Preliminary Agenda

Friday, June 7, 2020
10:00 AM – 2:30 PM  PRE-SUMMIT WORKSHOP

Effective Facilitation (Part 1)
Instructor: John Sloggy, PE, CVS (Value Based Design)

PDUs: 3.75 hours / 7.5 total hours
Core Competency: Team Facilitation

This workshop is a mixture of lecture and team practice exercises utilizing the Pocket Guide: Facilitation as a Glance by Ingrid Bens as a source of workshop material (provided). We cover the following facilitation core competencies during the workshop:

- Understanding Facilitation
- Effective Questioning
- Facilitation Stages

Saturday, June 6, 2020
8:00 AM – 5:00 PM  PRE-SUMMIT WORKSHOPS

ABDs of Advanced Value Engineering – Day 1
Instructors: Frank Vicidomina, PE, CVS-Life and Jeff Rude, CVS (Value Management Strategies, Inc.)

PDUs: 7.5 hours / 15 hours total
Core Competencies:
- Value Methodology
- Transform Information
The Value Engineering (VE) practitioner’s goal should be to best take care of his CUSTOMER via finding ‘D’ – the ‘diamond in the rough’ better solution for a given project or process. This can be accomplished by optimal execution of the VE Job Plan. To that end the objective of this course/book is to help improve the VE professional’s skills via the sharing of the author’s experience and input from course participants. This course addresses functionality and 100 issues associated with the Pre-Workshop, six-phase VE Job Plan and Post-Workshop activities as well as various select ‘odds and ends’. The book presents the subject matter training but is also good as an independent, stand-alone learning document.

If you’re looking for the latest gee-wiz technologies, etc., there will be some of that. The primary focus of this course, however, is on reiterating what VE should be, identifying issues and offering advice on how to improve preparing for, conducting and documenting VE workshops. The book/course is aimed at the experienced VE practitioner but should also be helpful for those new to the profession. VE program managers may also benefit from this course via gaining insight to what their VE practitioners should be doing for them.

10:00 AM – 2:30 PM  **Effective Facilitation (Part 2)**
Instructor: John Sloggy, PE, CVS (Value Based Design)
PDUs: 3.75 hours / 7.5 total hours
Core Competency: Team Facilitation

**Sunday, June 7, 2020**

8:00 AM – 5:00 PM  **PRE-SUMMIT WORKSHOP**
*ABDs of Advanced Value Engineering – Day 2*
Instructors: Frank Vicidomina, PE, CVS-Life and Jeff Rude, CVS (Value Management Strategies, Inc.)
PDUs: 7.5 hours / 15 hours total

**Beyond FAST - Applying 21st Century Function Models, Tools and Techniques**
Instructors: Bruce Lenzer, CVS-Life, FSAVE, CQM/OE, CLA, CAQMSA (Synergy Value Solutions, LLC) and James McCuish (Pinnacle Results LLC)
PDUs: 7.5 hours
Core Competencies:
- Team Facilitation
- Function Analysis

This class/seminar covers 21st century function modeling tools and techniques to optimize and value improve products, projects, and processes. Successful Improvement Teams’ delivery has become more complex and demanding in a volatile environment of ever tighter margins that involve a spectra of risks to consider. A variety of risks which matter can be identified and represented in the context of one or more of these function models.
This Full day class including example exercises, is designed for all practitioners of value engineering, optimization, quality, as well as process and project improvement desiring to learn more regarding different types and styles of Function Modeling and innovative applications of Function Analysis System Technique (FAST). Participants will be introduced to intermediate and advanced fundamentals of function science, interfacing business processes, organizations, and optimizing project delivery with FAST models. In addition, contemporary tools will be shared in building Process Cost Models.

Innovations to model cost will be shared and explained, interfacing labor and materials cost to simulate as-is and to-be changes surrounding a proposed improvement. Interfacing these components of cost to function broadens the analytical capability for value, quality, process and project improvement practitioners in government and industry.

The class will also explain and conduct practice exercises addressing Organization Function FAST associated with Project Planning, Schedule Optimization and Change Management. Organizational FAST is a pragmatic application of the FAST tool which provides characterization and visualization so Project Teams and Management can agree on the way forward and resources required to achieve organizational success. Organizational FAST also provides a simple, yet elegant, method to drive down the detail of the Organizational Functions to be achieved in the System.

It exhibits the interfaces and dependencies with clarity as well as differentiates the “As we do it state” from the “As we should do it state.” In addition, it supports assignment of Roles & Accountabilities. A tangible graphic representation helps prove the understandings developed in the Teams’ System Thinking work does exist, and which will be referenced in a consistent and repeatable business process. The graphic representation also serves as a reference point for discussions with new team members, other internal Organizations, Clients, & Contractors. These Organizational Maps may be “dimensioned” in a variety of ways to leverage additional enhancements adding to the understanding of value between the project teams, customers and clients.

Monday, June 8, 2020

7:30 AM – 8:00 AM  PLENARY
Renee Hoekstra, CVS
SAVE International President

8:00 AM – 10:00 AM  BLOCK 1 (TRANSPORTATION TRACK)
8:00 AM  Base Uncertainty in Cost Estimating and the Implications in Value Engineering
Presenter: Grace Olaleye
PDUs: 0.5 Hours
Core Competency: Function Analysis

Inaccurate estimating has dogged the transportation industry for years. In the past decade or so many state department of transportation agencies have embraced risk based estimating and more are examining this tool. The fact that estimates are more correctly expressed as a range rather than a single number is aided by a full understanding of risk and uncertainty. Value Engineering practitioners can benefit from understanding how uncertainty in cost estimates in particular can be captured, expressed and considered. Even if no risks are present there is uncertainty in the project cost estimate and in the Value Engineering recommendations developed. This is not a cause for concern but rather a fact to be integrated into the Value Engineering job plan and deliverables.

The Information phase should include information about project cost and schedule estimates and the uncertainty associated with the estimates. During the Evaluation and Development phases the uncertainty associated with ideas and recommendations should be captured. Finally, in the presentation
phase the uncertainty associated with recommendations should be communicated. How is this done? Using ranges rather than single numbers.

8:30 AM  
**Risk Analysis Details and Options for Use in Establishing Contingencies**  
Presenter: Grace Olaleye (HNTB Corporation)  
PDUs: 0.5 Hours  
Core Competency: Function Analysis

Use of risk-based estimating to inform decisions on contingencies.

9:00 AM  
**FHWA - Risk from FHWA perspective and use of Value Engineering in project delivery; Probabilistic Risk Based Estimating**  
Presenter: Pete Garcia (Federal Highway Administration)  
PDUs: 0.5 Hours  
Core Competency: ??

FHWA’s efforts to in the field of Value Engineering and Probabilistic Risk Based Estimating.

9:30 AM  
**Baseline – Confirming Interchange VE Study Yields $11M Cost Savings**  
Presenter: Warren Knoles, PE, CVS (Crawford, Murphy & Tilly)  
PDUs: 0.5 Hours  
Core Competency: Transform Information

Following five years of preliminary engineering, environmental studies, and public involvement, the Illinois Department of Transportation (IDOT) commissioned a value engineering (VE) study on the resulting Phase I (30%) conceptual design for the replacement of the 1960s-vintage, Interstate 74 (I-74), cloverleaf interchange with a diverging-diamond interchange (DDI). The author and the study team anticipated the likelihood of several viable VE proposals that would improve the baseline design concept. Surprisingly, the VE study resulted in confirmation of the baseline DDI design concept as the optimum design solution. However, the VE team identified 11 viable VE proposals of which six were accepted for implementation totaling $11 million (15%) in construction cost savings. This paper briefly describes how the VE study team applied the value methodology to the baseline project, the resulting six accepted VE proposals, and several “lessons learned” that emerged from the study. This paper affirms the effectiveness of the VE methodology in reducing project costs on transportation projects and enhancing their value.

10:00 AM – 10:30 AM  
**BREAK / VIRTUAL CHAT ROOM**

10:30 AM – 12:30 PM  
**BLOCK 2 (TRANSPORTATION TRACK)**

10:30 AM  
**Unit Price Visualization Tool in GIS Environment for Cost Estimating**  
Presenters: K. Joseph Shrestha (California Department of Transportation) and H. David Jeong, PhD (Texas A & M University College of Architecture)  
PDUs – 0.5 Hours / Core Competency: Function Analysis

Cost estimating is one of the most important and challenging tasks for highway construction project owners. Reliable accuracy of an engineer’s estimate is desired to ensure the optimum utilization of an available budget for a highway agency. In the past and still today, state highway agencies have heavily used an estimator’s experience and judgment to produce an engineer’s estimate. While a human brain may be able to account for a few factors simultaneously that may affect the cost of a work item, efficient evaluation and consideration of various spatial factors and quantity factors on the costs of many work items in the ever-growing amount of historical project cost data is almost impossible for a human being to cognitively handle. This presentation will discuss a recent study conducted on historical bid data available in California Department of Transportation (Caltrans). In this study, a computational algorithm was developed to automatically evaluate and quantify the effect of a project’s location and the quantity of a
work item and visualize the results on a computer screen for effective communication with the estimator. An add-in tool for Environmental Systems Research Institute (ESRI) ArcGIS software was first developed and later, a 100% web-based tool was developed to make it free from the dependency on a commercial software program. The web-based tool, namely, Unit Price Visualization and Estimating Tool (UPVET) can provide a visual overview of the statewide construction market conditions and is able to estimate the unit price of a bid item at various locations in the state of California based on historical unit price data. It is based on the Tobler’s First Law of Geography that states that the points closer together in space are more likely to have a similar value than points farther away. The tool is able to filter the historical bid items by quantities and bid year as well before producing estimates to provide more granular and reliable adjustments to the estimated unit prices. The tool is expected to enable estimators to generate estimates with higher certainty. The presentation will demonstrate the UPVET to showcase the power of the tool.

11:00 AM  
**Risk Management and Allocation in Design-Build for Transportation Projects**  
**Presenter:** Mark Gabel, MSCE, PE, CVS (Washington State Department of Transportation)  
**PDUs –** 0.5 Hours / Core Competency: Function Analysis

The ever-increasing need to fully understand and communicate project information to contract parties (owner and design-builder) as well as diverse audiences and communities continues to be a challenge. In addition, design teams, working with multiple and varied partners and internal specialists, need to be able to quickly grasp the nature of a project, its context, risk and work activities. Project risk management methods are fairly well established and continue to evolve. Through the project design and development process there can be overwhelming amounts of data for large projects, which can be cumbersome and confusing to interpret. The need for identifying risk ownership is heightened for the design-build delivery method. There must be an agreement by all parties as to who owns each risk, typically classified as: owner risk, design-builder risk, or shared risk.

Value Engineering offers a natural method for cutting through the chaos and decision angst by identifying functions and responding to issues of greatest import. Value Engineering, when combined with risk management, produces a prominent benefit of identifying risk owners. Value Engineering is useful during pre-procurement and offers opportunities to improve the Request for Qualifications and Request for Proposal processes.

11:30 AM  
**Building a VE Program - Oregon DOT**  
**Presenter:** Zach Davis (Oregon Department of Transportation)  
**PDUs:** 0.5 Hours  
**Core Competency:** Value Program

The ODOT Statewide Project Development Section sponsored a Project Risk Management/Value Engineering/Constructability Review Task Force charged with submitting a formal whitepaper with recommendations for leading the agency toward improved implementation of project risk management, value engineering and constructability reviews for project delivery. This paper deals with this effort.

12:00 PM  
**Value Engineering and the Importance of Considering Cognitive Bias**  
**Presenter:** Mark Sujka (Washington State Department of Transportation)  
**PDUs:** 0.5 Hours  
**Core Competency:** Team Facilitation

A recent Virtual PM Challenge explored the importance of raising awareness of cognitive bias in engineering decision-making and limiting its impact on NASA projects.

Raising awareness of cognitive bias is an effective first step in reducing cognitive bias in project decision-making. The professional Value Engineering leader is looked to as an objective guide in project review and examination. Objectivity of the VE Leader is enhanced and validated when they guard against their own cognitive biases and help others recognize and avoid cognitive bias.
How cognitive biases emerge and how to proactively inoculate the VE study against them is explored in the paper and presentation.

12:30 PM – 1:00 PM  **BREAK / VIRTUAL CHAT ROOM**

1:00 PM – 2:00 PM  **Professional Development Session: VM Report Training**
Laurie Dennis, CVS-Life, PE

PDUs: 1.0 hours  
Core Competency: Post-Workshop Stage

The Value Engineer (VE) report is often overlooked during value training with little or no guidance for the future value practitioner and as an afterthought by some value practitioners. However, the VE report lives beyond the workshop in the files of the clients and users of those value studies. When a project or product has budget or schedule issues or concerns, one of the first documents management reaches for is the VE report.

For many clients, the VE report becomes the primary marketing tool for future value studies and maintenance of their value program. In addition, the quality of many of these reports reflect the lack of focus and reflects poorly on the value community.

The purpose of this session is to give the attendees, owners, users and practitioners, input, tools and techniques to improve the quality of the VE report and discuss opportunities for improvement in the future.

2:00 PM – 3:30 PM  **BLOCK 3 (TRANSPORTATION TRACK)**

2:00 PM  **Utilizing a Modified Function Value Resource Matrix in Transportation Projects**
Presenter: Thomasa W. Hume, CVS (Washington State Department of Transportation)

PDUs: 0.5 Hours  
Core Competency: Workshop Stage (Six-Phase VM Job Plan)

An important but often omitted step in value analysis is application of the “Function Value Resource Matrix”. The “Function Value Resource Matrix” provides a discernible key in demonstrating the most advantageous functions for which to focus the team’s efforts within the study. In new product manufacturing it may be of vital importance to identify the how the cost of each individual component contributes to the overall product, but how can one apply this oft times lengthy process to a large transportation project while preserving the teams time and momentum? Most of our standard transportation projects are comprised of very similar work that we are very familiar with, and the makeup of the work items, well understood. Presented here is the use of a modified “Function Value Resource Matrix” to achieve the benefits of doing the function value exercise, while fitting it into a shorter, meaningful timeframe for standard transportation projects. The modified function value resource matrix makes use of the project cost estimate and the major work type elements, i.e. structures, earthwork, surfacing. The work type elements are used in the matrix with the identified key functions, and the team gives a weight of importance to each element based on the importance to the principal project need.

Each project element is then correlated to the identified functions: 1 = weak, 3 = moderate, 5 = strong. The correlation scores and importance scores are multiplied to provide an overall weight to the work element/function combination and the function cost is calculated. This modified method secures the teams the ability to use the larger work elements that are comprised of many smaller components, and identify the associated cost contribution to important project functions. This method maximizing the time and resources used where, when utilizing the traditional method for a transportation projects, much of the function value exercise would provide little additional useful or beneficial knowledge about function cost.
**Tuesday, June 9, 2020**

**2:30 PM**  
*Best VE Recommendations Ever*  
Presenter: Blane Long (HDR, Inc.)  
PDU: 1.0 Hours  
Core Competency: Value Program  
"Greatest Hits" of VE recommendations are shared during this session

**7:30 AM – 8:00 AM**  
PLENARY  
Renee Hoekstra, CVS  
SAVE International President

**8:00 AM – 10:00 AM**  
**BLOCK 4**

**8:00 AM**  
*Giving a Client Value - Whatever That Is!*  
Presenter: John Downer (PENSPEN LTD)  
PDU: 0.5 Hours  
Core Competency: Value Methodology

**8:30 AM**  
*Uncommon Denominator*  
Presenter: Jeff Rude, CVS (Value Management Strategies)  
PDU: 0.5 Hours  
Core Competency: Value Methodology

**9:00 AM**  
*The Function Analysis Business Planning System as New Methodology for Business Startups*  
Presenter: Noriko Murakami (Legend Consulting Company Limited)  
PDU: 0.5 Hours  
Core Competency: Function Analysis

**9:30 AM**  
*The Case for Generic Fast Diagrams*  
Presenter: James McCuish (Pinnacle Results LLC)  
PDU: 0.5 Hours  
Core Competency: Function Analysis

**10:00 AM – 10:30 AM**  
BREAK / VIRTUAL CHAT ROOM

**10:30 AM – 12:30 PM**  
**Professional Development: Life Cycle Cost Analysis Techniques**  
Greg Brink, CVS, PMP, PMI-RMP, PMI-PBA, CCEA, ENV SP (Value Management Strategies, Inc.)  
PDU: 2.0 hours  
Core Competency: Cost Analysis  
This 2-hour Continuing Education (CE) course will explore a streamlined method to perform life cycle cost analysis using advanced techniques, such as risk analysis and sensitivity analysis, to improve the decision-making process during Value studies. Additionally, graphic presentation methods that simplify cash flow analysis will be addressed so that participants can easily present a range of possible net present value (NPV) costs and schedules for future major maintenance events. Additional techniques will explore integration of risk-based cash flow analysis for estimating the total cost of ownership of alternatives to help stakeholders understand the implications project development and design decisions. Armed with
improved information concerning life cycle cost, participants can balance initial and future cost to optimize their designs, improve the Value of their programs, and support their design decisions with defensible cost analysis leading to a higher probability of net Value Improvement and ultimate Value Alternative implementation.

12:30 PM – 1:00 PM  **BREAK / VIRTUAL CHAT ROOM**

1:00 PM – 3:00 PM  **BLOCK 5**

1:00 PM  **An Experiment Comparing COMBINEX and Choosing by Advantages to Evaluate Alternatives**
Presenter: John Koga (Lean Construction Value Specialties LLC)
PDUs: 0.5 Hours
Core Competency: Workshop Stage (Six-Phase VM Job Plan)

1:30 PM  **Adopting Value Management in the Organisation: Challenges for VM Champions**
Presenter: Timme Hendriksen (Value FM/ProRail)
PDUs: 0.5 Hours
Core Competency: Value Program

2:00 PM  **New Three Techniques for New Store Opening and New Business Investment**
Presenter: Hisaya Yokota (Functional Approach Institute Co., Ltd.)
PDUs: 0.5 Hours
Core Competency: Value Program

2:30 PM  **Development of a New Improvement Method of Combining Multiple Facilities for a Better Commercial Complex**
Presenter: Daisuke Kaida (Higuchi Group)
PDUs: 0.5 Hours
Core Competency: Cost Analysis

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**Wednesday, June 10, 2020**

7:30 AM – 8:00 AM  **PLENARY**
Renee Hoekstra, CVS
SAVE International President

8:00 AM – 10:00 AM  **BLOCK 6**

8:00 AM  **Applications of VE in Alternative Delivery**
Presenter: Chuck Bartlett (Alfred Benesch & Company)
PDUs: 0.5 Hours
Core Competency: Value Program

8:30 AM  **How to Improve Your Presentation**
Presenter: Kyle Schafersman (Strategic Value Solutions, Inc.)
PDUs: 0.5 Hours
Core Competency: Workshop Stage (Six-Phase VM Job Plan)
9:00 AM  
**VM meets the Bermuda Quadrangle with Spiraling Dynamics, Value Methodology’s Role in the Evolving World of Innovation**
Presenter: Robert Prager (Strategic Value Solutions, Inc.)
PDUs: 0.5 Hours
Core Competency: Team Facilitation

9:30 AM  
**Realigning Project Scope of Work Using Customized Value Strategy Steps**
Presenter: Ahmed Ali (Azzouni Consulting Office)
PDUs: 0.5 Hours
Core Competency: Pre-Workshop Stage

10:00 AM – 10:30 AM  
**BREAK / VIRTUAL CHAT ROOM**

10:30 AM – 12:30 PM  
**BLOCK 7**

10:30 AM  
**Value Concept for Government Programs**
Presenter: Corey White, PE, CVS® – U.S. Army Corps of Engineers
PDUs: 0.5 Hours
Core Competency: Value Program

11:00 AM  
**Pumping in Value: An Early Value Study for the Davis and Poe Pump Well Systems at Soo Locks Incorporating the Use of a Facility System Safety (FASS) Tool**
Presenter: Amy Jo Riffee, PE, CVS® (U.S. Army Corps of Engineers)
PDUs: 0.5 Hours
Core Competency: Transform Information

11:30 AM  
**OPEN**

12:00 PM  
**VM of “Five Senses Appeal” through its Value Measuring Method**
Kazuhiro Fukae (Higuchi Group)
PDUs: 0.5 Hours
Core Competency: Function Analysis

12:30 PM – 1:00 PM  
**BREAK / VIRTUAL CHAT ROOM**

1:00 PM – 3:00 PM  
**Professional Development Session: Transforming Information for Enhancing Value Studies**
Thomas Cook, CVS

PDUs: 2.0 hours
Core Competency: Transform Information

Session Objective will be to interactively demonstrate real world techniques for defining, collecting, organizing, and transforming data to aid Value Teams’ understanding of the value index (function cost divided by function worth).

This transformation occurs initially in the pre-study information and data gathering period. Relevant data on cost, process, risk, quality, user expectations, goals etc need to be collected, demystified, and packaged in a concise, digestible format for effective use during the Value Study.

This training session will demonstrate how to further transform this information, with an eye on function, by the Value Study Team to enhance their insights during the Information/Function Analysis Phase.

This conference session will show best practice in identification, collection, modeling, packaging, all with the goal of transforming information and data to aid a Value Study Team in discovering new perspectives and opportunities.
POST-SUMMIT WORKSHOP

**VE in Combination with Mediation: Supertool for Multiparty Plan Making**
Instructor: Dorine Cleton, LLM (CLETON&COM)

PDUs: 7.5 hours
Core Competency: Pre-Workshop Stage

After presenting and winning the paper of the Year award in Austin, Texas (2018) for “VE in combination with Mediation as Super tool for Multiparty Plan Making” many people inquired: How does it work exactly? How do I get the information, joined criteria? How do you get from random suggestions about the area to VE, FAST and a coherent process that ends with doable alternatives? In Portland (2019) I conducted a half day workshop to explain how the method works and letting the attendees experience several steps themselves. The workshop received positive feedback, but there was one comment: please make it into a full day workshop. This proposal is for that full day workshop. It will allow more interaction and more changes for the attendees to really experience what the method is all about.

It will provide an introduction to mediation, will give an inside in the facilitation skills needed and simple methods that have proven to work and will give an overall view about the process of combining mediation (PPNP) and Value Engineering. The workshop will look into the difference in this process in the information phase (getting information form citizens, the city and the developer), criteria, FAST, team), the joined effort (specialist, citizens and stakeholders), as well as the presentation to all parties, citizen, city and development company. It will also provide information about how the city, board as well as city council, civil servants, specialist can and have to be involved. Lessons learned will be shared.

Special attention is given to the Pre-workshop Stage.

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**Thursday, June 11 – Sunday, June 14, 2020**

**Value Methodology Fundamentals 1 (VMF1)**
Instructors: Javier Masini, CVS (Advanced Value Group, LLC) and Patrice Miller, CVS (RHA, LLC)

PDUs: 8.0 hours / 32 hours total