



Castle Creek Channel Improvements At Warner Park

Public Hearing on Tree Removal
City of Madison Engineering Division
September 23, 2026

Project Location

Madison, Wisconsin

Legend

- Castle Creek Greenway Project Area
- Castle Creek Greenway Drainage Area
- City Ponds and Greenways
- Abandoned; Removed Storm Pipe
- Accepted; As-Built; As-Designed Storm Pipe

Castle Creek Greenway

Project Area

Warner Park Lagoon

Warner Park

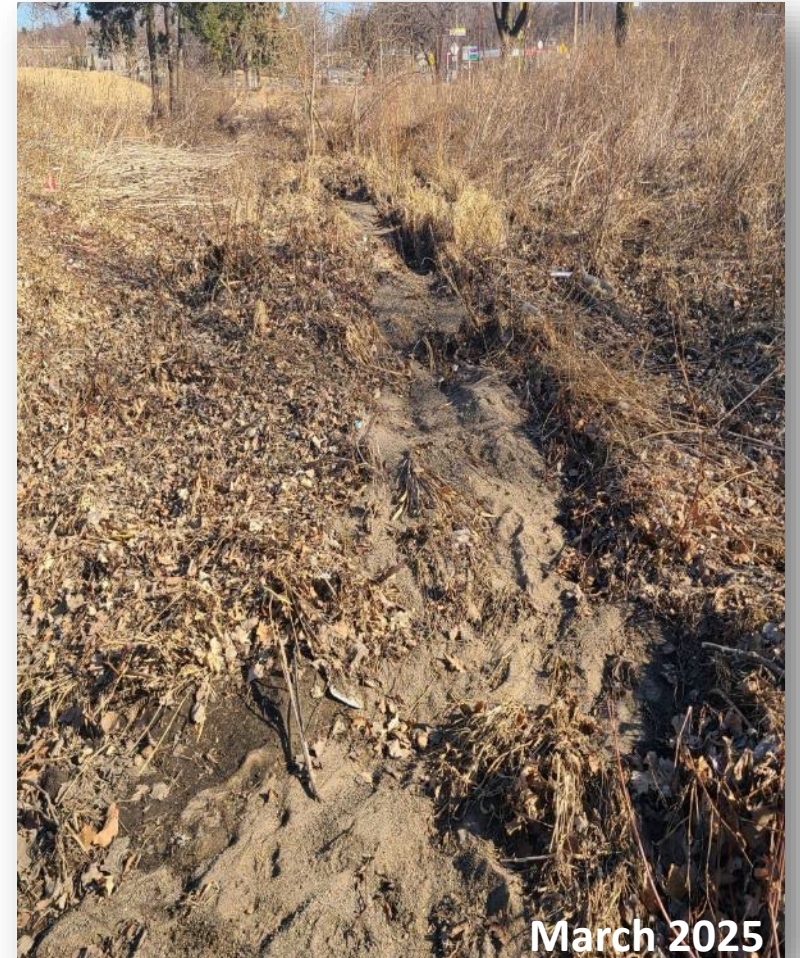
Castle Creek Greenway

Warner Park Boat Launch

Castle Creek Current Conditions - Cunette

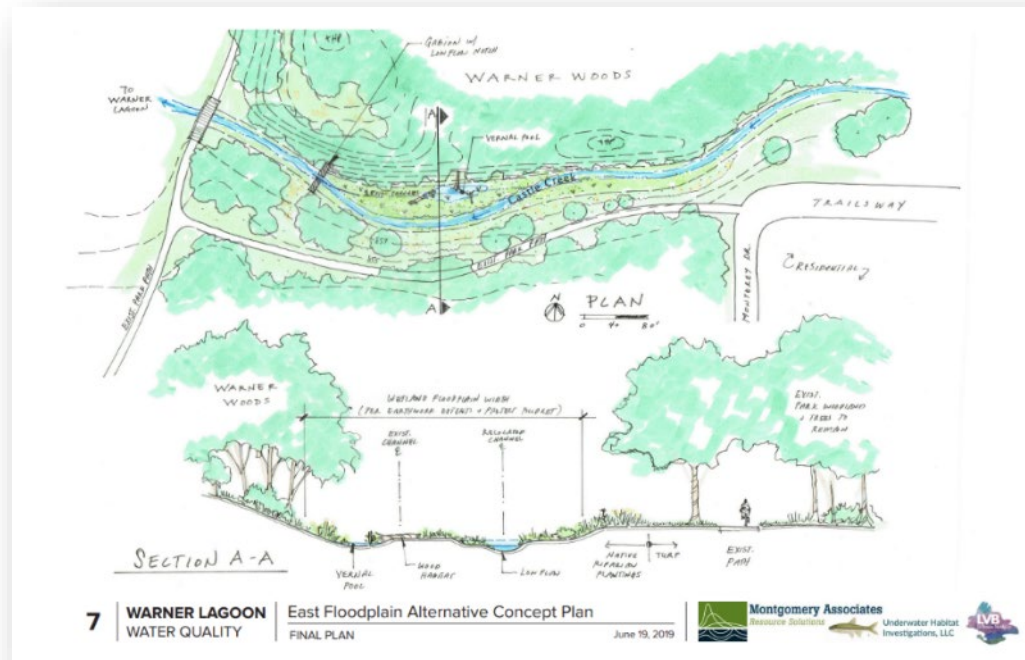


Castle Creek Current Conditions

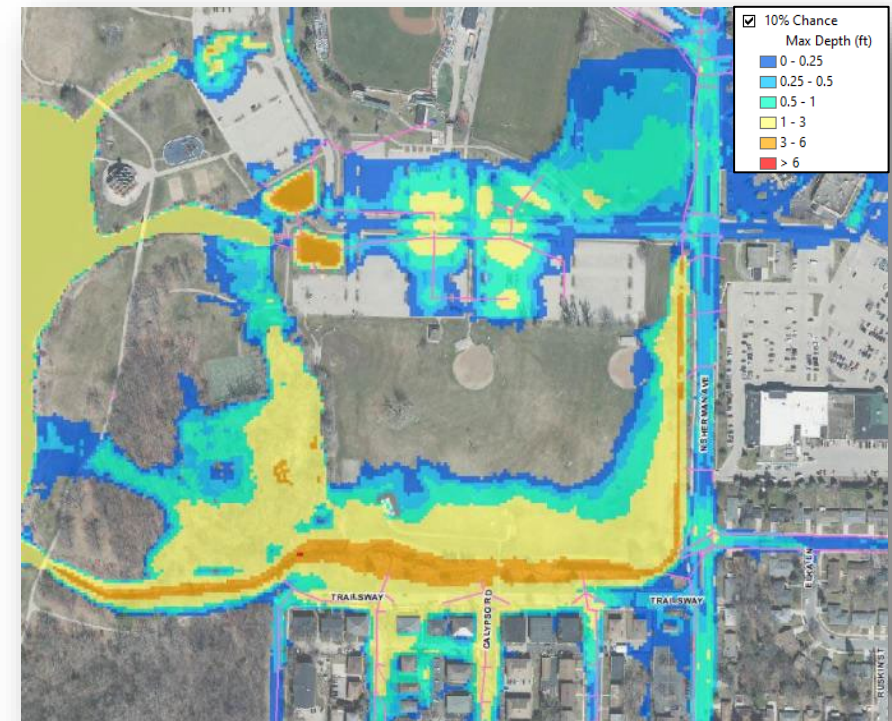


Project Background

- Warner Lagoon Water Quality Plan
 - Objectives:
 - Maintain or Improve Recreational Access
 - Improve Water Quality
 - Habitat Maintenance and Improvement
 - Increase Educational Opportunities
 - Identified Opportunity for two stage channel on Castle Creek



- Warner Park and Cherokee Marsh Watershed Study
 - Identify areas of stormwater flooding and develop recommendations to mitigate
 - Castle Creek was found to be a major conveyance restriction and additional capacity needed to mitigate flooding on Trailsway and in the Brentwood Neighborhood





7/10/25 6:00PM

10% Chance Design Storm

Legend

Max Flood Depth (10% Storm)

ft

0

0 - 0.25

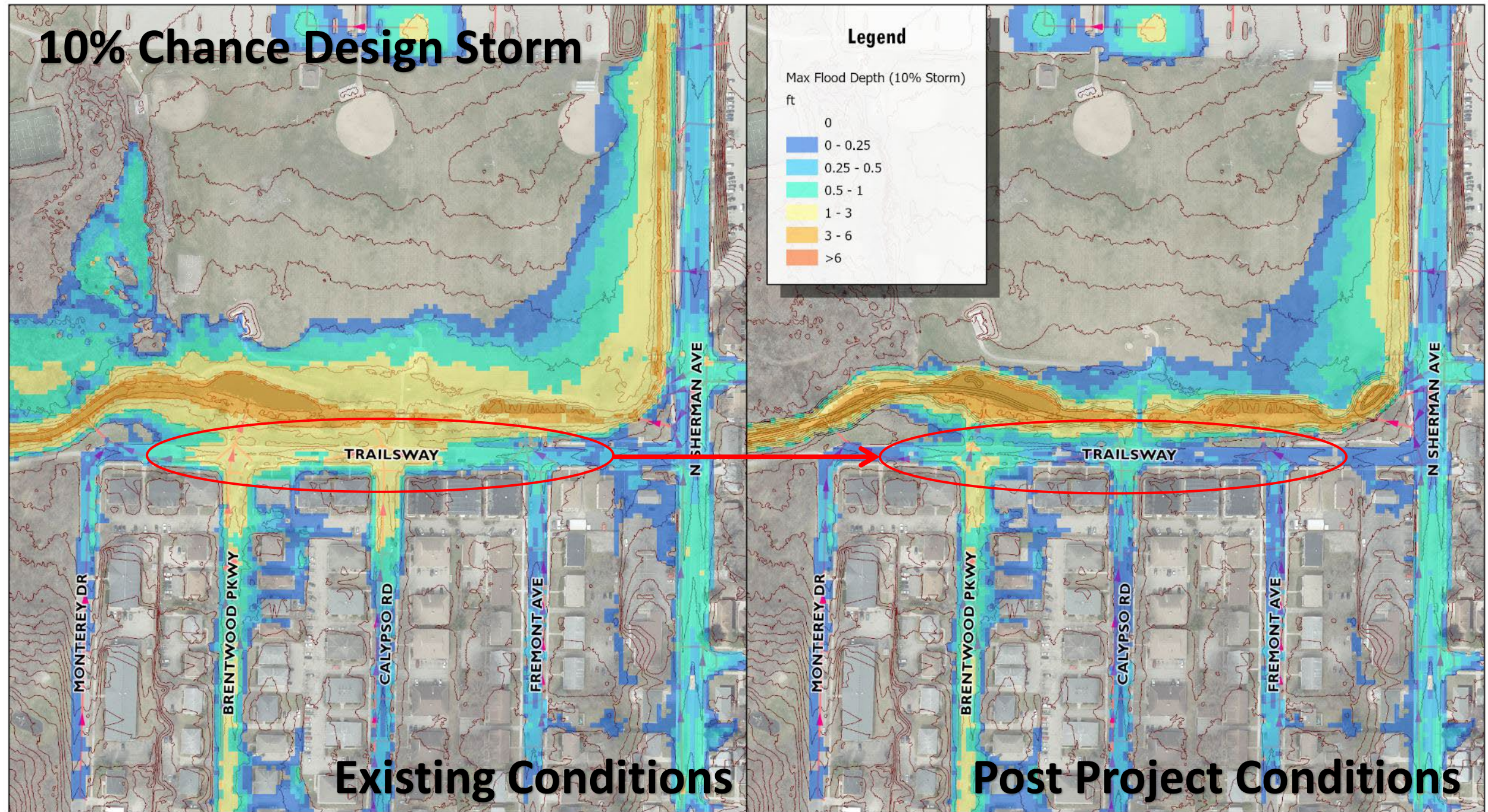
0.25 - 0.5

0.5 - 1

1 - 3

3 - 6

>6



1% Chance Design Storm

Legend

Max Flood Depth (1% Storm)

ft

0

0 - 0.25

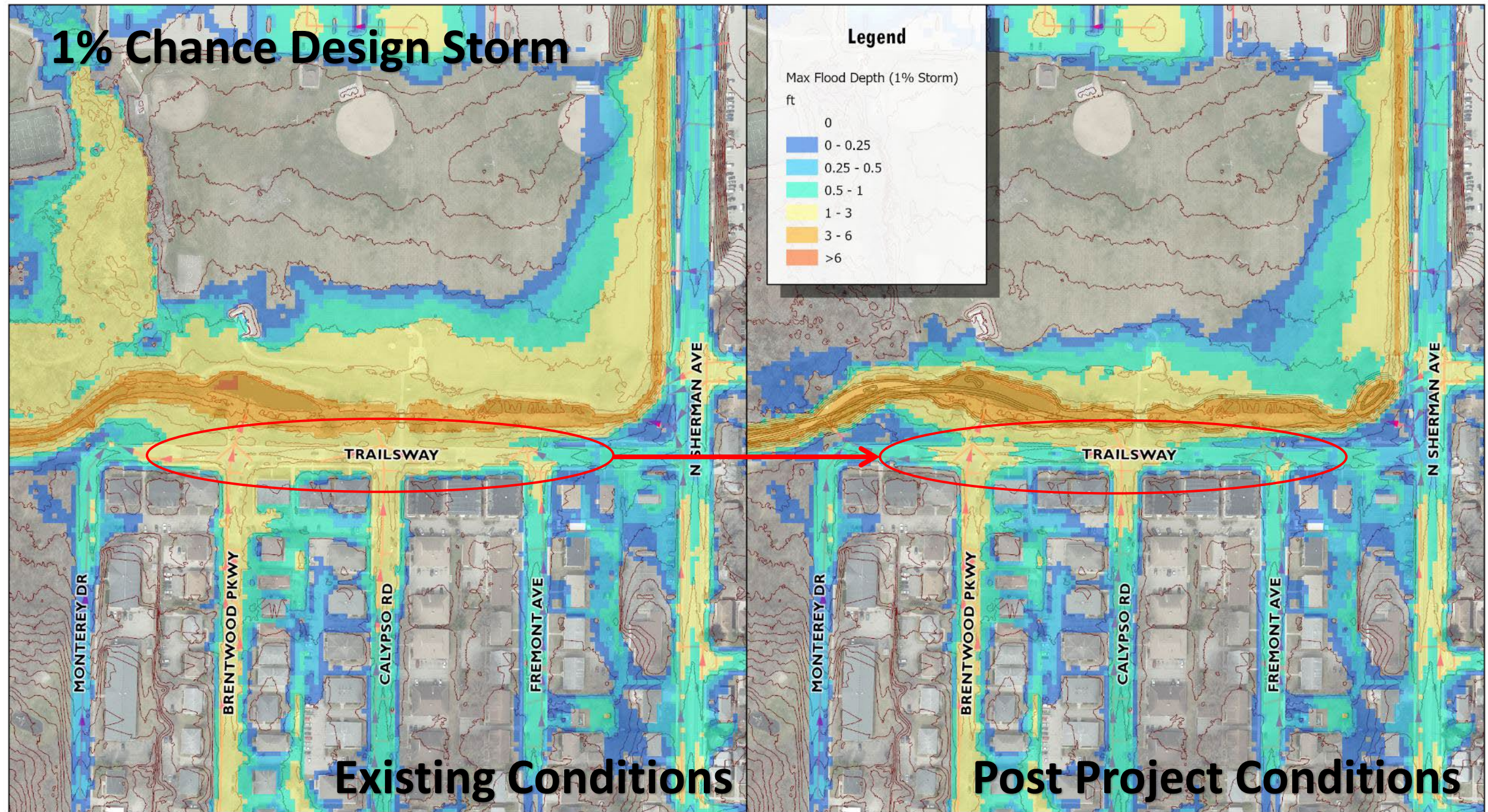
0.25 - 0.5

0.5 - 1

1 - 3

3 - 6

>6



Castle Creek Improvements Project Scope

- *Project Objectives*

- *Reduce Flooding on Trailsway, Sherman Ave, and in the Brentwood Neighborhood*
 - *Move more stormwater through the channel to reduce street flooding*
- *Improve the quality of water entering Warner Lagoon.*
 - *Capture sediment in channel or storm sewer catch basins*
 - *Improve ability to maintain channel and remove accumulated sediment.*
- *Maintain or enhance habitat in and around the channel*
 - *Channel alignment and grading designed to limit impacts to as many healthy, mature, native trees as practical. Significant tree removal will still occur.*
 - *Restore channel with native wetland and prairie/upland vegetation*
- *Minimize any long-term access or use impacts to Warner Park/Play fields*
 - *Existing bridges will remain after project completion*

Castle Creek Channel Improvements

Warner Park

End of project

Project will attempt to preserve healthy native trees. Low quality and invasive trees in project area to be removed.

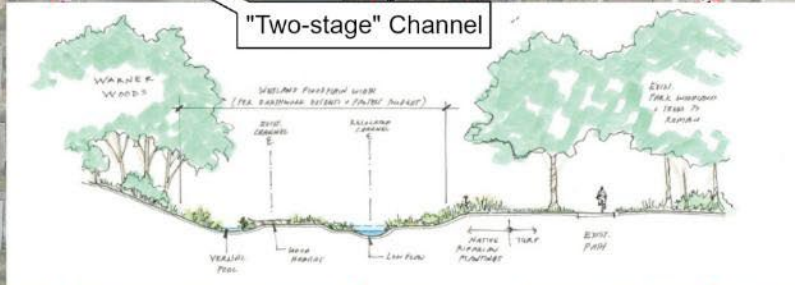
Channel to be lowered and widened

Existing bridges to be kept

Existing concrete to be removed

Trees within grading Limits to be Removed

"Two-stage" Channel



Tree Design Process

- Hire certified arborists to complete a tree inventory:
 - Tag each tree in project area
 - List size, species and health condition (see table)
- Large, healthy trees were designed around wherever possible
- Use Warner Lagoon Water Quality Plan as a starting point for grading limits
 - Balance tree impacts and flood mitigation efficacy
- Walked site with arborist to identify high value trees near grading limits, establish ideal setbacks, and tradeoffs of grading modifications

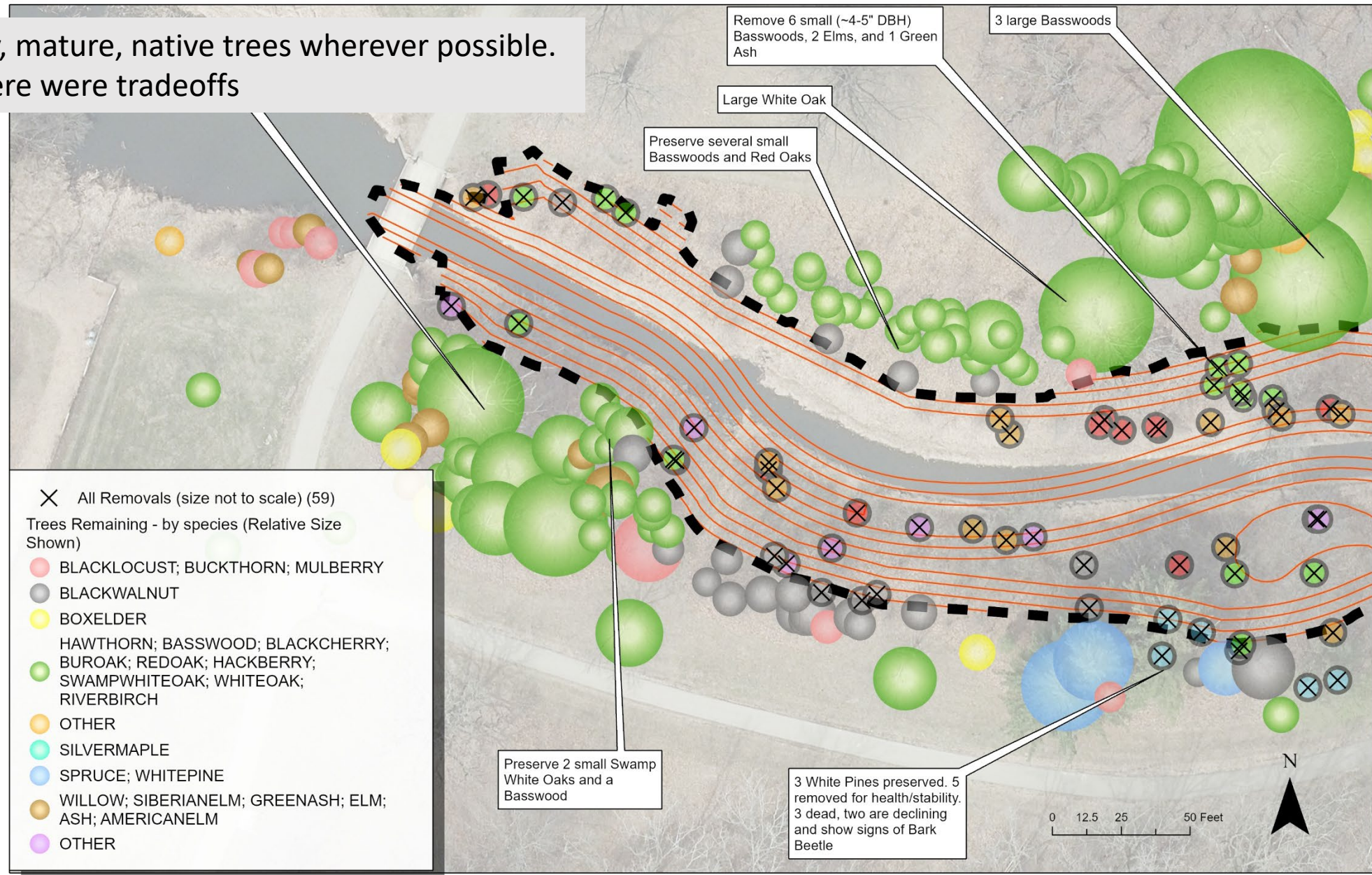
Rating	Health	Structure	Form	Condition Rating
Excellent	High vigor and nearly perfect health with little or no twig dieback, discoloration, or defoliation.	Nearly ideal and free of defects.	Nearly ideal for the species. Generally symmetric. Consistent with the intended use.	81% to 100%
Good	Vigor is normal for the species. No significant damage due to disease or pests. Any twig dieback, defoliation, or discoloration is minor.	Well-developed structure. Defects are minor and can be corrected.	Minor asymmetries/deviations from species norm. Mostly consistent with the intended use. Function and aesthetics are not compromised.	61% to 80%
Fair	Reduced vigor. Damage due to insects or diseases may be significant and associated with defoliation but is not likely to be fatal. Twig dieback, defoliation, discoloration and/or dead branches may comprise up to 50% of the crown	A single defect of a significant nature or multiple moderate defects. Defects are not possible to correct or would require multiple treatments over several years.	Major asymmetries/ deviations from species norm and/or intended use. Function and/or aesthetics are compromised.	41% to 60%
Poor	Unhealthy and declining in appearance. Poor vigor. Low foliage density and poor foliage color are present. Potentially fatal pest infestation. Extensive twig and/or branch dieback.	A single serious defect or multiple significant defects. Recent change in tree orientation. Observed structural problems cannot be corrected. Failure may occur at any time.	Largely asymmetric/abnormal. Detracts from intended use and/or aesthetics to a significant degree.	21% to 40%
Very poor	Poor vigor. Appears to be dying and in last stages of life. Little live foliage.	Single or multiple severe defects. Failure is probable or imminent.	Visually unappealing. Provides little or no function in the landscape.	6% to 20%
Dead				0% to 5%

Tree Impacts

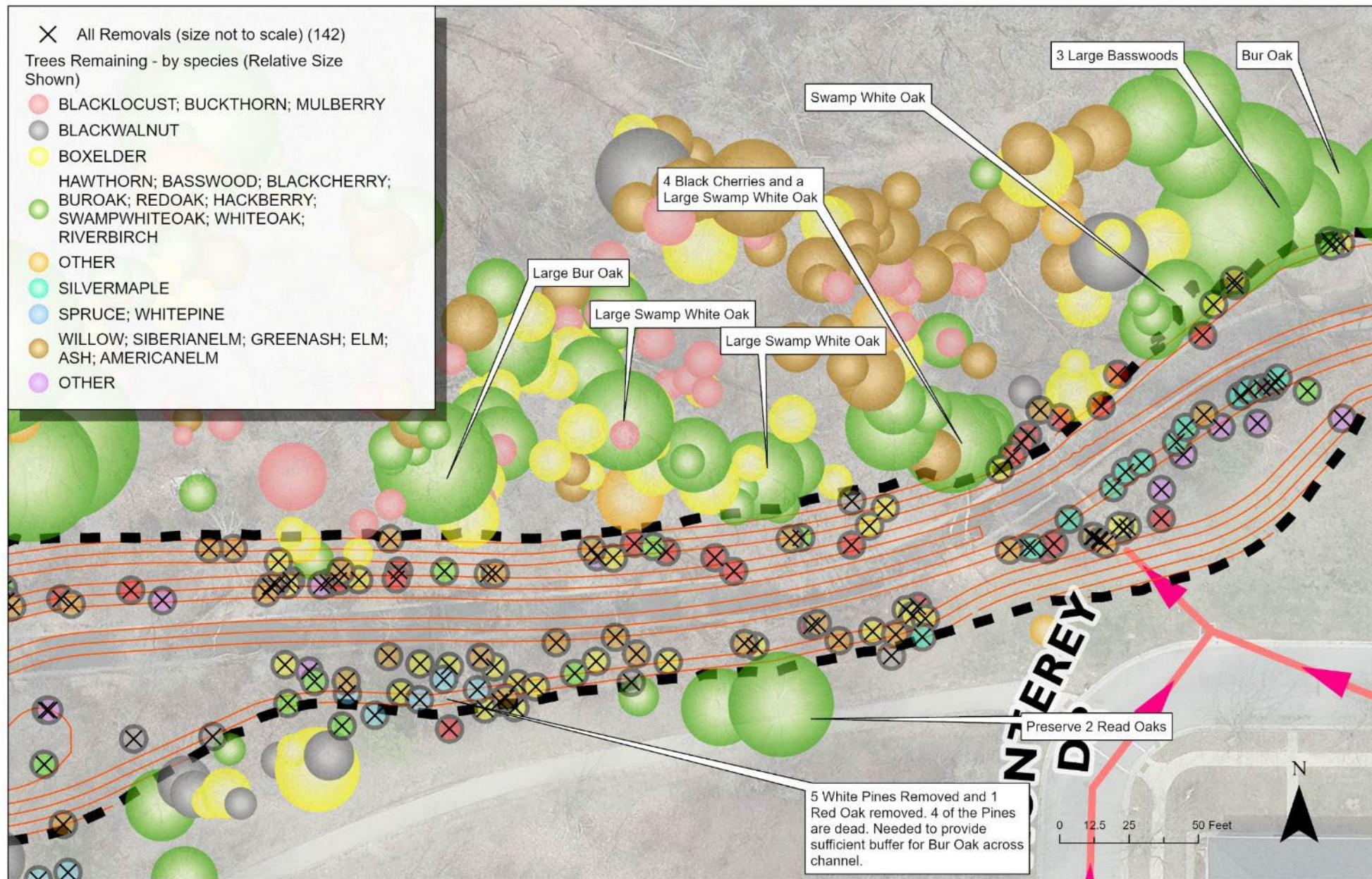


Tree Driven Design

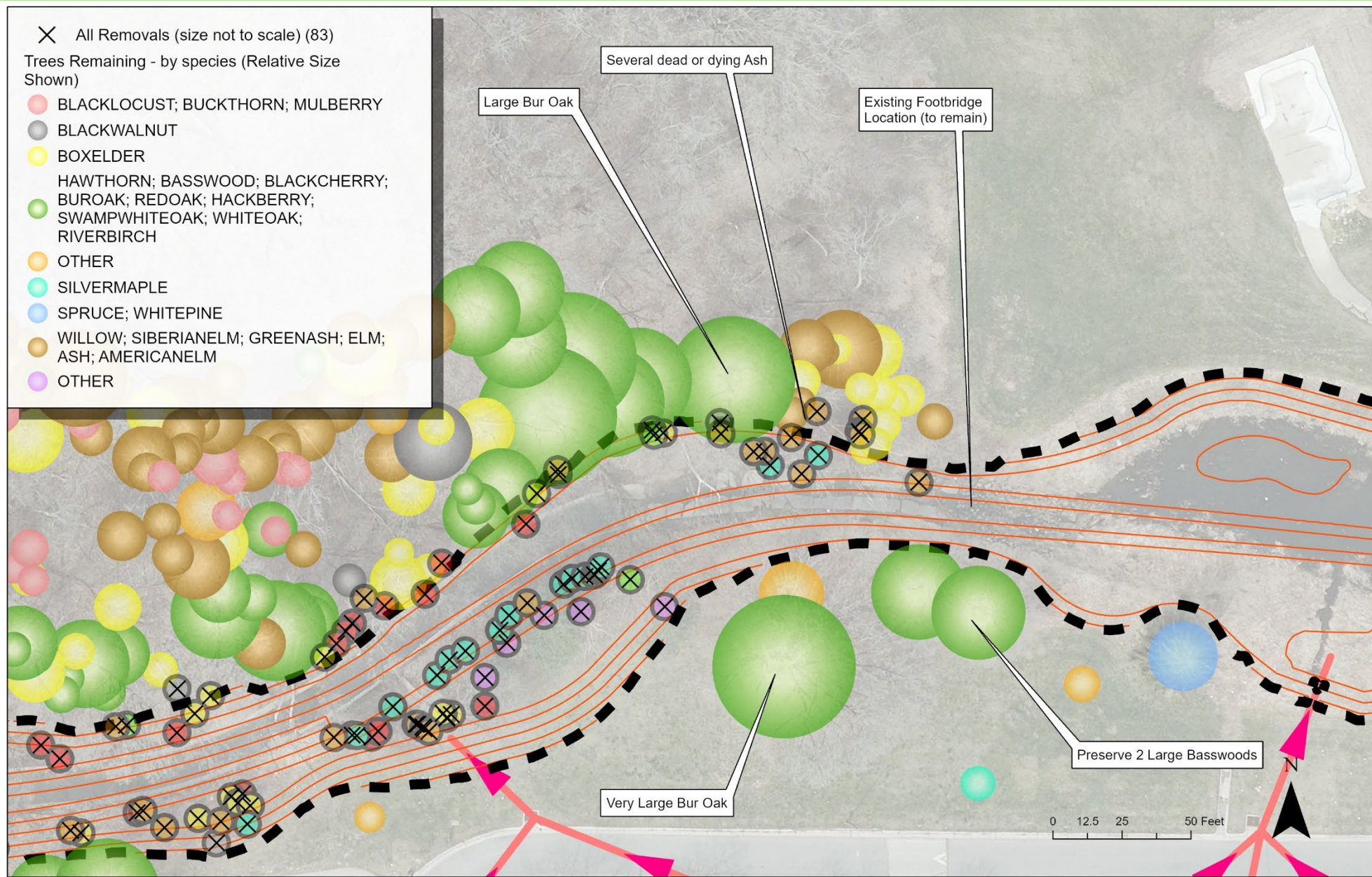
Avoided healthy, mature, native trees wherever possible.
Some places there were tradeoffs



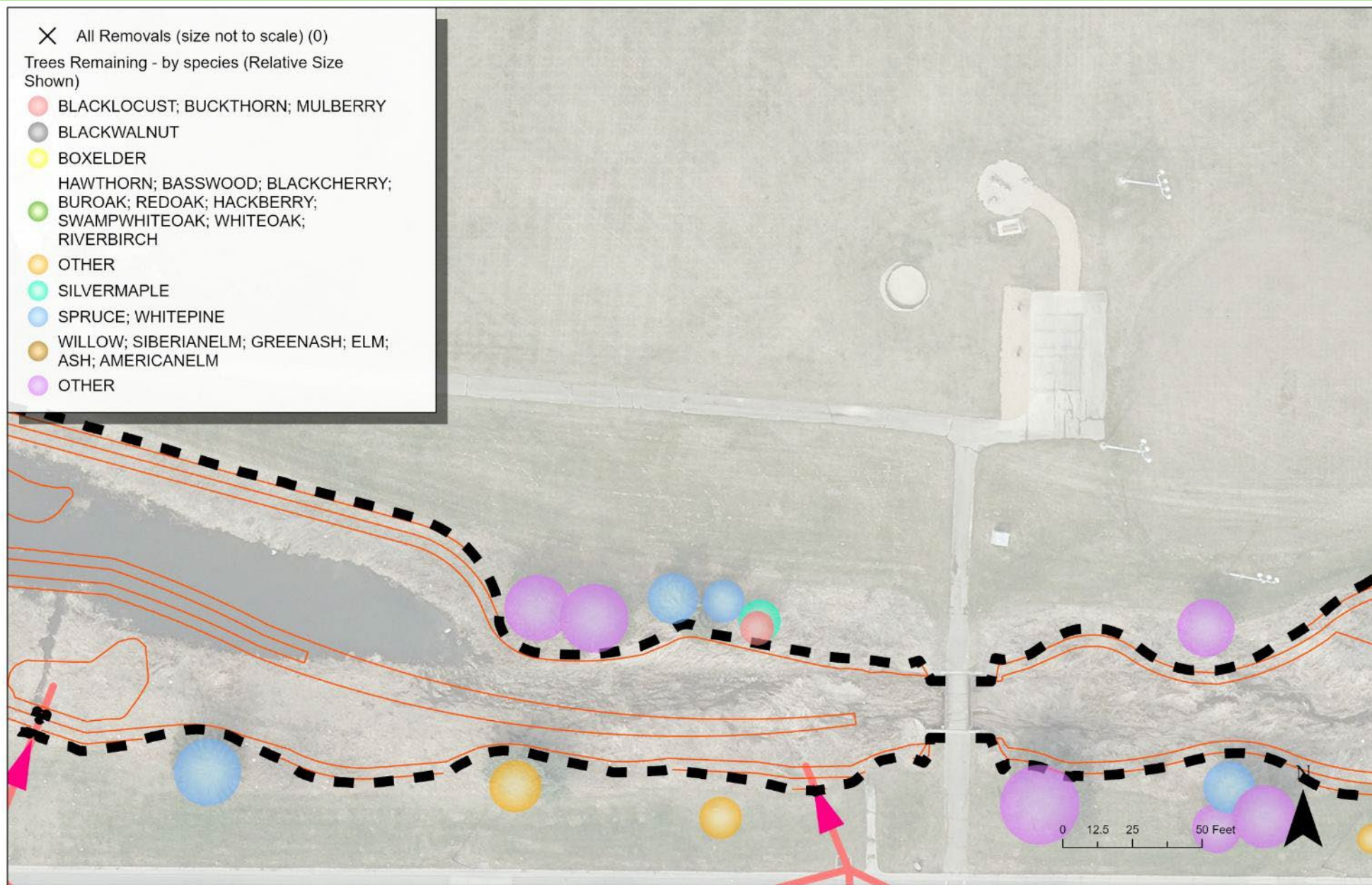
Tree Driven Design



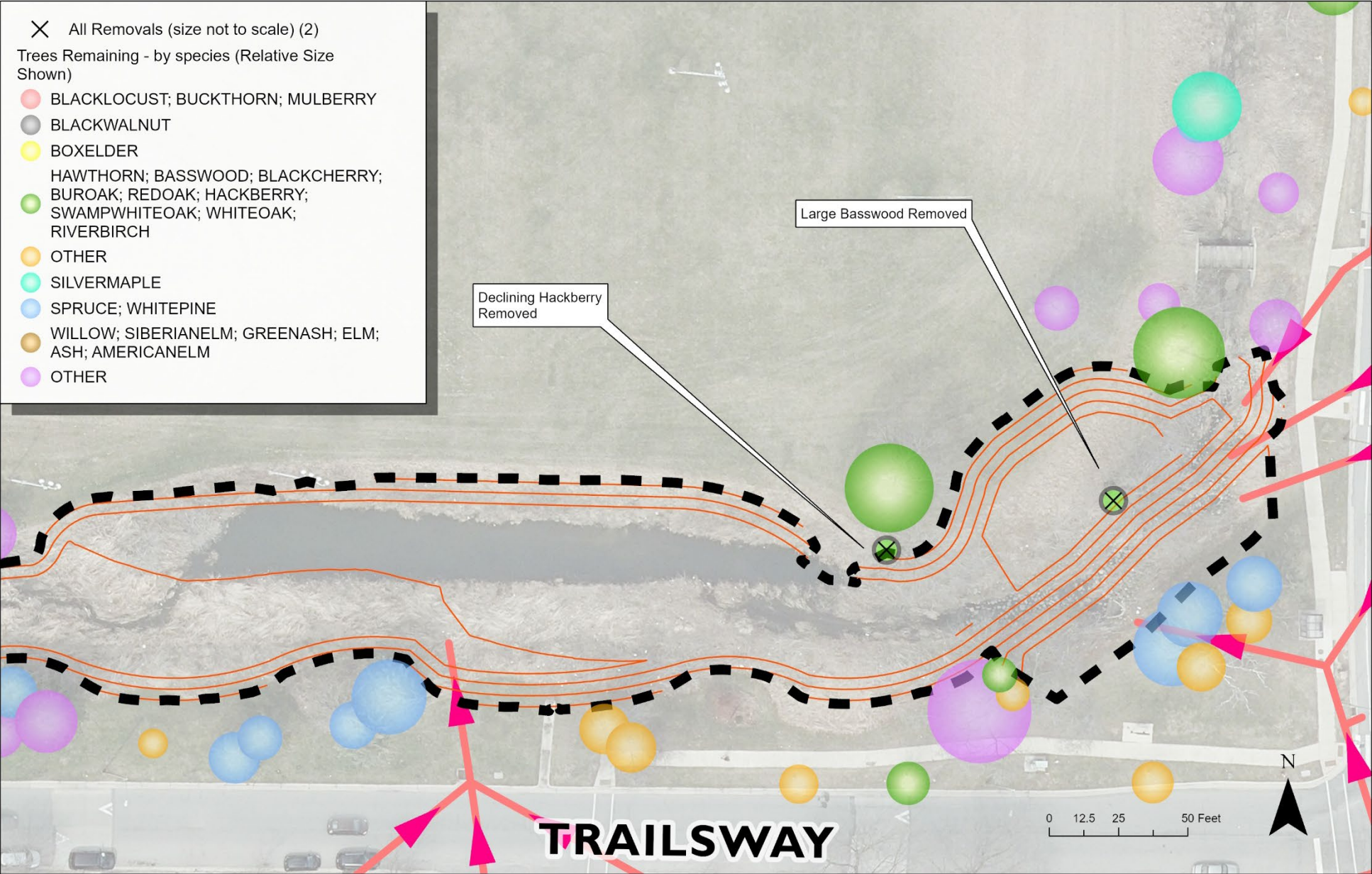
Tree Driven Design



Tree Driven Design



Tree Driven Design



Summary of Removals

Species	Removals
AMERICANELM	10
ASH	8
BASSWOOD	16
BLACKCHERRY	
BLACKLOCUST	
BLACKWALNUT	15
BOXELDER	31
BUCKTHORN	12
BUROAK	
CRABAPPLE	
ELM	2
GREENASH	25
HACKBERRY	6
HAWTHORN	
HONEYLOCUST	5
JUNIPER	1
MULBERRY	22
OTHER	13
REDCEDAR	1
REDMAPLE	
REDOAK	5
REDPINE	
RIVERBIRCH	
SIBERIANELM	5
SILVERMAPLE	17
SPRUCE	
SUGARMAPLE	
SWAMPWHITEOAK	
WHITEOAK	
WHITEPINE	10
WILLOW	1
Grand Total	205

Size	Number Removed
6" or less	124
6-9"	33
9-12"	21
12"-18"	15
18-24"	5
>24"	3
Total	205

- Design modified to preserve all Bur Oak, White Oak, and Swamp White Oak
- Followed arborist recommendations for min and recommended buffers for large, healthy, native trees. Particularly Oaks.

Tree Protection

- Engineering is contracting with a certified arborist to assist pre-, during and post-construction
- Trees that are sensitive to construction and may have roots impacted by construction will be pre-treated with a growth hormone regulator
- The contractor will be required to install tree protection fencing around remaining trees
- Contractor tree removal plan will be approved by certified arborists and arborists will oversee removals
- Certified arborist will be on-site during grading around trees and will cut all roots
- Certified arborists will recommend post-construction tree treatment to help sensitive, impacted trees recover from nearby construction



Example Tree Protection Fencing

Ecological Goals

- Preserve as many mature canopy trees as possible
- Restore graded areas with deep rooted native plants to improve biodiversity, provide wildlife habitat and mitigate erosion
- Parks to plant some trees adjacent to greenway in 2027 (still in planning)



Wet mesic species



Floodplain species

WETLAND SEED MIX



Blue flag iris



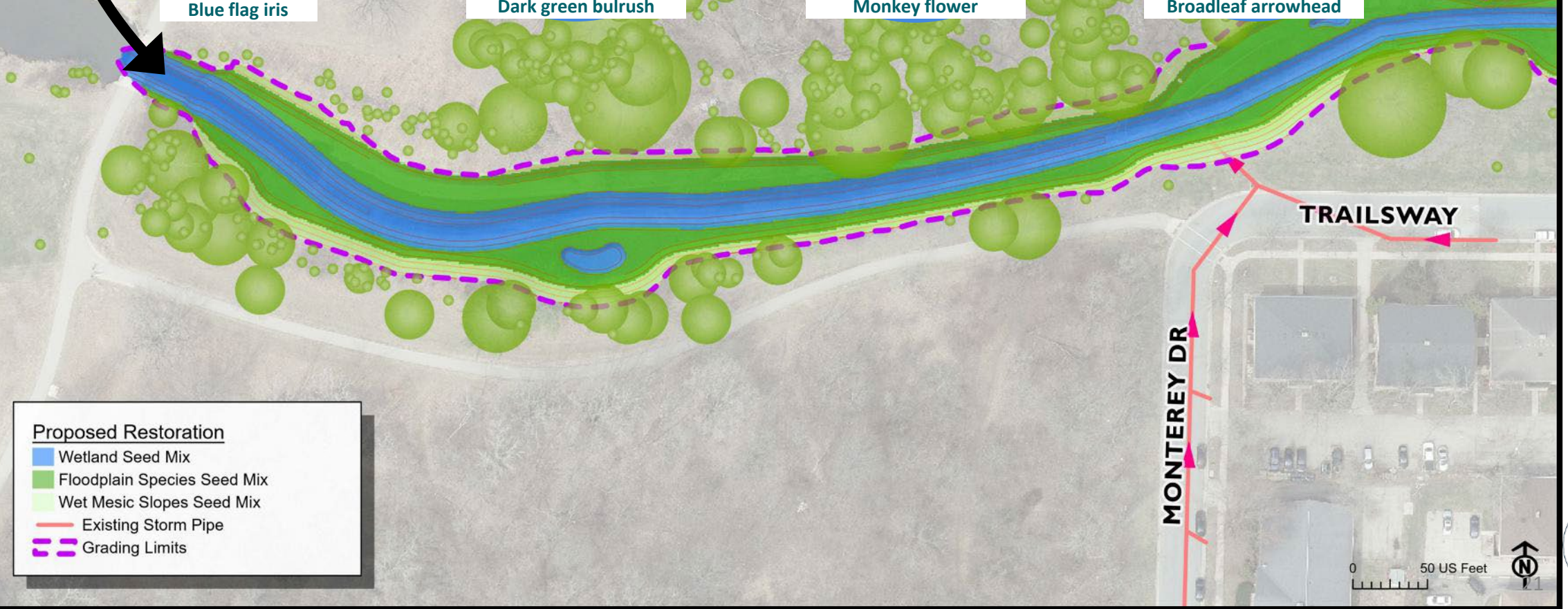
Dark green bulrush



Monkey flower



Broadleaf arrowhead



FLOODPLAIN SEED MIX



Swamp milkweed



Cardinal flower



Brown fox sedge



Great blue lobelia



Mud plantain



Sweet flag



Southern blue flag iris

Proposed Restoration

- Wetland Seed Mix
- Floodplain Species Seed Mix
- Wet Mesic Slopes Seed Mix
- Existing Storm Pipe
- Grading Limits

TRAILSWAY

0 50 US Feet



WET MESIC SLOPES SEED MIX



Bee balm



Big blue stem



Brown fox sedge



Butterfly weed



Purple coneflower



White wild indigo



Whorled milkweed

Proposed Restoration

- Wetland Seed Mix
- Floodplain Species Seed Mix
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TRAILSWAY

0 50 US Feet



WETLAND SEED MIX

FLOODPLAIN SEED MIX

TRAILSWAY

WET MESIC SLOPES SEED MIX

Proposed Restoration

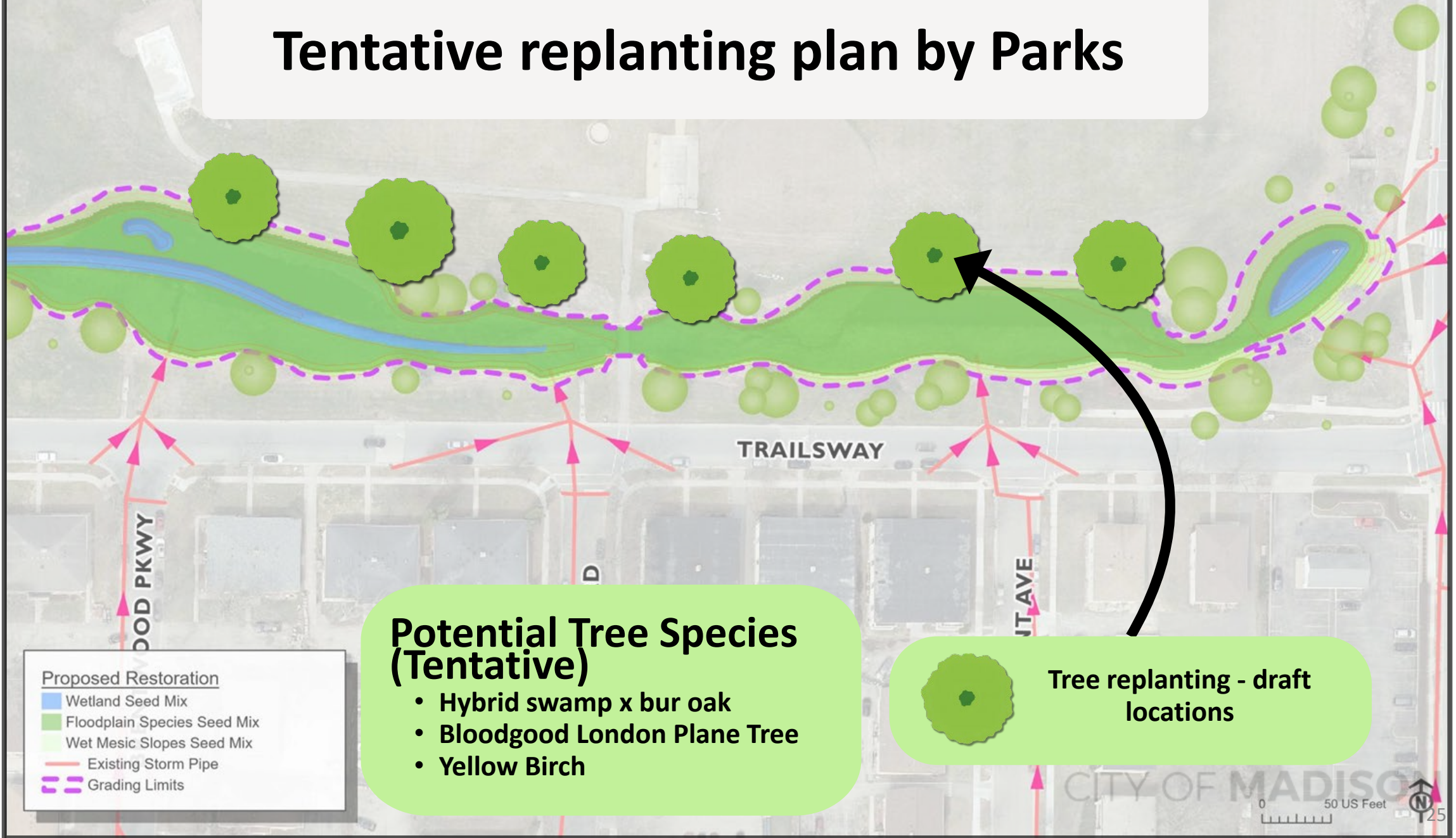
- Wetland Seed Mix
- Floodplain Species Seed Mix
- Wet Mesic Slopes Seed Mix
- Existing Storm Pipe
- Grading Limits

0 50 US Feet



TREE REPLANTING

Tentative replanting plan by Parks



Contact Information & Resources

- Engineering
 - *Ryan Stenjem, 608-266-4913, rstenjem@cityofmadison.com*
- Project Website: www.cityofmadison.com/CastleCreek
 - Sign-up for project email updates on the website
 - A recording of the Public Information Meeting is posted.
 - A PDF of this presentation, future project updates, & construction progress will be posted as well.