

# Stream Rehabilitation through UNC Charlotte's Campus

## Toby Creek and Mallard Creek

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Mecklenburg County Storm Water Services

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Kimley-Horn and Associates



# Project Background



Mecklenburg County Storm Water Services

Kimley-Horn and Associates, Inc.

*with assistance from UNC Charlotte, Blythe Development, NCLWF, Charlotte Water*



University of North Carolina at Charlotte Campus



Toby Creek = 8,000 linear feet

Mallard Creek = 2,100 linear feet



Toby Creek drainage area = 5.1 square miles

Mallard Creek drainage area = 25.8 square miles

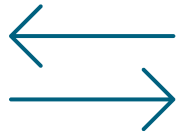


Construction completed July 2022

# Existing Conditions and Constraints



Toby Creek drainage area = 22.4% impervious  
Mallard Creek drainage area = 20.6% impervious



Incised, overwide channel and baseflow, bank erosion, lack of in-stream habitat



3 vehicular crossings  
5 pedestrian crossings and parallel greenway  
1 light rail crossing



Charlotte Water sewer line construction along stream corridor



Construction schedule limitations due to UNC Charlotte events







Proposed Stream Corridor

Utility Easement

Existing Greenway



Vehicular Bridge



Pedestrian Bridge



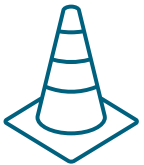
# Proposed Conditions



Improve hydraulic geometry and in-stream bed diversity



Reduce incision through grading floodplain benches where constraints allow

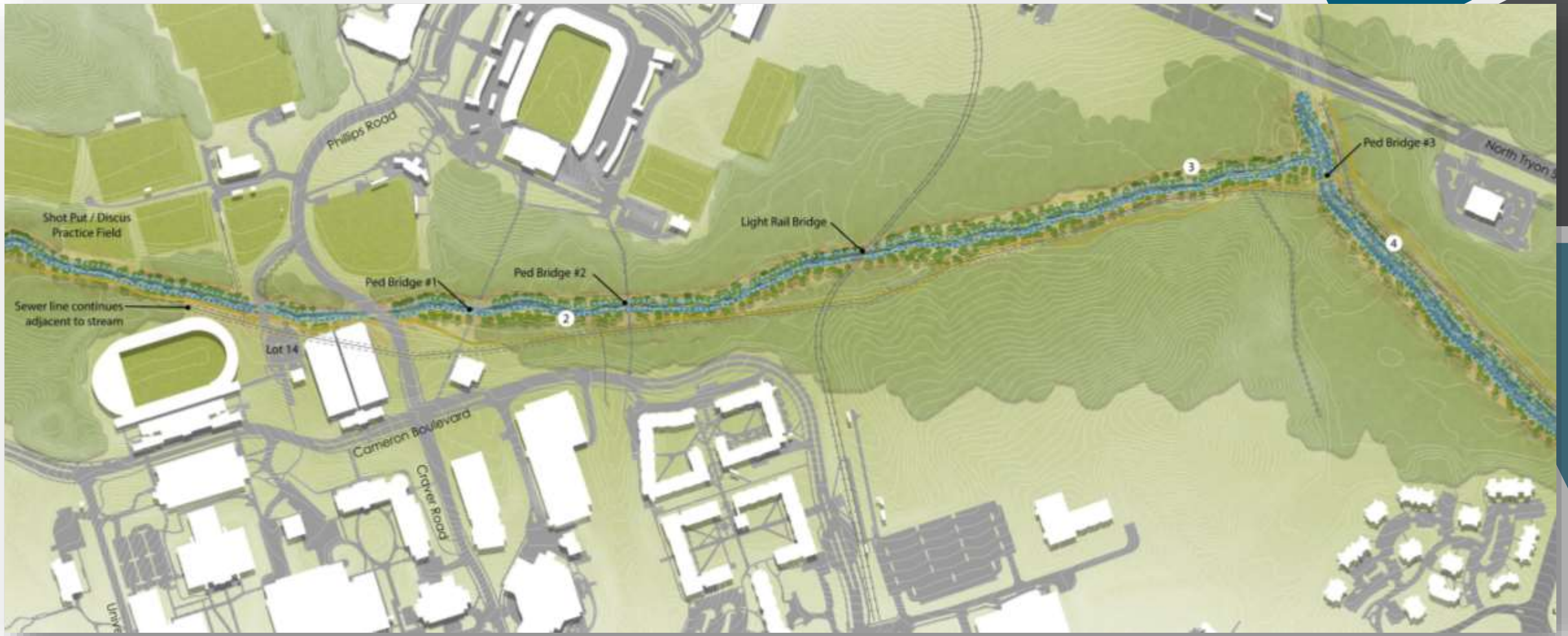


Improve infrastructure protection (bridges, greenway, sewer lines, etc.)



Improve the riparian buffer through native plantings





Shot Put / Discus Practice Field

Sewer line continues adjacent to stream

Lot 14

Phillips Road

Ped Bridge #1

Ped Bridge #2

Cameron Boulevard

Carter Road

Light Rail Bridge

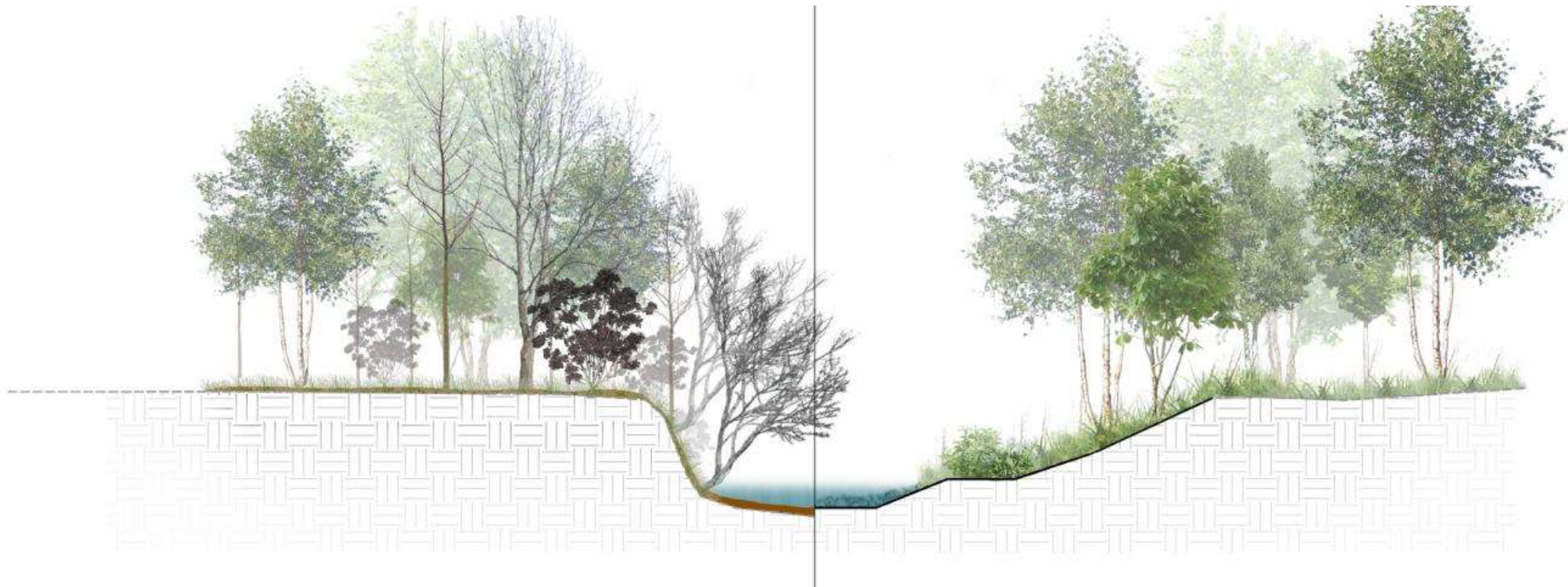
Ped Bridge #3

North Tryon

2

3

4



Existing Conditions

Proposed Conditions











# Questions?

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