



Build Better Proposals: Using Value Management Tools

Presented by:
Renee L. Hoekstra, CVS
RH & Associates, Inc.
Pat Miller, AVS
Entellus, Inc.



Presentation Outline



- **Defining Value Engineering (VE)**
 - What is it?
 - 6-Step Job Plan
- **Using VE to Build a More Successful Proposal**
 - It's a team approach
 - What to do within the VE Job Plan?
- **Other Proposal Opportunities**
- **Practical Demonstration of VE Proposal Workshop**

The Long and Short of VE



- It is a formal process
- It is not about “cost cutting”
- It is a team approach

Value Methodology



What Is It?

- **Value Methodology**

(Synonyms: value analysis, value engineering and value management)

- *. . . function-oriented, systematic, team approach to add customer value to a program, facility, system, or service. Improvements like performance, quality, initial and life cycle cost are paramount in the value methodology.*

Value Methodology



- **Why is Value Engineering Important to the Client?**
 - Reduced Capital Costs
 - Reduced Life Cycle Costs
 - Reduced Impact to the Public
 - Reduced Impact to the Environment
 - Reduced Impact to Operations
 - Helping the Client Understand Function/Worth
 - Determine Other Needs, i.e. LEED, Green-built
- **The Key is Adding Value for the Client!**

Value Methodology



- **6 STEP JOB PLAN**
 1. Information Phase
 2. Function Analysis
 3. Creative Phase
 4. Evaluation Phase
 5. Development Phase
 6. Presentation/Implementation

It's All About the VE/ Proposal Team!



- Use those you are proposing for the project including subs
- Add others with expertise as needed
 - Construction, Agency experience, O&M, specialized technical expertise
- Is your team “Insane”?
 - Team members need to be willing to be creative, innovative and break from tradition
- Need to be able to share and brainstorm

A Formal Workshop is Best



- Schedule some quality time to work together as a team (It is a team approach)
 - Could be at least 4 hours for traditional planning, design or CMAR project
 - D/B may be 1 to 2 days depending on the complexity of the project
- Have someone facilitate the various steps of the job plan, a certified individual is best
- Force the team to go through each step in the job plan
- Take advantage of the expertise in the room

Information Phase



- Understand the scope of the project
 - Pre-work/study should have already been done
 - Site visit, stakeholder discussions, etc.
- Identify project specific risks
- Evaluate cost information (as available)
- Identify the owner's performance attributes
 - What is important to the client (project specific)
 - Maintenance of Traffic
 - Environmental
 - Constructability
 - Schedule
 - Maintainability & Durability
 - Public and Stakeholder Impact

Function Analysis Phase



- Functions better define the scope to improve understanding
- Expressed in two simple words
 - Active Verb and Measurable Noun
- Analyze the scope of work and identify the functions
 - Manage Traffic
 - Mitigate Environment
 - Reduce Noise
 - Accommodate Stakeholders
 - Treat Water
- Assign Cost to Function (D/B - CMAR)

Creativity Phase



- Brainstorm potential ideas by ALL Functions
 - Not just your initial ideas on a couple of things
- Brainstorm ideas for mitigating risks identified during the Information Phase
- Focus on quantity of ideas not quality
- Think “outside of the box” – innovation and opportunities
- No evaluation of ideas, everything goes

Evaluation Phase



- If there are numerous ideas, use the GFI to short list ideas
 - “Gut Feel Index”
- Use the Performance Attributes, evaluate all the short listed ideas
- Select the best possible ideas for further discussion/development (proposal write-ups)
- Focus on cost and schedule impacts separately (Alternative Delivery)
 - Still very important, especially to the client

Development/Implementation Phase



- Select the ideas to be included in the proposal
- Develop selected ideas further so they can be understood fully
- Provide any design elements required (Alternative Delivery)
- Develop more detailed costs for the proposal (Alternative Delivery)



Practical Demonstration of VE Proposal Workshop



- Purpose of Workshop
 - Get in mindset of client (What's in it for them?)
 - Improve value of service to your client
 - Differentiate your team from competition
 - Get shortlisted and win the project!
- Determine Team for Workshop
 - Select team members based on key disciplines and issues
 - Key team members should probably be exclusive

Practical Demonstration of VE Proposal Workshop



- Schedule Workshop
 - Allow 2 to 4 hours
 - Have agenda

City of XYZ
ABC Road Improvements
Friday, July 22, 2011 – 11:00 AM

VE Workshop Agenda

11:00 AM – 11:30 AM

- Review Project Goals & Constraints
- Identify Performance Attributes
- Review Functions

11:30 AM – 1:00 PM

- Team Brainstorming: How might we achieve the functions identified?
- Evaluation of Ideas, Team Assignments for Development

Practical Demonstration of VE Proposal Workshop



- Information Phase: Gather information to better understand the project
 - Determine project goals
 - Determine project constraints/issues
 - Define project performance measure—“For this project to be successful, how must it perform?”



Practical Demonstration of VE Proposal Workshop



- Function Analysis Phase: What does it do?
 - Define and evaluate functions
 - Define needs versus wants

Functions

- Optimize Right-of-Way (Informed)
 - Secondary Function
- Enhance Economic Development – Higher Order Function
- Create Sense-of-Place – Higher Order Function
- Create Regional Access – Basic Function
- Maintain Local Access – Basic Function
- Enhance Multi-modal Access – Basic Function
- Maintain Access / Properties – Basic Function
- Manage Congestion – Secondary Function
- Maximize Budget – Secondary Function
- Garner Acceptance (Public, Stakeholder) – Secondary Function
- Meet Schedule – Secondary Function
- Accommodate Utilities – Secondary Function
- Mitigate Hazards (Environmental) – Secondary Function
- Optimize Drainage – Secondary Function
- Manage Risk – Secondary Function
- Create “Green” Cross-section – Secondary Function
- Create Identify – Secondary Function

Practical Demonstration of VE Proposal Workshop



- Creative Phase: Generated ideas on how to accomplish the required functions

Brainstorm:

How else can we achieve this function? What or who does this affect? What other benefits haven't we talked about?



Practical Demonstration of VE Proposal Workshop



- Evaluation Phase: Does the idea work? Can it be modified to work? Can it be implemented?
 - Rank and rate the ideas to select (Nominal technique)
 - Refine the best ideas for further development (Measure against Performance Attributes)

MANAGE RISK	
MR-01	STAKEHOLDER IDENTIFICATION AND I.D. ISSUES (4) KN/PSA
MR-02	CONSISTENT AND APPROPRIATE COMM.
MR-03	EVALUATE PROJECT DELIVERY + SEEK CONTRACTOR INPUT (PAC, VE) (1) MR

OPTIMIZE DRAINAGE	
OD-01	EVALUATE FREQUENCIES FOR DRAINAGE SYSTEM (1) AG
OD-02	LOOK @ TIMING OF FLOWS WITH ROADWAY DRAINAGE + OFFSITE FLOWS (COMB. w/OD-01)
OD-03	COMBINE DRAINAGE + GREEN SPACES (COMBINE w/CI-02)
OD-04	WATER HARVESTING
OD-05	UTILIZE PARK AS DRAINAGE RETENTION (COMBINE w/CI-02)

Practical Demonstration of VE Proposal Workshop



- Development Phase: Develop the best ideas for your proposal with support and justification
 - Consider this as your “approach”
 - Divide and conquer - Writing assignments
 - Identify special design needs/impacts
 - Identify how these meet performance attributes
 - Cost & schedule impacts (Alternative Delivery)
 - Develop appropriate graphics to support alternatives you are proposing—a picture is worth a thousand words!

Practical Demonstration of VE Proposal Workshop



- Other considerations
 - Prepare your team before workshop to make your time productive and get results
 - Conduct VE with your team to get your team in your client's mind
 - VE is a tool for team brainstorming to get “outside the box” and develop innovative solutions, not the same-old, same-old
 - Your proposal will be focused on opportunities to optimize project cost and performance (value added)

Additional Approach Elements



- Discuss the process used by the your team to develop the proposal outcomes (Show how you used VE) – Promotes Innovation
- Suggest a formal VE session with the client once you have been selected (Show an interest in providing value services)
 - Alternative development and selection phase during the design process; design value into the project or at a minimum 30% design
 - CMAR perfect opportunity to have a formal VE session that brings together all parties
 - D/B non-traditional approach; but effective

Questions

