



**Whispering Valley and
West Cow Path
Flood Risk Reduction Project**

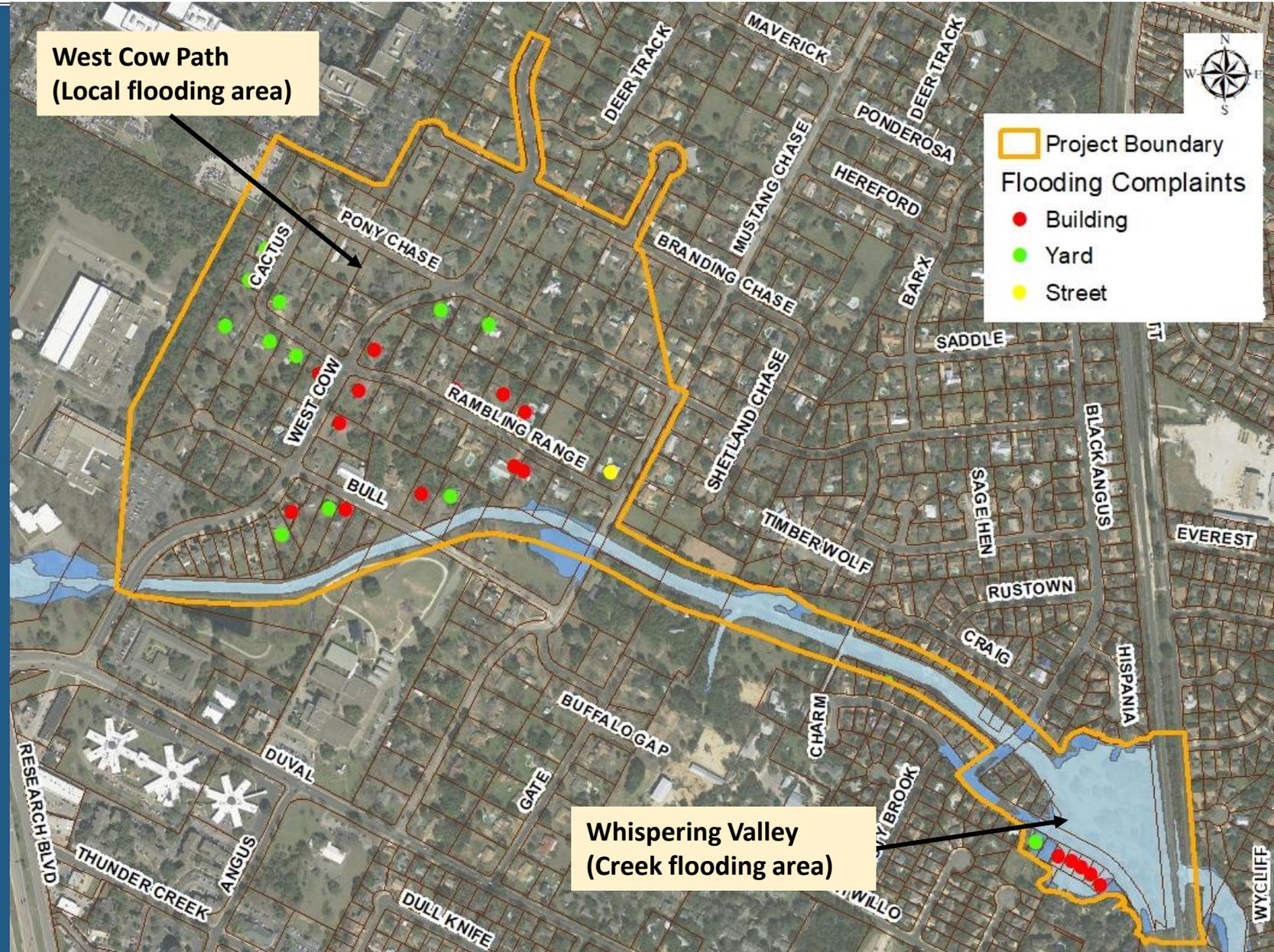


Agenda

- Introduction
- Background
- Preliminary Engineering Report (PER) discussion
- Moving Forward
- Questions

Whispering Valley and West Cow Path Flood Risk Reduction Project Area

- Located in northwest Austin
- West Cow Path – Local flooding area
- Whispering Valley – Creek flooding area
- Adverse Impact Mitigation





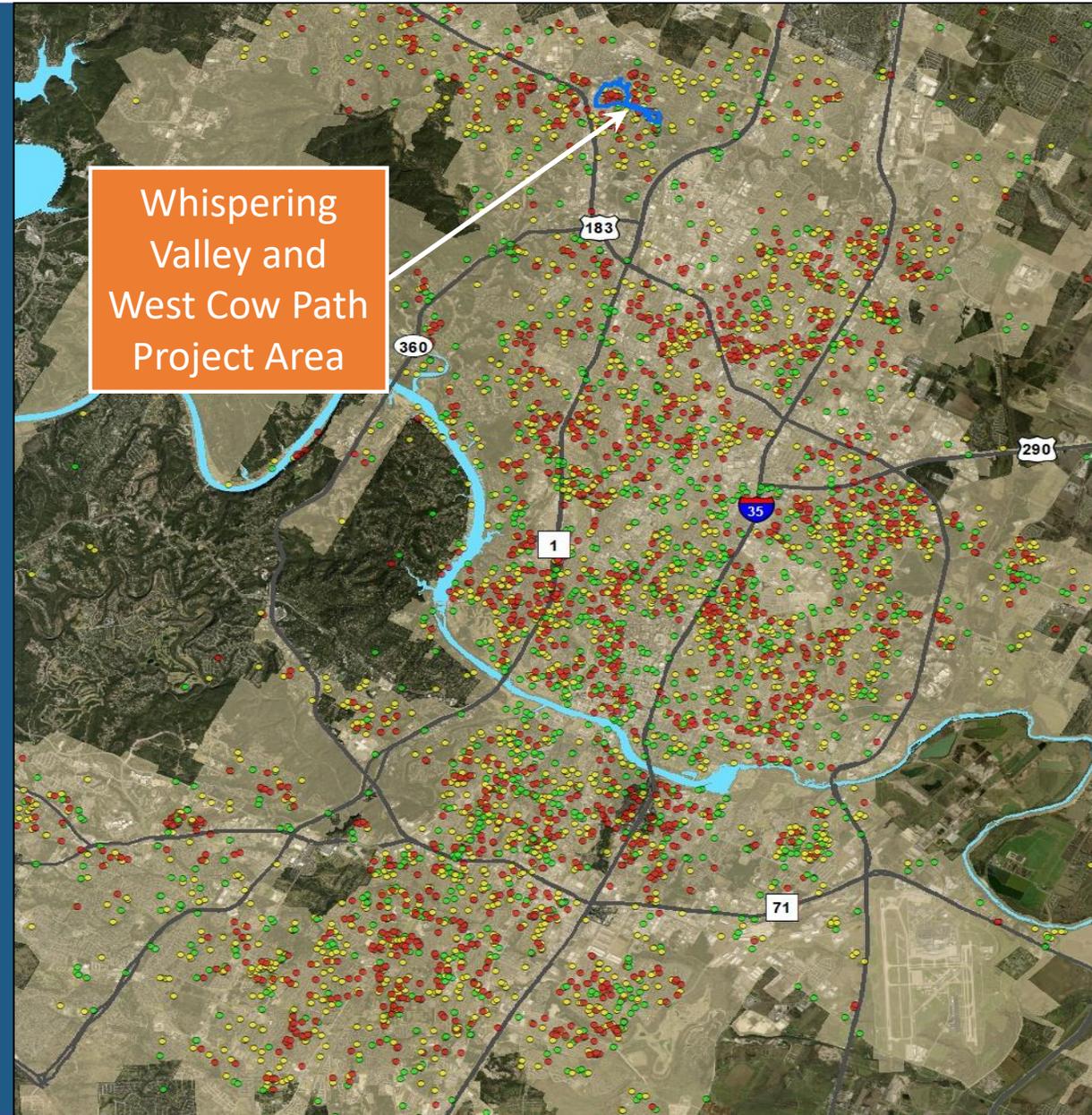
← **Localized Flooding**
Occurs away from creeks.

Creek Flooding →
Occurs when a creek rises over its banks.



Localized Flooding Citywide

- **5,884 Total Complaints**
 - 1,955 Buildings
 - 2,409 Yards
 - 1,480 Streets
- **Neighborhoods built before the 1980s tend to have more drainage problems**
- **No quick or easy solution**





What is a Storm Drain System?

- System of streets, ditches, pipes and culverts
- Drains rainfall from streets to nearby creek
- Inlets are placed along curb to catch rainfall
- Streets should drain in most storms.

Components of a Storm Drain System

1. Inlets and curbs capture rain water.



2. Underground pipes carry the water.

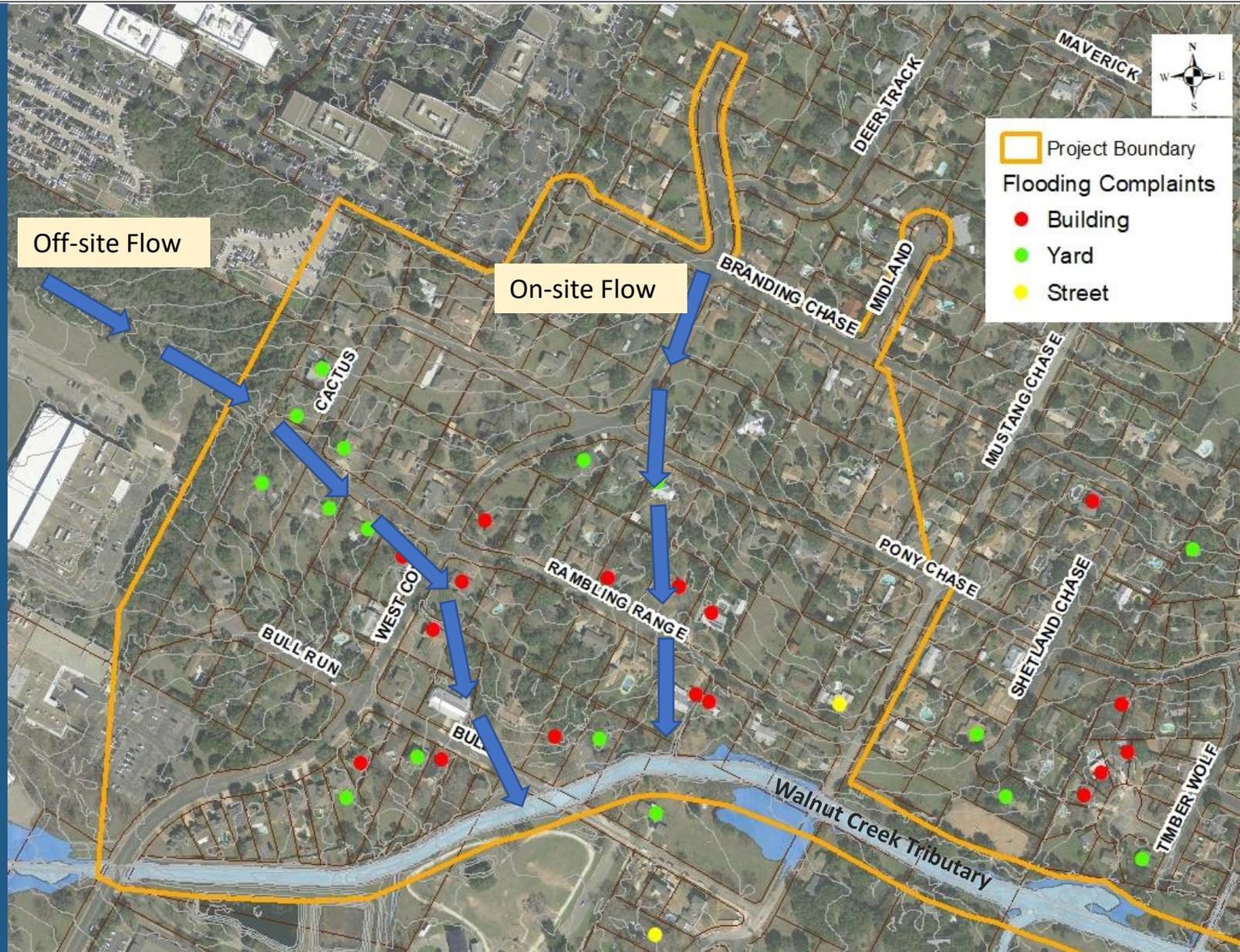


3. Rain water is released into a creek at the outfall. Sometimes it goes to a water quality or detention pond first.



West Cow Path Flooding

- Neighborhood area ~ 93 acres
- Existing roadside ditches with marginal capacity
- Local Flooding Complaints
 - 12 buildings
 - 11 yards
 - 1 street
- Two sources of flooding
 - Off-site flow
 - On-site flow

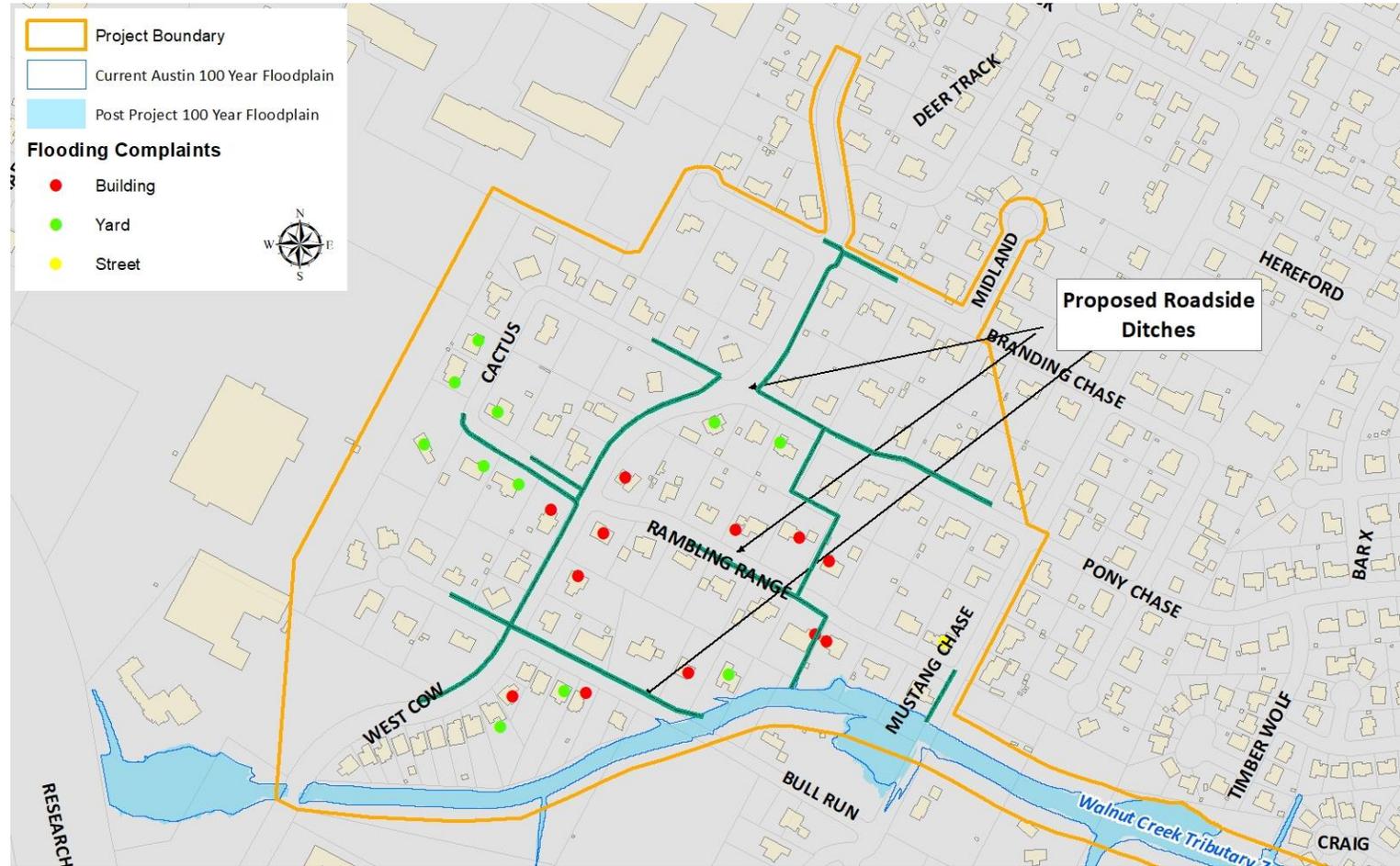


West Cow Path Local Drainage Improvements

On-Site Flow

Roadside Ditches

- Limited space for installing ditches
- Low capacity – 2 year (3.44 inches in 24-hr)
- Estimated Cost - \$ 1.9 Million
- **Non recommended option**



West Cow Path Local Drainage Improvements

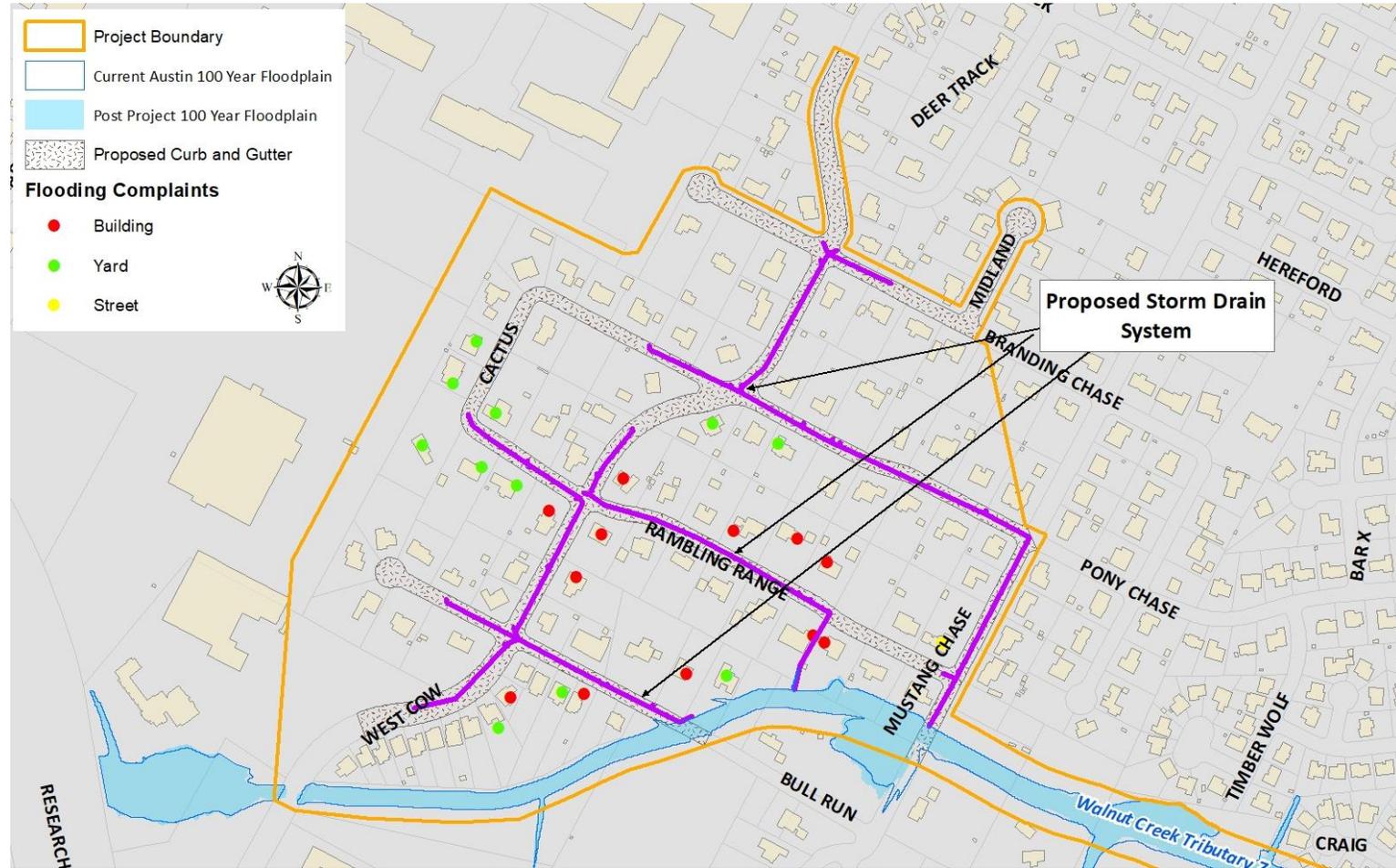


West Cow Path Local Drainage Improvements

On-Site Flow

Curb and Gutter with storm drain infrastructure

- Three separate networks
- Outfall to the creek
- Entirely within ROW or existing easements
- Higher Capacity – 25 year (7.64 inches in 24-hr)
- Estimated Cost - \$ 5.0 Million
- Recommended option



West Cow Path Local Drainage Improvements

Off-Site Flow

Backyard Bypass Channel

- Trapezoidal 6ft deep x 16ft wide; 3:1 side slopes
- Outfall into creek
- Capacity for 100-yr storm (10.2 inches in 24-hr)
- Residential lots affected ~12
- Estimated Cost - \$ 1.6 Million
- **Non recommended option**



West Cow Path Local Drainage Improvements

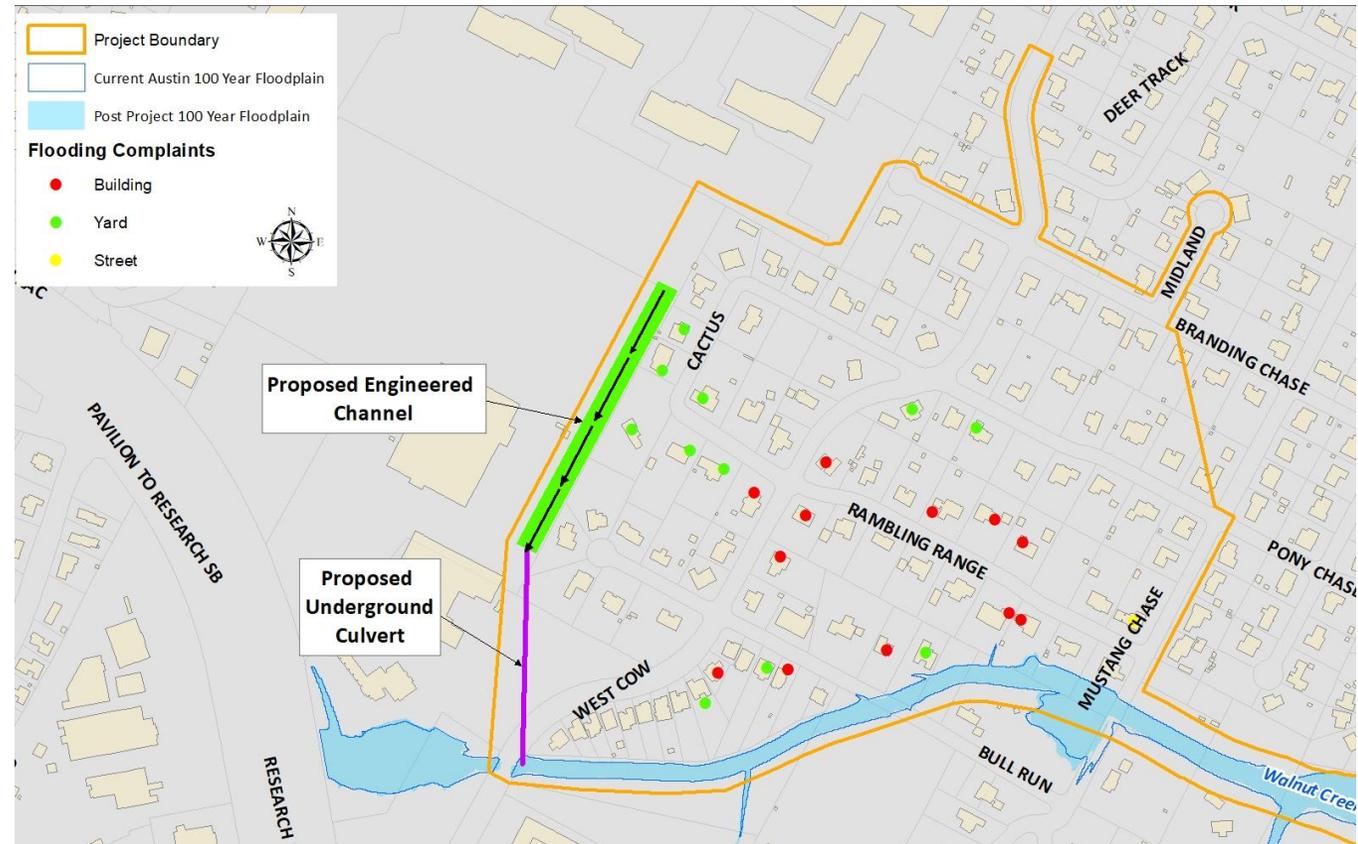


West Cow Path Local Drainage Improvements

Off-Site Flow

3M Bypass Channel

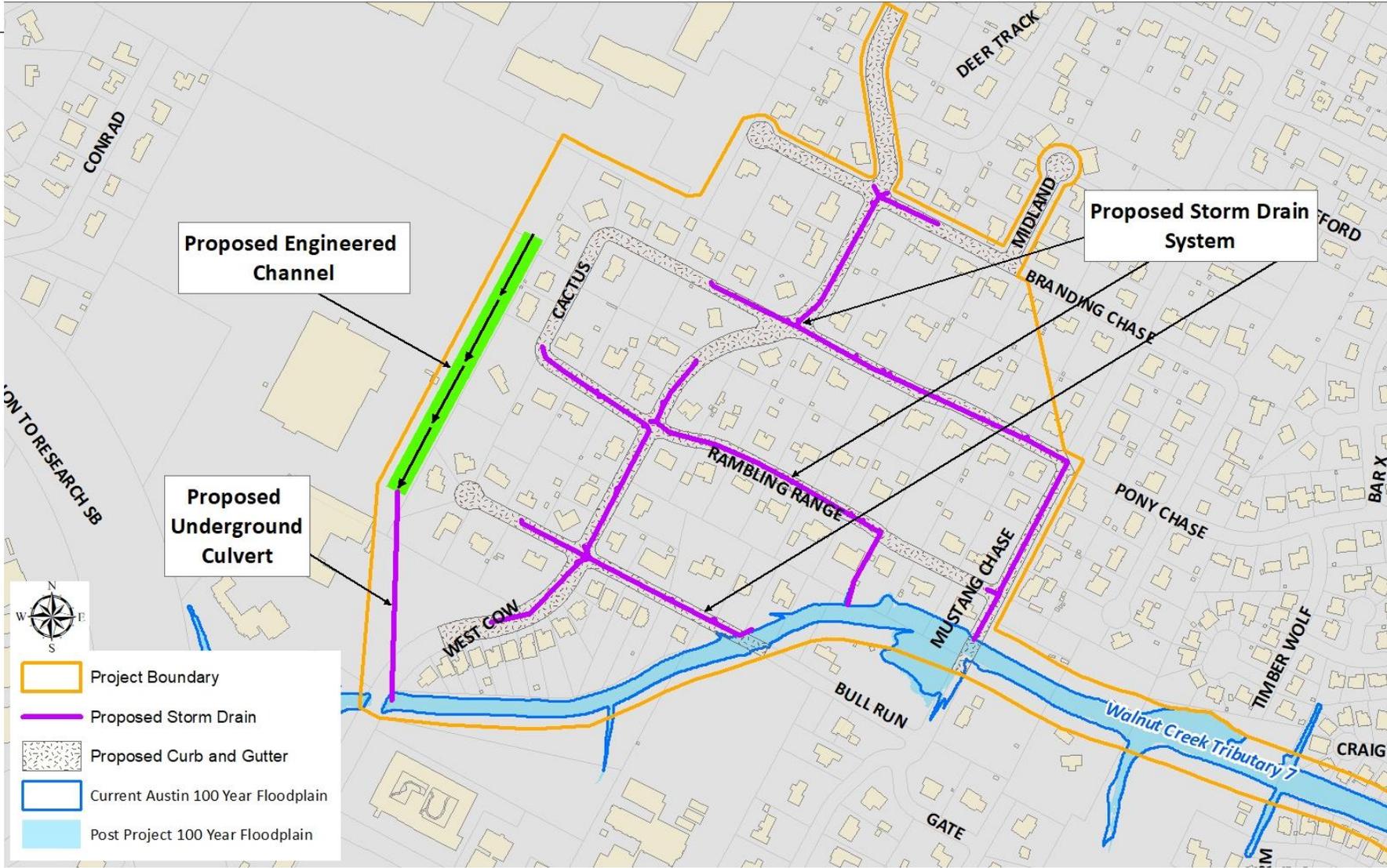
- Trapezoidal 7ft deep x 10ft wide; 3:1 side slopes
- Box pipes through 3M parking lot –
Two 9-ft x 5-ft
- Outfall into creek
- Capacity for 100-yr storm (10.2 inches in 24-hr)
- Estimated Cost - \$ 2.0 Million
- Recommended option



West Cow Path Local Drainage Improvements

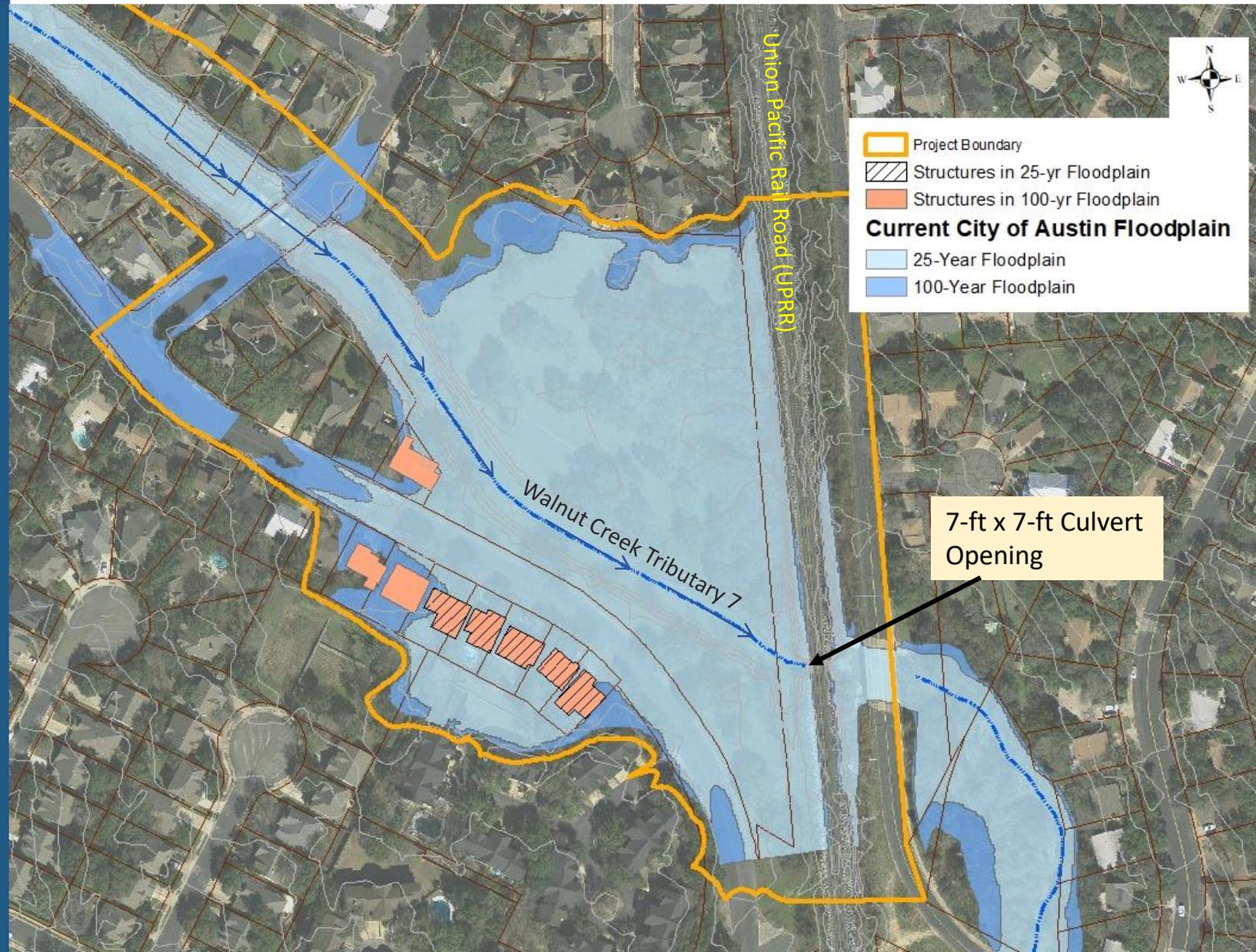


ATX FLOOD SAFETY



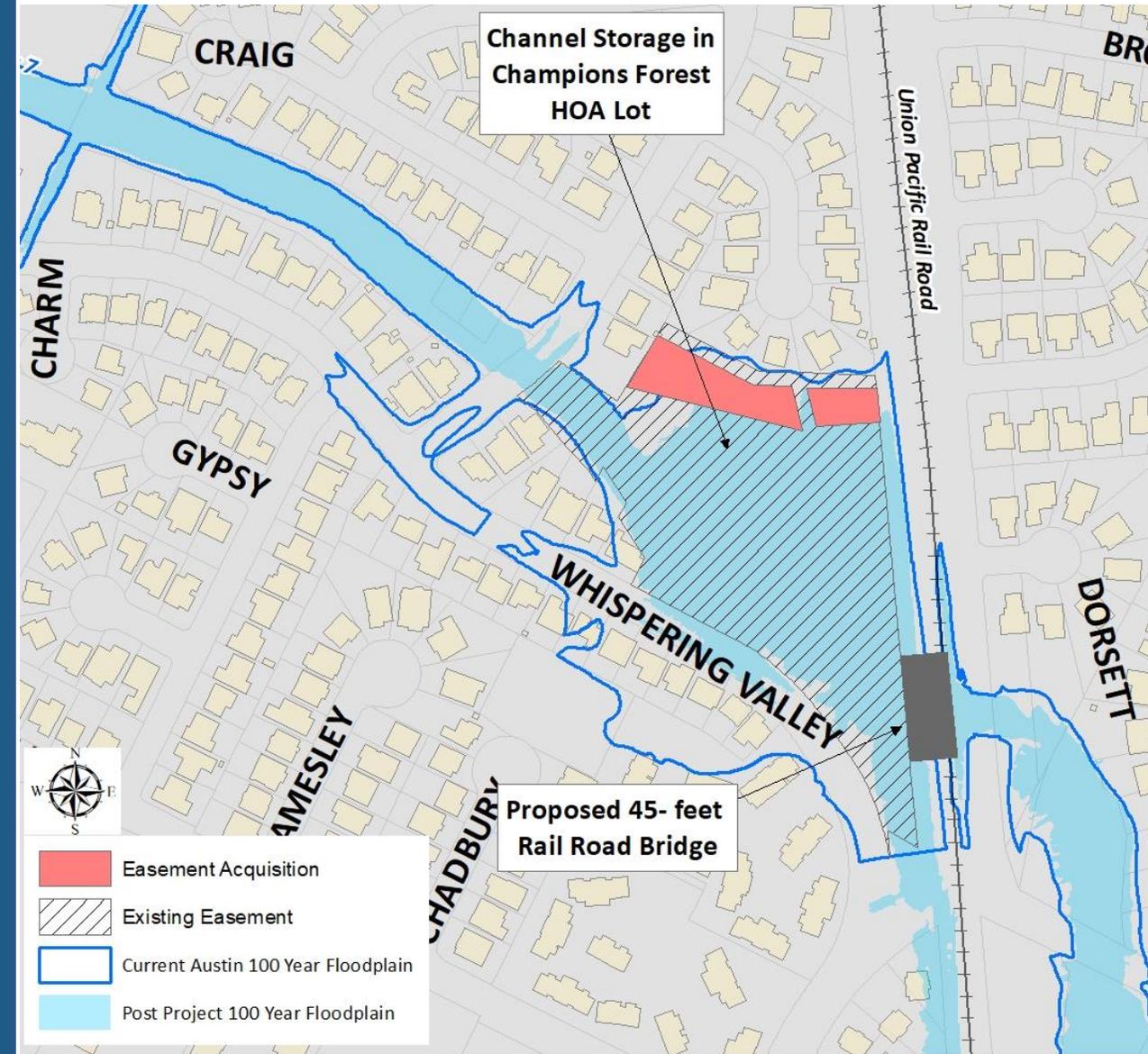
Whispering Valley Flooding

- Union Pacific Rail Road (UPRR) crossing
 - 7-ft x 7-ft opening
 - Less than 2-year storm capacity (3.44 inches in 24-hrs)
- 5 structures in 25-year current Austin floodplain
- 8 structures in 100-year FEMA floodplain



Whispering Valley Improvements

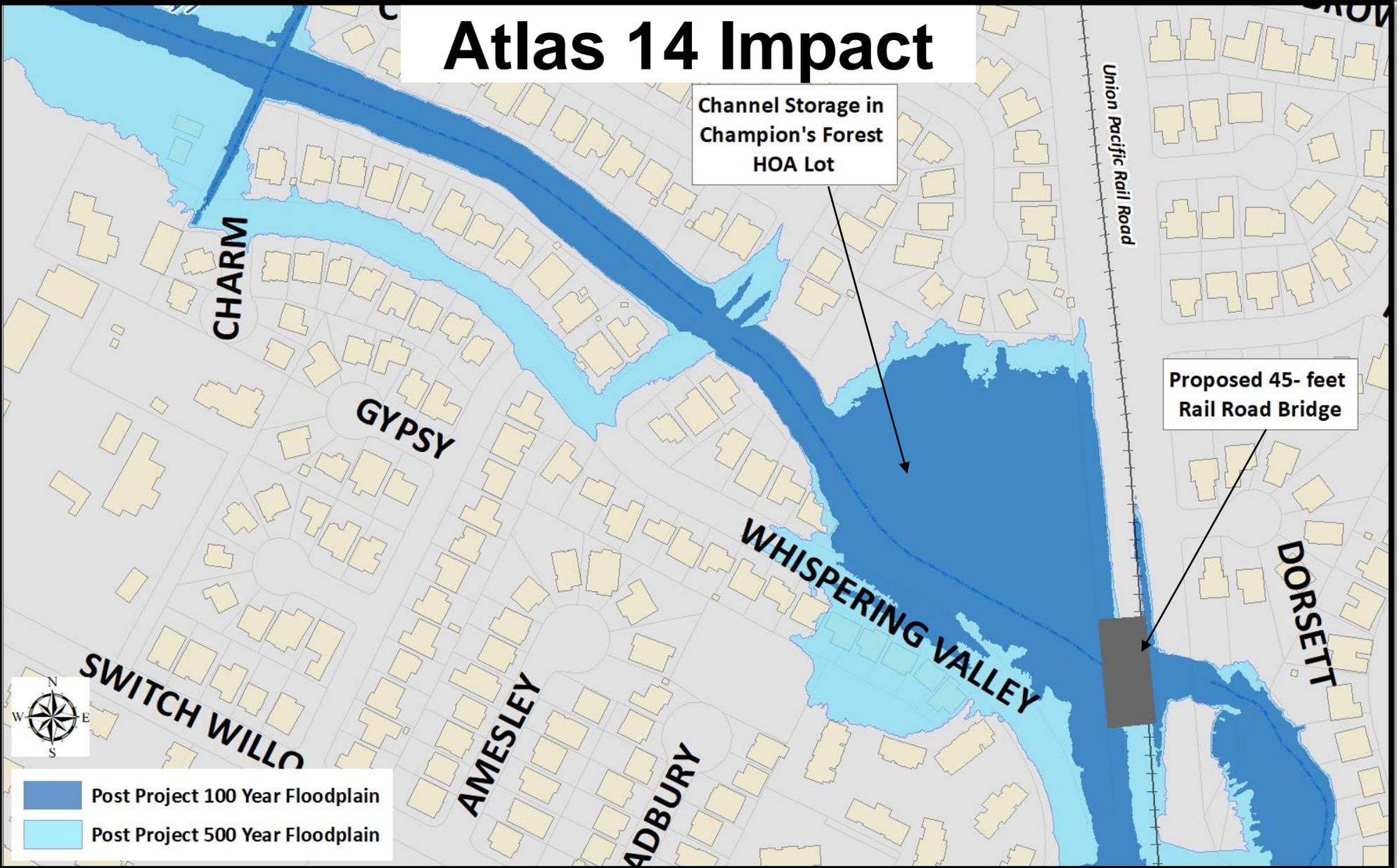
- Recommended a 45-ft bridge upgrade for UPRR culvert
- Channel storage in the Champions Forest HOA lot
- Removes 8 structures from current Austin 100-year floodplain
- Estimated Cost - \$ 3.2 Million + Bridge upgrade participation cost



Champion Forest Lot Channel Storage



Atlas 14 Impact



Channel Storage in
Champion's Forest
HOA Lot

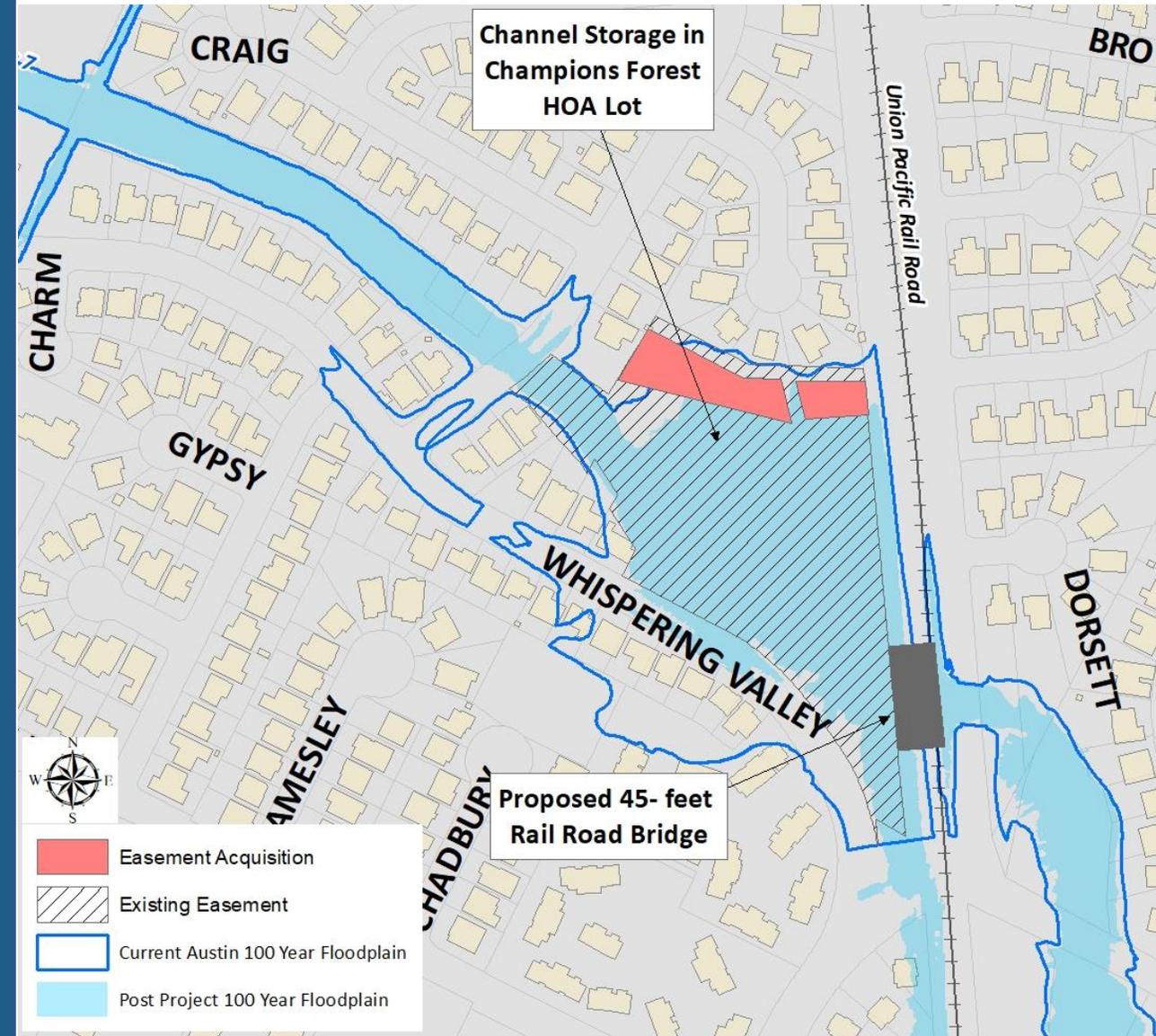
Proposed 45-foot
Rail Road Bridge



Post Project 100 Year Floodplain
Post Project 500 Year Floodplain

Downstream Impact Mitigation

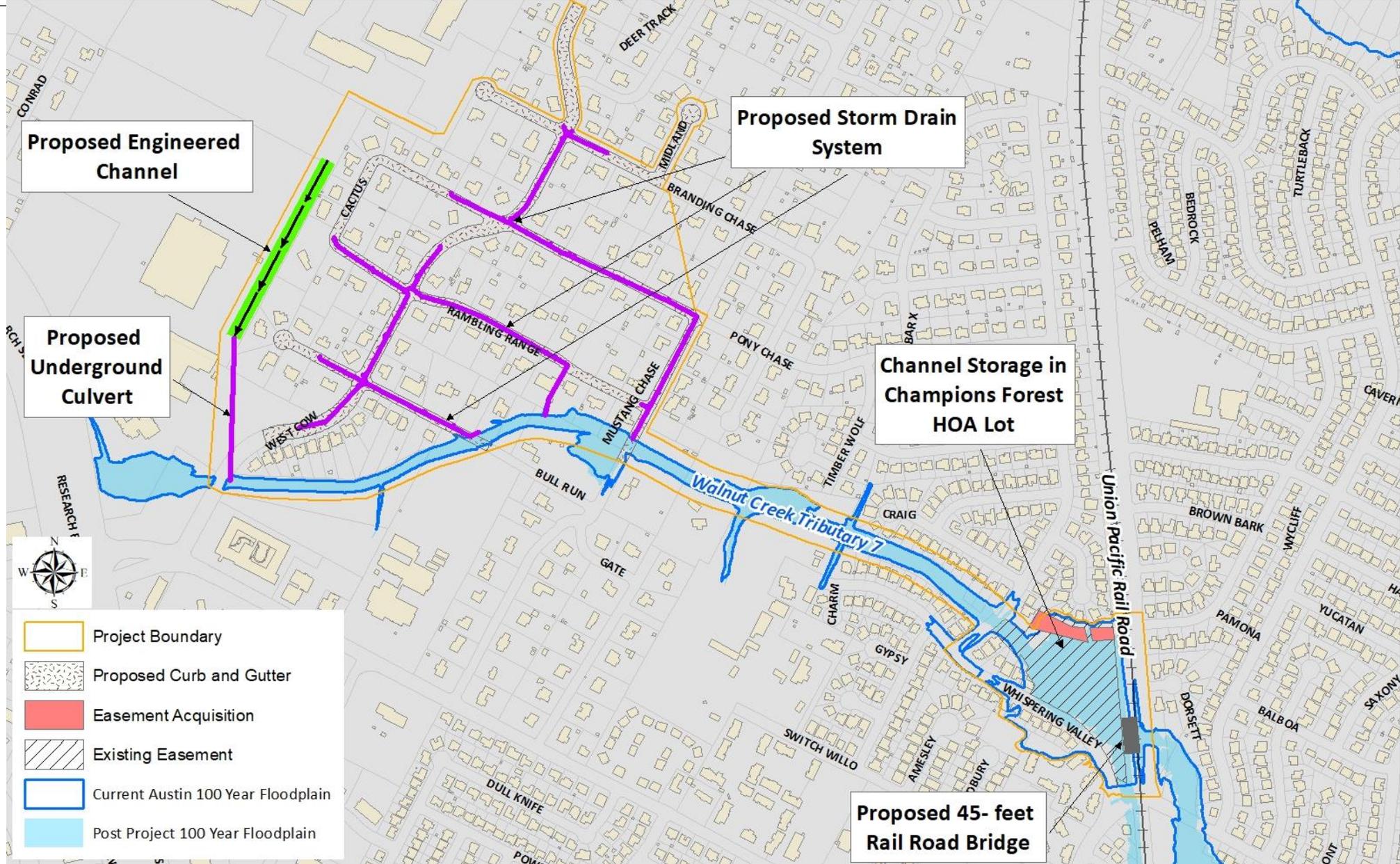
- West Cow Path improvements (WCP)
 - Water depth increase in the creek upstream of railroad crossing
- Bridge upgrade (WV)
 - Water depth increase in the creek downstream of railroad crossing
- Mitigation
 - WCP + WV + Champion Forest detention
 - Minimal impacts downstream of 2nd Duval crossing
 - Easement acquisition



Proposed Easement Acquisition



ATX FLOOD SAFETY



Recommended Solution

- **Total Estimated Cost ~\$10 Million + cost of bridge**
- **Flood Risk Reduction Benefit**
 - 19 buildings with reduced local flood risk
 - 8 buildings removed from current 100-yr floodplain (not Atlas 14)
- **Main Components**
 - **West Cow Path: Storm drains, inlets and a bypass channel**
 - **Whispering Valley: 45ft Bridge Upgrade (UPRR)**
- **Mitigation**
 - **Channel Champion Forest Lot Channel Storage**
 - **Easement Acquisition**

Schedule

- **Previous Town Hall Meetings**
 - May 14, 2015
 - August 29, 2015
- **Design and Permitting**
 - Fall 2019 to Spring 2022
- **Easement Acquisition**
 - 2020 ~ 2021
- **Construction Begins**
 - ~ Fall 2022 (dependent on UPRR bridge upgrade completion)

Project Website

<https://www.austintexas.gov/whisperingvalley>

The screenshot shows the official website of the City of Austin, specifically the page for the 'Whispering Valley and West Cow Path Flood Risk Reduction' project. The page features a navigation menu on the left, a main content area with a large image of a bridge over a creek, and a sidebar with 'TOP CONTENT' and 'UPCOMING EVENTS' sections. The 'UPCOMING EVENTS' section lists a public meeting on May 14, 2019. A map in the bottom left corner shows the project location in Austin, Texas.

Watershed Protection Department

WHISPERING VALLEY AND WEST COW PATH FLOOD RISK REDUCTION

The Watershed Protection Department and the Union Pacific Railroad are working in cooperation on this project to help with flooding along Whispering Valley Road and in the West Cow Path area.

Background

Several houses along Whispering Valley Road have been flooded repeatedly by Walnut Creek in recent years. The railroad crossing over the creek, currently an 8 foot by 7 foot culvert, does not provide adequate conveyance of water during large storms, causing water to back up behind the crossing.

In the nearby West Cow Path area, the flooding is not coming from the creek, but is due to the lack of storm drain infrastructure. The neighborhood was built in the 1970s, before the City required subdivisions to have underground pipes or ditches to help the streets drain and prevent flooding.

UPCOMING EVENTS

Public Meeting – Whispering Valley & West Cow Path Flood Risk Reduction Project
May 14, 2019

CONTACT INFO

Mailing Address:
P. O. Box 1088
Austin, TX 78767
See Map

ATXfloods

A real-time map

Thank you!
Questions?

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