

- Benner Pike Shops
- State College, PA
-
-
-
-
-



Executive Summary

The following thesis analysis is performed to examine the Benner Pike Shops project in depth. Based on the research of the project, several construction problems were identified within the project. Of those issues, three were chosen to be studied as depth analyses. Each analysis was introduced with its situation and possible solutions were drawn from them.

First analysis is focused on the research purpose. It discusses in detail about the Benner Pike Shops' close out planning with comparison from other construction companies' planning. It is concluded with the better way for the general contractor of the project to wrap up the project more efficiently. Second analysis deals with structural issues on the exterior wall of the building. Rear side of the exterior system is replaced with tilt-up construction from concrete masonry units. Redesigned system shortens the duration of the process significantly, which will eventually cut down the cost of the project. Last analysis concentrates on mechanical system. The rooftop air handling units of two large shops are reconfigured with diminished quantity of the air handling units. Existing duct system was applied to the redesigned HVAC system to serve the space equally as before.

Overall, duration and cost of the project were reduced retaining the same quality as it was. As mentioned in the first analysis, it is important to plan the project beforehand so the actual project can move on smoothly. During the construction, communication plays a huge role in performing the job correctly. Second and third analyses conclude that there are many ways to cut down the cost of the project. It is learned that the schedule of the project impacts the cost directly.