

# PINE TRAILS SUBDIVISION DRAINAGE IMPROVEMENT PROJECT PUBLIC MEETING PRESENTATION

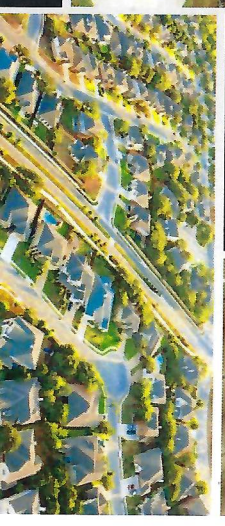
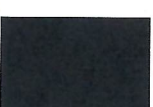


## PINE TRAILS SUBDIVISION DRAINAGE IMPROVEMENT PROJECT

**Harris County**

UPIN 19101MF14201

September 6, 2022





# PINE TRAILS SUBDIVISION DRAINAGE IMPROVEMENT PROJECT



## Presentation Team

**Cobb, Fendley & Associates, Inc.**

Jason Eldridge, P.E. - Design Consultant

Nick Mumme, P.E. - Design Consultant

**Harris County**

Susan Mullen, P.E. – Project Manager

## Consultant Team

**Prime:** Cobb, Fendley & Associates, Inc.

**Drainage:** 5 Engineering, LLC

**Survey & SUE:** Cobb, Fendley & Associates, Inc.

**Environmental:** Hollaway Environmental +  
Communication, Inc.

**Geotechnical:** Tolunay-Wong Engineers, Inc.

**Arborist:** C.N. Koehl Urban Forestry, Inc.

## Agenda

Project Location and Scope

Typical Street Section

Approach to Tree Protection/Removal

Tree Replacement

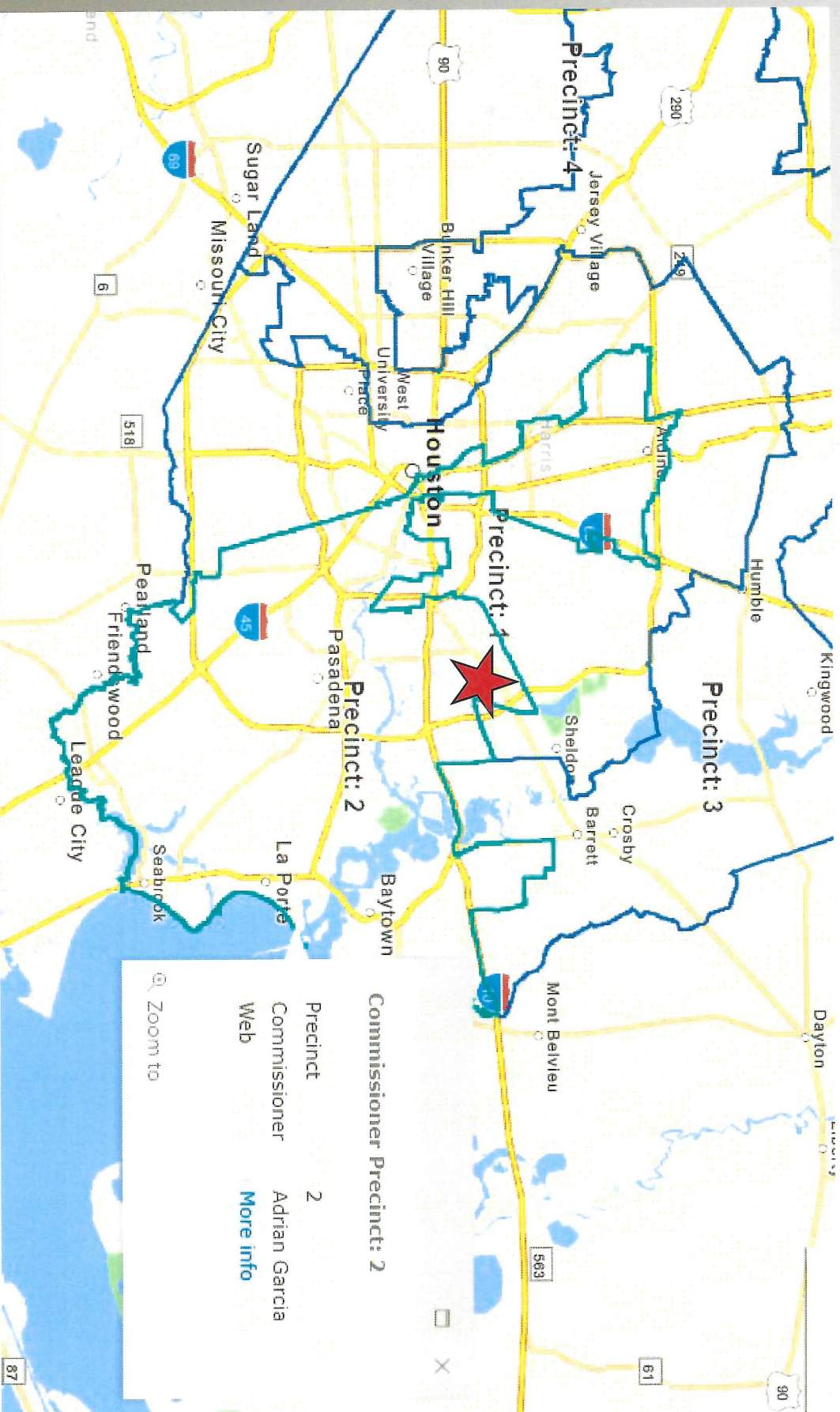
Alternative Sidewalk

Fence Encroachments

Project Schedule



# PROJECT LOCATION



Harris County Precinct 2 –Houston, TX  
Greens Bayou Watershed  
Pine Trails Subdivision



# PROJECT SCOPE



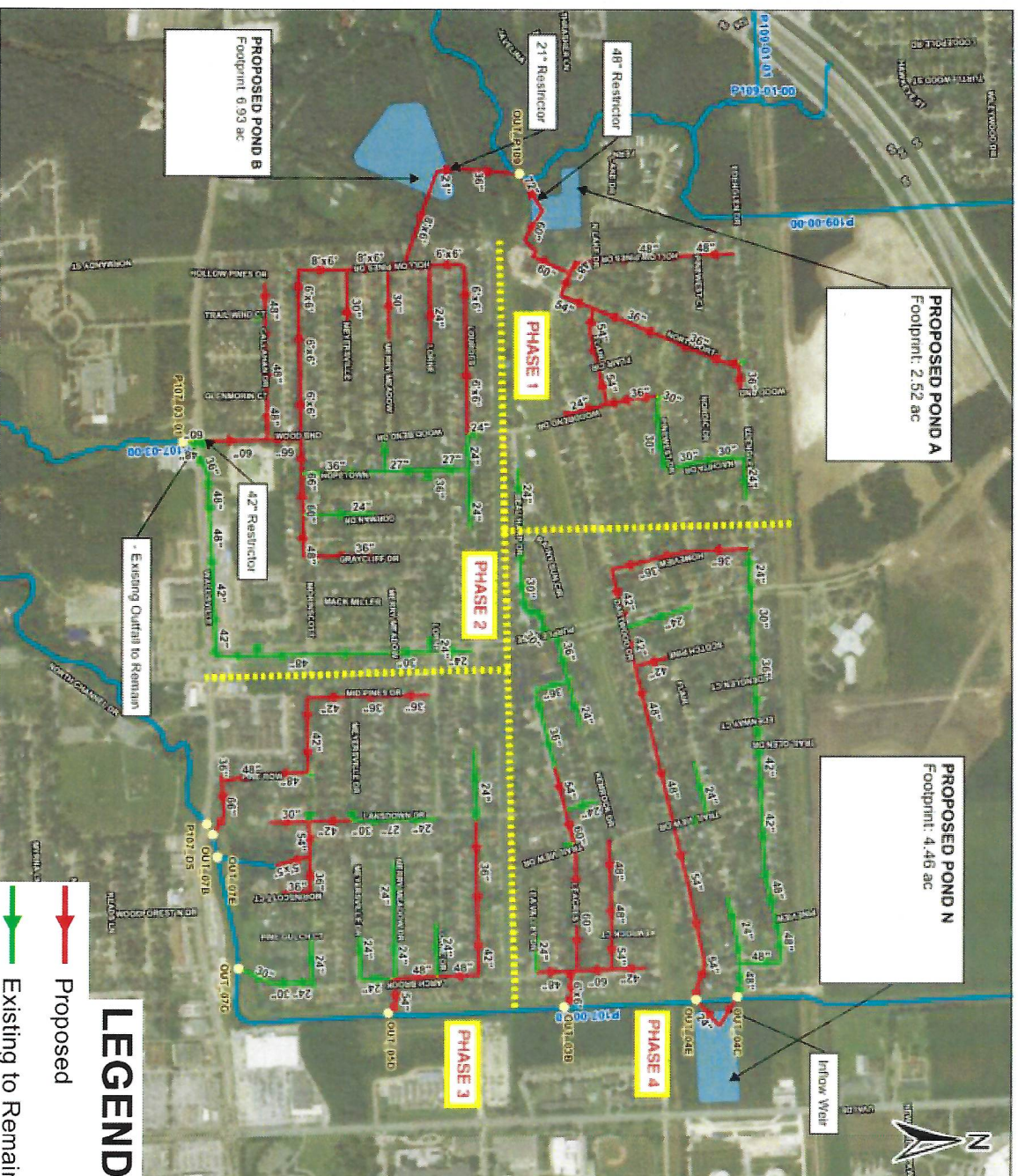
**PROJECT PURPOSE:** Improve drainage infrastructure to reduce flood risk throughout the subdivision. It is funded by the 2018 HCFCF Bond Program for flood risk reduction projects.

Drainage consultant has evaluated existing storm sewer and has made recommendations for improvements.

## Drainage Improvements:

1. Replace undersized storm sewer and inlets
2. Construct new detention ponds

Project divided into 4 construction packages



## LEGEND

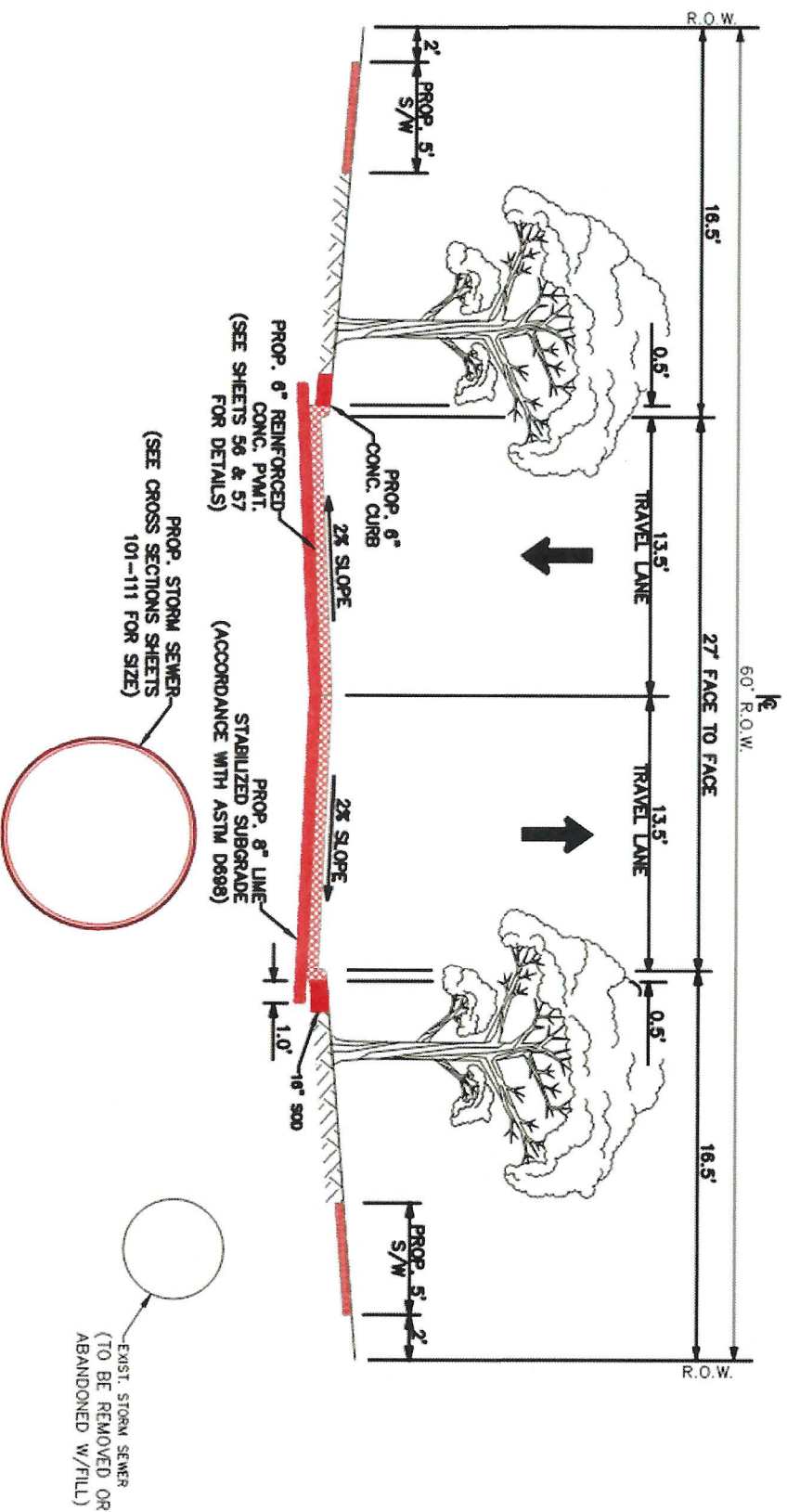
- Proposed
- Existing to Remain
- Stormwater Detention Basin



# TYPICAL STREET SECTION



 CobbFendley



**PROPOSED TYPICAL SECTION**  
27' F-F

- Existing storm sewer located under trees and sidewalk
- New storm sewer will be under street to preserve trees
- Streets will be replaced with concrete at matching width
- Sidewalk will be replaced to 5' width. Curb ramps will be added at intersections.



# TREE REMOVAL



 CobbFendley



- Dead trees and tree stumps will be removed
- Trees in poor health will be removed and replaced
- Trees in conflict with construction activities will be removed and replaced

- Arborist consultant used to assess health and condition of trees in project area





# TREE CONFLICTS W/SIDEWALK AND PAVEMENT



## Conflicts:

- Tree roots uplifting walkway/sidewalk
- Roots growing into pavement

## Recommendation:

- Evaluate a reduced width or curved sidewalk alignment as first option
- Consider alternative sidewalk material
- Remove tree if alternative options are not feasible





# TREE CONFLICTS W/WALKWAY



## Walkway Conflicts:

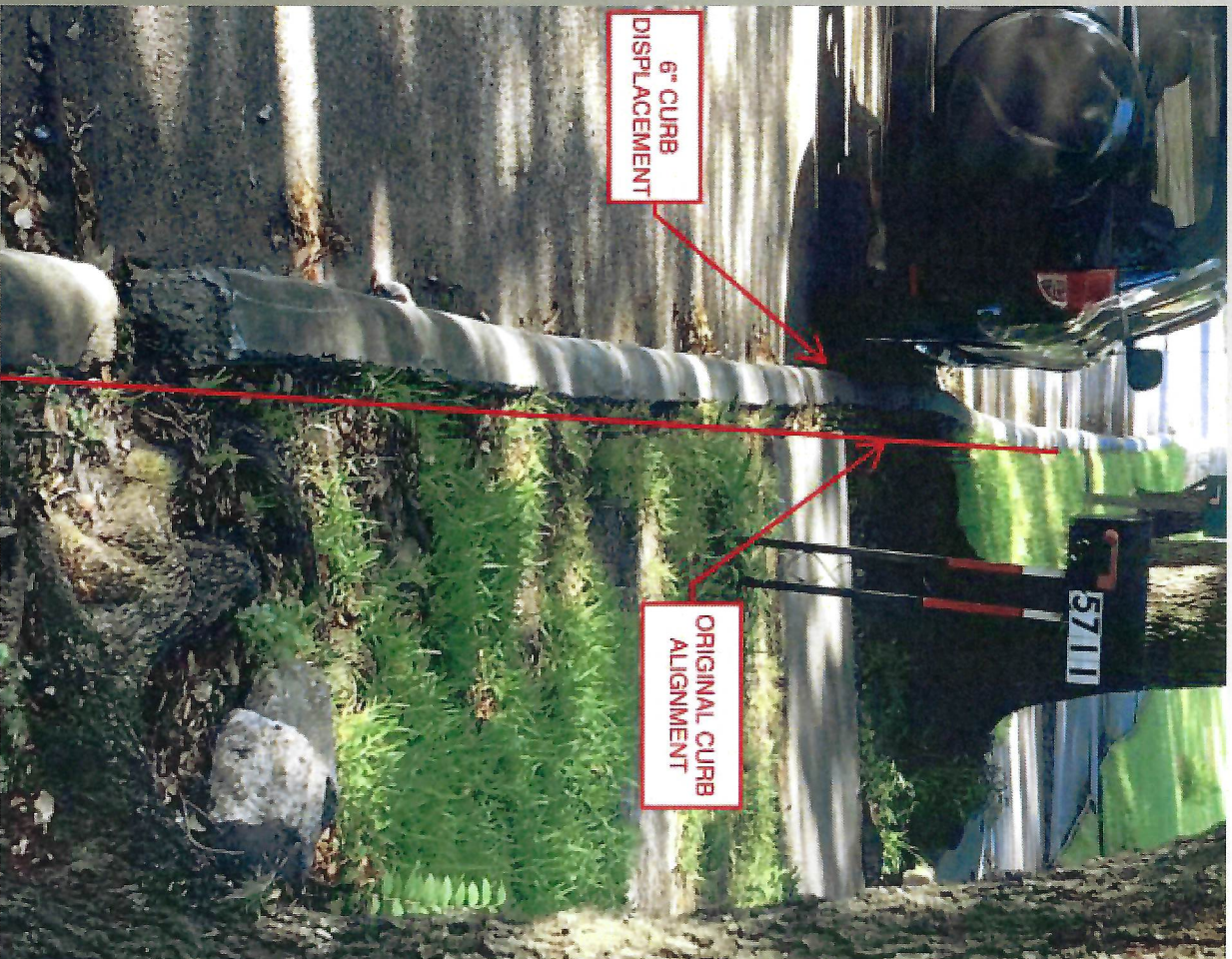
- Tree roots damaging sidewalk
- Reconstruction at current location will require significant root pruning and will compromise tree health

## Recommendation: Preserve Tree

- Replace walkway several feet from current location



# TREE CONFLICTS W/STREET



- Street Pavement Conflicts:
- Tree roots damaging street
  - Replacing street to recommended 28' street width will require significant root pruning and will compromise tree health

- Recommendation: Remove tree to install standard 28' width street
- Provide replacement tree(s)



# TREE CONFLICTS W/SIDEWALK



## Sidewalk Conflicts:

- Tree roots damaging sidewalk
- Reconstruction will require significant root pruning and will compromise tree health

Recommendation: Remove tree to install sidewalk

- Provide replacement tree(s)





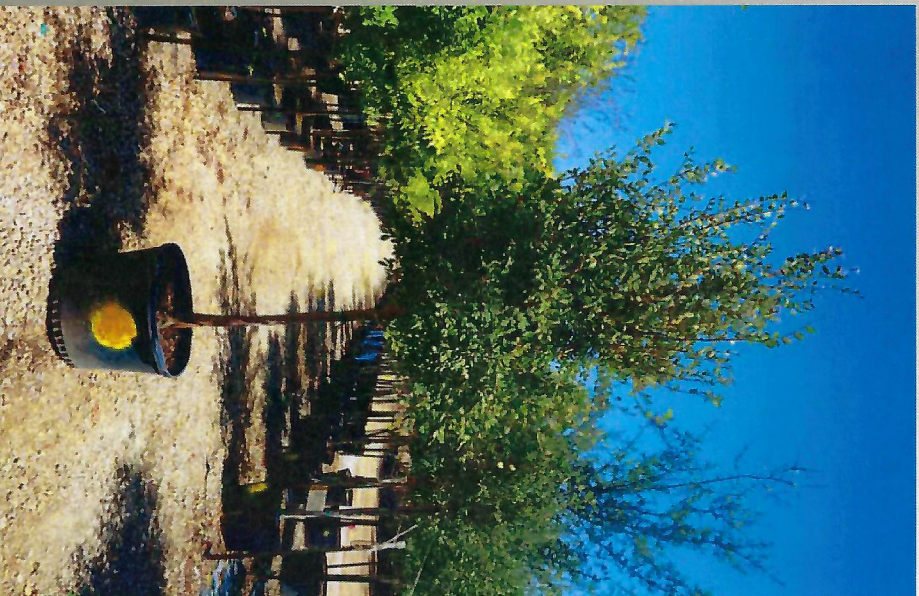
# REPLACEMENT TREES



 CobbFendley

## Tree species being removed:

- Primarily arizona ash
- Roots can be somewhat aggressive in growth



## Tree species replacement:

- Provide native species that do well in climate
- Provide shade trees that have less aggressive root growth, such as cedar elm



Replacement Tree - Cedar Elm

Full Grown Cedar Elm



## ALTERNATIVE SIDEWALK CHECKERPLATE SIDEWALK



 CobbFendley



### CHECKERPLATE SIDEWALK

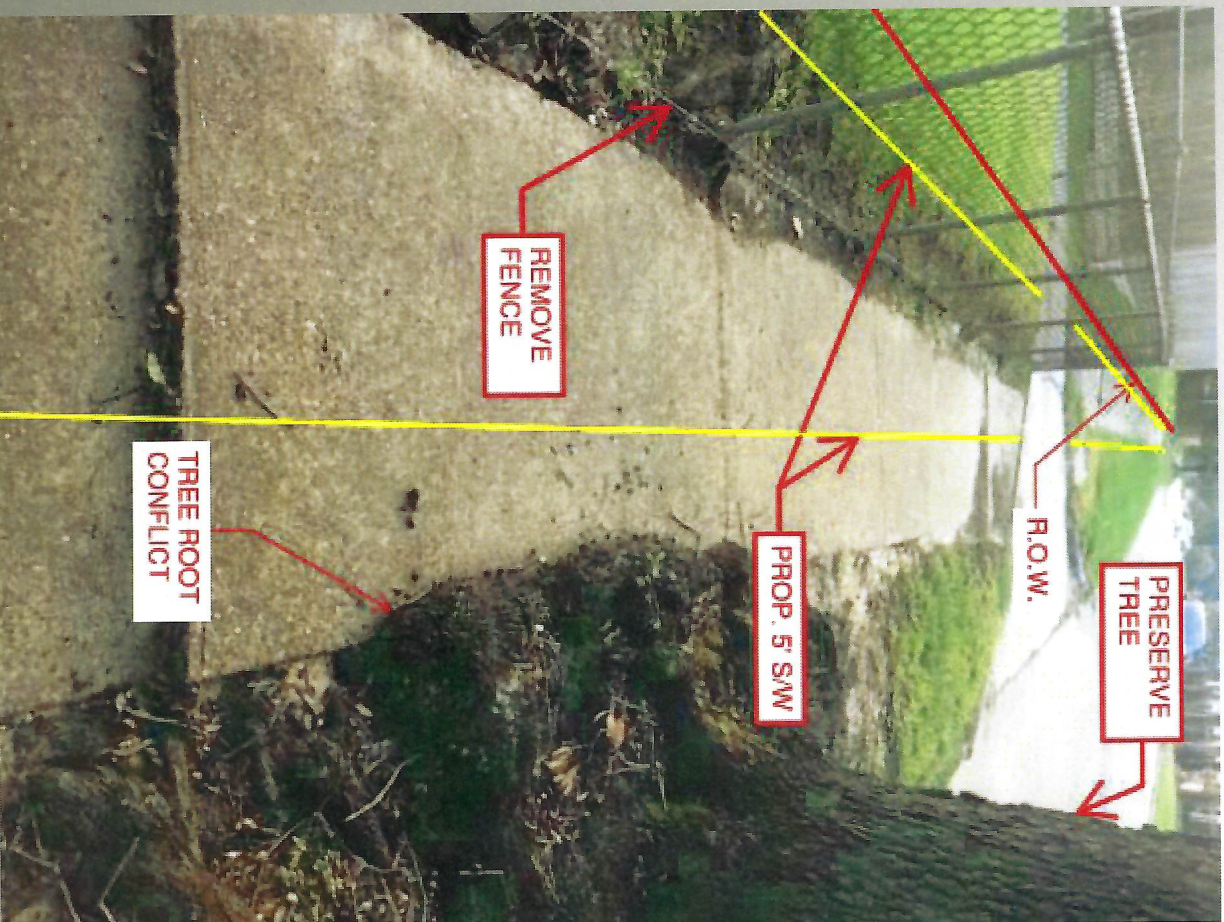
- Can be installed on top of roots to preserve tree
- Current construction plans include this option



# FENCE ENCROACHMENTS



 CobbFendley



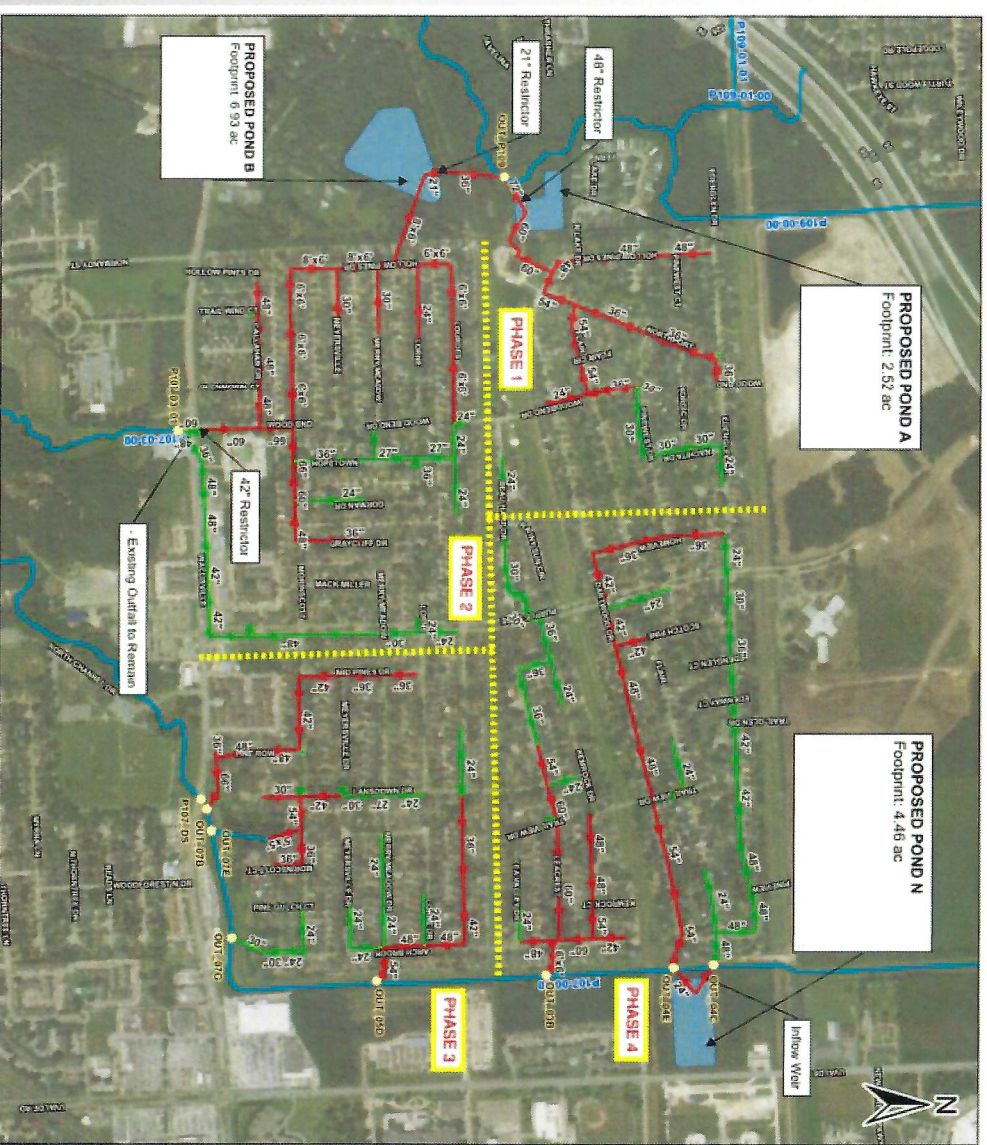
- Fences that encroach into Harris County right-of-way may require removal for new sidewalk and tree protection
- Homeowners will be sent a notice to remove encroachment
- If not relocated, contractor will remove fence. Contractor will place fence on homeowner property or dispose of the fence.
- Homeowner may be able to negotiate separate agreement with contractor for reinstallation of fence at R.O.W.



# PROJECT SCHEDULE



- Study Phase: 90% Complete
  - Design Phase:
    - Phase 3 & 4: 80% Complete
    - Phases 1 & 2: 50% Complete
  - Bidding Phase:
    - Phase 3 & 4: Q4 2022
    - Phase 1 & 2: Q2 2023
  - Estimated Construction Phase:
    - Phase 3 & 4: Q1 2023 \*
    - Phase 1 & 2: Q2 or Q3 2023 \*
- \*Major Milestones Required Prior to Construction:
- Land Acquisition for Ponds
  - Finalize Design
  - Utility Coordination/ Relocate Utilities





# DISCUSSION



CobbFendley



# DISCUSSION

