

**Description:**

The purpose of the section is to highlight the current applicable UMCP Design Standards related to the design and installation of underground site utilities.

**Related Sections:**

- TBD

**Effective Date:**

July 10, 2009

**Applicable Standards:**

- Maryland State Highway standards
- Washington Suburban Sanitary Commission (WSSC)

**General Requirements:**

- New and existing demands on utilities in the building area are to be examined. A recommendation as to alignments and new connections are to be submitted at an early design stage of the project. Any impact on the capacity of the existing utilities to the on-site and campus-wide utility network shall be brought to the attention of the University.
- A complete system design of all new utility extensions from the points of the connection with existing systems to the building site is required. This includes establishing the precise location and size of all underground utilities and/or services in the construction area performing a thorough investigation of all existing utilities, (location and capacities) in order to properly design and locate the new utility services.
- With the development of building details, the adequacy of all existing utilities based on the anticipated increase in load to serve the new construction must be determined. If deficiencies are present, an upgrade of the insufficient utility systems must be included in the project's scope.
- New and existing demand shall be coordinated with the Department of Operations and Maintenance through Facilities Management to insure that all issues are considered (adequate capacities at tie-in points and this area of campus, etc.). Calculations showing usage for each utility shall be furnished.
- The design of water and sanitary utilities are to meet the requirements and approval of the Washington Suburban Sanitary Commission for areas within WSSC jurisdiction.
- The storm drainage system and components shall be designed in accordance with Maryland State Highway standards. Closed systems shall typically be designed and constructed to adequately convey the ten (10) year storm.
- Underground Utilities
  - Primary telephone and electrical underground utility lines shall be encased in concrete.
  - Use utility vaults for multiple use utility trenches.
  - Place steam lines under paved surfaces where possible.
  - Use removable concrete pavers over utility lines where possible.