



Oak Acres Flood Risk Reduction Project

May 2022



Agenda

- **Introductions**
- **Background**
- **Major Design Features**
- **Project Timeline**
- **Questions**



Flooding Background



WATERSHED
PROTECTION



Localized Flooding

Occurs away from creeks.

Creek Flooding

Occurs when a creek rises over its banks.

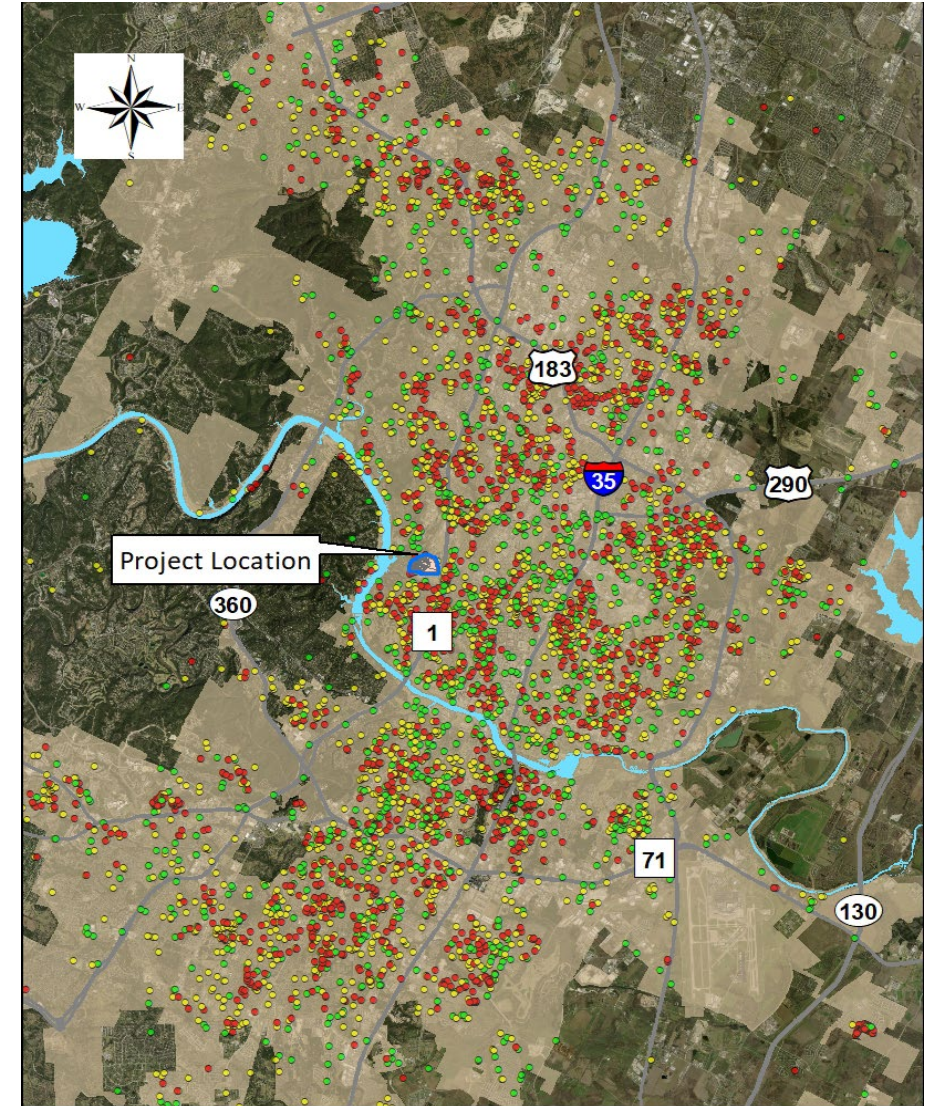




Localized Flooding Citywide

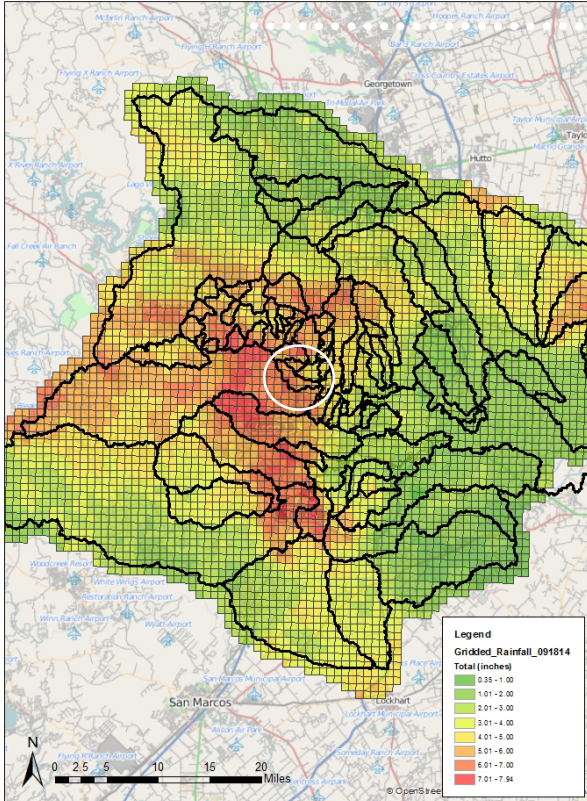


- **6,004 Total Complaints Citywide**
 - 2,020 Buildings
 - 2,447 Yards
 - 1,537 Streets
- **Neighborhoods built before the 1980s tend to have more drainage problems**
- **Large Capital Improvement Projects are often required to address the problems**



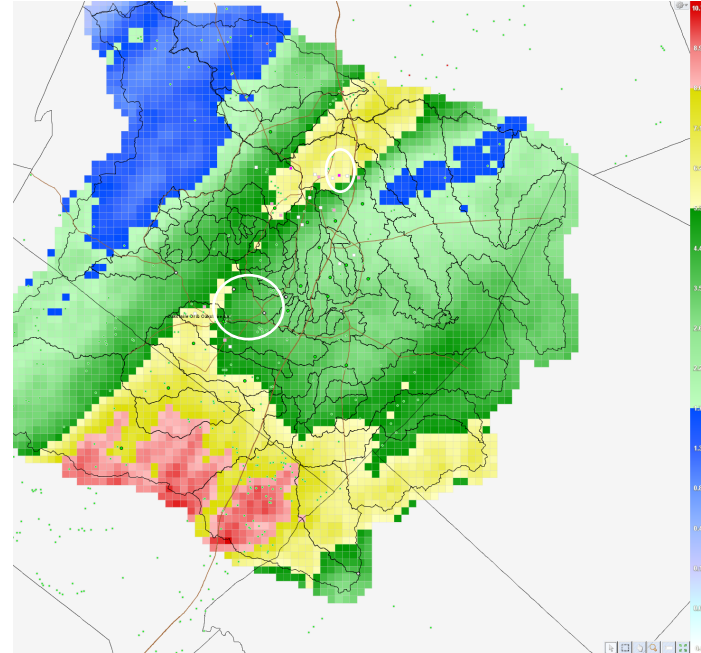


Severe Storms



October 13, 2013

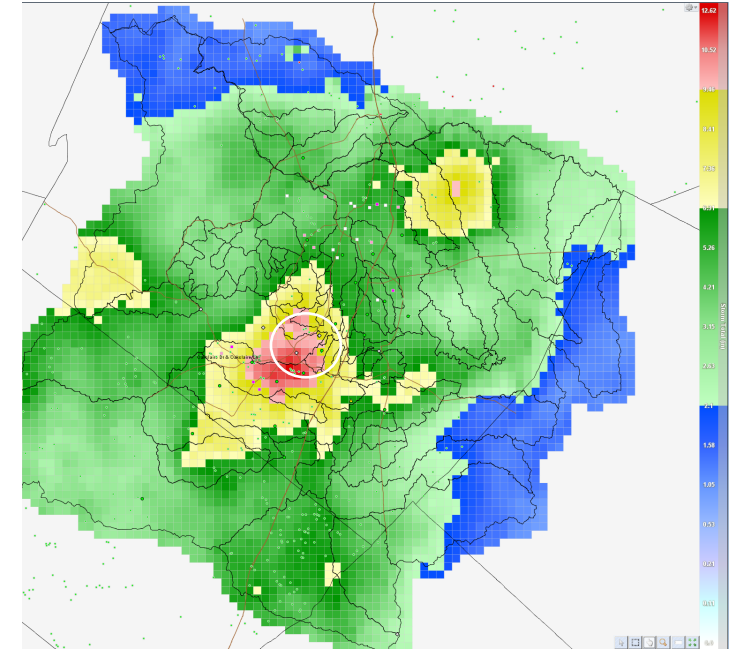
❖ 10 inches of rain in 12 hours



Halloween Flood

October 31, 2013

❖ 5 to 6 inches of rain in 8 hours



Sept. 18, 2014

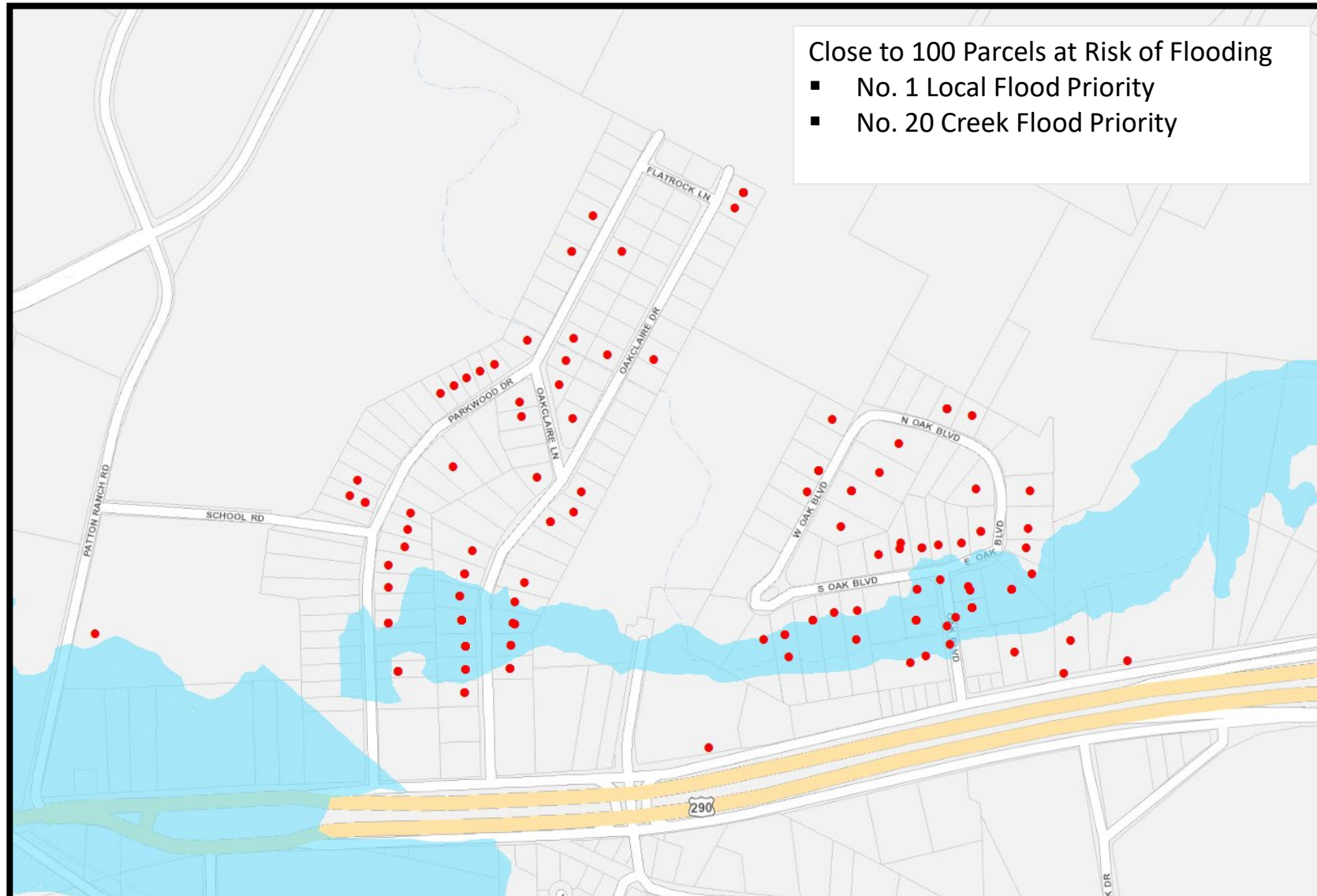
❖ 6 to 7 inches of rain



Flooding Reports

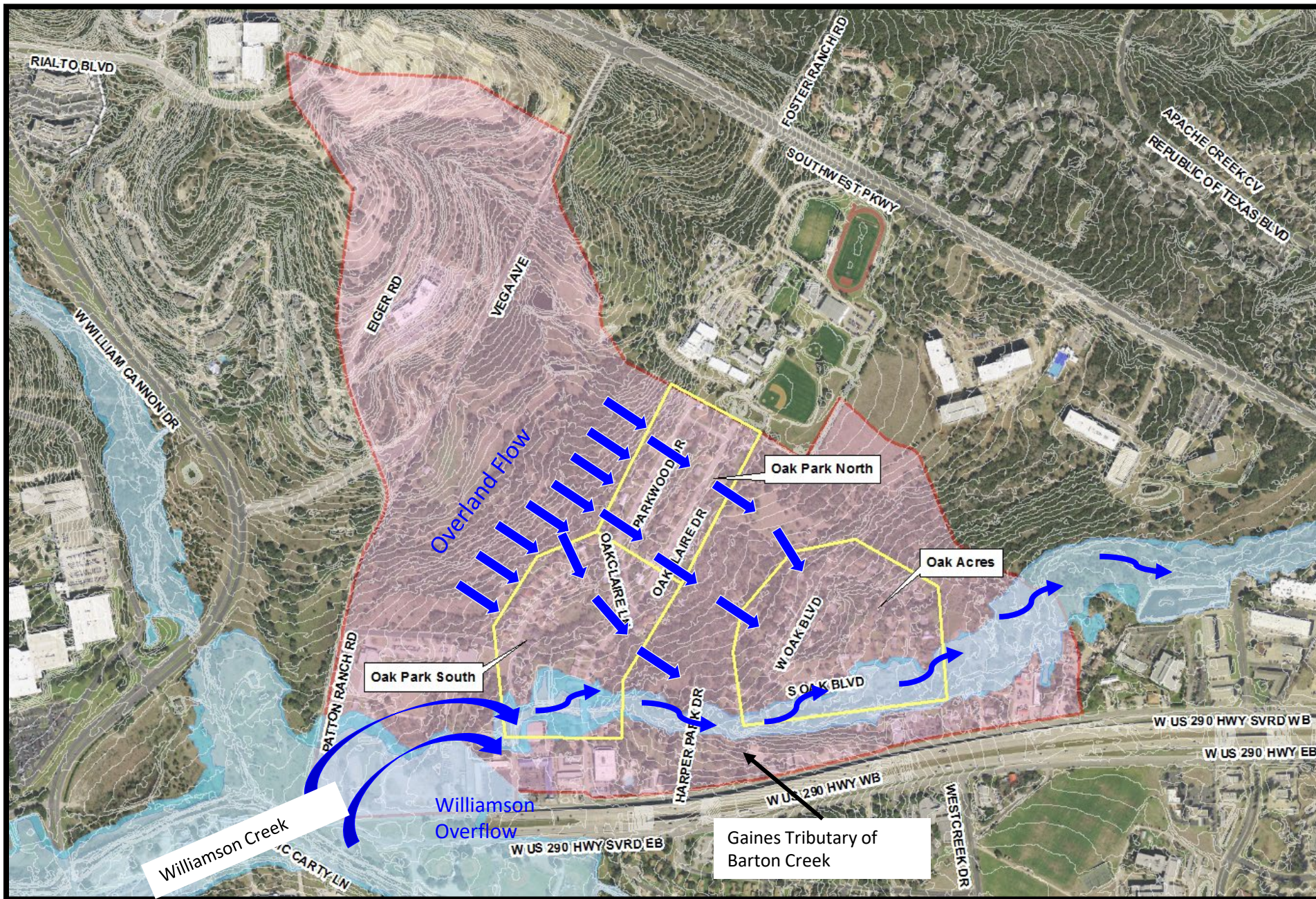


**WATERSHED
PROTECTION**



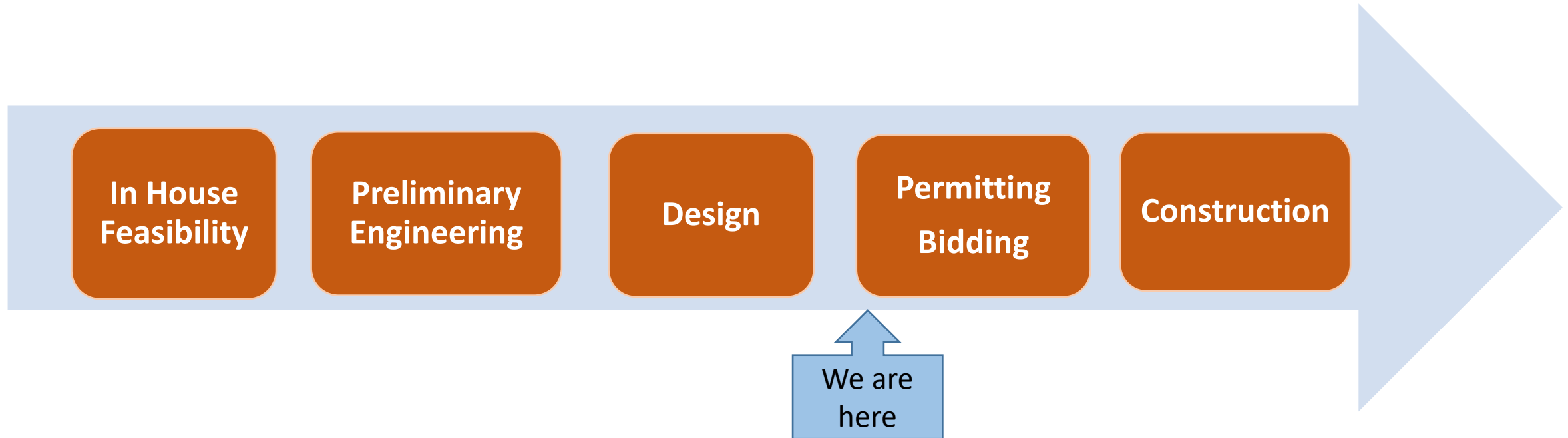


Flooding Problems





Storm Drain Capital Improvement Project Phases





INDEX:

SEE INDEX ON SHEET 2.

NOTES:

1. CONTRACTOR SHALL NOTIFY THE PUBLIC WORKS DEPARTMENT 24 HOURS PRIOR TO STARTING CONSTRUCTION OR CLEARING OPERATIONS.
2. CONTRACTOR SHALL CALL "ONE CALL" AT 1-800-344-8377 FOR UTILITY LOCATIONS AT LEAST 48 HOURS PRIOR TO ANY WORK IN CITY EASEMENTS OR STREET RIGHT-OF-WAYS.
3. THIS PROJECT IS LOCATED WITHIN THE BARTON CREEK WATERSHED WHICH IS CLASSIFIED AS AN URBAN WATERSHED, AND SHALL BE DEVELOPED, CONSTRUCTED AND MAINTAINED IN ACCORDANCE WITH CHAPTER 25 OF THE CODE OF THE CITY OF AUSTIN.
4. A PORTION OF THIS SITE IS LOCATED WITHIN THE 100-YEAR FLOODPLAIN PER THE CITY OF AUSTIN AND THE FEDERAL EMERGENCY MANAGEMENT AGENCY FLOOD INSURANCE RATE MAP COMMUNITY PANEL 4845300580N, DATED SEPTEMBER 26, 2008.
5. THE PROJECT IS LOCATED OVER THE EDWARDS AQUIFER RECHARGE ZONE. THIS PROJECT IS SUBJECT TO THE VDD AND WATER FLOW MITIGATION RULE (COA EGM 1.12.0 COA ITEM NO. 6568 OF THE SSM) PROVISION THAT ALL TRENCHING GREATER THEN 5 FEET DEEP MUST BE INSPECTED BY A GEOLOGIST (TEXAS P.G.) OR A GEOLOGIST'S REPRESENTATIVE.
6. THERE ARE NO CRITICAL ENVIRONMENTAL FEATURES WITHIN 150' OF ANY PORTION OF THIS PROJECT. A FIELD INVESTIGATION HAS BEEN PERFORMED AS A PART OF THIS PROJECT. A SUMMARY OF THE INVESTIGATION IS INCLUDED IN THE PRELIMINARY ENVIRONMENTAL REPORT BY RPS DATED JUNE 2017.
7. **ADDITIONAL TRENCH E/S CONTROL:** TRIANGULAR SEDIMENT FILTER ONE WILL BE INSTALLED ACROSS FULL WIDTH OF TRAFFIC CLOSURE AND DOWNSTREAM OF CONSTRUCTION AREA, PERPENDICULAR TO CURB. FILTER ONE TO FOLLOW ACTIVE CONSTRUCTION. REMOVING AND RE-SETTING FILTER ONE IS CONSIDERED SUBSIDIARY TO BARRICADES AND TRAFFIC HANDLING.
8. THE ENVIRONMENTAL INSPECTOR HAS THE AUTHORITY TO CHANGE OR MODIFY EROSION/SEDIMENTATION CONTROLS, FOR SECTION 25-8-183 OF THE CITY OF AUSTIN'S LAND DEVELOPMENT CODE.
9. APPROPRIATE EASEMENTS/APPROVALS MUST BE SECURED AND DOCUMENTED FOR PROJECT AREAS LOCATED OUTSIDE OF RIGHT OF WAYS. NO WORK SHALL BE PERFORMED WITHIN THESE AREAS UNTIL ASSOCIATED RIGHT OF ENTRY HAS BEEN SECURED. ADDITIONALLY, THIS PROJECT WILL NOT BE CONSIDERED COMPLETE UNTIL ALL RECORDED BASEMENT DOCUMENT NUMBERS HAVE BEEN OBTAINED AND SHOWN ON PLANS.

SITE PLAN CORRECTIONS RECORD

No.	DESCRIPTION	BY	REVIEW (R) YES/NO	TOTAL NO. CORRECTIONS	NET CHANGE MAP CENTER (SQ. FT.)	TOTAL SITE AREA (SQ. FT.)	CITY OF AUSTIN APPROVAL DATE	DATE INARRED

CITY OF AUSTIN, TEXAS
WATERSHED PROTECTION



BARTON CREEK OAK ACRES
FLOOD RISK REDUCTION PROJECT

CIP ID 5754.046

IFB NO.

100% SUBMITTAL

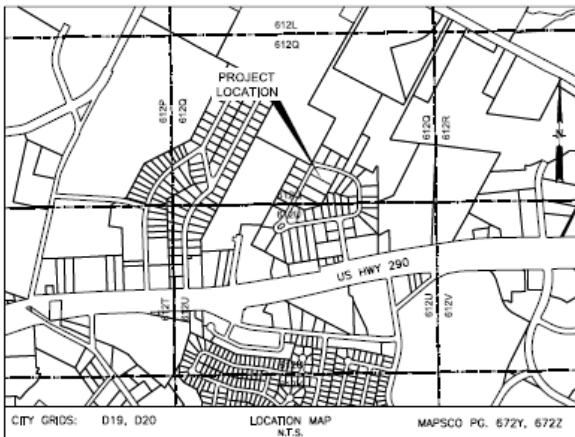
RELATED CASE: UCC-180712-07-03

MAYOR
STEVE ADLER

COUNCIL MEMBERS

COUNCIL MEMBER DISTRICT 1: NATASHA HARPER MADISON
(MAYOR PRO TEM)
COUNCIL MEMBER DISTRICT 2: VANESSA PUENTES
COUNCIL MEMBER DISTRICT 3: SABINO RENTERIA
COUNCIL MEMBER DISTRICT 4: GREGORY CASAR
COUNCIL MEMBER DISTRICT 5: ANN KITCHEN

COUNCIL MEMBER DISTRICT 6: MACKENZIE KELLY
COUNCIL MEMBER DISTRICT 7: LELSIE POOL
COUNCIL MEMBER DISTRICT 8: PAGE PLUS
COUNCIL MEMBER DISTRICT 9: KATHIE TOVO
COUNCIL MEMBER DISTRICT 10: ALISON ALTER



RELEASE OF THIS APPLICATION DOES NOT CONSTITUTE A VERIFICATION OF ALL DATA, INFORMATION AND CALCULATIONS SUPPLIED BY THE APPLICANT. THE ENGINEER OF RECORD IS SOLELY RESPONSIBLE FOR THE COMPLETENESS, ACCURACY AND ADEQUACY OF HIS/HER SUBMITTAL WHETHER OR NOT THE APPLICATION IS REVIEWED FOR CODE COMPLIANCE BY CITY ENGINEERS.

PROJECT INFORMATION:

STREET ADDRESS:

OAK BLVD (5670-5677)
OAK BLVD S (5600-5626)
OAK BLVD W (5632-5647)
OAK BLVD N (5648-5659)
OAK BLVD E (5658-5669)

RECORDED SUBMISSION:

OAK ACRES (C8-1948-1871)
RECORDED DATE: MAY 5, 1948 7:00 PM
DOCUMENT ID: 5/24
DOCUMENT TYPE: TRAVIS COUNTY DOCUMENT

OWNER:

JOHN MIDDLETON, P.E.
CITY OF AUSTIN, WATERSHED PROTECTION DEPARTMENT
505 BARTON SPRINGS ROAD, SUITE 1200
AUSTIN, TEXAS 78704
(512) 974-3515

CONTACT:

DARIO OCTAVIANO
CITY OF AUSTIN, PUBLIC WORKS DEPARTMENT
PROJECT MANAGEMENT DIVISION
505 BARTON SPRINGS ROAD, SUITE 800
AUSTIN, TEXAS 78704
(512) 974-7607

SUBMITTAL PREPARED BY:



CONTACT:

ROBERT DAVID IRISH, P.E.
RPS TYPE # 100801
4801 SOUTHWEST PKWY, PKWY 2
SUITE 150
AUSTIN, TEXAS 78735
(512) 328-5771

REVIEWS:

SUBMITTED BY:

ENGINEER OF RECORD - ROBERT DAVID IRISH, P.E. DATE

APPROVED BY:

DEVELOPMENT SERVICES DEPARTMENT DATE

SP-XXXX-XX-XXXX XX/XX/XXXX

SITE PLAN PERMIT NUMBER EXP. DATE

APPROVED BY:

WATERSHED PROTECTION DEPARTMENT DATE

FIRE FOR SITE PLAN DATE

AUSTIN WATER UTILITY DATE

SITE PLAN APPROVAL Sheet 1 of 1
FILE NUMBER SP-XXXX-XXXX APPLICATION DATE
APPROVED BY COMMISSION ON _____ UNDER SECTION
CHAPTER _____ OF THE CITY OF AUSTIN CODE
EXPIRATION DATE 10/1/21, 10/1/21 CASE NUMBER
Director, Development Services Department
RELEASED FOR GENERAL COMPLIANCE: YES/NO
Rev. 1: _____ Correction 1: _____
Rev. 2: _____ Correction 2: _____
Rev. 3: _____ Correction 3: _____
Final plan must be recorded by the Project Expiration Date, if applicable.
Planned as the Plans are not complete and the date of the
plan of filing, and all required filing number and notice of
completion. If the filing number is not required, the plan must be approved
prior to the Project Expiration Date.

SITE PERMIT PROGRAM
BARTON CREEK OAK ACRES FLOOD RISK REDUCTION PROJECT

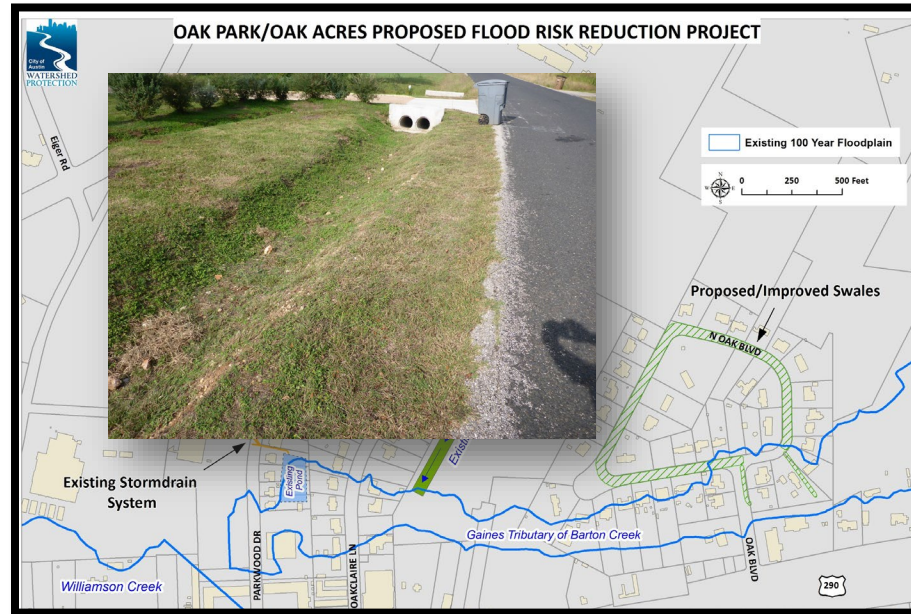


WATERSHED
PROTECTION

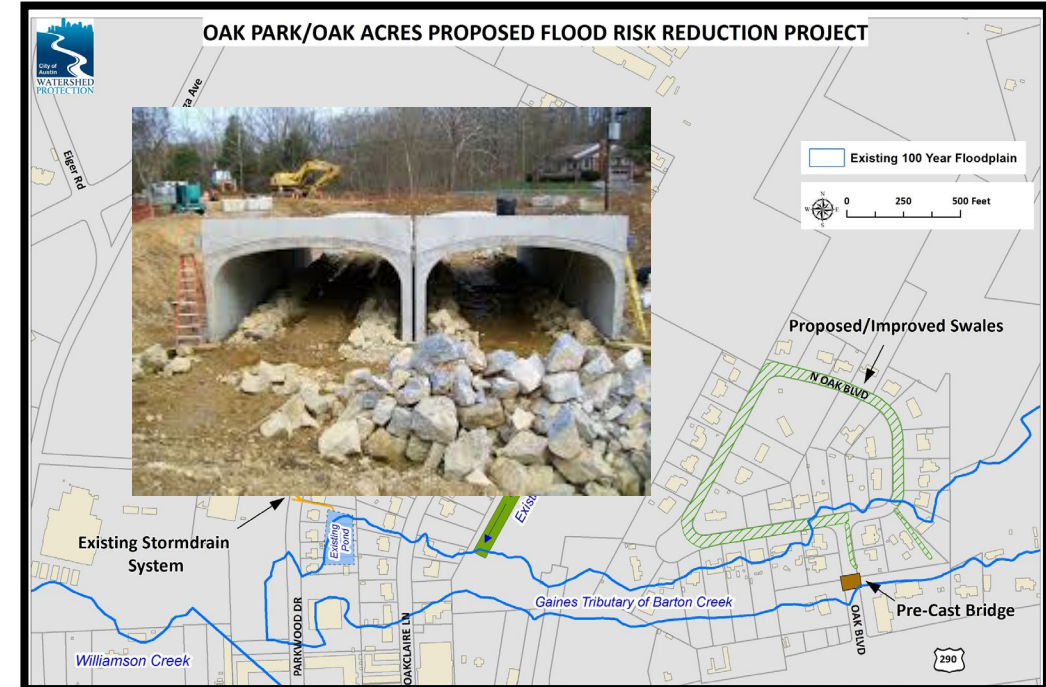


Major Design Elements

1. Upgrade/expand roadside ditches on Oak Blvd



2. Upgrade Oak Blvd Low Water Crossing





Roadside Ditches

- Replace driveway approaches
- Install driveway culverts
- Re-grade ditches
- Typically, 3ft deep, 1ft – 3ft bottom width
- Flood protection: about 9-inches of rain





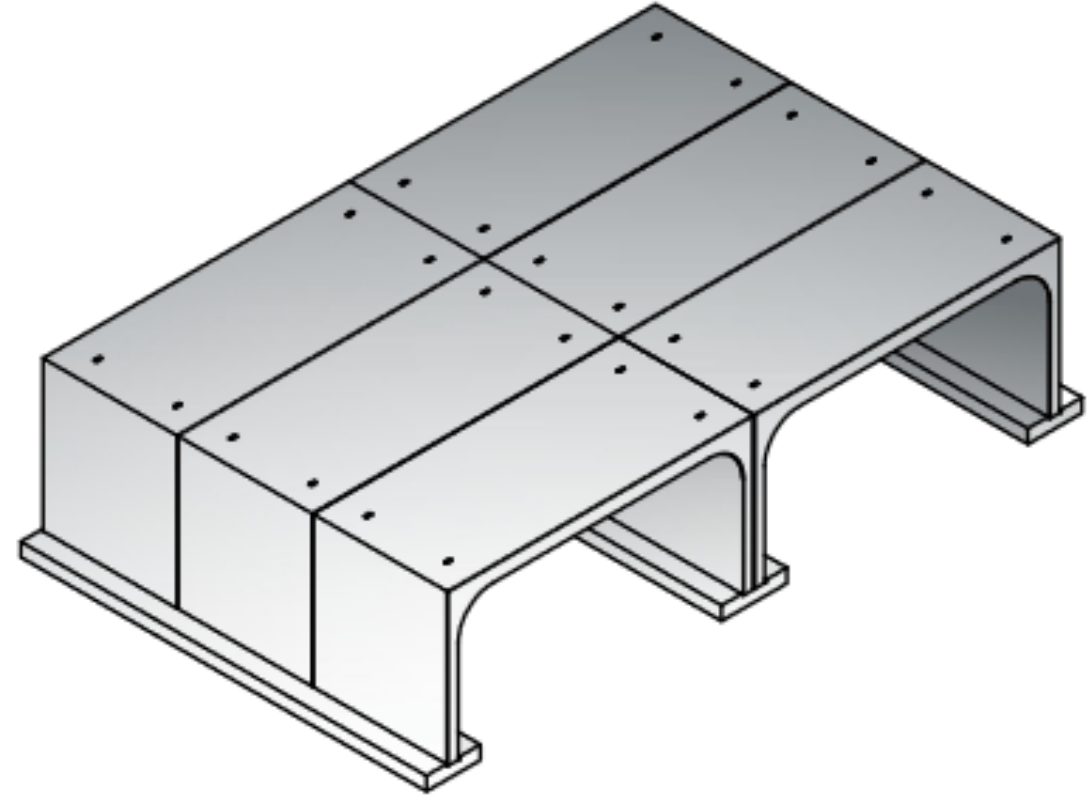
Low Water Crossing Upgrade





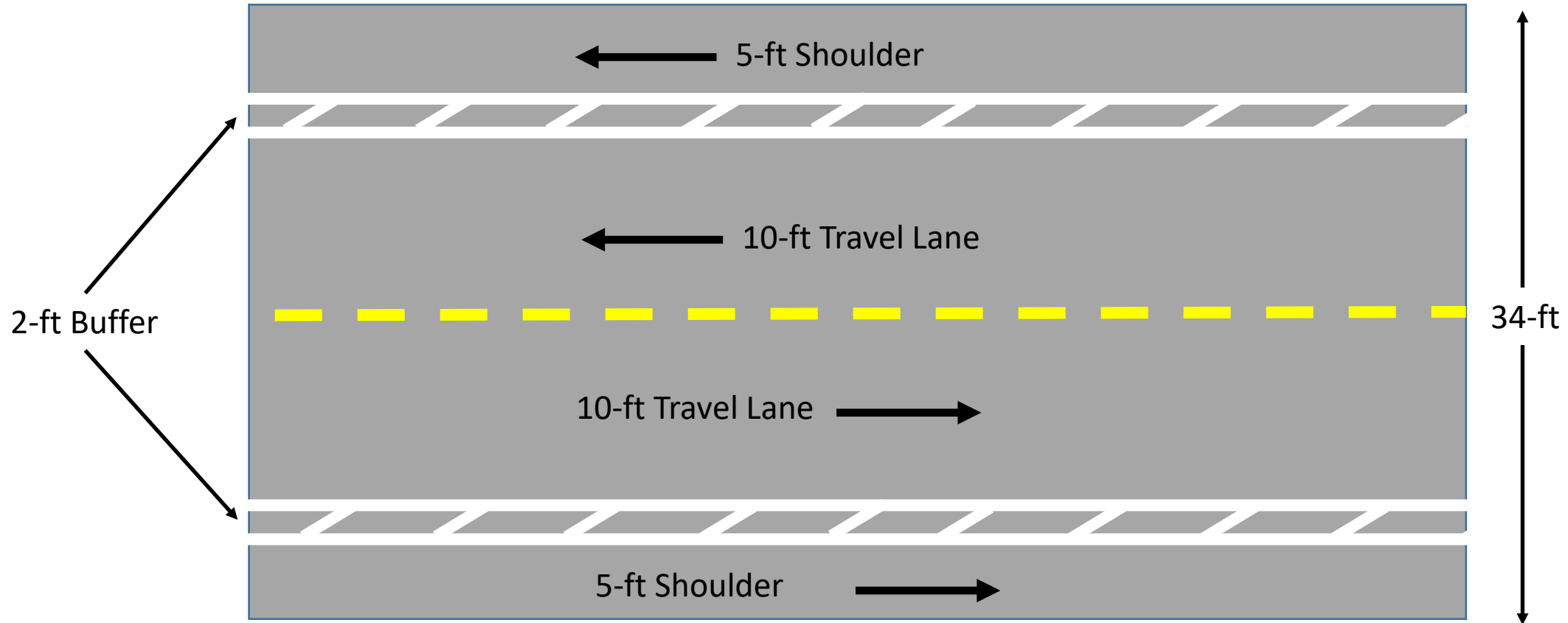
Oak Blvd Low Water Crossing

- 3-sided (natural bottom)
- 2 - 24'(span) x 6'(rise) x 5'wide
- 34-ft bridge deck width
- New bridge deck is 4-ft higher than old deck
- Flood Protection – 10-inches of rain





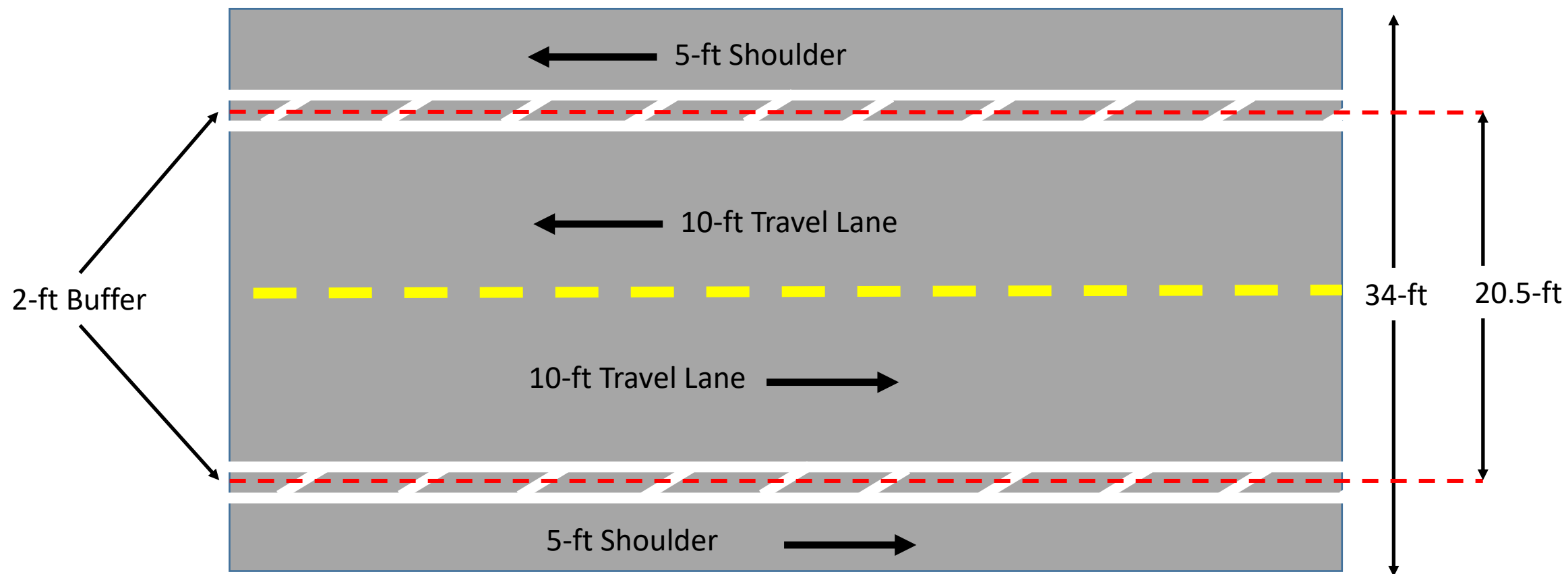
Oak Blvd Bridge – Deck Layout



Not to Scale



Oak Blvd Bridge – Deck Layout





Oak Boulevard - Proposed Bridge Railing



Recent construction on Bluff Bend Drive



Other Design Elements

- **Water and Wastewater relocation - conflicts at bridge**
- **Aging/Shallow Water Lines - Water line replacement along ditches**
- **Invasive removal - Bamboo, giant cane and ligustrum (Japanese privet) removal downstream of bridge**
- **Tree mitigation**



Save-Our-Springs Ordinance Amendment

- **Approval from a several boards and commissions, City Council**
- **Ties project to Oak Park (single SOS Amendment)**
- **Must have approved before permit is issued**



Schedule



- **Permitting ~ 9-12 months**
- **Bid ~ 3 months**
- **Construction start – Late 2023**



Available Resources



- Consider purchasing flood insurance
- Report flooding and drainage concerns to 3-1-1
- Avoid building in drainage easements
- Email floodpro@austintexas.gov for information about flood-proofing
- Check ATXfloodsafety.com for additional resources

Informing us
just got easier.
Get the app.





Questions? Comments!

John Middleton, P.E., CFM
Watershed Protection Department
City of Austin
John.Middleton@austintexas.gov
512-974-3515

Dario Octaviano
Public Works Department
City of Austin
Dario.Octaviano@austintexas.gov
512-974-7607