Value Engineering Team Leader, one person must hold the qualifications as stated in Section IV-A.1, above and the other must hold the qualifications as stated in Section IV-A.2.
- V. In the Event the Consultant is required to provide specialists for a study, the following shall apply:

The Consultant shall present the proposed team staffing for review and approval by the Department's State Value Engineer prior to the team study. All such submittals shall include a detailed description of work experience and credentials of each proposed team member. A consultant team member shall be a technical person with proficient knowledge and experience in the required discipline. It is the intent that these specialists possess current technical experience in order to develop viable project alternatives. The Department's State Value Engineer shall have the right to approve or reject any or all proposed team members.

VI. As determined by the Department's State Value Engineer, the Consultant will be responsible for any combination of the three phases of work associated with a Value Engineering study. These phases are: A) Pre-study Activities, B) Conduct Value Engineering Study, and C) Post Study Activities and include the following activities:

A. Pre-Study Activities – The Team Leader will assist in the planning and organizing of the Value Engineering study. This includes but is not limited to:

1. The Consultant shall coordinate with the Department as necessary to ensure adequate information is available to conduct a Value Engineering study.
2. The Consultant will coordinate with the Department to make provision for sufficient facilities for team meetings and other activities associated with conducting the Value Engineering study. Location of such facilities shall be accessible to team and project personnel.
3. The Consultant shall organize and plan the study by developing the study agenda for review by the Department.

B. Conduct Value Engineering Study – All Value Engineering studies shall be conducted in accordance with the practices and techniques as stated in [FDOT Procedure No. 625-030-002](#), and specifically the publications identified therein. All materials and equipment needed to perform the study, including computers, projection equipment, stationary, easels, flip charts, markers, pens, etc. should be provided by the consultant unless otherwise negotiated.

C. Post Study Activities

1. Reporting – The Value Engineering Team Leader shall submit study results in a manner as stated in [Procedure 625-030-002](#),

with the study summary report prepared in a format consistent with approved Department procedures and approved by the Department's State Value Engineer. Value Engineering recommendations will be supported with sufficient detail and calculations to allow a prudent decision of implementation by the Department. Each VE recommendation shall be categorized according to the Federal Highway Administration (FHWA) Performance Indicators and the categorization reflected in the report. These Performance Indicators are: Safety, Operations, Environmental, Construction and Other. In addition, the study summary report shall contain an Executive Summary which discusses in detail, the proposed Value Engineering alternative, as well as the potential savings and the description of costs. The study summary report will also discuss the cost of re-design, environmental impacts, and such other items as manpower, time and project schedules. The study summary report shall be signed and sealed by a Professional Engineer registered in the State of Florida, certifying that the study was conducted using current and approved Value Engineering principles. This professional engineer certification shall come from the Value Engineering Team Leader that meets the qualifications in section A-II.1.IV.A.2. The original, a negotiated number of hard copies and electronic files of the Value Engineering study summary report will be furnished to the Department. The electronic files shall contain both TIFF and PDF file formats. The draft Value Engineering summary study report shall be submitted within two (2) weeks of the completed study.

2. Presentation – In addition to the presentation conducted during the Value Engineering study, the Value Engineering Team Leader and such team members as deemed necessary by the District Value Engineer, shall make a formal presentation to Florida Department of Transportation (FDOT) Management. The presentation also shall be coordinated through the Department's Project Manager to ensure that persons authorized to evaluate and act upon the Value Engineering recommendations are present.

VII. Department shall be responsible for providing the following:

- A. Traffic Information (which was utilized in making the conceptual design decisions) consisting of preliminary 10 and 20-year projections based on the present and historical counts should be available. Also, any other known traffic impact, which is anticipated.

- B. Aerial photo coverage of the project depicting corridors or interchange layouts.
- C. Information on current right-of-way values consisting of such items as square foot market values for areas that are affected by each proposed conceptual design.
- D. Information concerning the identification of a preferred concept. Such information should include construction cost, right-of-way cost, environmental impacts, safety, operation, and relocations.
- E. Approved Technical Traffic Memorandum
- F. Estimated construction cost breakdown by alternate.
- G. Estimated right-of-way costs for each alternate based on actual real estate values in the area.
- H. Business damage estimates on each alternate.
- I. Traffic operation analysis through utilization of programs such as "SOAP", "ACCIDENT", etc.
- J. Data for life cycle cost analysis which includes maintenance cost, periodic improvements, and resurfacing requirements for each alternate.
- K. Relocation plan showing number of businesses and residences that would need relocating on each alternate.
- L. Key sheet with location map, begin and end stations, equations, and project numbers.
- M. Drainage map showing:
 - 1. Existing data including ridgelines, elevations, and structures.
 - 2. High water information
 - 3. Drainage areas and direction of flow
 - 4. Horizontal alignment
 - 5. Flood plains (100 year)
- N. Typical Sections
- O. Plan and Profile Sheets showing:
 - 1. Baseline survey, roadway alignment, curve data, bearings

2. Existing topo
3. Profile grades
4. Proposed and existing right-of-way
5. Begin and End project, equations
6. Existing utilities
7. Bridges and related information
8. Design Controls/Constraints

P. Intersection and Interchange Layouts showing:

1. Existing topographic map
2. Basic survey geometry
3. Profile grades

Q. Cross Section showing:

1. Existing ground line
2. Partial proposed templates
3. Existing utilities

R. Drainage outfalls showing:

1. Alignments
2. Cross sections showing existing ground line and partial templates.

S. Retention area showing:

1. Possible location and area required
2. Any known potential location

T. Conceptual Structural Plans (in detail relative to the status of the project phase).

1. Plan and Elevation sheets
2. Cross-sections through structure.

U. Geotechnical Reports.

V. Approved or Draft Environmental Documents, and Preliminary Engineering Reports.

W. Any report prepared as a result of a Cost Risk Analysis Workshop should be available to the VE team.

A-II.2 Value Engineering Training

- I. Minimum Qualifications – The training instructor, shall be a Certified Value Specialist (CVS) and shall have proficient knowledge and training experience specifically related to Value Engineering.

II. Services

A. Team Member Training

1. When required, the Consultant shall conduct Value Engineering Team Member Training Workshops. The workshop will be SAVE certified 40 hour, Module I. Team Member skills and value engineering concepts shall be taught to Department personnel and consultants.
2. Specific Value Engineering concepts required by the team members to effectively apply the Value Engineering process shall be covered during the training session. These shall include, but are not limited to the following:
 - a. Value Engineering Job Plan
 - b. Function Analysis System Technique
 - c. Basic and Secondary Functions
 - d. Function Worth/Cost and Value Index
 - e. Essential characteristics of effective group dynamics
 - f. Presentation Skills
3. Workshop
 - a. The consultant will be required to instruct a maximum of 35 students during each workshop. Two instructors will be required as all workshops involving more than 16 students, at the discretion of the Department Project Manager. Consultant shall provide a certificate as proof of successful completion of the workshop to each student.
 - b. The Consultant shall provide a course reference manual that can be used by the participants as future reference when participating in Value Engineering studies.
 - c. The Consultant will be responsible for all workshop costs, including but not limited to, workshop study manuals for each workshop participant, computer, projection equipment, student certificates, books manuals, copies, etc.

4. Post Workshop Quality Assessment:

- a. The Consultant shall review and evaluate the workshop results including the team study reports and shall provide specific recommendations for improvements to the training sessions.
- b. The Consultant shall provide the Department Project Manager, within 2 weeks of the training, an evaluation of the training session completed by each participant. The evaluation form shall be approved by the Department Project Manager prior to the training session.

5. Department Responsibilities:

- a. Course material will be subject to FDOT approval.
- b. The Department will select all workshop participants.
- c. If active projects are selected as the medium for course delivery, the Department will select the projects.
- d. As necessary, the Department's Project Manager will provide project information, plans, reports, or data for training that includes active projects.

B. Team Leader Training

1. When required, the Consultant shall conduct Value Engineering Team Leader Training Workshops. Team leadership skills and value engineering concepts shall be taught to Department personnel and consultants.
2. Specific skills effective team leaders must develop shall be covered during the training session. These shall include, but are not limited to the following:
 - a. Ability to lead a team through the VE process
 - b. Teach VE techniques to team members as needed
 - c. Impart full ownership and responsibility for team functions
 - d. Establish and maintain team momentum
 - e. Coordinate team activities
 - f. Set example by actions
 - g. Motivate and direct team
 - h. Assess team member strength and weaknesses

- i. Manage human relationships and productivity
 - j. Prioritize objectives and make task assignments
- 3. Specific Value Engineering concepts required by the team leader to effectively apply the Value Engineering process shall be covered during the training session. These shall include, but are not limited to the following:
 - a. Value Engineering Job Plan
 - b. Function Analysis System Technique (FAST)
 - c. Basic and Secondary Functions
 - d. Function Worth/Cost and Value Index
 - e. Essential characteristics of effective group management
 - f. Presentation Skills
- 4. Workshop
 - a. The Consultant will be required to instruct a maximum of 35 students during each workshop. Two instructors will be required at all workshops involving more than 16 students, at the discretion of the Project Manager.
 - b. The Workshop will be conducted for a minimum of two days and a maximum of five days, depending on the “needs” evaluation performed by the Consultant and the Department’s Project Manager on the Proficiency level of the trainees as determined prior to the beginning of the workshop.
 - c. The Consultant shall provide a certificate as proof of successful completion of the workshop to each student.
 - d. The Consultant shall provide a course reference manual that can be used by the participants as future reference when conducting Value Engineering studies.
 - e. The consultant will be responsible for all workshop costs, including but not limited to, workshop study manuals for each workshop participant, computer, projection equipment, student certificates, books, manuals, copies, etc.
- 5. Post Workshop Quality Assessment:
 - a. The Consultant shall review and evaluate the workshop results including the team study reports and shall provide

specific recommendations for improvements to the training sessions.

- b. The Consultant shall provide the Department Project Manager, within 2 weeks of the training, an evaluation of the training session completed by each participant. The evaluation form shall be approved by the Department Project Manager prior to the training session.

6. Department Responsibilities:

- a. Course material will be subject to FDOT approval.
- b. The Department will select all workshop participants.
- c. If active projects are selected as the medium for course delivery, the Department will select the projects.
- d. As necessary, the Department's Project Manager will provide project information, plans, reports, or data for training that includes active projects.

- C. Optional Training – The consultant may be requested to conduct separate training workshops for topics that include, but are not limited to Life Cycle Costing, Functional Analysis System Technique (FAST) and Value Engineering Overview.

SECTION A-III. RESPONSIBILITIES OF THE DEPARTMENT

The Department shall provide a Project Manager who shall be responsible for all coordination with the Consultant pertaining to all contractual matters, invoicing and reporting. The Department may also designate a manager for each Task Work Order who shall be responsible for working with the Consultant Project Manager to define the specific work to be performed and the schedule for completion of each task, the Consultant staffing to be provided, and the cost. The Department Project Manager shall be responsible for approval of any additional staffing to be provided including additional consultant staff (approval must be coordinated with the Procurement Office), and shall give approval of all products and services.

SECTION A-IV. RESPONSIBILITIES OF THE CONSULTANT

The Consultant shall provide and maintain an up-to-date list of staff with agreed-to classifications and approved salaries (subject to the contract Exhibit "B") that would be available to be assigned to specific Task Work Orders. No consultant

staff, except those specifically identified in a Task Work Order or those specifically agreed to by the Department Project Manager, shall charge time to that particular Task Work Order.

Consultant must request approval from the Department's Project Manager for any modifications or additions to the list of available staff prior to the initiation of any work by that individual. If applicable, new job classifications may be added to the contract via contract amendment. Consultant shall submit a copy of the resume and payroll register before new staff can be added.

For a Task Work Order where Consultant staff are anticipated to work the majority of a 40 hour week at Department facilities, the Consultant will be reimbursed at the field rate, and staff who are anticipated to work on average the majority of the week at the home office should be reimbursed at the home rate.

SECTION A-V. MISCELLANEOUS

Personnel Qualifications

The Consultant shall assign only competent technical and professional personnel qualified by the necessary experience and education to perform assigned work. The Consultant is responsible for ensuring that staff assigned to work under this Agreement has the training established by the Department as a prerequisite for consultant staff to perform work. If the required training is such that it can be applied by the trainee to work on other contracts, (regardless of whether or not the trainee would work on other agreements), the cost of the trainee's time and expenses associated with the training is not directly billable to the Department on this contract, and shall only be recoverable through overhead for the Consultant firm.

Subconsultant Services

Services assigned to any subconsultants must be approved in writing and in advance by the Department Project Manager, Procurement Office, and the Consultant Project Manager in accordance with this Agreement. All subconsultants must be technically qualified by the Department to perform all work assigned to them. Additional subconsultants with specialized areas of expertise may be required to complete specific Task Work Order assignments. Any subconsultant to be hired and all work assignments to be performed, and all rates of compensation shall be agreed to by the Department Project Manager, Procurement Office and the Consultant Project Manager and documented in the contract file prior to any work being performed by the subconsultant.

Any new subconsultant must be added to the contract via contract amendment (in coordination with the Procurement Office) prior to any issuance of work on a Task Work Order.

Consultant Not Employee or Agent

The Consultant and its employees, agents, representatives, or subconsultants/subcontractors are not employees of the Department and are not entitled to the benefits of State of Florida employees. Except to the extent expressly authorized herein, Consultant and its employees, agents, representatives, or subconsultants/subcontractors are not agents of the Department or the State for any purpose or authority such as to bind or represent the interests thereof, and shall not represent that it is an agent or that it is acting on the behalf of the Department or the State. The Department shall not be bound by any unauthorized acts or conduct of Consultant.

Ownership of Works and Inventions

The Department shall have full ownership of any works of authorship, inventions, improvements, ideas, data, processes, computer software programs, and discoveries (hereafter called intellectual property) conceived, created, or furnished under this Agreement, with no rights of ownership in Consultant or any subconsultants/subcontractors. Consultant and subconsultants/subcontractors shall fully and promptly disclose to the Department all intellectual property conceived, created, or furnished under this Agreement. Consultant or subconsultant/subcontractor hereby assigns to the Department the sole and exclusive right, title, and interest in and to all intellectual property conceived, created, or furnished under this Agreement, without further consideration. This Agreement shall operate as an irrevocable assignment by Consultant and subconsultants/subcontractors to the Department of the copyright in any intellectual property created, published, or furnished to the Department under this Agreement, including all rights thereunder in perpetuity. Consultant and subconsultants/subcontractors shall not patent any intellectual property conceived, created, or furnished under this Agreement. Consultant and subconsultants/subcontractors agree to execute and deliver all necessary documents requested by the Department to effect the assignment of intellectual property to the Department or the registration or confirmation of the Department's rights in or to intellectual property under the terms of this Agreement. Consultant agrees to include this provision in all its subcontracts under this Agreement.

Conflict of Interest

The Consultant and its subconsultants will not enter into another contract during the term of this agreement which would create or involve a conflict of interest with the services herein. The Consultant and its subconsultants must comply with FDOT Procedure No. 375-030-006, Conflict of Interest Procedure for Department Contracts.