

● The **Mechanical work**, is as follows:

1. The two existing 350-ton chillers in the Engineering 1 Building were demolished.
2. The two existing 250-ton chillers in the basement of Stuart Hall were demolished.
3. A three cell-cooling tower is provided at the west side of the Hermann Hall.
4. Make-up water and chemical treatment is provided for the Hermann cooling tower.
5. Three tower water pumps (two duty and one standby) is provided for the Hermann chillers.
6. Tower water supply and return piping between Hermann and the new cooling towers is provided. (piping is directly buried outside of the building)
7. Two new tower water pumps and related piping, fittings and valves for Stuart Hall chillers is provided as additive alternate 1.
8. Two 1000-ton chillers are installed in the basement of the Engineering 1 building.
9. Piping and other devices are relocated as required to access the Engineering 1 building basement for installation of new equipment.
10. Six chilled water pumps for the Engineering 1 Building chillers are provided. (Three primary and three secondary, four duty and two standby pumps.)
11. Chilled water supply and return piping from the Engineering 1 Building south through the existing tunnel parallel to State Street and east through the existing tunnel under State Street to connections for the new Student Center and Residence Hall is provided.
12. Existing chilled water supply and return piping connecting Hermann Building, Engineering 1 Building, Life Science, and Stuart

Hall is utilized to enable all of these buildings to be served from the Engineering 1 Building.

13. Two 250 ton chillers are installed in the basement of Stuart Hall.
14. Automatic temperature controls are provided for new equipment, which are consistent with the existing campus control systems. The control strategy is to base-load the Engineering 1 Building chillers to serve Engineering, Campus Center, Residence Hall, Hermann Building, Life Science, AND Stuart. At design conditions, Hermann Building and Stuart Hall are operating independently.
15. High point vents and low point drains are provided on all new piping installed.