PROCESS IMPROVEMENT











By: Marika Hawes-Ruhrup, PE, CPMP, LEED AP BD+C
Project Manager

The TowerPinkster team utilizes the Lean Six Sigma training and certifications to improve our design process and increase efficiencies for our clients. Lean Six Sigma is a strategy that focuses on team knowledge sharing and participation to produce an operational distinction.

The Lean Six Sigma process is a disciplined, data-driven approach and method for eliminating defects in the process – which is always our goal at TowerPinkster. The purpose of process utilization is to decrease production and service time to control costs.

There are two variations of Six Sigma – DMAIC (define, measure, analyze, improve, control) and DMADV (define, measure, analyze, design, verify). TowerPinkster uses the DMADV framework because it primarily focuses on the development of new or improved existing products, which is most of the work we do – designing new spaces for our clients or renovating existing spaces to increase production power. An outline of our DMADV process is below:

Define – The goal of the first phase is to identify the purpose of the project and set realistic, reasonable, and measurable goals from the perspectives of the organization and the stakeholders. We then work to create a schedule and guidelines to the review, identify, and assess the potential project risks. Identifying risks early on helps designers pivot to avoid creating additional costs later in the project. Our process starts with client meetings that feature different user groups and stakeholders. These meetings help our team understand the variety of needs and hear from groups who may not typically interface with each other.

Measurement – After we define the goals, we identify and measure the factors that are critical to quality. These factors are things such as essential parameters of design, market segments, reassessing risks, and assessing the final product capability. This phase is where the TowerPinkster team identifies the elements of the project that are critical to our clients and how to translate the client requirements into clear goals.

Analysis – At this stage, we work to develop design alternatives, identify the optimal combination of requirements to achieve value, develop conceptual designs, and finalize the paramount design. This piece includes estimates of the total life cycle cost of the model after thoroughly exploring multiple alternatives.

Design – During the design phase, the TowerPinkster team will develop a high-level plan for the selected model. We will prioritize critical elements in the chosen solution and then develop the detailed design. Once this stage is complete, we can identify where errors may occur and where necessary modifications are needed.

Verify – In this final stage, the team validates the design with all stakeholders to confirm that it will be productive and successful. At this point, we confirm all expectations, and document lessons learned for the TowerPinkster team, as well as our client. This helps our designers not repeat mistakes and expedite the process for the next project. This step includes a plan to transition the project to a sustainable, routine operation by the client.

The goal for all DMADV projects is to address identified issues early in the design process and produce desired results that can be maintained through normal operations. Our team takes pride in implementing this approach into our industrial and manufacturing work. At TowerPinkster, we strive to create unique and efficient spaces for our clients, so when we can work together to identify potential problems early and work through them, it allows us to create the best outcome for their organizations.