

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.

Major building renovations should include replacement of building isolation valves on natural gas, chilled water, steam and steam condensate, domestic water, and fire sprinkler service.

Major building renovations should include replacement or installation of building metering for natural gas, domestic water, chilled water, steam condensate, and electricity. The new metering should be sized according to the redesigned building loads.

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.
- Medium voltage transformers and switches will be specified by the design consultant, purchased by owner, and provided to the contractor for installation. The cost of this equipment will be assessed against the project.
 - UNL: BSM will terminate everything above 600V on the distribution system. Contractor shall terminate secondary conductors of the MV transformer.

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 FPCP Engineering, University Operations, and the design engineer. The design engineer is responsible for the final description and documentation of the utility services for the contractor.

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Shutdowns: Chilled water and steam shutdowns shall be scheduled only during off-peak seasons. Generally, the campus steam system is shut down for 1 week in late May/early June for annual maintenance and tie-in of new services. Contact Husker Energy & Power for details regarding schedule. 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 with minimum 30" depth and at least 36" x 36" square or 36" diameter round dimensions, 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. Electrical service for vaults serving steam systems shall be isolated from potential steam system leaks by being located in an adjacent vault.