

The Power of VE in Gaining Consensus and Make Tough Decisions in Early Project Development - **Town of Gilbert Public Safety Training Facility**

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Core Competencies: Transform Information, Workshop Phases – specifically Creativity and Evaluation

Abstract

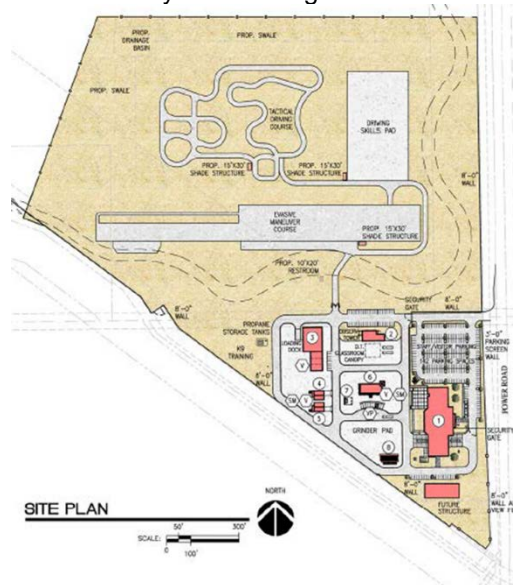
The Town of Gilbert (TOG) in conjunction with RHA, LLC conducted a Value Engineering (VE) study/ Design Charrette as it was very early in the project development phase of the project. The project was being delivered via a Construction Manager at Risk (CM@R) contract method with a completely integrated team of Town (project management and users), design, outsourced project/construction management and contractors. The project includes a 50-acre parcel owned by the Town of Gilbert which will be used for public safety training buildings, classrooms, parking, training track and other training hardscape areas. The project was in the very early stages of the design process, with the master plan complete, programming being finalized and Schematic Design procurement just beginning. Several meetings had been held between the Town’s capital project team, Master plan consultant (HDA) and the users to gain a strong understanding of the programming needs of the project. The engagement of the VE/Design Charrette process immediately post the procurement of the Design, Project Management and CM@R consultant/contractor team provided the Town with a solid scope and approach that could be presented to the Town Council to gain approval for agreeing to move the project to a bond referendum on the November 2018 ballot.



Setting the Stage

The Town of Gilbert has been one of the fastest growing communities in the nation over the past two decades, requiring increased levels of new qualified hires in the Public Safety Departments. The TOG Fire department was the first to recognize that to maintain quality levels of service, qualified trained staff would need to be developed and maintained and thus embarked in developing a plan to ascertain the best opportunities to train and retain qualified staff to assure the community that the Town was able to maintain a high-quality level of service. This resulted in the Fire Department procuring a consultant in 2005 to develop a training needs assessment and preliminary master plan to define what and how they could meet the projected staffing challenges. This early effort gained the recognition that Police Department who was also facing similar challenges. The two departments joined together to present to the Town Council during a Financial retreat the findings and potential solutions to the staffing challenges. The Council although understanding the challenge also recognized that the economy was now in the midst of a downturn and expansion plans of staff or training opportunities would need to be placed on hold.

When growth began to return in 2015, with the Town managers office backing, the master plan was revisited and updated to more fully address the overall Public Safety training needs. It was also recognized that the training solution would require the inclusion of the Town's capital Improvement team to address project scope and costs to a potential training facility being constructed by the Town. An Architect (HDA) with Public Safety design experience was hired to prepare a more comprehensive scope and cost estimate for the proposed facility. Parallel to Masterplan update a business and needs assessment was also prepared to define exactly the training standards and costs currently being experienced by the Town. The results of



these two efforts provided a design concept in the master plan with a minimum cost of \$45 – \$60 Million and it was needed by 2022. Council was once again presented with the information. The Council was convinced that training was a definite need. They also recognized that if the only solution was to build a facility in the TOG it would require voter approved bond to finance the facility and time was of the essence to match the need with the facility. So, although skeptical that the need could not be met in other ways and the facility costs should be much lower, Council approved staff to move into Schematic design through a CM@R process along with a more comprehensive business model exercise.

Shortly after the Council directed staff to move forward key members of the Town Managers office, Police and Fire Department and Capital project team outlined key elements that were needed to be successful and identified areas that were potential risks to accomplishing the task,

Key elements included:

- The need to have a complete and clear scope and costs outlined in a time that would be ready for the November 2018 bond election. (15 months for 60% design)
- A Project that was not something that is built everyday
- Key and multiple stakeholders/staff from Police and Fire who were firefighters and police who provided the service but did not understand what it takes to get a project from concept through completion without scope creep or uncontrolled costs. How would they get their vision/need properly scoped?
- New addition of the Project/Construction manager, designers and contractor, yet to be procured, who although familiar with Public safety facilities, would need to be integrated as quickly as possible into a team that could work together to answer all the questions that would be presented.

It was clear to this staff team that quick integration and education without conflict would be necessary to

accomplish the task at hand. As the Capital Improvements Manager, Susanna was only aware of one method to get the rules fully understood, accepted, and defined to give the team the best possible - VE/partnering to start on the project. Police, Fire and the Town Mangers after hearing the opportunity agreed that an early rule setting for the entire team was most likely one of the best opportunities and RHA was contacted to see if it was possible. Police Fire and the Town Mangers after hearing the opportunity, agreed that an early rule setting for the entire team was most likely one of the best opportunities

The Process

Susanna from the Town of Gilbert was trained by RHA several years ago and had bought into the value of the process. When she contacted RHA it was a discussion about needing to figure out if the process could work to help develop an understanding of project needs and a consensus between several departments on the best way to move forward, as was described above.

One of the biggest resisters to a Town facilitated VE process came from the PM/CM, design, contractors. They were all capable of doing VE and therefore felt that this was an unnecessary step. Staff held firm with the explanation that, yes, they all had the capability and would be providing different VE opportunities through design, but this effort was to get all on the same page as soon as possible. Town staff needed to understand their roles, as well as how their input could best be efficiently and correctly integrated into the design, construction and ultimate operations. The outsourced team needed to understand the vision as it stood, the work that had been done and the restraints that the project would be working under. In short, the team needed to address full scope and costs as soon as possible without a lot of rethink as the project progressed. The team also needed to understand how to work together when elements of the work presented seemingly unsurmountable challenges.

What a great opportunity to show the versatility of the VM process. This workshop was a little different in that we had a very large group which consisted of the Fire Department, Police Department, Parks Department, Town Council representation, City Engineer's office, Public Works Department, the design team, construction management team and the contractor. This included twenty three team members.



A detailed pre-workshop meeting was needed with the key leaders of the Engineering office, capital projects, fire and police departments to understand where the project was in its development and the goals of the workshop. This was not an ordinary project, as stated, this is the first combined training facility in the nation and the project was in its preliminary stages, with a focus on coming to a consensus of the project that could be put before the Council and then before the voters. We had our work cut out for us as the workshop goals include:

- Explore options for the scalability and phasing of the project
- Finalize programming efforts that represent both short- and long-term requirements
- Determine controlled access elements for the facility
- Understand the needs and requirements of Parks and Recreation
- Finalize the schedule
- Discuss the approach to considering Life Cycle Cost analysis for buildings and facilities (this element needs to be considered for all facilities as the design progresses)
- Identify the needs for the 30% submittal to the Town Council
- Understand a “Day in the Life” for training for both students and instructors

One of our biggest challenges was to develop several approaches that could be put before the council for a vote that provided the needs (basic and required secondary functions) and the wants (supporting

secondary functions) and then look for options and opportunities to be able to get the police and fire department a “functioning” training facility. This meant potentially looking at combined uses, phasing and deferral options, always keeping in mind, how do we get the public to support this facility in a bond election. Without positive support from the council and the public, this facility would not be built.

As with any job plan, the six phases were followed. The information phase however, required quite a bit of education from the design team on their preliminary design, but also from the police and fire department to understand their needs and requirements to see how the facility fit together. This continued in the Function Analysis phase, as it allowed everyone to understand all functions required to have a fully functioning facility and then be able to understand the costs associated with the various functions.

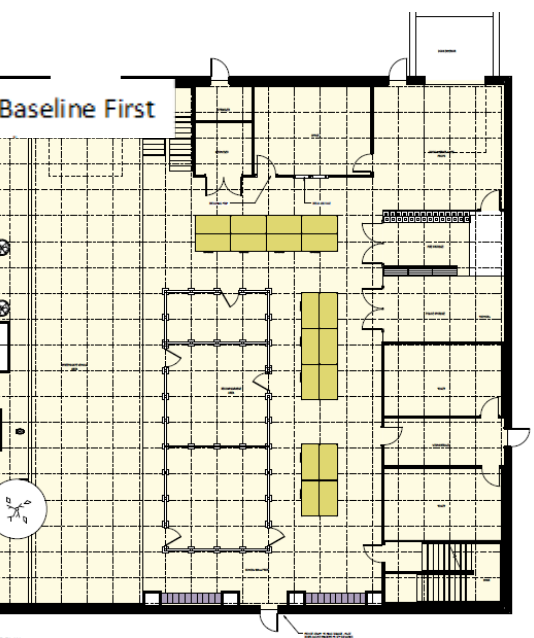
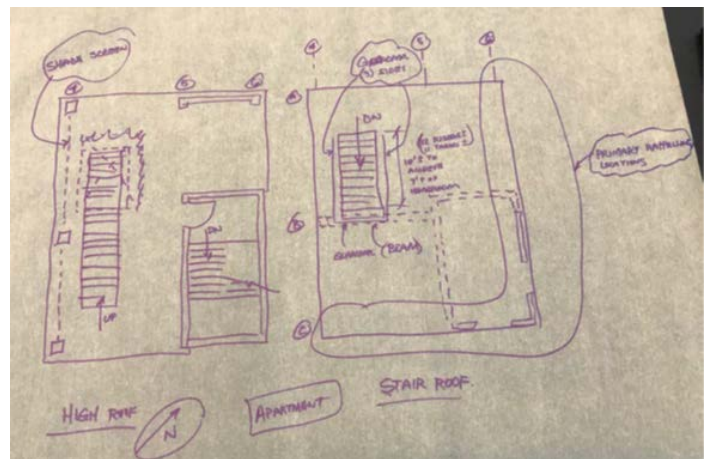
Serve Community – Higher Order

Reduce Liability – Higher Order

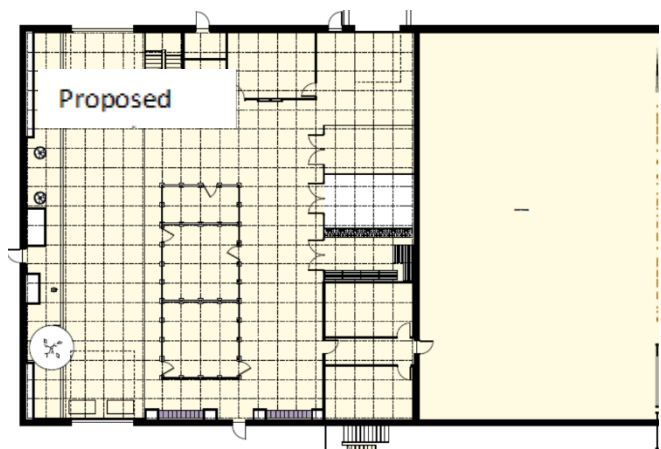
and

Train Staff/Recruits – Basic Function

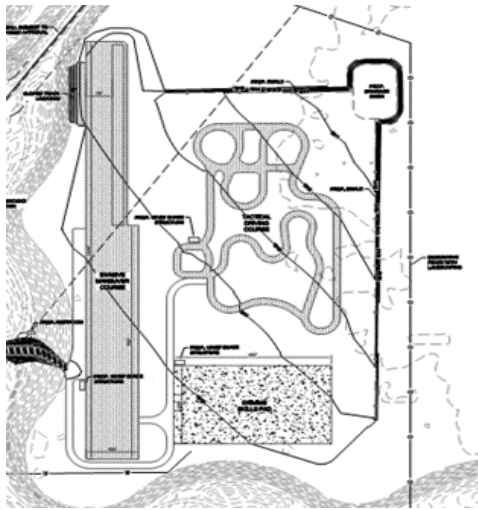
The really exciting part of this study was the Creative Phase. This facility consisted of numerous training facilities as described above, the team walked through each of the buildings discussing function, use, need and wants to be able to prioritize what was necessary in the beginning and those facilities that could be phased into the project at a later date. Site plans, building façade drawings and floor plans were spread on a table and the team gathered around each one, suggesting options, opportunities, changes and the like. This exercise helped to continue to build understanding of how the building would be used, how the training exercises are conducted and to identify how to share facilities. It was exciting to see the synergy and the excitement of what this project meant to these departments and it was a true testament of their comradery and desire to be part of the best solution for the Town. The architect made notes and drawings directly on the plans.



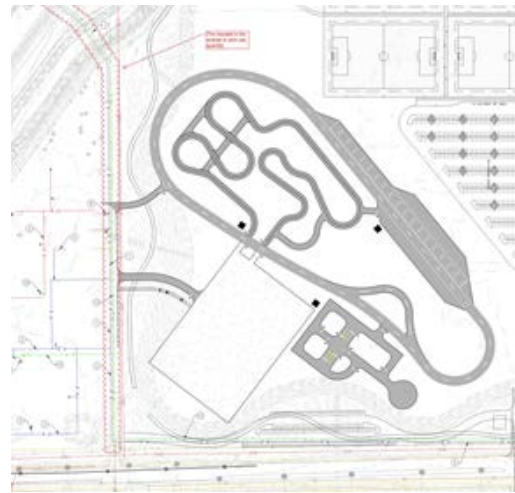
The team was able to identify an opportunity to eliminate an entire building by combining the driving track training facility with the Big Box facility, this concept is still in the final construction documents. See below.



Examples included the driving track. There was not a finalized drawing. The track subject matter expert provided a drawing for both the pre and then the post. The post drawing afforded a better overall site layout for all facilities and the combined the driving building and Big Box facility.



Baseline Track and Facilities



Proposed Track and Facilities

The outcome of the study consisted of a total of 137 Ideas for:

- Class A Residential Prop
- Class B Residential Prop
- Strip Mall Prop
- Big Box Prop
- Apartments Prop
- Administrative Building
- Driving Track
- Site

Additionally, the facility Programming was finalized.

Now comes the most difficult part for the team. A fully functioning facility requires everything, but the team had to put together options that required them to make some hard decisions. Fire and police did not want to have to look at having to phase the project, they had been working very hard to identify a fully functional facility that met their needs. They believed they needed it all and through a strong facilitation process, we were able to get them to agree on various approaches to be prepared to present this project. A completely different way of evaluation was done to allow the team to create the options that might be required as this project was presented to the Town Council to gain approval to include on the 2018 ballot for voters. We conducted a two-step process, identifying ideas that would be designated Design Comments, ideas that were Already in the Consideration stage and any ideas that was deemed a Fatal Flaw. The second cut identified the rating and ranking including:

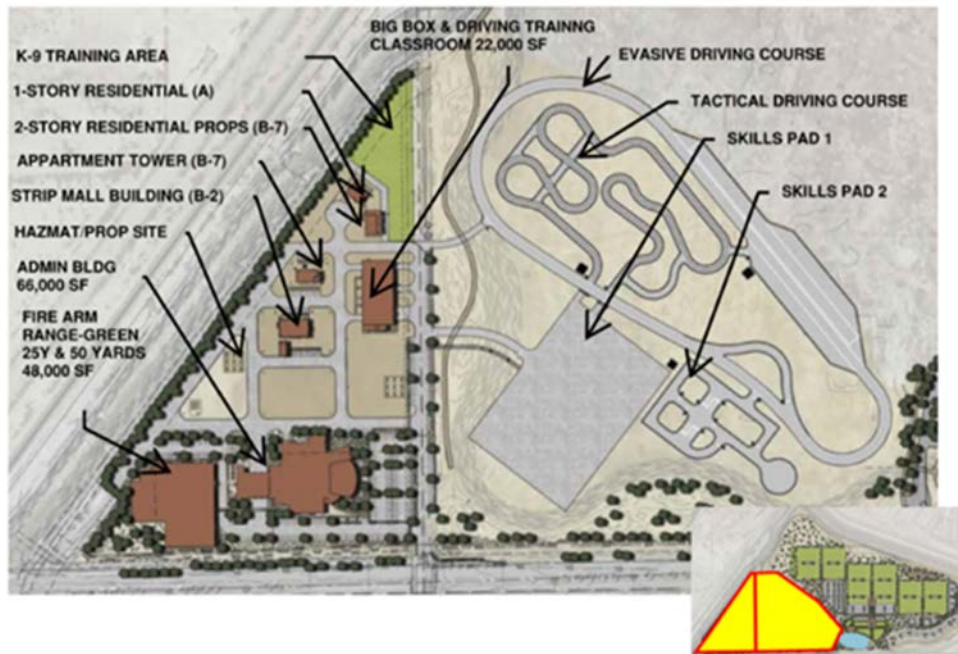
- 1 = Option 1 – Supports full 2030 build-out and Police and Fire mission related to concurrent training; fulfills “Best in Class” training; and reduces liability
- 2 = Option 2 - Prioritization of deferred/phased options, while adding some, not all, of the current Option 1 functions

- 3 = Option 3 - Cost deferral options; not able to have concurrent training; not able to have community engagement; lose Regional opportunities; doesn't support intra-agency and broader Town needs; doesn't address current and future threats for Police and Fire
- 0 = Poor Value

Development Phase –

A full presentation was conducted by the team members to upper management of the Engineering Department, Town Council liaison, Fire and Police Departments and the Parks Department. It was very important that the key team members of the Police and Fire Departments were instrumental in presenting the information, which helped to gain their “buy in” into the overall approach.

The Outcome



The Town and the development team had done quite a bit of work on this project with the efforts of the design team, site visits to benchmark other facilities and the involvement of police and fire. The level and depth of additional conversations and project understanding that the VM process afforded, provided the tools to be able to confidently present a very compelling discussion to the Town Council.

Although the team focused on trying to meet a budgetary goal that had been provided and provided those options, they were able to convince the Town Council that the entire project, as newly changed, was needed to support the needs and requirements of the training facility. The Town Council agreed to move this project forward to the voters with what was included in the final facility. The voters in November of 2018 approved a \$65.35M project, a project that will provide improved services to the entire community as well as the individual police officers and firemen who would be able to take advantage of improved education and training.

The project was developed as a CMAR project. This meant that, as noted previously, they were included in the entire process. It was very important that they were able to provide budget and cost information that the Town could rely on and eliminate the risk of escalating construction costs or change orders during the process. Their involvement in the workshop was critical to understand how each of the training facilities would be used and allowed them to gain a strong understanding to be able to provide accurate cost estimates. This was a key factor in the overall success of getting the Town Council to be comfortable with agreeing to the entire project.

The Benefits from the Process Early in the Process and gaining consensus

The success of this project from inception to gaining voter approval wasn't just about the value engineering workshop. All of the work that was done prior to the workshop, the workshop and then the level of effort

that was provided post workshop by the Town and the entire team. However, the workshop allowed all of the departments, designers and contractor to come together at one time to understand the mission, the needs and the requirements of what it would take to convince the Town Council that this was the project that needed to be put before the voters. It allowed the Fire and Police Departments to come together and discuss the training aspects and of particular value was the description about "A Day in the Life".

Early definition of "Value" being more than cost cutting allowed the team to throughout the project effectively vet changing conditions, new ideas, newly found restraints to meet the needs of the Town and the community.