



Trenton Marquette
CE'18

Stephen Tang
CE'18

Helena Zhu
CE'18

**Professor
Joseph Cataldo**
FACULTY ADVISOR

DRAINAGE AND THERMAL PERFORMANCE ON GREEN ROOF SURFACES

Rain storms were simulated on model black and green roof surfaces. A total of four simulated storms were run in varying lengths to produce four hydrographs. Total runoff was calculated from the area under each graph. Water retention in the green roof medium was calculated by taking soil samples before and after each storm and measuring the change in moisture content of the soil. These values were compared to volumes calculated from the hydrographs. Thermal performance was investigated by varying temperatures of rainfall and monitoring water temperatures as it fell, on the roof surface, and at the point of runoff.

