Analysis 2, Gaining Additional LEED™ Points:

Although LEED™ sustainable concepts were included in the design, there was no effort to become LEED™ rated. Items such as geothermal heat pumps and power saving lighting are used throughout the building. It seems like they may have been able to gain LEED™ rating without a very substantial cost. According to the standard checklist, this building would score 8 points in its current condition. This would be well short of the necessary 26 points for certification, but these points are built into the building itself and there are many points that could be gained by simple planning that would not cost a significant amount.

There seems to be quite a few other points that are within reach at a very low cost. One of these is a redesign of the plumbing system. In order to incorporate low flow fixtures, the overall plumbing system could be reduced in size. This size reduction may result in a lower life cycle cost than the current system even though the fixtures will cost more at the beginning. This redesign will be used to show a breadth of knowledge in the design of building systems.

Because the apartments are typical throughout, I will need to choose new fixtures for the building and calculate the pipe sizes for a typical apartment. The next step will be to multiply the new loads by the number of apartments and use the demands calculated to size the main feeders to the apartments.