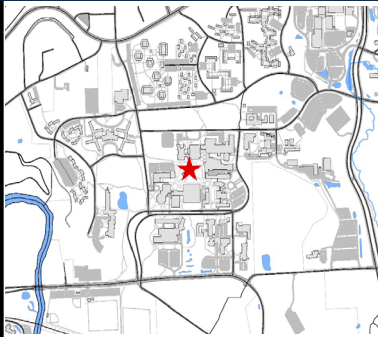




STORM WATER MANAGEMENT PROJECTS



Eda U. Gerstacker Grove Infiltration Measures

The Eda U. Gerstacker Grove project on north campus installed an underground infiltration system and a water quality device to exceed the U-M NPDES post-construction storm water management requirements. In addition, five elective infiltration gardens were installed to further promote infiltration and reduce peak flow. Storm water from this area drains through the North Campus Constructed Wetland System adjacent to the Art & Architecture Building before discharging to Huron River.

Requirements: The disturbed area was greater than one acre triggering adherence to U-M Storm Water Permit Post Construction requirements—> ehs.umich.edu/construction-projects/environmental-considerations/storm-water-management/

Drainage Area:
3.83 acres

Watershed Protected:
Storm water in this area discharges to Huron River through the North Campus Constructed Wetland System

Soil:
Well-drained sandy soil

Construction Completed:
2017

- Storm Water Control Measures:**
- Underground Infiltration basin
 - Water quality device
 - Elective Infiltration gardens

- U-M Maintenance:**
- Removing sediment from water quality device and basin
 - Maintaining vegetation in infiltration gardens

U-M Storm Water Permit Requirements (based on site size and characteristics)	Constructed
Minimum Treatment Volume Required: 32,800 gallons (4,400 cubic feet) of runoff	At least 210,000 gallons (28,000 cubic feet) of treatment and infiltration during the 100yr, 24-hr storm event
Channel Protection Volume Required (no increase in volume and peak rate through the 2-year storm): Because there is an increase in runoff and peak flow due to an increase in impervious cover, 17,000 gallons (2,300 cubic feet) of infiltration is required.	

Performance: The storm water system in the Grove including the underground infiltration system and infiltration gardens reduces runoff volume by 98% and peak flow by 96% during the 2-year, 24-hour storm event. During the 100-year, 24-hour storm event, the runoff volume is reduced by 57% while the peak flow release rate is slightly less than the peak flow release rate in the pre-project condition.

Benefits: This system helps to remove volume and peak flow discharging to the North Campus Constructed Wetland System and Huron River; provides water quality benefit; reduces flooding potential; and replenishes groundwater.

