

5.6 Opportunities with Utility Improvement Projects

The UW–Madison Master Plan update includes a variety of significant utility upgrade projects (primarily steam and chilled water). These projects will require disturbance of certain corridors on campus, which present opportunities for green infrastructure improvements to be planned in those areas. Unlike redevelopment projects for buildings, it is unlikely that stormwater management or green infrastructure would be mandated for any of the utility projects discussed here unless the surface land use changes substantially. However, every project that disturbs land on campus whether for utilities, street reconstruction, or new buildings should be studied as to whether green infrastructure can be included in the restoration to help UW–Madison achieve its overall campus permit and sustainability metrics.

The following project areas have been identified in the Utility Master Plan (see Appendix 4 of the Master Plan Document), including their locations and proposed project numbers. Potential green infrastructure improvements are described for each identified major project.

The extent of disturbance and therefore restoration that will be required for each project is not fully known, so there may be more opportunity in some projects than others. These recommendations are intended to spur discussion during the initial design phase of each project regarding the benefit and feasibility of each.

Lake Shore Residence Halls (1G and 1I)

The area around the Natatorium expansion and the residence halls on Willow Drive (Dejope, Phillips, and Goodnight) will be disturbed for a utility project in the first phase. Many new green infrastructure features were built in conjunction with Dejope. However, replacement of asphalt with permeable pavement should be considered where driveways/parking lots are reconstructed.

Lot 34 Removal/Stormwater (3B)

As described in the multi-site BMPs section, Lot 34 is planned for removal and a new constructed wetland will be built. Tripp Circle is planned for a utility project so this would provide an opportunity (depending on timing) for storm sewers in the Babcock Drive/Tripp Circle area to be rerouted to the new wetland.

Kohl Center Lawn (3D)

The front lawn of the Kohl Center (along W. Dayton Street) will be disturbed in Phase 3 for a utility project. The building roof drains appear to be directed to the south so drainage to the lawn area is limited. However, there may be future opportunities to route water draining to concrete gutters along walkways to rain gardens around the perimeter of the lawn. Primary benefit would be volume reduction. There is limited TSS and TP reduction potential since no driving surfaces would be treated. Also, this project is outside of the UW–Madison permit area so no credit would be granted toward the campus permit goals.

Bascom Hill (1AA)

Bascom Hill will be impacted by a major utility project in Phase 1. There was a lot of discussion among the Green Infrastructure Technical Coordinating Committee regarding the potential for green infrastructure practices on Bascom Hill due to its high profile status. The concern is to make sure we are exploring opportunities for this area while respecting the historical nature of the lawn and the surrounding buildings. There are also ten percent grades which impose challenges for designing surface features (minimizing velocities without walls/terracing). We do not recommend permanent surface modifications within the historic lawn area. However, opportunities for demonstration could include improved runnels/terraced planters along sidewalks or perched rain gardens in the areas outside of the center lawn. Additional investigations would be needed to determine impacts to subsurface structures/basements of historic buildings.

Marsh Drive and Future Gifford Pinchot Extension (4C)

Marsh Drive will be reconstructed for a utility project and also rerouted as the master plan is implemented. This presents a possible green street opportunity. However, Nielsen Pond and the future Marsh Drive wetland practice already provide a lot of stormwater treatment in this area so the green street would be driven more by aesthetics and educational opportunities.

Linden Drive and Elm Drive from Babcock Drive to Observatory Drive (1K)

As discussed previously, the Master Plan calls for green streets on Linden Drive and Elm Drive between Babcock Drive and Observatory Drive. The fact that these streets are slated for utility projects provides the catalyst for making those happen but can also pose some challenges. Steam tunnels in the terraces can create challenges for infiltration practices, so these green streets will need to be designed to work around existing and proposed utilities.

Linden Drive from N. Charter Street to Henry Mall (1JJ)

Most of this area would be treated by proposed “Superblock” underground chamber. However, a green street is feasible in this reach as well.

W. Johnson Street from N. Charter Street to East Campus Mall (2E)

W. Johnson Street is one of the streets identified as a future green street. Again, this will be required to be designed around utilities as the corridor is tight. This is also a city-owned street so the project would need to be coordinated with the City of Madison.

Observatory Drive/N. Park Street/Langdon Street from N. Charter Street to Lake Street (1Z)

The feasibility of green streets along this corridor is likely low due to very steep slopes, tight right-of-ways, and utilities. However there may be pocket opportunities for smaller practices in this corridor. It should be further studied when that project is in planning.

N. Mills Street from Capitol Court to W. Dayton Street (1W)

There is potential for a green street along N. Mills Street. However, this is outside of the permit area so the UW–Madison would not benefit in terms of meeting the permit requirements, and this is a city street so city buy-in is needed.



Figure 5-60 Utility Project on East Campus Mall