

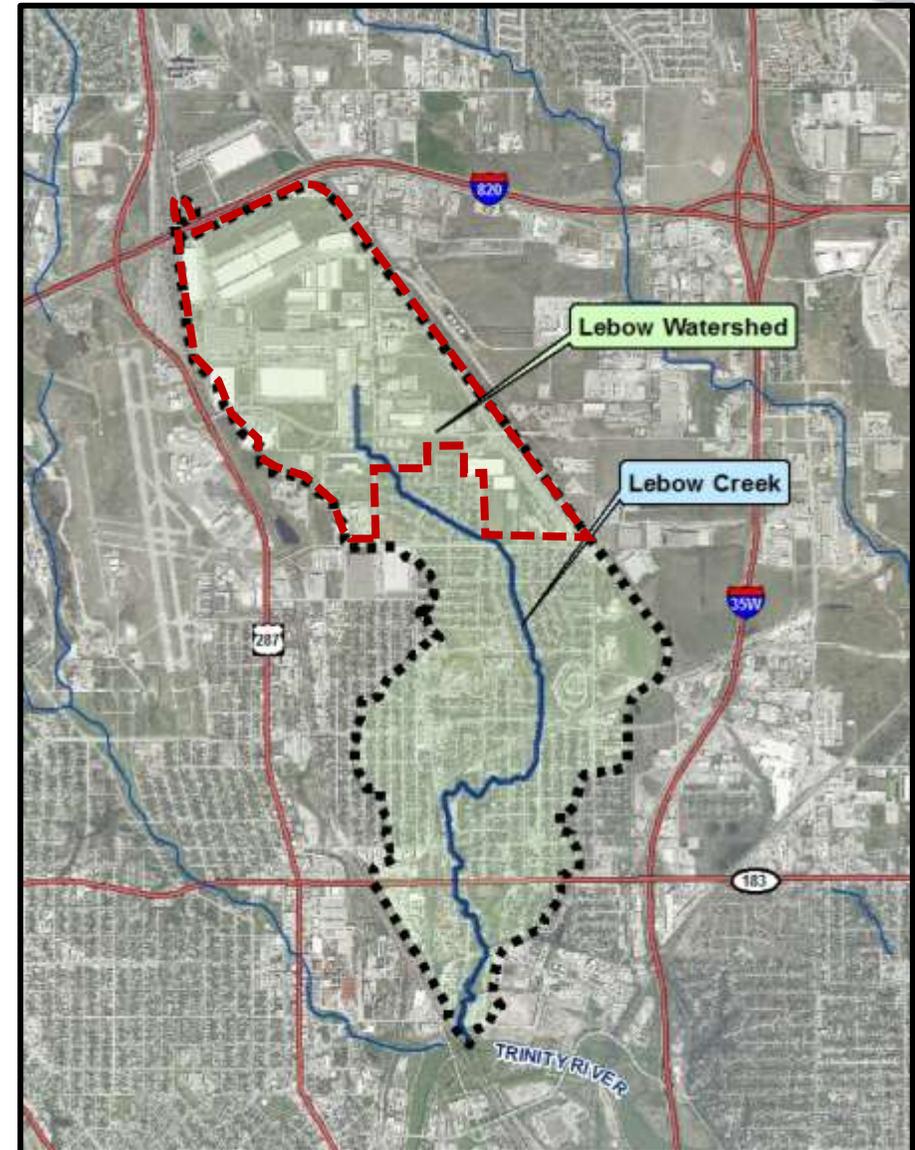
# Lebow Creek Master Plan



Steven Eubanks, P.E., CFM  
City of Fort Worth

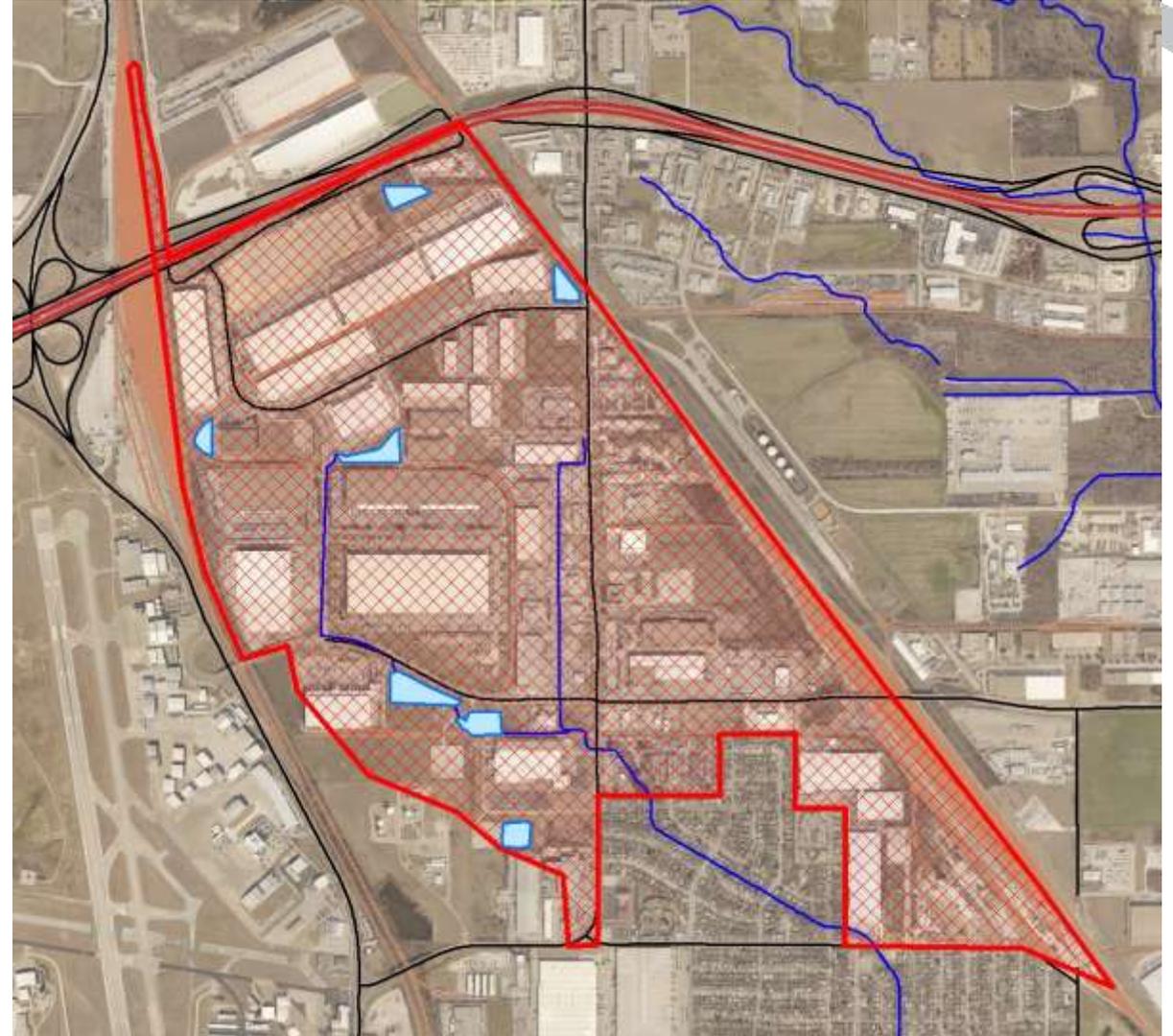
# Lebow Creek

- 4 square mile watershed
- 254 acres of floodplain
- 175+ homes in floodplain in 2009
- Upstream third industrial with some detention
- Predominantly low-to-moderate income residential



# Industrial Area

- Upstream end of watershed
- 1.5 square miles
- Much predates modern detention requirements
- Some small detention already
- Weighing economics of more detention vs. conveyance



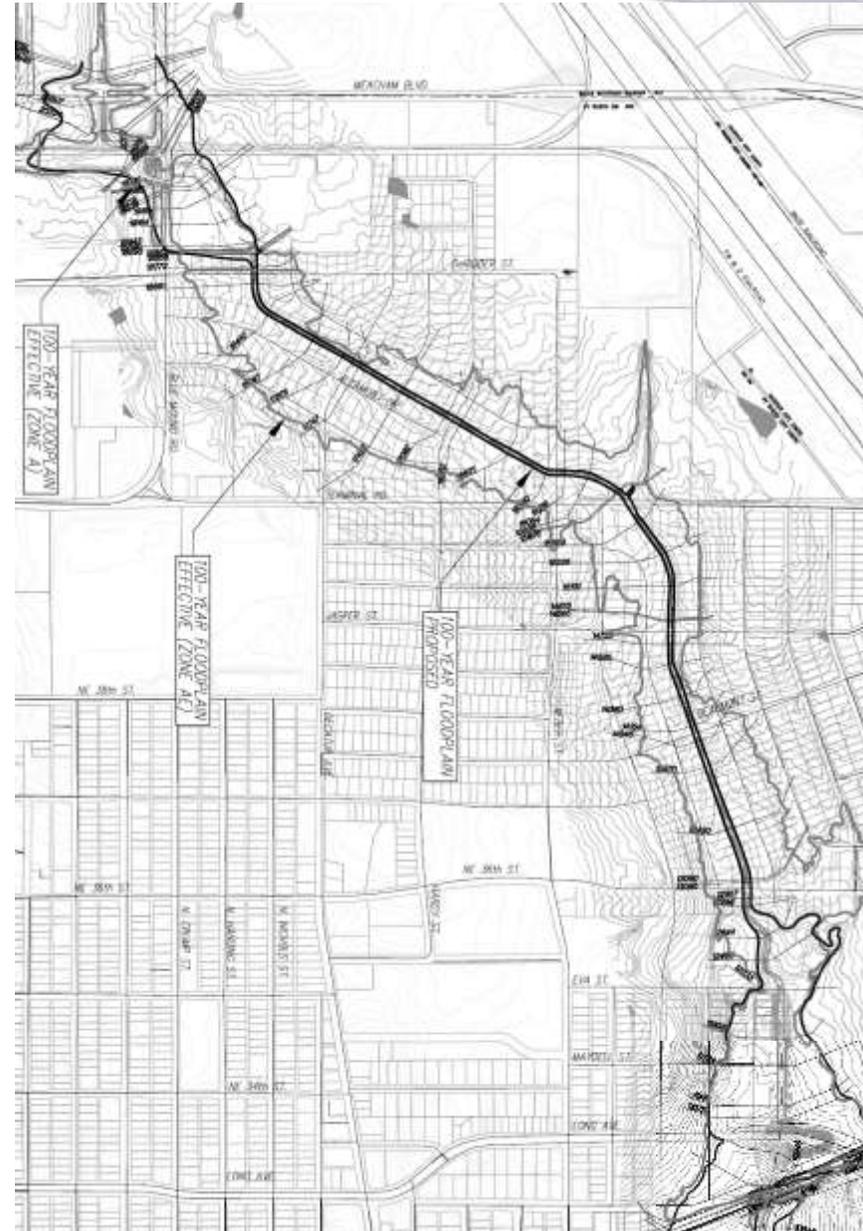
# Lebow Creek Original Conditions

- 200+ homes in floodplain
- 5 low-water crossings
- All other crossings deficient
- 5 past flood fatalities
- Railroad constriction separates upper and lower



# Upper Lebow Creek

- Creek channelized in 40' right-of-way
- Fully developed residential
- Over 150 homes in floodplain
- Seven deficient crossings
- Large floodplain at railroad constriction



# Upper Lebow Typical Crossings



# Upper Lebow Typical Conditions



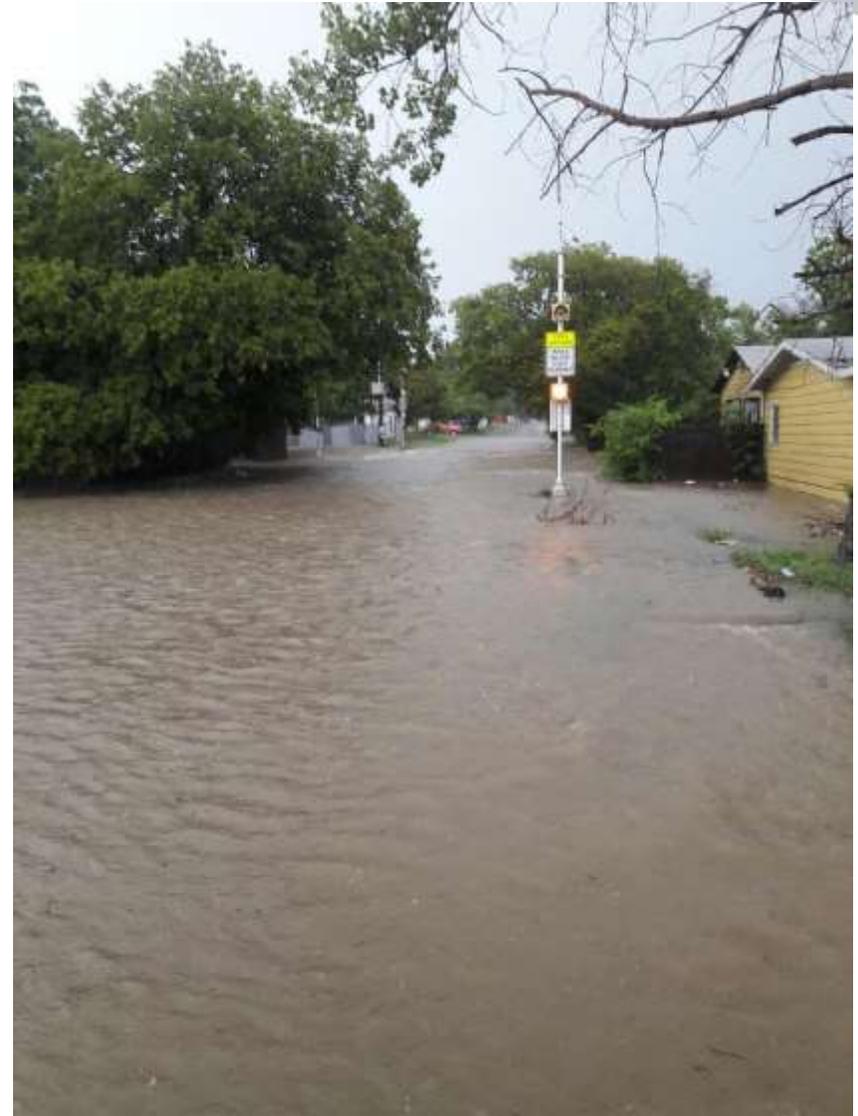
# Upper Lebow Typical Conditions



# Upper Lebow Flooding



# Upper Lebow Flooding



# Upper Lebow Flooding



# Upper Lebow Flooding



# Upper Lebow above railroad restriction



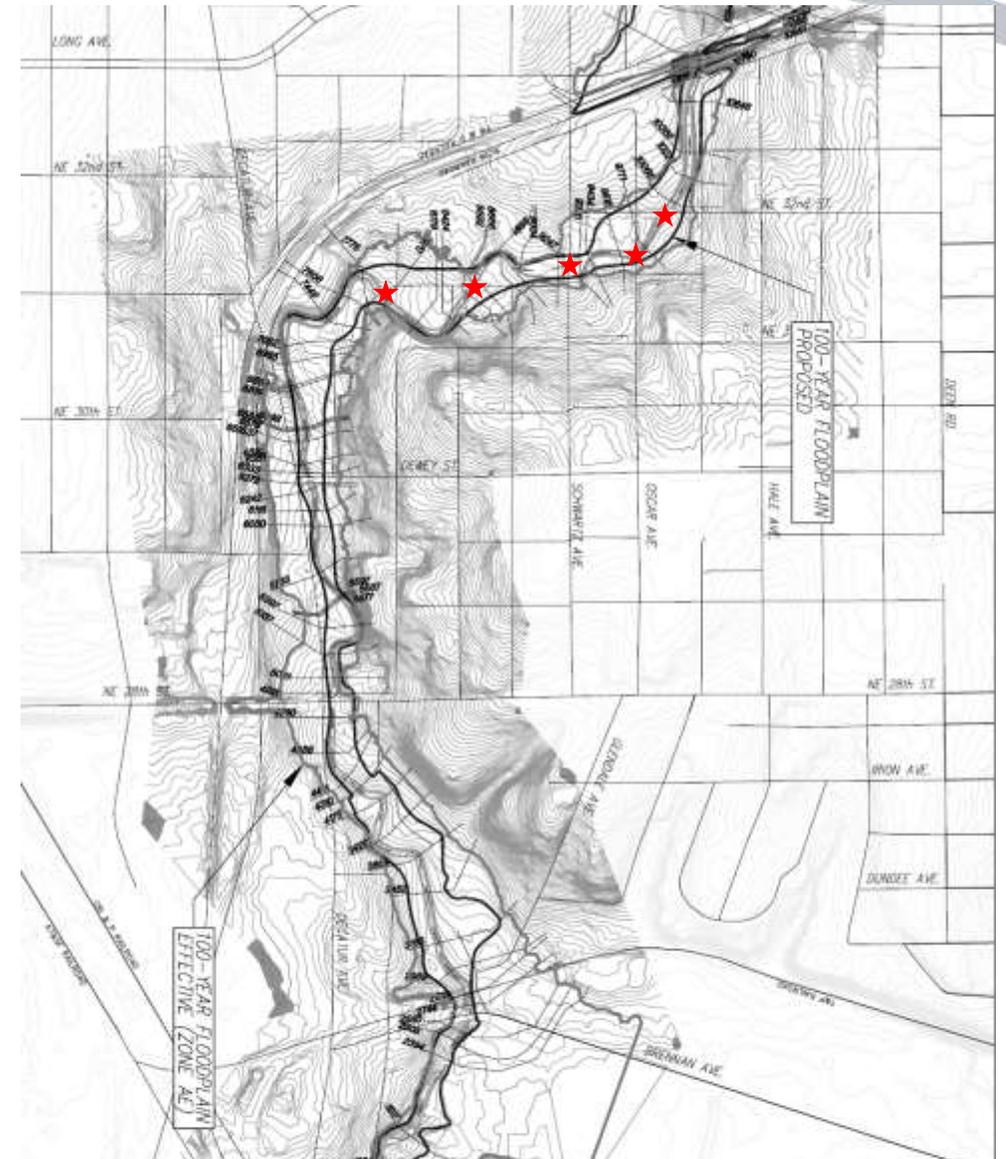
# Upper Lebow

- Arterial culvert
- Railroad restriction



# Lower Lebow Creek

- Older area: lots platted without regard to creek
- Five low water crossings and five past fatalities
- Creek squeezed out in places
- Three other deficient crossings, including major arterial



# Lower Lebow Typical Conditions



# Lower Lebow Driveway Bridges



# Low Water Crossing (Replaced in 2000)



# Low-Water Crossings (removed in 2005)



# Low-Water Crossings (5 fatalities in 2 events)

2004



1989



# 2004 Fatalities

2B | www.star-telegram.com 6-3-04 T FORT WORTH Star-T

*AAISC. Storms*

## Body found in creek east of Stockyards after storm

By BILL TEETER  
STAR-TELEGRAM STAFF WRITER

FORT WORTH — A man's body was found Wednesday in a creek on Guenther Avenue in Trail Drivers Park, not far from a car in the creek bed, police said.

Investigators have not determined whether the man's death was weather-related and whether the body and the red Geo are connected, police Lt. Mark Krey said.

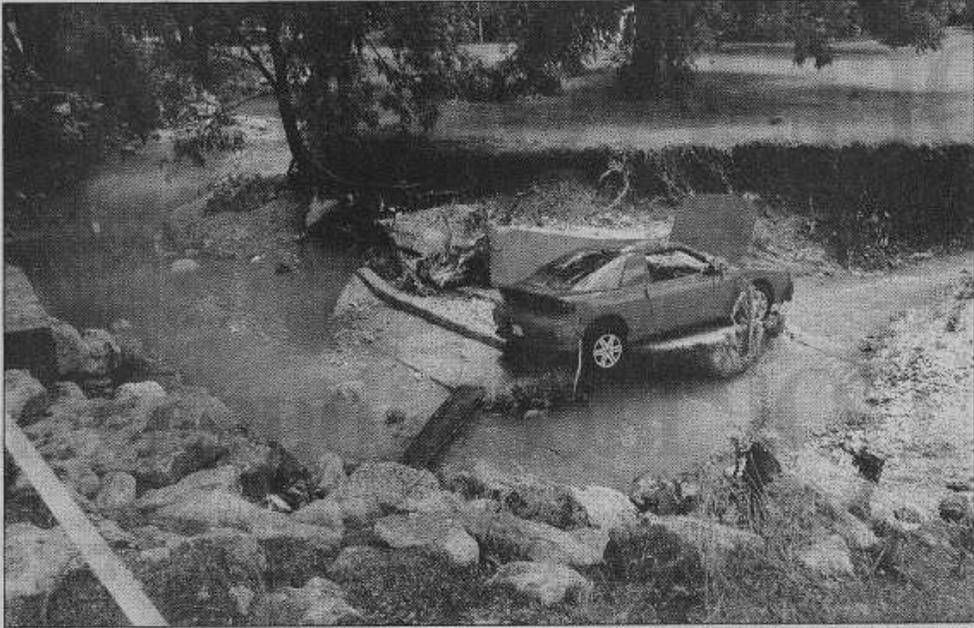
The body had not been identified Wednesday evening.

Officers checking the park for storm damage shortly before noon Wednesday found the car in the creek and called for a Fire Department dive team to check whether anyone had been swept from the car, Krey said.

The firefighters found the body about 150 yards upstream from the car under some brush. The man was probably in his late teens or early 20s, Krey said.

Because of reports that four men were seen with the car before the storm hit Tuesday night, firefighters searched about a half-mile downstream for more bodies, Krey said.

The car is believed to have been borrowed from its owners, he said.



STAR-TELEGRAM/RON JENKINS

A car rests in a creek in Trail Drivers Park in north Fort Worth, downstream from the spot where an unidentified man's body was found Wednesday.

*AAISC. Storms FWS7 6-4-04*

## Teen girl is missing after storm

By BILL TEETER  
STAR-TELEGRAM STAFF WRITER

**STORM** A 17-year-old found dead in a north Fort Worth creek after Tuesday night's storm has been identified, and relatives of his girlfriend fear that she was with him when his car went into high water.

■ TXU reports 240,000 customers still without power. 1A

FORT WORTH — A teenage girl who has been missing since Tuesday night is believed to have been with her 17-year-old boyfriend, whose body and car were found in a north Fort Worth creek the morning after a storm pounded the region, authorities said Thursday.

The boyfriend, who was found Wednesday morning, has been identified as Fernando Vitolas, according to the Tarrant County Medical Examiner's Office.

A combination of blunt-force head injuries and drowning caused his death, spokeswoman Linda Anderson said. Vitolas' death has been ruled an accident, she said.

Mirna Dominguez, 16, was with Vitolas on Tuesday night, Arnoldo Dominguez, the girl's father, said Thursday. Vitolas' mother was leaving for Mexico, and Vitolas had asked Mirna to come along to say goodbye, Dominguez said.

Mirna should have been home by 10:30 p.m., and when

More on STORM on 7B

# Lower Lebow Crossings



# Lower Lebow Crossings



# Lower Lebow Flooding



# Lower Lebow Flooding

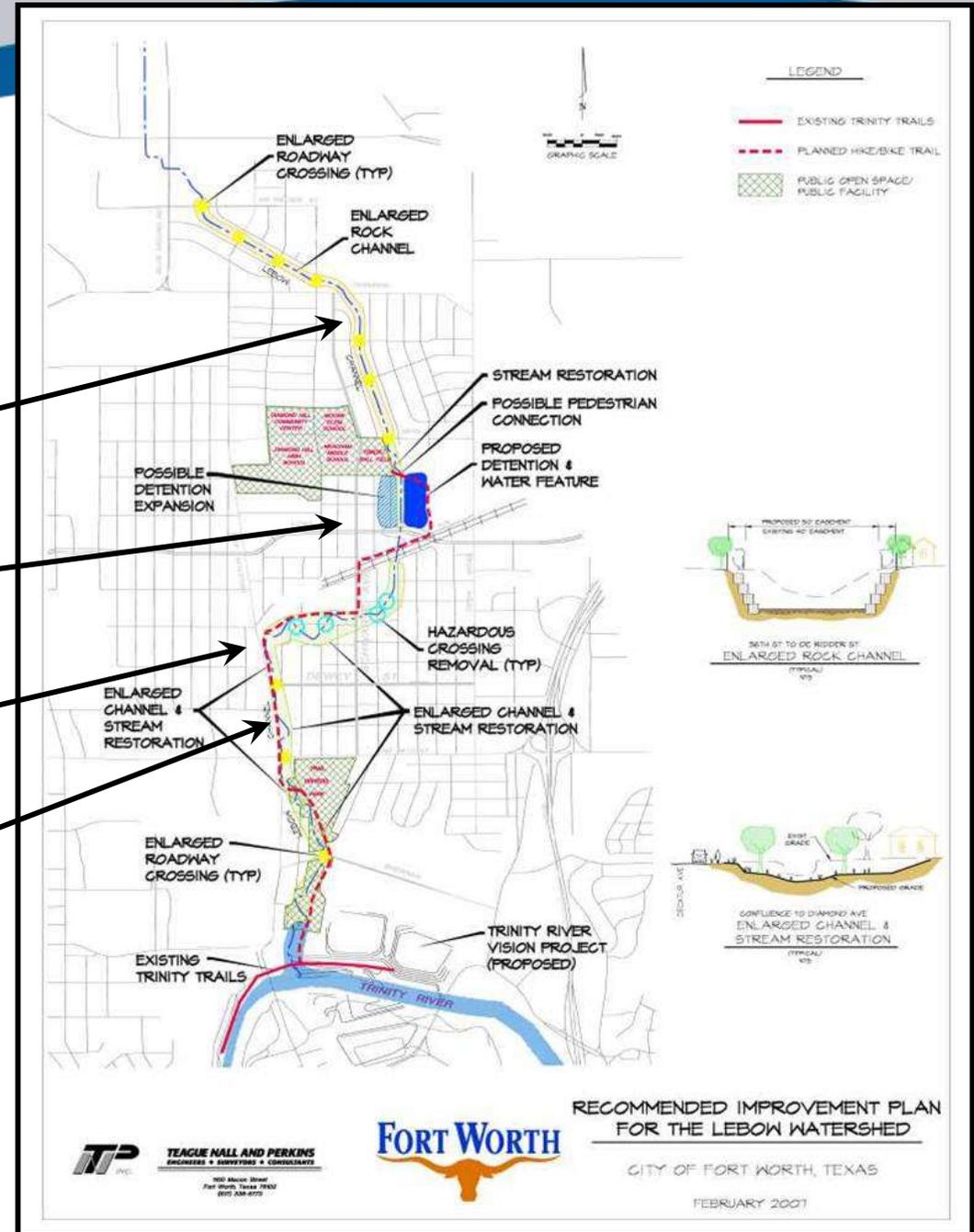


# Lower Lebow Flooding



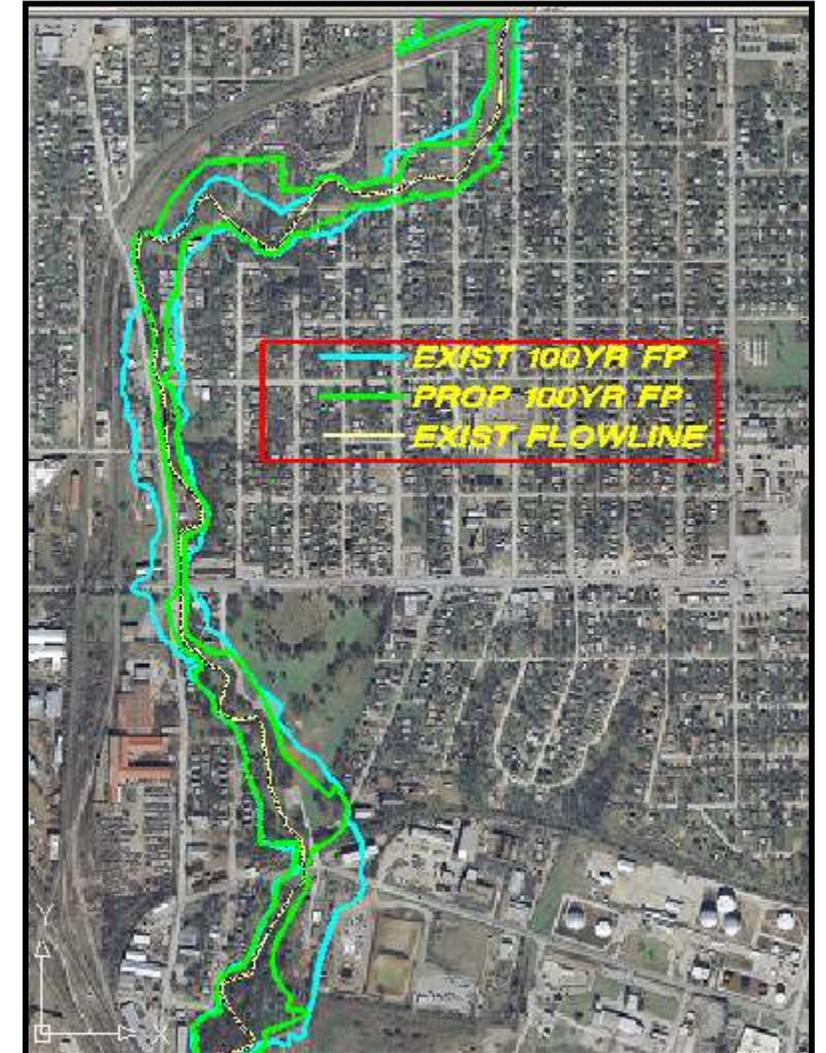
# Concept Plan

- Channelize and deepen
- Regional detention
- Eliminate low-water crossings
- Buyouts and creek restoration
- Improve roadway crossings
- Multi-year implementation



# Floodplain Effects

LOWER LEBOW



UPPER LEBOW

# Low-Water Crossing Removal



# Buyouts



# Crossing Improvements: Dewey



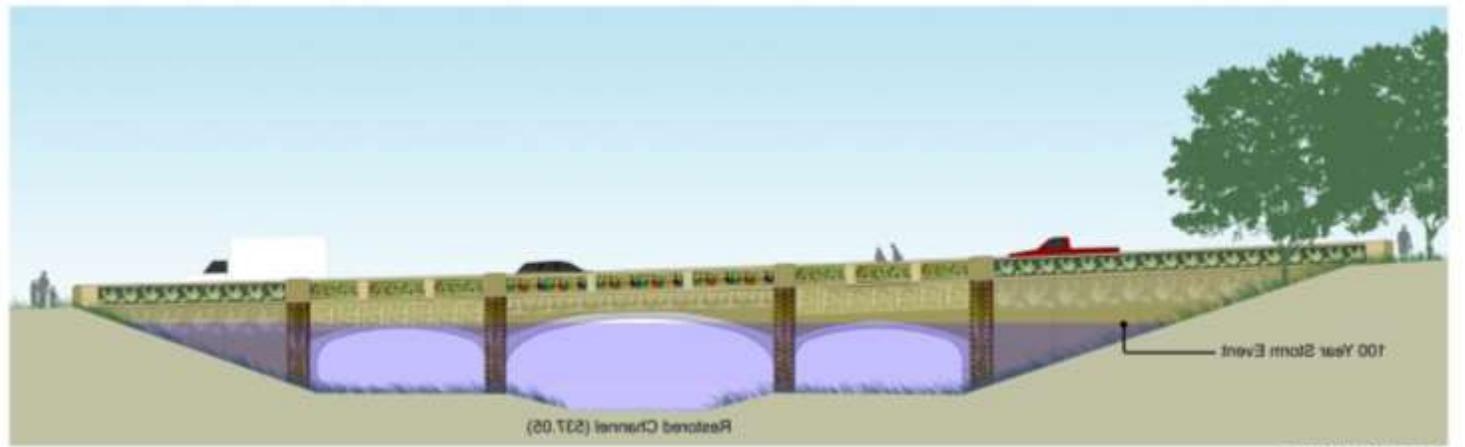
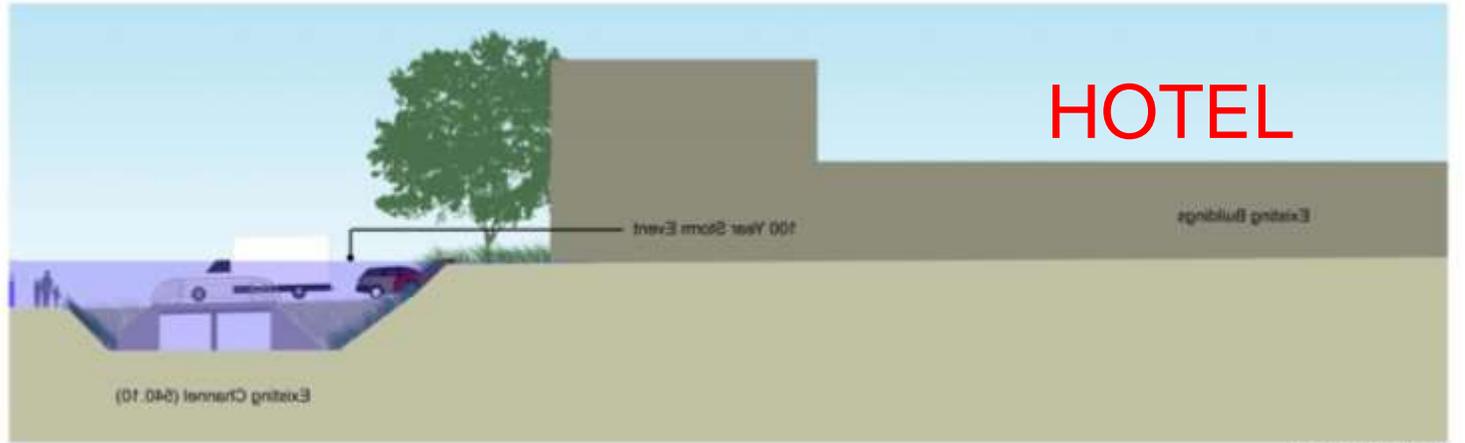
FUTURE FLOWLINE 2'± BELOW CURRENT



# Crossing Improvements: N.E 28<sup>th</sup> St.



RAILROAD  
UNDERPASS



# Crossing Improvements: N.E 28<sup>th</sup> St.



FUTURE FLOWLINE 2'± BELOW CURRENT

01.05.2012

# Crossing Improvements: N.E 28<sup>th</sup> St.

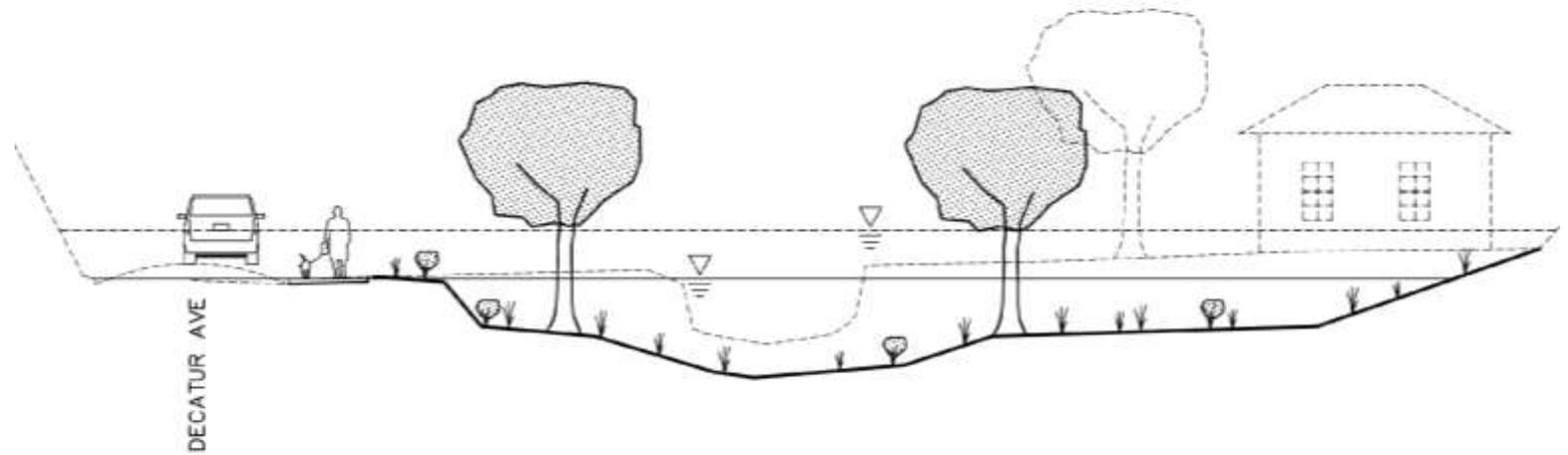


# Crossing Improvements: N.E 28<sup>th</sup> St.



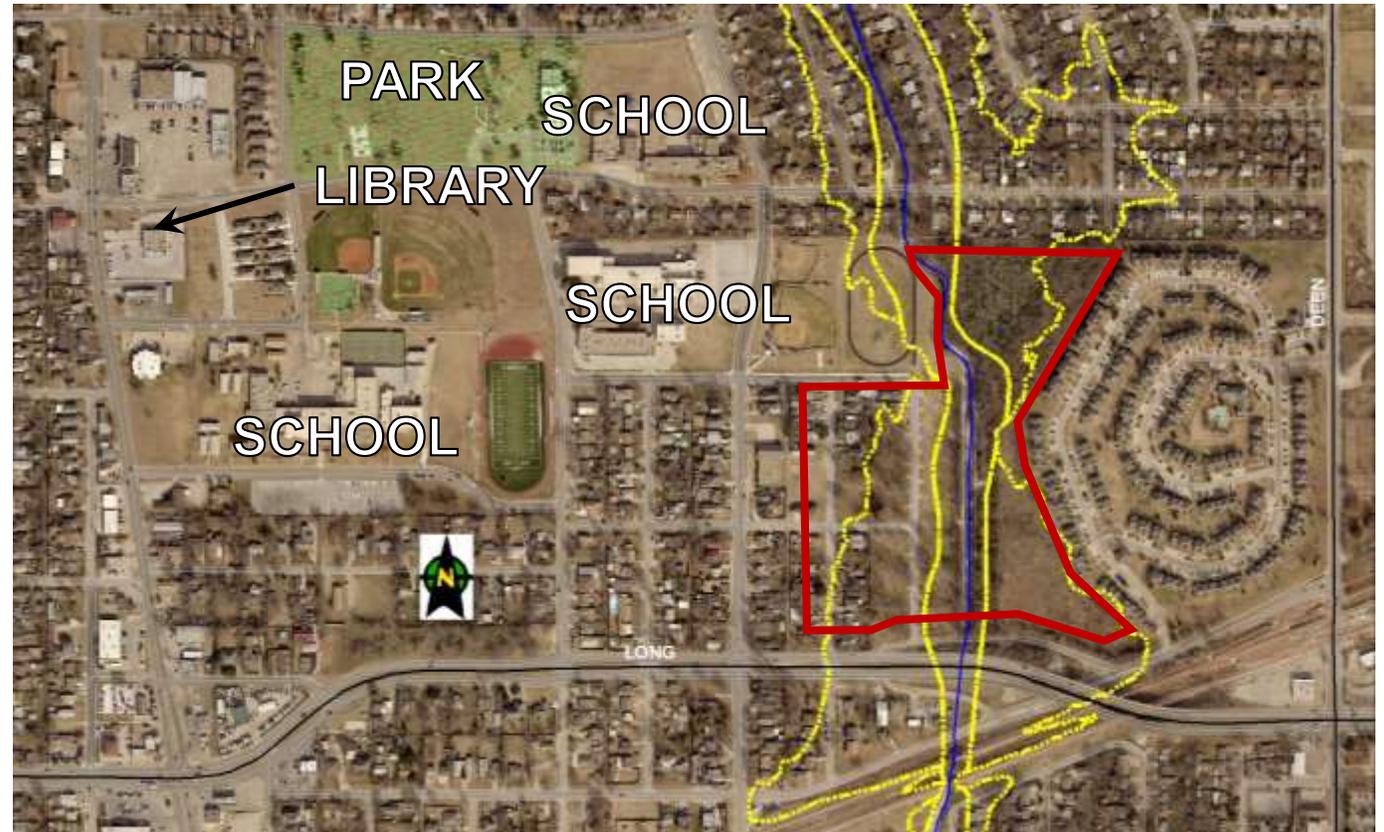
# Lower Lebow creek restoration

- Buy out floodprone properties
- Lower channel 2'±
- Include trail system
- USACE Section 404 Individual Permit



# Upper Lebow regional detention

- Offset higher flows due to proposed conveyance improvements
- Additional detention to prevent overflow onto Long Avenue
- Multi-Purpose with park enhancements



# Upper Lebow Detention property acquisitions



# Upper Lebow Detention

- Preserve existing wetlands
- Permanent wet detention pool
- Recreational fields
- Trail connections



# Upper Lebow Detention



# Upper Lebow Detention



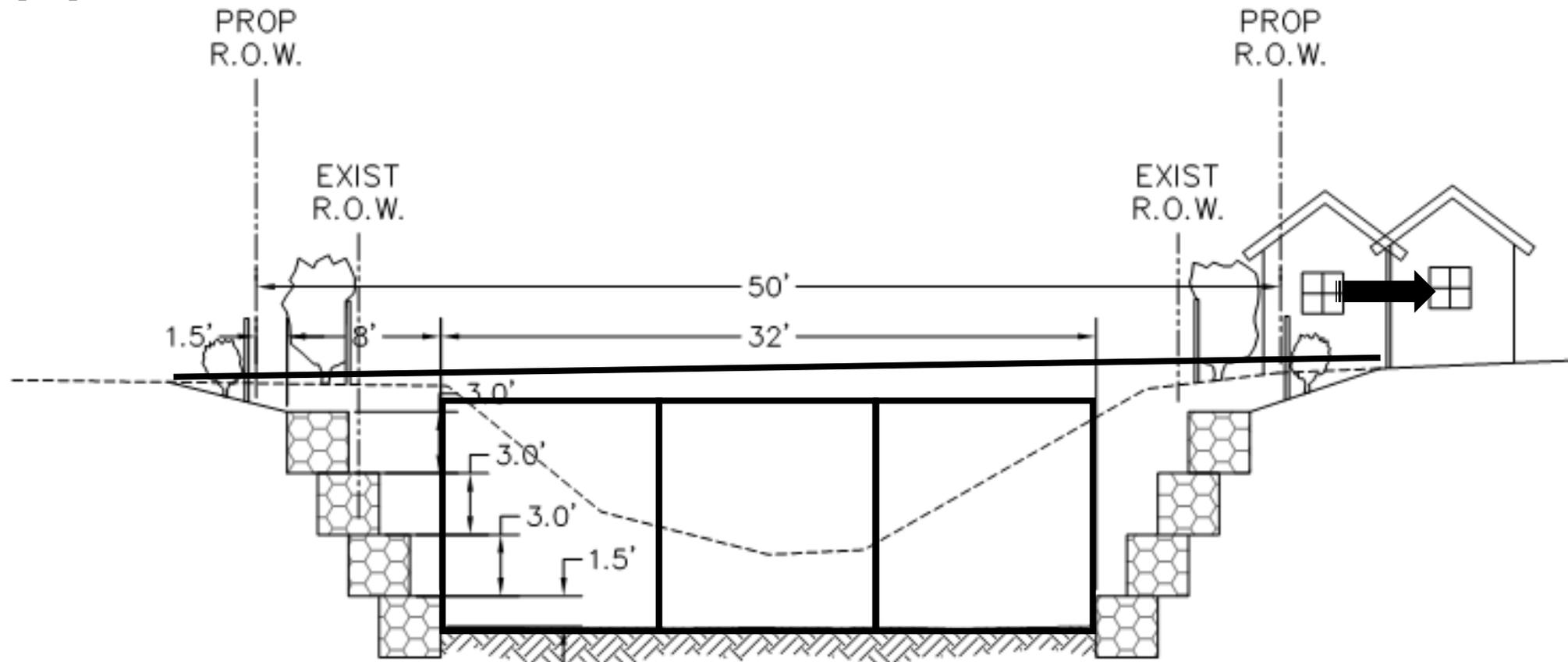
# Upper Lebow Detention



# Upper Lebow Detention (examples)



# Upper Lebow Channelization



# Crossing Improvements: Decatur



FUTURE FLOWLINE 3'± BELOW CURRENT

# Upper Lebow Channelization (examples)



# Project Outlook

- 2 of 3 major lower crossings completed
- Awaiting Section 404 Individual Permit
- Third lower crossing and Upper detention next major pieces
- Funding challenges

## 2010 PROJECT COST PROJECTIONS

Description	Projected Total Cost	Funded to Date	Projected Cost Remaining
ROW Acquisitions	\$4,706,000	\$2,491,000	\$2,215,000
Demolition	\$491,000	\$77,000	\$414,000
Design/Permitting			
Vera Cruz St.	\$31,000	\$31,000	\$0
3 Roadway Crossings	\$529,000	\$475,000	\$54,000*
Lower & Upper Reaches	\$1,991,000	\$901,000	\$1,090,000
Construction			
Vera Cruz St.	\$275,000	\$275,000	\$0
3 Roadway Crossings	\$3,094,000	\$1,146,000	\$1,948,000
Lower Reach	\$9,380,000	\$0	\$9,380,000
Upper Reach	\$14,594,000	\$0	\$14,594,000
<b>Total</b>	<b>\$35,091,000</b>	<b>\$5,396,000</b>	<b>\$29,695,000</b>

# Questions?

