

GENERAL UTILITY GUIDELINES

New and Renovated Facilities: Utility services to new facilities or to substantial additions to existing facilities should be provided as a part of the construction project and should be addressed in the initial programming and budgeting phase.

Electrical System:

- The initial programming and budgeting phase should assume a new, dedicated, electrical service entrance and utility transformer for the project. This may also include new medium voltage feeder serving the transformer.
- Unless specifically authorized by Utilities Management, all medium voltage feeders serving campus building transformers and utility distribution equipment shall be provided within concrete encased ductbanks.

Stormwater Systems: The initial programming and budgeting phase must include water quality requirements and water quantity objectives.

Water Quality:

- All land-disturbing projects shall consider the feasibility of post-construction runoff controls;
- All new development or significant redevelopment projects that disturb land in excess of 1/2 acre in size shall include post-construction Low Impact Development (LID) Best Management Practices (BMPs) to provide for water quality control of the maximum extent feasible but no less than the first one-half inch of runoff from the site.

Water Quantity:

- Post-development stormwater flow rates and volumes should not exceed pre-development conditions during the 100-year, 24-hour storm event, to the extent practicable.

Coordination: Prior to starting the design of utility extensions, a conference should be held with FPC Engineering to establish:

- The connection points of each service extension.
- The type of service (i.e. tunnel, direct burial, buried conduit).
- The routing of the service.
- The size and/or capacity of the service.
- The entrance points of the services into the new facility.
- Depths and/or flow line elevations.

Location of the switches and valves, bypasses, and temporary services shall be a coordinated effort by FPC Engineering, Utility and Energy Management, and the design engineer. The design engineer is responsible for the final description and documentation of the utility services for the contractor.

Shutdowns: Chilled water and steam shutdowns shall be scheduled only during off-peak seasons. Only University personnel are authorized to operate switches or valves on the utility distribution system.

Exterior Vaults: Vaults shall be either cast-in-place or pre-cast concrete with minimum H-20 rating, minimum 5' x 7' x 6'-6" (W x L x H). Provide lighting, one general purpose duplex outlet, sump pit, and sump pump (pump should be rated for 180° F. water when installed in vaults serving steam systems). Hatch shall be 3' x 3' Bilco, or approved equal with automatic hold-open and stainless steel lock, AASHTO HS20-44 truck load rated.