Rainwater Management - Physical Features and Policies

(for AASHE STARS V 2.2 - OP 22)

Notes: Last updated by **Eric Greer** and BJ Tipton - October 2023 Keep this file for annual updates and STARS submissions

1) Water Conservation and Management Features on Campus

Rainwater/Stormwater Harvesting

- 1. Beasley Media Complex Captures rainwater via a gutter system and stores it in a 3,000 gallon tank. This gray water is used inside the building (toilet flushing).
- 2. Field Hockey Fields Captures rainwater and re-captures and re-uses the irrigation water from the field.
- 3. The Holmes Convocation Center has a filtered stormwater catchment system. One reservoir is 2400 gallons and another is 900 gallons (toilet flushing).

Rain Gardens

- 1. There is a small rain garden located between Varsity Gym and Rankin Science
- 2. There is an additional rain garden at Beasley Media Complex.

Vegetative Roofs

- 1. Katherine Harper Hall has a vegetated roof with several varieties of sedum covering an area of 1935 square feet.
- 2. Reich College of Education's roof consists of several varieties of sedum and covers an area of 2,608 square feet.

Wastewater Management

n/a

Stormwater Retention/Detention Ponds

- 1. Baseball Field
- 2. Mountaineer Hall
- 3. Boone Creek
- 4. Hill Street Parking
- 5. Howard Street Hall / Lucy Brock Child Development
- 6. Greenwood Parking Lot (2 locations)
- 7. Kraut Creek at the River's Street Pedestrian Bridge
- 8. Intramural Fields area also consists of native wetland plant species
- 9. Winkler 350 linear feet of 48" diameter HDPE underground detention pipe
- 10. The Carol Grotnes Belk Library and Information Commons and associated parking deck have a rainwater detention retention system that captures water, and by way of weir, releases the water into the watershed to prevent flooding.

11. New retention pond being installed at the Innovation campus site on Bodenheimer drive.

Bioswales

- 1. Boone Creek as it flows through Durham Park features a vegetated swale to help with stormwater management while also enhancing the aesthetics of the park.
- 2. A stone bioswale is located at the King Street Parking Lots which filters the water runoff from Howard Street Hall.

Permeable Pavement / Gravel

- 1. Flexipave entrance at Lovill Residence Hall
- 2. Flexipave erosion control at the Student Rec Center bus stop on Bodenheimer
- 3. Flexipave path near Yosef statue
- 4. Flexipave at Frank Hall parking on the front and back sides
- 5. Flexipave path from Justice Hall leading to Garwood Hall
- 6. Gravel parking area off Depot Street (any additional run off drains into Boone Creek at Jimmy Smith Park, although b/c it is not paved it can not technically be called a bioswale at that point.)
- 7. Gravel drive at Broyhill Inn Parking area
- 8. Gravel drive at Blackburn Vannoy Farm
- 9. Gravel drive at Goodnight Farm
- 10. Gravel parking at Depot lot
- 11. Gravel parking lot at App Heights
- 12. Gravel parking at Bio Diesel
- 13. Gravel parking at Receiving / Recycling (State Farm Road)

Stormwater management pipe systems – Stormwater retention pipes located underground to prevent flooding during times of extended or heavy rain. However, unlike a retention pond, the water eventually escapes to the storm drain.

- 1. Belk Library (between Chappell Wilson and the Library) -Pipes are approx. 6' below surface
- 2. Student Rec Center
- 3. Summit Hall (between Summit and Cone) pipes are buried up to 30' below asphalt
- 4. Living Learning center, stormwater detention pipe system
- 5. Athletics parking lot off of Jack Branch Drive, stormwater detention pipe system.
- 6. Behind raven Rock In grass area, stormwater detention pipe system.
- 7. Behind New river hall, stormwater detention pipe system.
- 8. College of Education, water detention pipe system
- 9. URec parking lot, stormwater detention pipe system.

2) Rain and Stormwater Policies and Practices for Campus

All **new university buildings and or parking lots** are designed with either retention or detention water collection and filtering systems prior to being released back into the natural watershed area.

The campus actively manages an urban forest and has been awarded "Tree Campus" designation. River banks have been specifically targeted for plantings so that tree canopies can catch / disperse water.

Storm drains are routinely camera'd to identify obstructions.

Notes: Last updated by **Eric Greer** and BJ Tipton - October 31, 2023

Eric Greer can review information pulled from a GISmapping system. The maps are maintained by Eddie Hyle (New River Light and Power) who is the GIS mapping person for the university's stormwater and utility infrastructure. [bj 10/25/23]

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