Memorandum

CITY OF DALLAS

DATE: August 16, 2013

TO: The Honorable Mayor and Members of the City Council

SUBJECT: **Trinity River Corridor Project Update**
August 21, 2013 Council Meeting

On Wednesday, August 21, 2013, the City Council will be briefed on the Trinity River Corridor Project Update. The briefing materials are attached for your review.

Please let me know if you have questions or need additional information.

Jill A. Jordan, P.E.
Assistant City Manager

Attachment

c: Honorable Mayor and Members of the Dallas City Council
A.C. Gonzales, Interim City Manager
Thomas P. Perkins, Jr., City Attorney
Rosa Rios, City Secretary
Judge Daniel Solis, Administrative Judge Municipal Court
Craig D. Kinton, City Auditor
Ryan S. Evans, Interim First Assistant City Manager
Charles M. Cato, Interim Assistant City Manager
Theresa O'Donnell, Interim Assistant City Manager
Forest E. Turner, Assistant City Manager
Joey Zapata, Assistant City Manager
Jeanne Chipperfield, Chief Financial Officer
Frank Librio, Public Information Office
Elsa Cantu, Assistant to the City Manager

Trinity River Corridor Project Update

Col. Charles H. Klinge
Commander, Fort Worth District
US Army Corps of Engineers

Jill A. Jordan, P.E.
Assistant City Manager
City of Dallas

Dallas City Council briefing
Aug. 21, 2013

US Army Corps of Engineers
BUILDING STRONG®

THE TRINITY
DALLAS

Purpose

- To provide an overview of the Trinity River Corridor Project
- To introduce the US Army Corps of Engineers (Corps)
- To outline next steps

Trinity River Corridor Project Partners

Federal, State and Local Partners

- US Army Corps of Engineers (Corps)
- City of Dallas
- Dallas County
- North Texas Tollway Authority (NTTA)
- Texas Dept. of Transportation (TxDOT)
- Fed. Highway Administration (FHWA)
- Texas Commission on Environmental Quality (TCEQ)
- Environmental Protection Agency (EPA)
- Federal Emergency Management Agency (FEMA)
- North Central Texas Council of Governments (COG)

Trinity River Corridor Project
Non- Profit Partners

- Trinity Trust Foundation
- Trinity Commons Foundation
- Audubon Society
- Boone Family Foundation
- Circle Ten Boy Scouts
- Dallas Camera Club
- Dallas Running Club
- Downtown Dallas
- EQUEST
- Groundwork Dallas
- Girl Scouts of Northeast Texas
- River Ranch Education Charities
- Ocean Conservancy
- Scottish Rite Hospital
- Student Conservation Association
- Texas Horse Park Foundation
- Trinity Bird Count
- Trinity Strand Trail
- The Mission Continues

Trinity River Corridor Project
Private Sector Partners

- AT&T
- CVS Caremark
- Dallas Morning News
- Dr. Pepper/Snapple
- National Fish & Wildlife/FedEx
- Hilton Anatole
- Kroger
- Luke's Locker
- Matthews Southwest
- Methodist Hospital Dallas
- Nestle Waters
- NorthPark Center
- Oncor
- Reliant Energy
- Sprint
- Southwest Airlines
- Xerox
- Wells Fargo

Fort Worth District
US Army Corps of Engineers

Who we are:

- Created 1950 after 1949 Fort Worth flood
- 1,200 civilian and military employees – half in Fort Worth

What we do:

Military Works: Support the needs of 11 Army and 5 Air Force installations across Texas, New Mexico and Louisiana

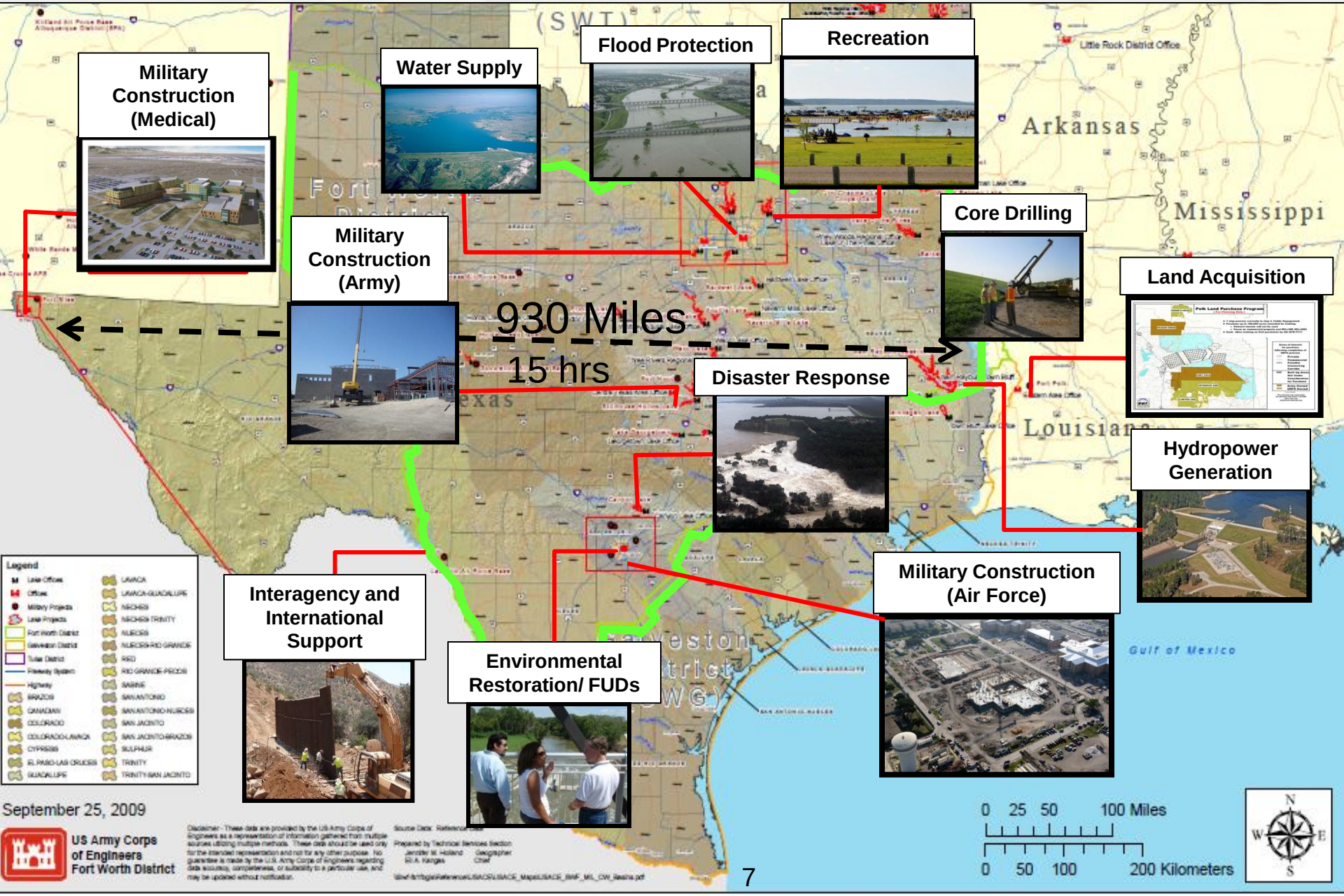
Civil Works: Ten river basins covering 53% of the state

- Levee systems in 16 Texas counties
- 25 lakes containing 314 parks
- Corps lakes provide 30% of Texas water supply
- 35 current ecosystem restoration projects

Overseas contingency response: 27 employees deployed to Afghanistan in May

Emergency response: District employees deploy nationwide for disaster relief

Fort Worth District Mission Areas



Overview

The Trinity River corridor projects address regional concerns but **flood risk reduction** is the cornerstone.

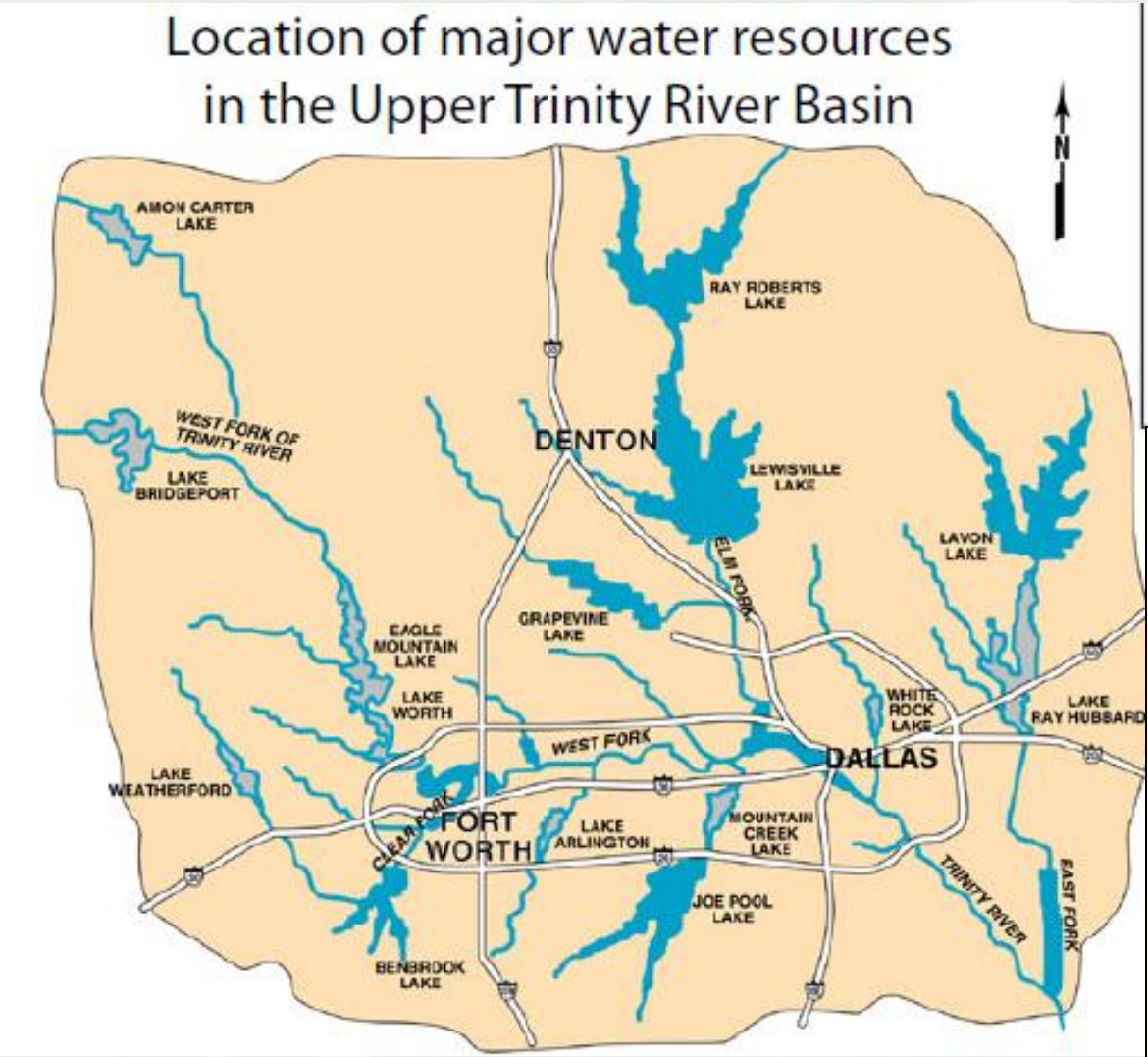
4 inter-related components of the projects are:

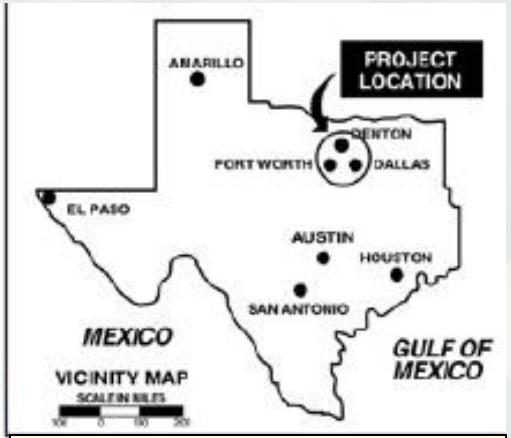
I. **Flood Risk Reduction**
II. Ecosystem Restoration
III. Transportation
IV. Recreation

I. Flood Risk Reduction

- 200,000 people work or live behind the levees
- $12.2 billion in floodplain investment

Flood Risk Reduction

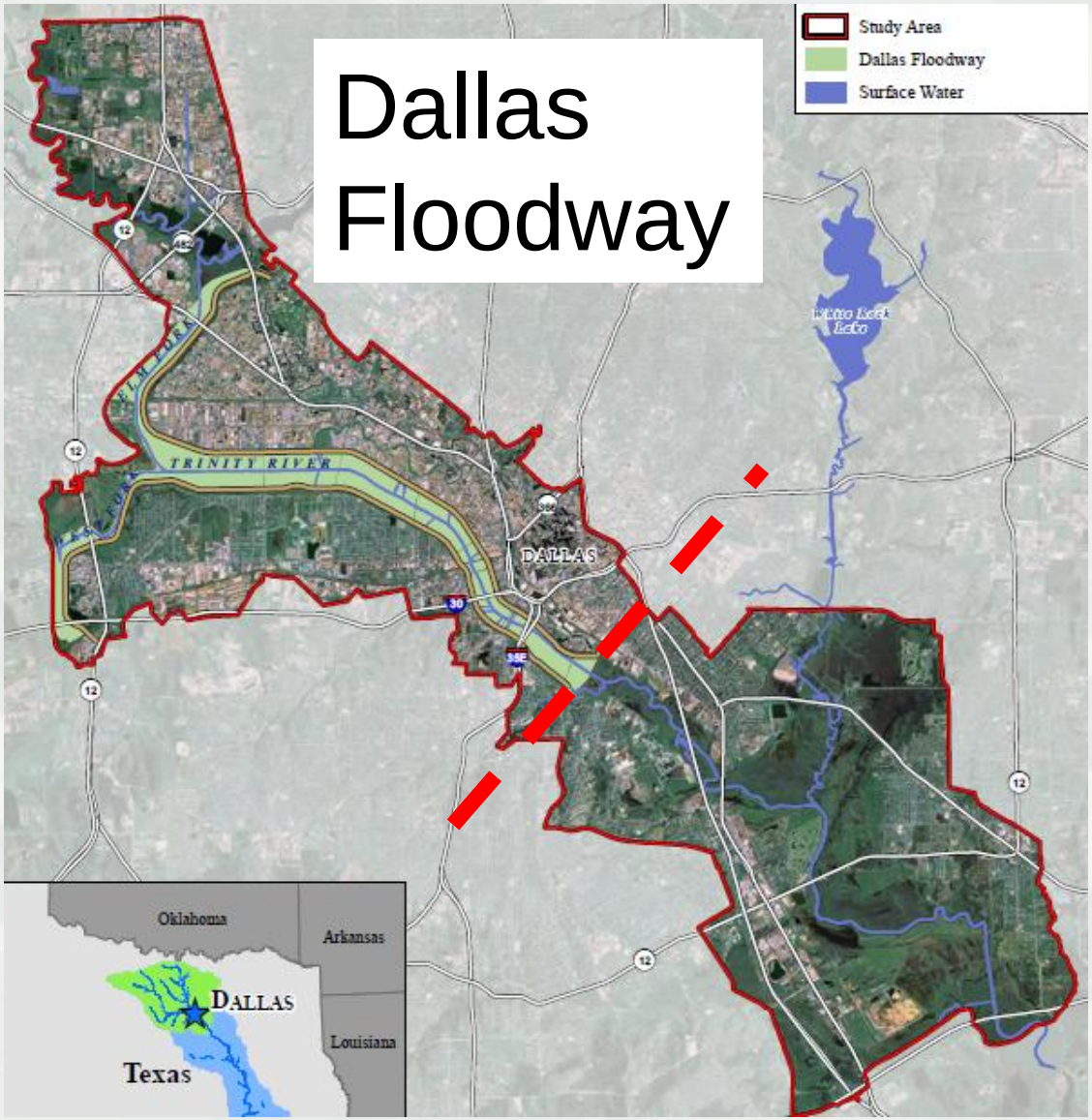




Corps Lakes provide flood control, water supply and recreation

- Benbrook
- Grapevine
- Lavon
- Lewisville
- Joe Pool
- Ray Roberts

Flood Risk Reduction



Two Corps of Engineers projects

Dallas Floodway Extension

Flood Risk Reduction History

- **1908 – Dallas flood kills** 5, leaves 4,000 homeless, city without power for days, massive property damage
- **1928 – First levee system built in Dallas**

Montgomery Ward building, 1949 Fort Worth flood

- **1949 – Fort Worth flood kills 11**, flood control reservoir construction advances (Lewisville, Grapevine, Benbrook)
- **1958 – Corps completes** major Dallas Floodway upgrade
- **1989-1991 – Worst floods since 1908.**
- **1998 –** Dallas voters authorize record bond package – $246 million – for Trinity flood control, transportation and recreation.

Flood Risk Reduction
Dallas Floodway Project

- **2007** – Water Resources Development Act (WRDA) Section 5141 was authorized to raise the levees up to 2 feet, provide recreation (Balanced Vision Plan) and improve pump stations
- **2009** – Corps tells City it has rated Dallas Floodway “unacceptable”; FEMA withdraws accreditation of levees; city begins maintenance and construction work to re-certify levees
- **2010** –Feasibility Study and Environmental Impact Statement process launched to explore what actions are needed to restore capacity of Dallas Floodway to meet a major storm event.
- **2011** – Corps introduces Risk Assessment process, a cost-effective method for assessing aging dams, to the Dallas Floodway Project.
  - First of this type of study for levees in the Country
  - Determines Dallas Floodway Project Levees are more resilient and provide around 1,500-year protection

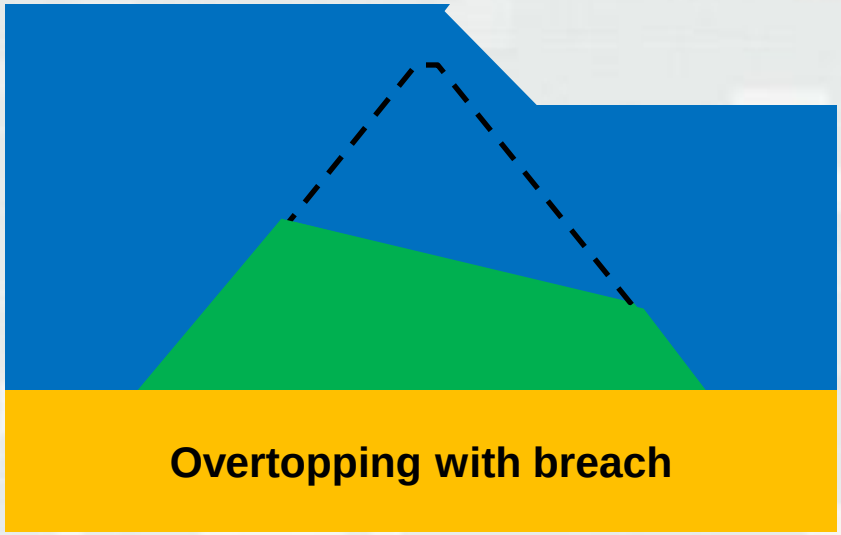
Flood Risk Reduction

The Risk Assessment Process

- Method for quantifying the risk (likelihood) of various ways a levee can fail, and the consequences of each failure type
- Identifies most cost-effective ways to reduce risk

Successful result:

- Determined levees more resilient than previously thought
- Narrowed the list of 13 potential failure modes to two:
  - Overtopping with breach of East or West Levee
  - Overtopping of the East Levee floodwall



Flood Risk Reduction

Recommended Flood Risk Management Plan

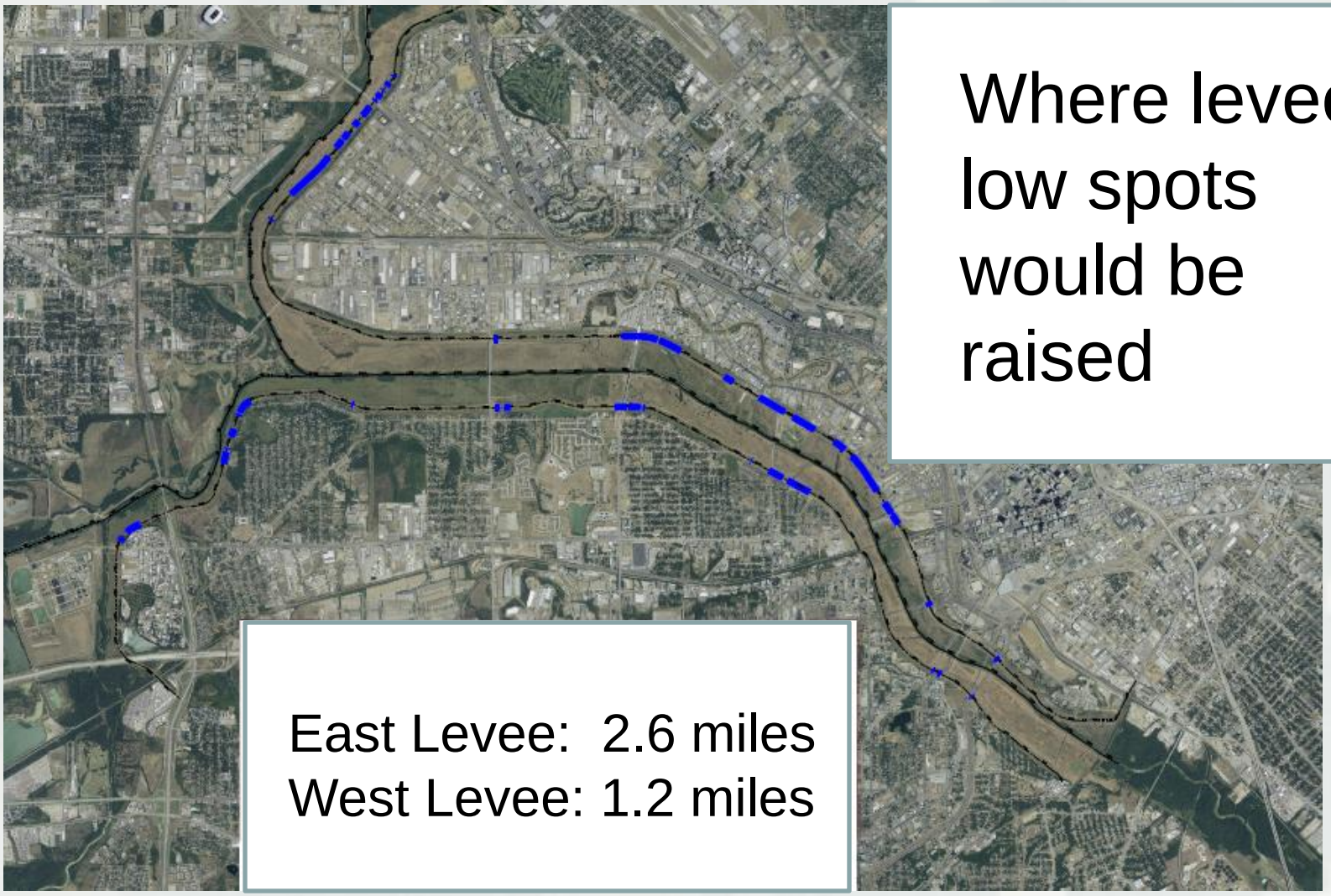
Old abandoned AT&SF Trestles Proposed for Removal

- The Trestles are on 14-foot-centers and collect debris during flooding and stack up floodwaters into the floodway. The embankment acts as a weir and impedes flow down the floodway system

- **Raise low spots in the levees** up to 3 feet to increase flood conveyance to 277,000 cubic feet per second. This is enough to convey floodwaters of a major storm that has a 1/2,500 chance of happening any given year

- **Cost of these two changes: $6.2 million**

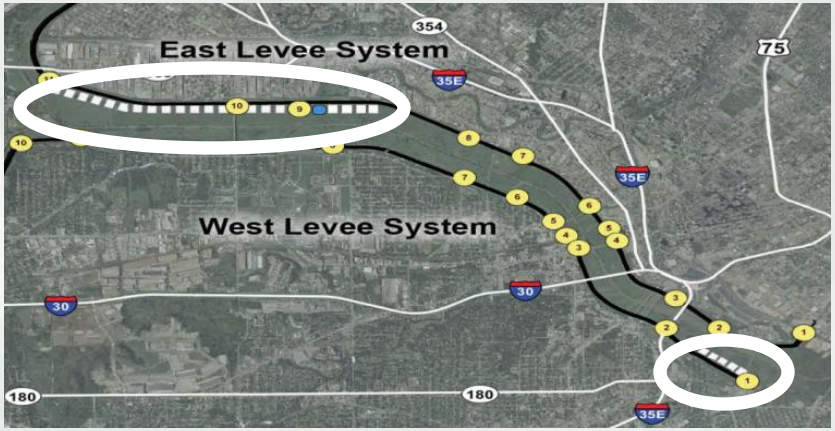
Flood Risk Reduction



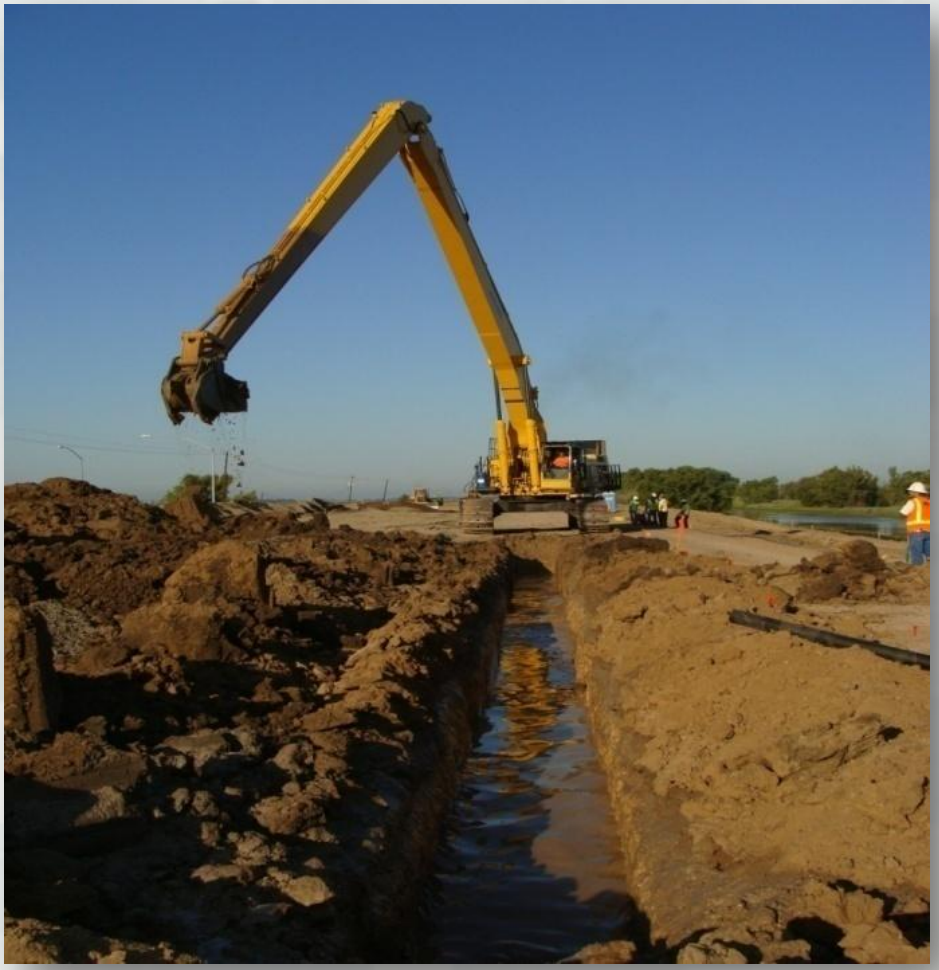
Where levee low spots would be raised

East Levee: 2.6 miles
West Levee: 1.2 miles

Flood Risk Reduction



City to certify levees



3.5 miles of new anti-seepage walls built to meet FEMA's National Flood Insurance Program at the 100-year flood protection level requirements

Milestones

Construction complete

2013 – City begins gathering certification documentation to be sent to FEMA seeking reaccreditation or levees

Flood Risk Reduction

Interior Drainage Plan

Expanding pump stations, such as Pavaho (completed last year), reduces neighborhood flooding. This West Dallas neighborhood regularly flooded before upgrade.

2006 Flooding near Old Pavaho Pump Station

2012 New Pavaho Pump Station

Flood Risk Reduction

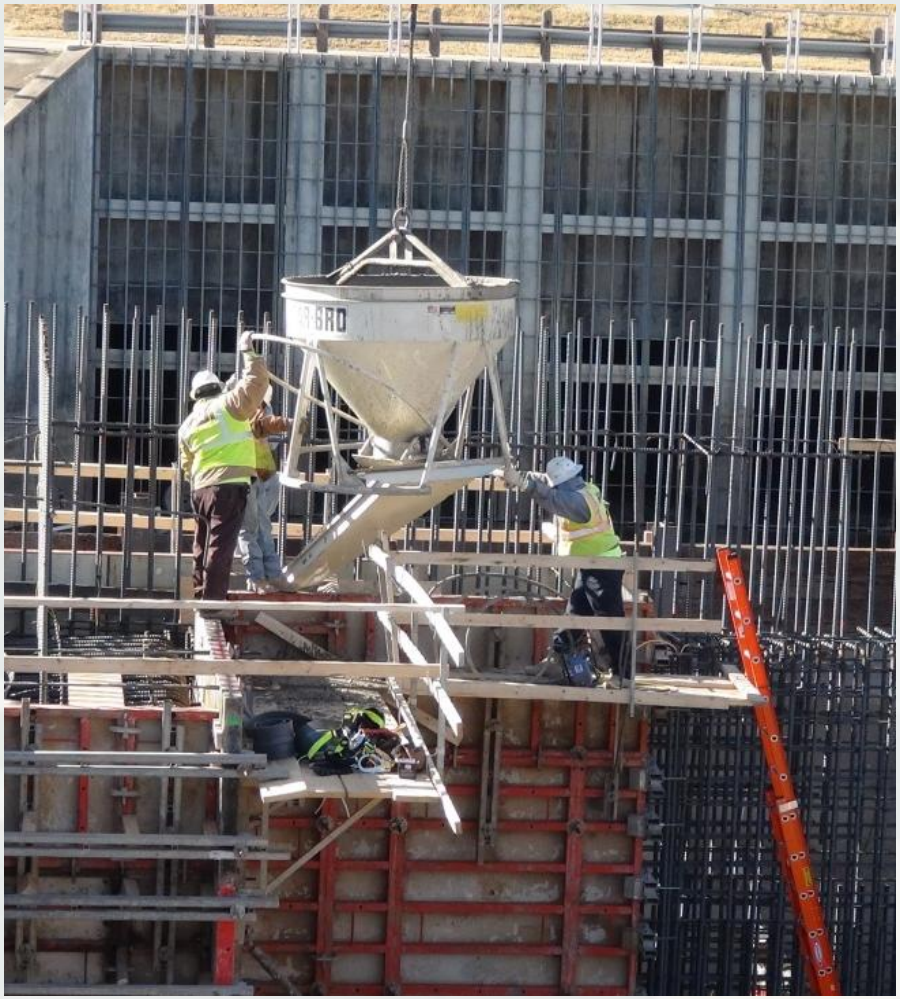
Interior Drainage Plan

More pump stations under way

- **Baker Pump Station** (2255 Irving Blvd. near Design District); construction now 28 percent complete

- **Able Pump Station** (600 S. Riverfront near Fuel City) – Under design. Construction to begin within a year.

Concept of Able



Flood Risk Reduction

Dallas Floodway Extension Project

- Project initiated in 2001 to construct flood control wetlands and levees
- Constructed Lower Chain of Wetlands
- Lamar Levee geotechnical borings completed
- Lamar Levee 35 percent designed

Wetland cells at Loop 12 beside Trinity River

Flood Risk Reduction
Fiscal Year 2014

- Brief the Transportation and Trinity River Project Council Committee on the Dallas Floodway Project Environmental Impact Statement and the upcoming 2014 Public Meeting
- Award the Upper Chain of Wetlands and Able Pump Station
- Open Baker Pump Station

II. Ecosystem Restoration

Lower Chain of Wetlands have dual role: New wildlife habitat in the heart of the city that also reduces flood risk in the Dallas Floodway

Fed by treated wastewater, the Lower Chain of Wetlands thrive through drought and further clean water before it flows back into Trinity River

I. Flood Risk Reduction
II. Ecosystem Restoration
III. Transportation
IV. Recreation

Ecosystem Restoration

Lower Chain of Wetlands highlights

- Native plants selected to maximize food supplies for birds
- Water levels adjusted to attract seasonal waterfowl
- 125 bird species have been recorded in the Lower Chain of Wetlands

Ecosystem Restoration

Path Forward: More wetlands

Upper Chain of Wetlands (Martin Luther King Jr. Bridge at 11th Street), Phase 1 construction complete

Pavaho Storm Water Polishing Wetlands – anticipated construction start this year

Tire Removal, Planting and Clean Up Activities

- Staff, contracts and volunteer programs such as Groundwork Dallas and Southwest Airlines Trinity Conservation Corps aim to remove tires and trash in and along the Trinity
- Staff, contracts and volunteer programs plant native species vegetation

Ecosystem Restoration
Fiscal Year 2014 Next Steps

- Brief the Transportation and Trinity River Project Council Committee on the operations and maintenance for the Lower Chain of Wetlands
- Award the construction of the Upper Chain of Wetlands
- Award a contract to remove tires in and along the Trinity River
- Continue planting and clean up activities at various locations along the Trinity River and wetlands areas

III. Transportation

Concept for Sylvan Bridge now under construction

I. Flood Risk Reduction
II. Ecosystem Restoration
III. Transportation
IV. Recreation

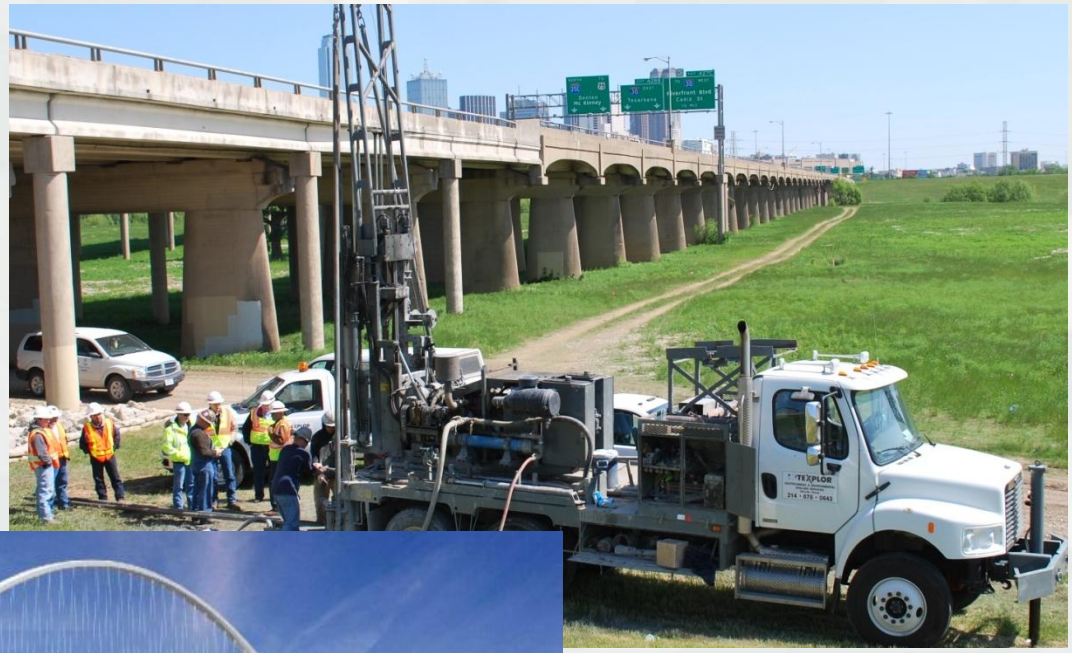
Transportation

Sylvan Avenue Bridge – Under Construction

- Construction start: March 2012
- Re-open to traffic: Early 2014
- Completion: June 2014
- 6 Lanes (3 in each direction), 6 foot-wide sidewalk, bike lanes, ramp to park area
- TxDOT cost: Approximately $42 million

Transportation
Horseshoe Project: I-30 (McDermott Bridge) and I-35E Bridges

- TxDOT awarded design-build contract November 2012
- Construction soil tests begun
- Construction complete 2017
- Cost: $798 million (private, local, state & federal)



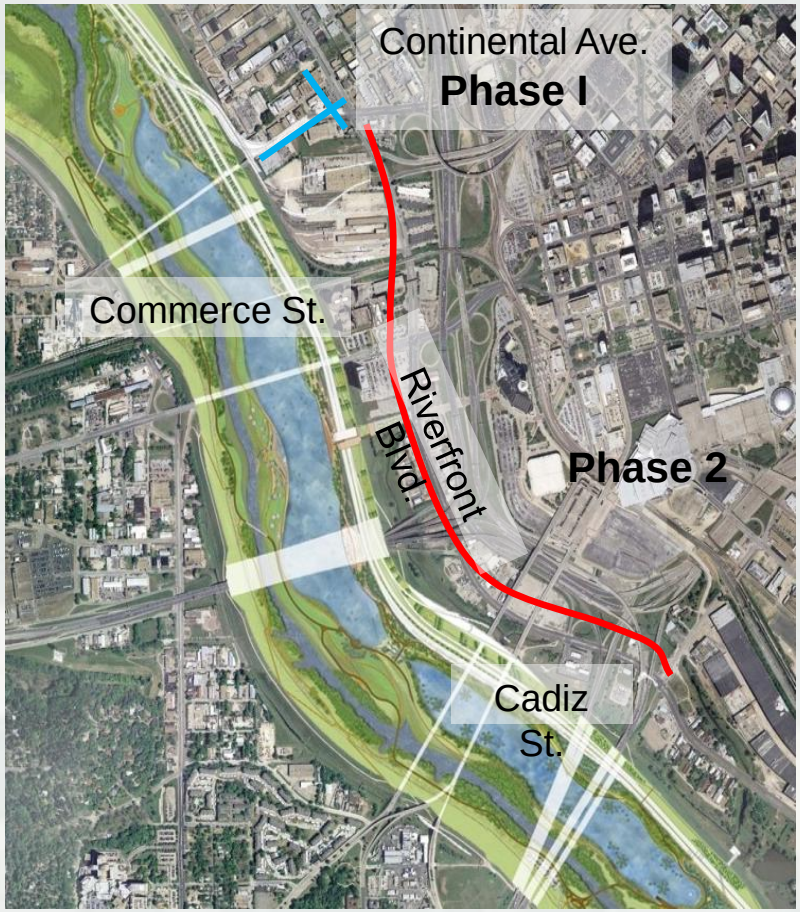
Planned Margaret McDermott Bridge (I-30)

Transportation
Margaret Hunt Hill Bridge

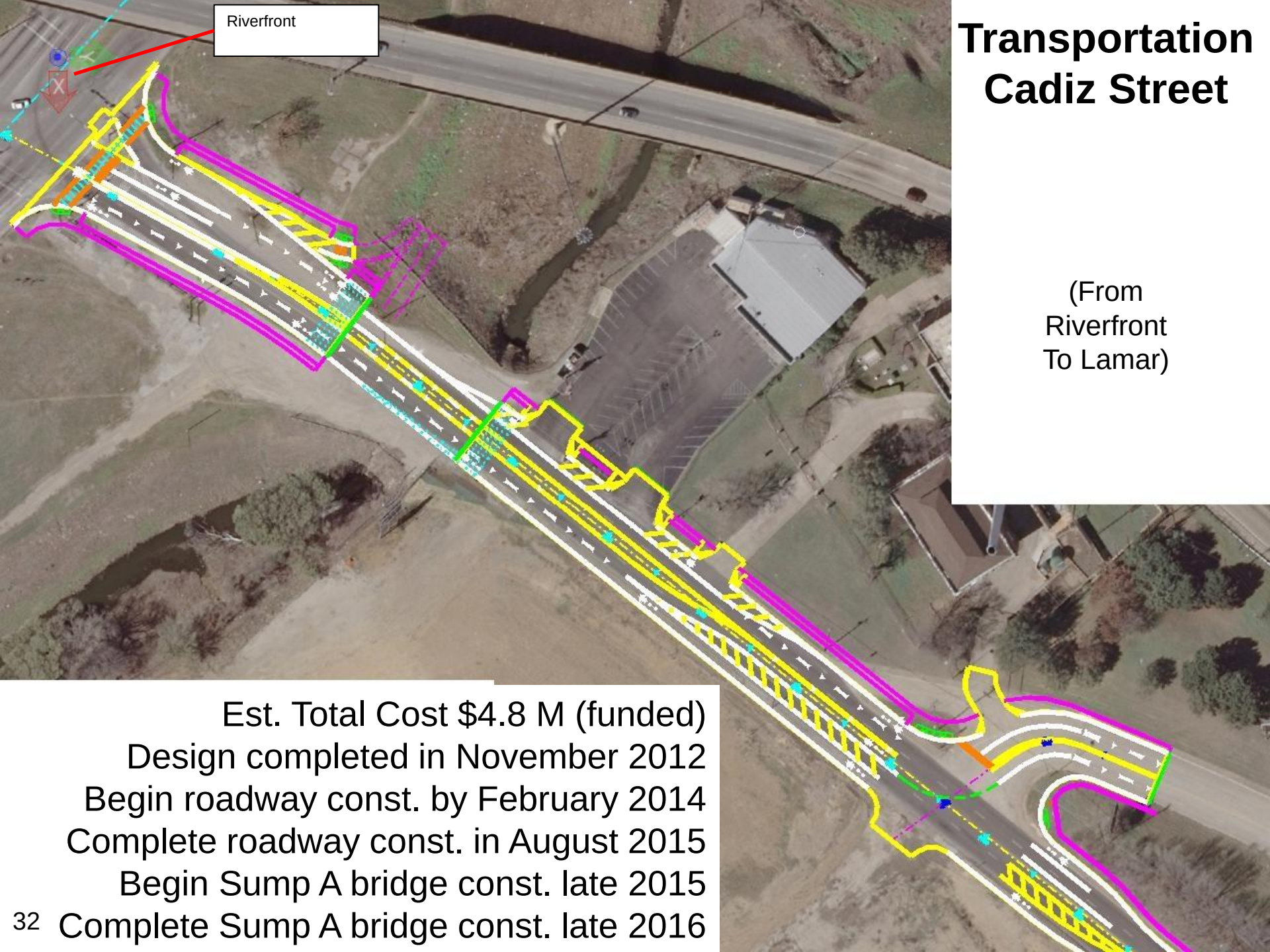
- Opened March 2012
- First Santiago Calatrava vehicular bridge built in the U.S.
- Connects downtown Dallas to West Dallas over the Trinity River (Woodall Rodgers Freeway to Singleton Boulevard)

Transportation

Riverfront Boulevard – Under Design



- Phase 1 construction late this year (lasting 19 months)
- Phase 2 construction to begin Spring 2014 (lasting 24 months)
- 6 traffic lanes, cycle track, bioswales, landscaping
- Cost: $42.5 million City, County, COG



Transportation
Cadiz Street

(From
Riverfront
To Lamar)

Est. Total Cost $4.8 M (funded)
Design completed in November 2012
Begin roadway const. by February 2014
Complete roadway const. in August 2015
Begin Sump A bridge const. late 2015
Complete Sump A bridge const. late 2016

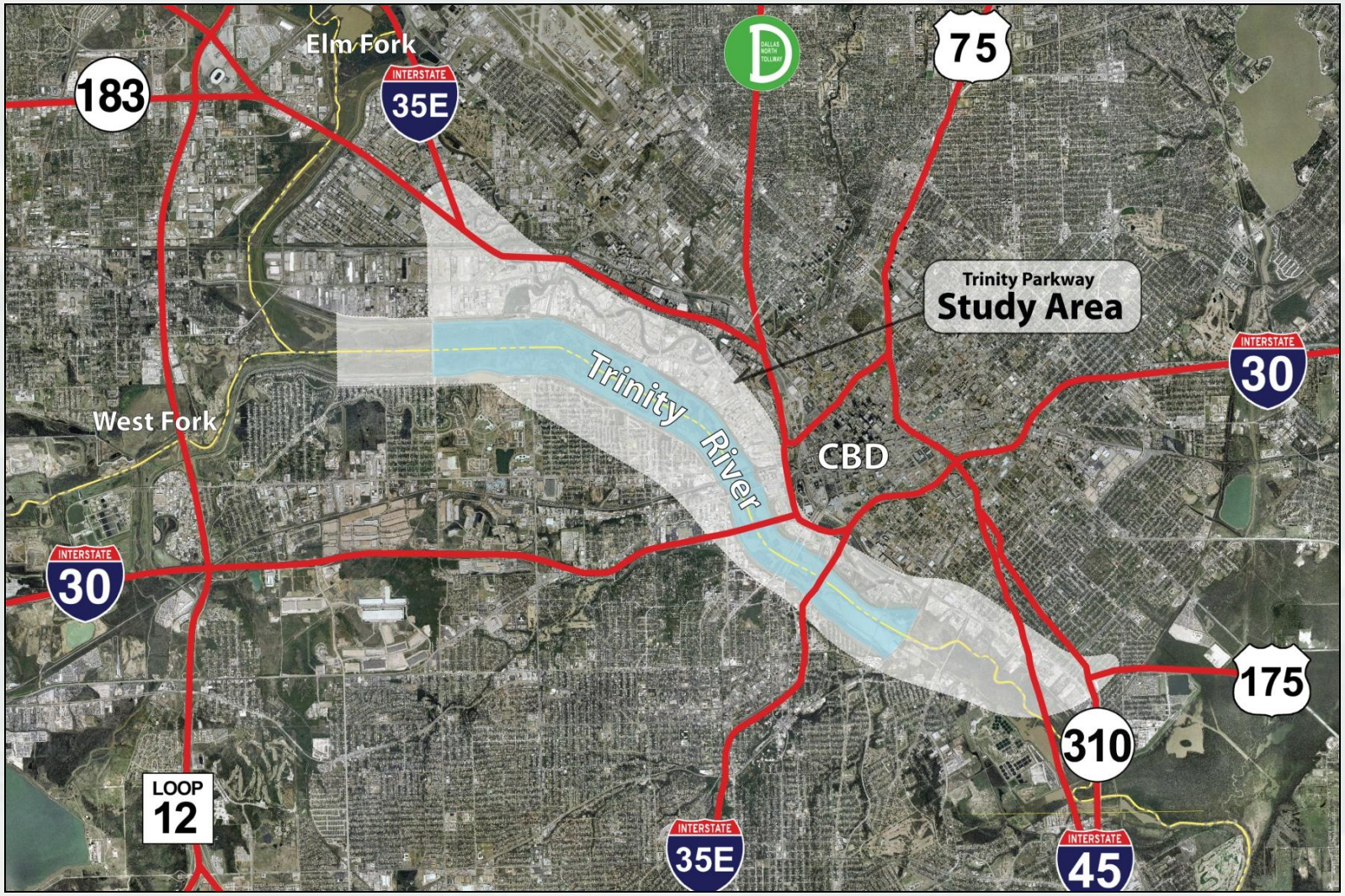
Transportation

Beckley/Commerce Intersection Improvements

- Design completed in July 2013
- Estimated total cost - $3.6M
- Construction scheduled to begin in December 2013 (15-18 month duration)

Transportation

Trinity Parkway – Under design

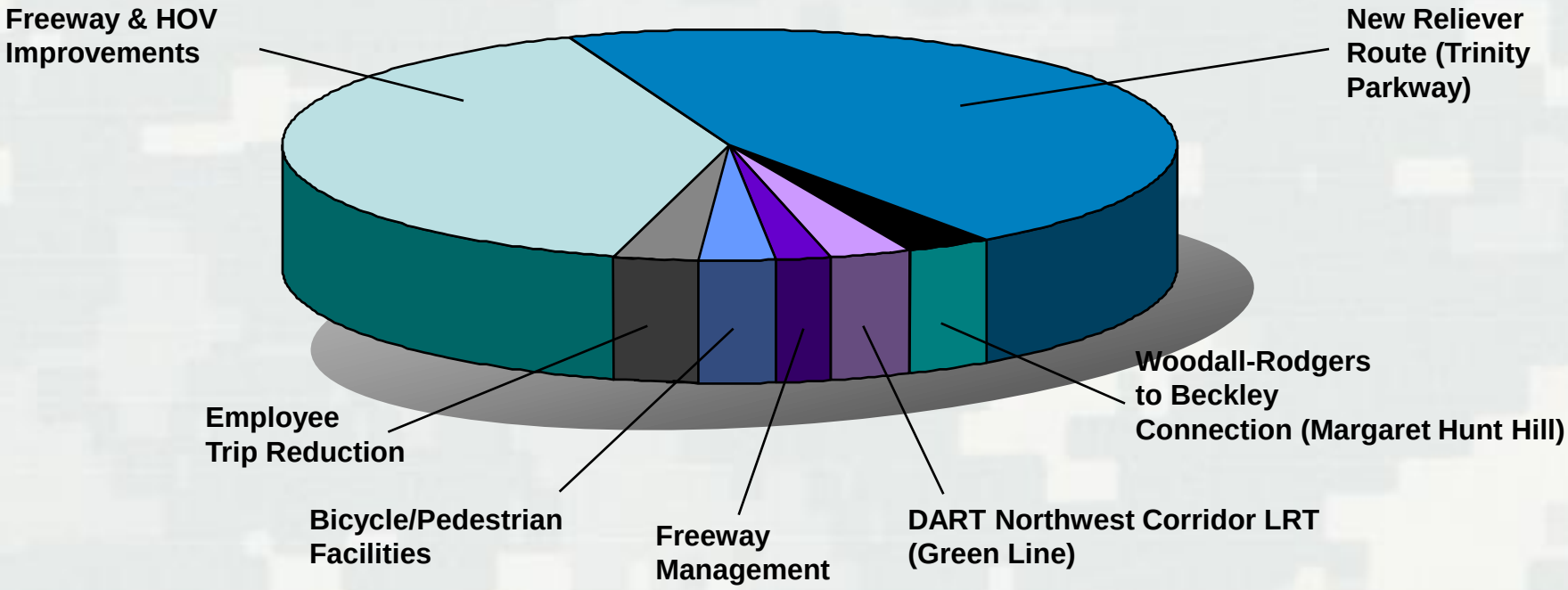


Transportation
Trinity Parkway – Need and Purpose

- 1994-1996 – Trinity River Corridor Citizen's Committee recommended a levee couplet parkway
- TxDOT conducted the Major Transportation Investment Study from 1996-1998:
  - Looked at over 35 different scenarios for traffic relief in this corridor
  - Looked at vehicular, mass transit, bicycle and pedestrian options
  - Recommended a variety of solutions including the Trinity Parkway

Transportation
Trinity Parkway - Need and Purpose

- Goal was to add 250,000 person-trips of added capacity to the corridor to handle future demand
- Conclusion was a $1 billion (in 1998 dollars) multi-modal set of transportation improvements



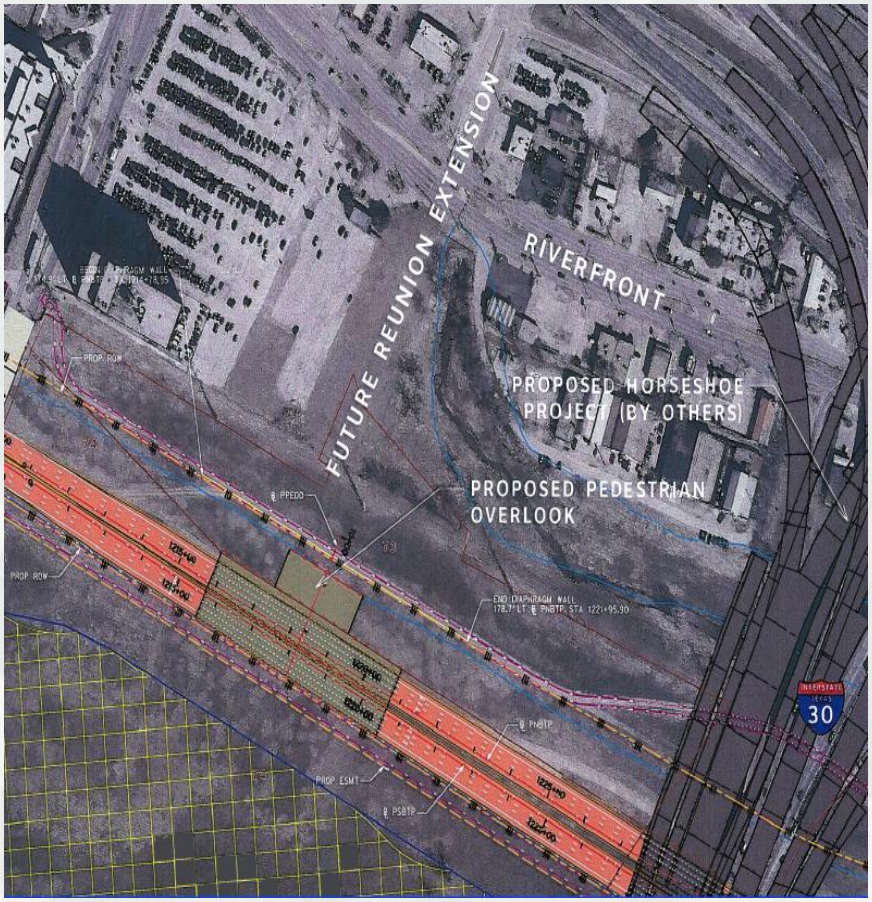
Transportation
Trinity Parkway Design Assumptions

- Nine mile tolled bypass around downtown Dallas to provide traffic relief for I-30 and I-35E corridors - four to six lanes (originally eight to six lanes)
- Improve mobility, manage congestion, increase safety
- Goal: add 132,000 vehicles per day to handle future demand
- Minimize the physical, biological, and socio-economic effects on the human environment
- Provide compatibility with local development plans
- Act on voter approval for the Trinity Parkway project
- Freeway-to-tollway interchanges planned for I-35E, SH 183/I-35E, U.S. 175/SH 310, Woodall Rodgers Freeway and I-45

Transportation
Trinity Parkway Toll Road

- Environmental Impact Statement underway by NTTA, To be completed in 2014

Transportation
Trinity Parkway Toll Road



Reunion Overlook

View of the Parkway from the Lake

Transportation
Trinity Parkway – Design Status

- December 2008: TxDOT and NTTA execute $30 million advance funding agreement (AFA) for design and traffic and revenue studies
- December 2008: NTTA approved and entered into contract with firms for professional engineering services for design of Alternative 3C
- May 2009: preliminary plans and initial Section 408 review package submitted to Corps
- Trinity Parkway Phase I (S.M. Wright) nearing 100% design
- Complete remaining phases of design following record of decision by FHWA in 2014

Transportation

S.M. Wright Parkway – Under Design

- Trinity Parkway connection to I-45 eliminates need for “Dead Man’s Curve” at U.S. 175 and S.M. Wright (S.M. Wright Phase I)
- Provides opportunity to make S.M. Wright a lower-speed, thoroughfare after the improvement to I-45/U.S. 175 (S.M. Wright Phase II)
- Pedestrian crossings, sidewalks, landscaping
- Construction estimated to begin in 2014 and end in 2019

Transportation
Fiscal Year 2014 Next Steps

- Brief the Transportation and Trinity River Project Council Committee on the Trinity Parkway Environmental Impact Statement and the upcoming 2014 Public Hearing
- TxDOT awards design of SM Wright Phase II
- Award construction of Riverfront Blvd, Cadiz Street Improvements and TxDOT awards Trinity Parkway Phase I (SM Wright Phase I)
- Open Sylvan Avenue Bridge

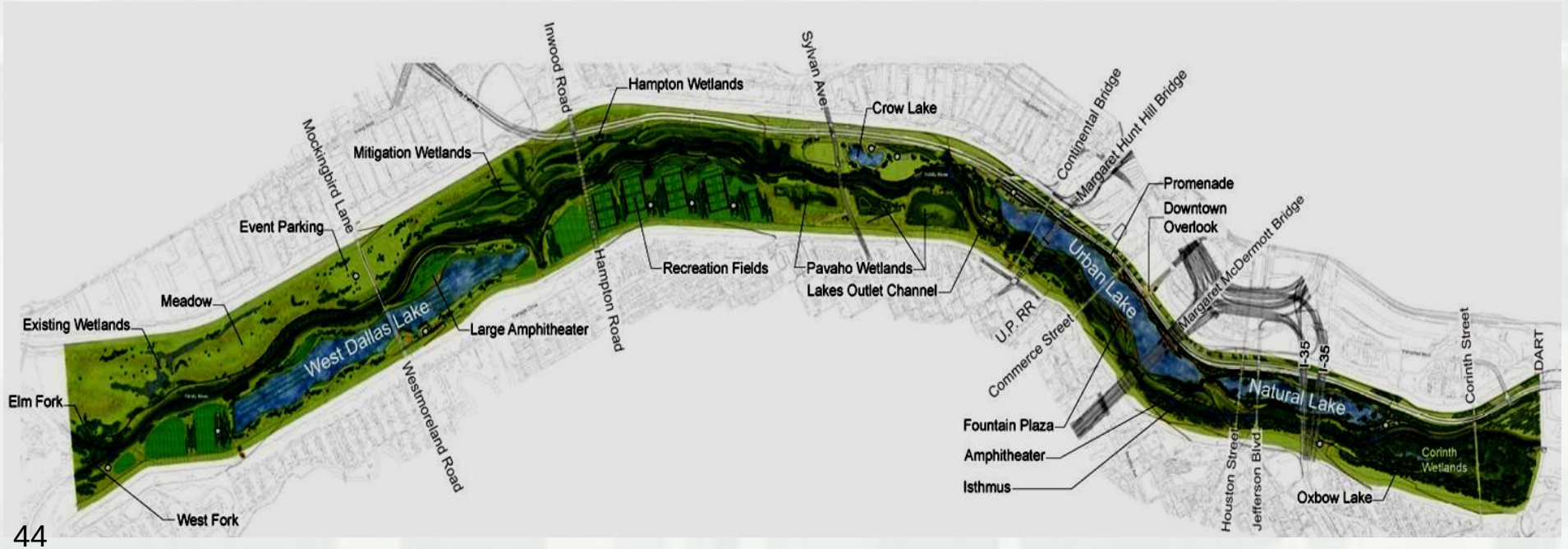
IV. Recreation

I. Flood Risk Reduction
II. Ecosystem Restoration
III. Transportation
IV. Recreation

Recreation

Balanced Vision Plan

In 2003 City of Dallas writes long-range Balanced Vision Plan to reclaim Trinity River as a great natural resource and unique public domain and a model of environmental stewardship that embodies the spirit of the Kessler Plan idea of nearly a century before.



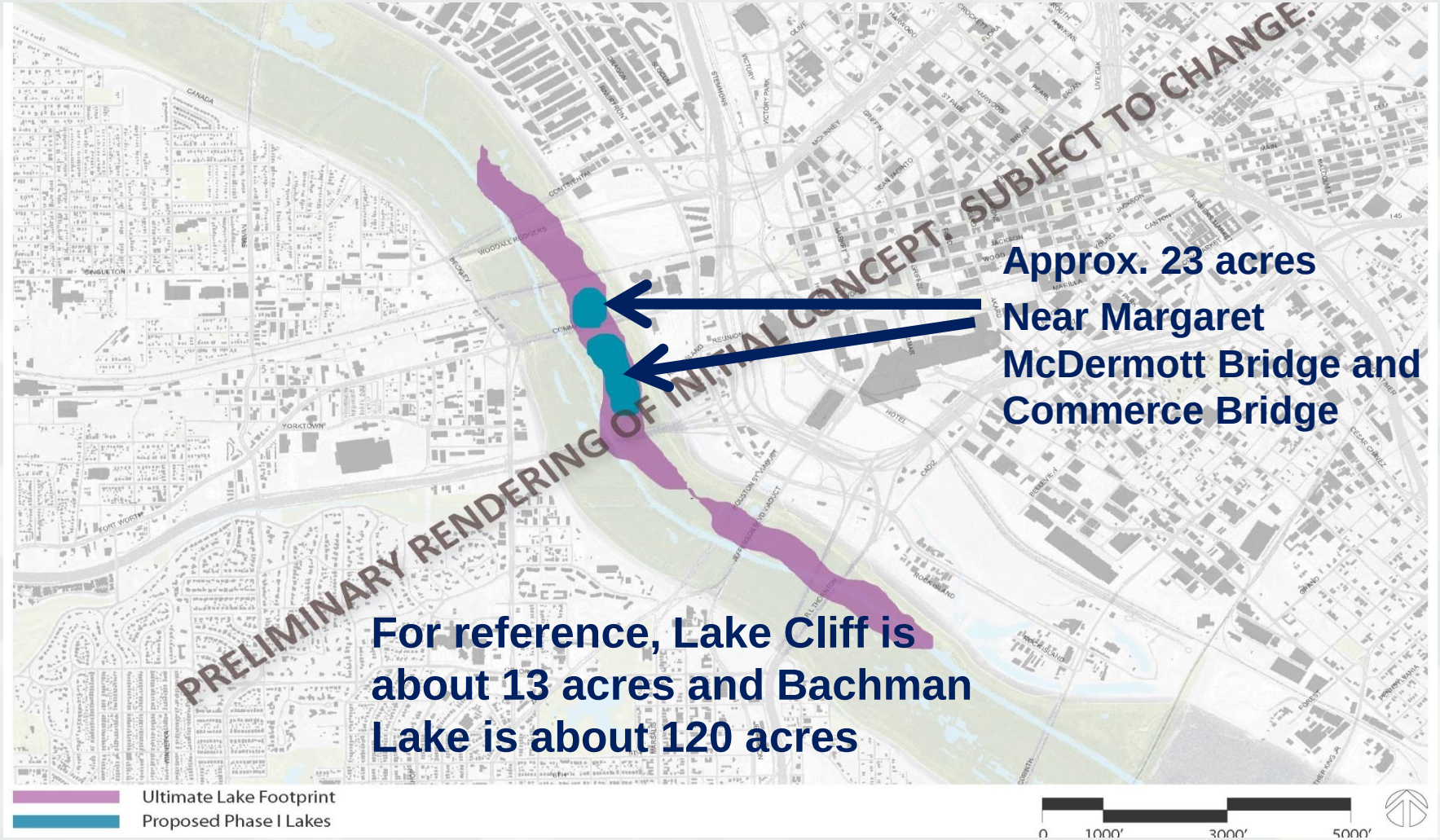
Recreation
Balanced Vision Plan

- Lakes
- River meanders
- Playing fields
- Multipurpose trails
- Canoe/kayak loop
- Amphitheater
- Restore/expand riparian corridor
- Improve aquatic habitat
- Riffle pool complexes
- Wetlands
- Pedestrian bridges
- Promenade
- Concession pads
- Boat/canoe access
- Picnic areas

Recreation

Possible Phase I Urban Lake – Under Study

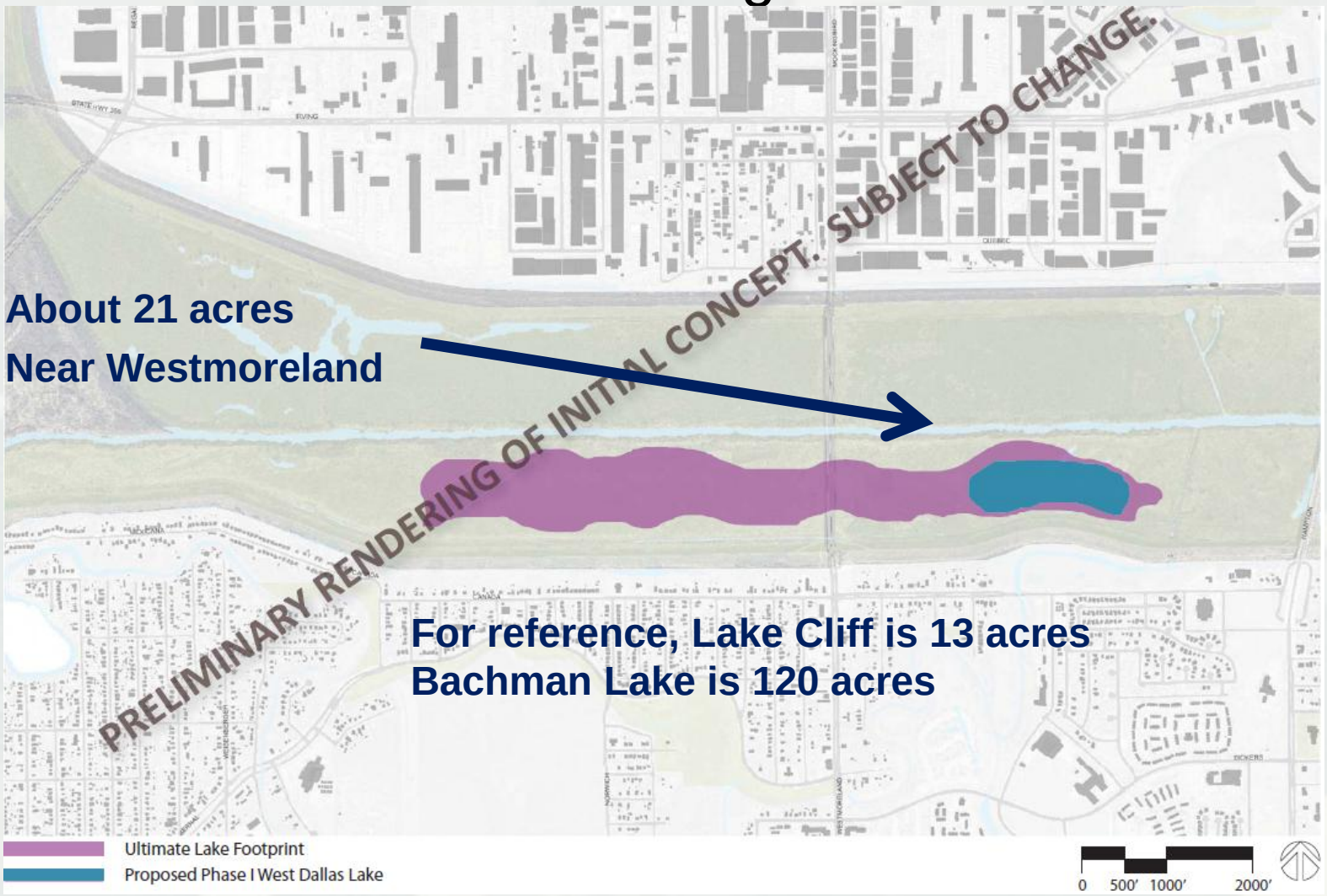
Construction could begin in late 2014



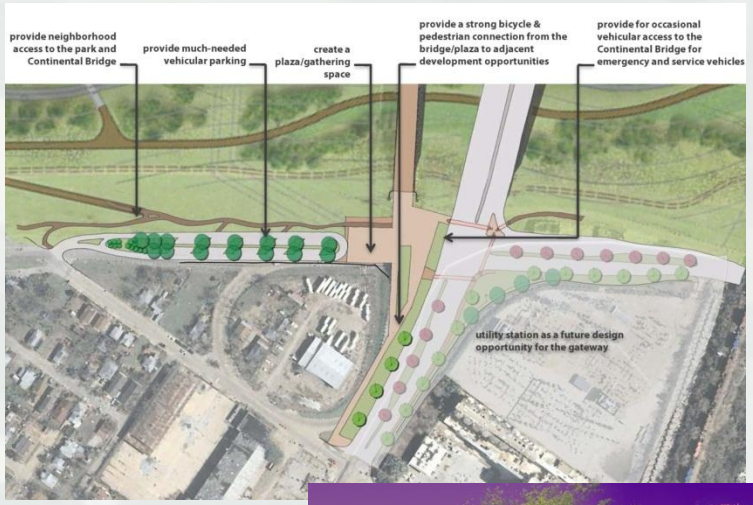
Recreation

Possible Phase I West Dallas Lake – Under Study

Construction could begin in late 2014



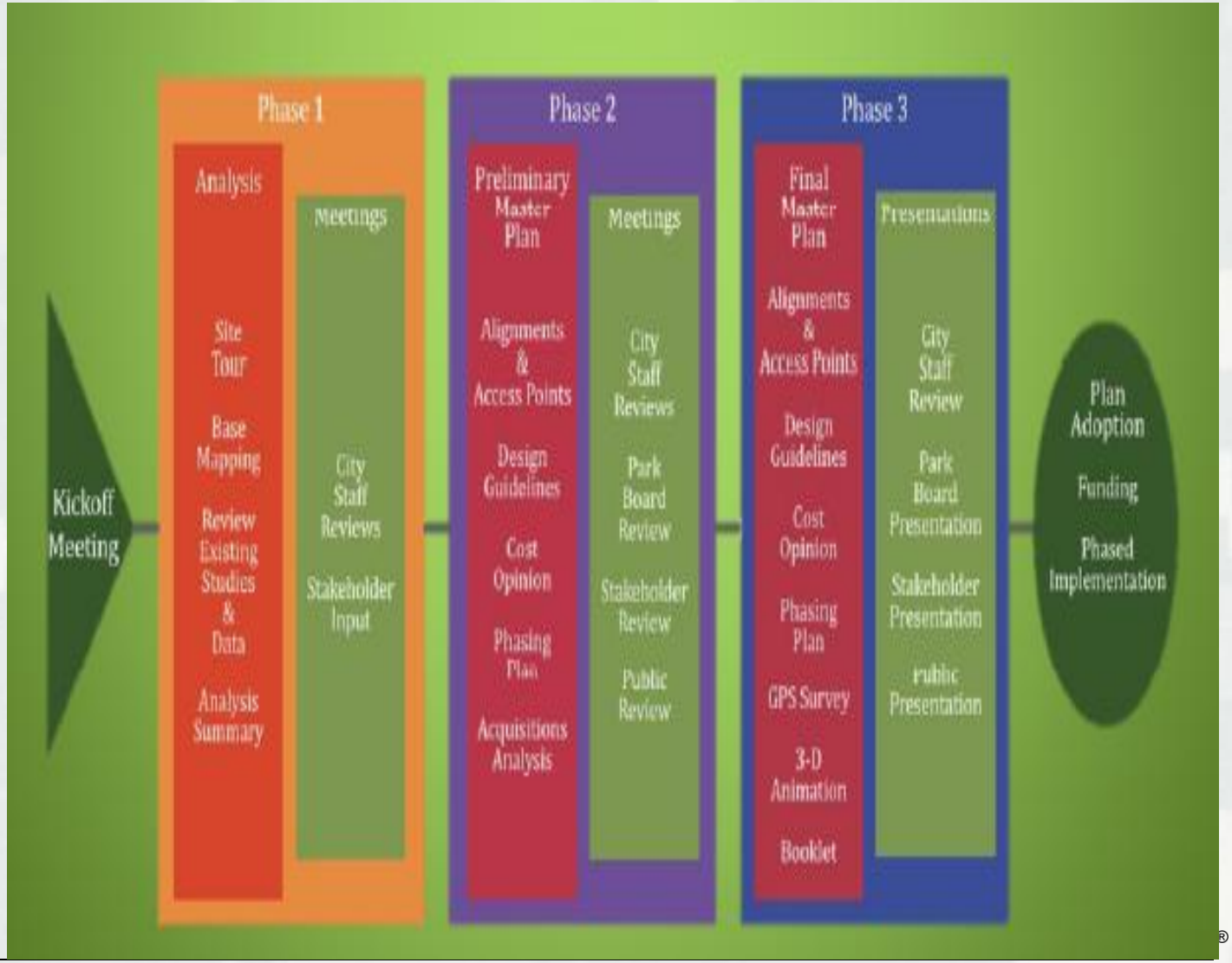
Recreation
Continental Avenue Bridge and West Dallas Gateway



- Construction began June 2013
- Completion estimated in May 2014
- Amenities include parking, landscaping, bocce, chess, kid's play area and meditation zones
- $10.6M ($8M donation and $2.6M from 2006 bond funds)

Elm Fork Greenbelt Masterplan

- Masterplan is funded by the Boone Family Foundation
- Study begins Spring 2013
- Amenities being considered include public access, Interpretation opportunities, wilderness opportunities, and destinations
  - Spans from Royal Lane southward to the ~~confluence~~



BUILDING STRONG®

Recreation
Elm Fork Athletic Complex

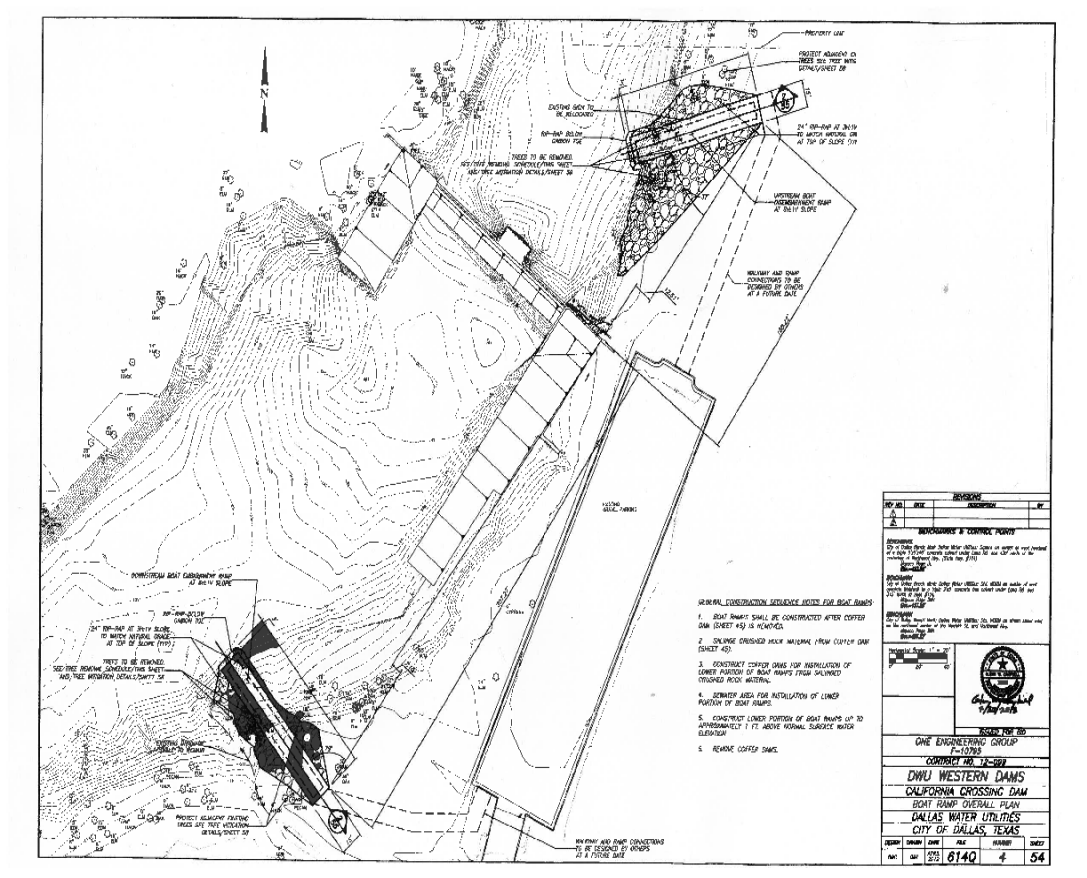
- Construction completion estimated in mid- to late 2013
- Estimated open for management by FC Dallas and open for play April 1
- Amenities include 10 international soccer fields (lighted), 4 international soccer fields (unlighted), 5 youth soccer fields, 2 pavilions with open play space and potential concession areas
- Construction cost about $18 million from various bond and grant funds

Recreation
Dallas Wave – Under Construction

- Located off 8th Street & Corinth, under the Santa Fe Trestle Trail crossing of the Trinity River
- Construction of Wave – Complete
- Construction of bypass channel – pending additional work
- 100s of kayakers currently use this feature
- Amenities include parking lot, main wave and bypass channel

Recreation

California Crossing Canoe Launches – Under Construction

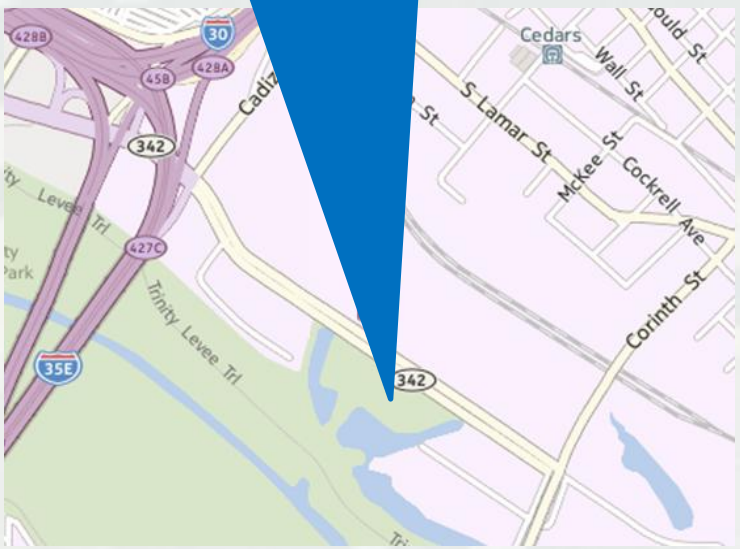


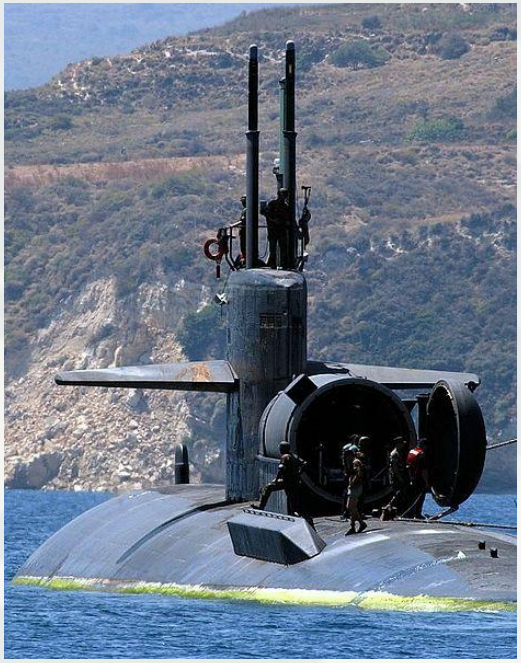
- Construction award September 2012
- Located at 1825 California Crossing Rd.
- Provides portage locations above and below the low water dam
- Construction is estimated to be complete in October 2013 (weather permitting)

Recreation

Dallas Maritime Museum– 1501 S. Riverfront Blvd.

- Planned dry land berth for USS Dallas, a 362-foot nuclear attack submarine being decommissioned in 2014
- 3.5-acre site near Trinity River
- 30,000-square-foot building planned
- Fundraisers estimate $80 million cost





Recreation

Moore Park Expansion – Completed in June

(Adjacent to Santa Fe Trestle Trail and Corinth DART rail station)

Pavilion, amphitheater, pedestrian bridge over Cedar Creek and parking

Recreation

MLK Jr./Cedar Crest Bridge

- Construction estimated to begin in September 2013
-
- Amenities include street beautification, overlook, pedestrian amenities and parking lot access to future trail connections to Moore Park
- $5 million construction budget from 1998 bond funds

Recreation

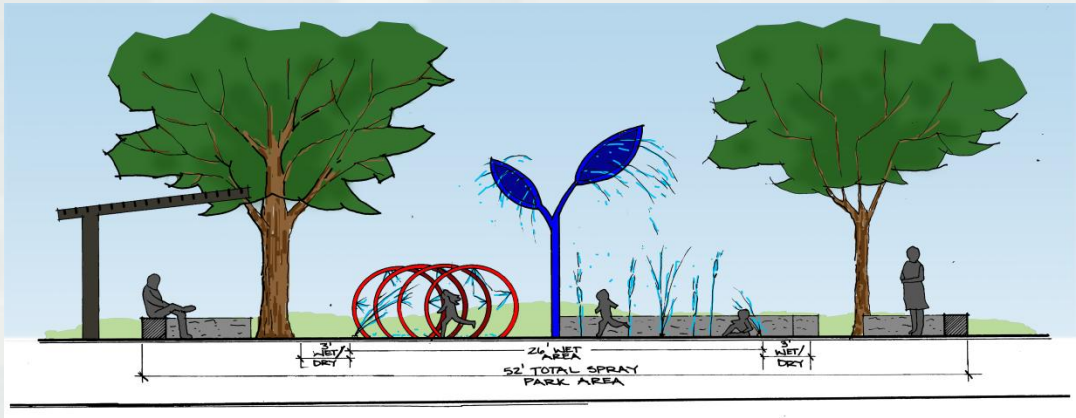
South Central (Joppa) Gateway

Construction could begin in fall 2013 (pending land acquisition) at South Central Park on Fellows Lane

Amenities could include:

- Expansion of existing park to connect to the Trinity River Lower Chain of Wetlands to the neighborhood
- Mini spray area
- Upgrades to the existing basketball court
- Two open play areas
- Additional walkway
- Off-street parking area

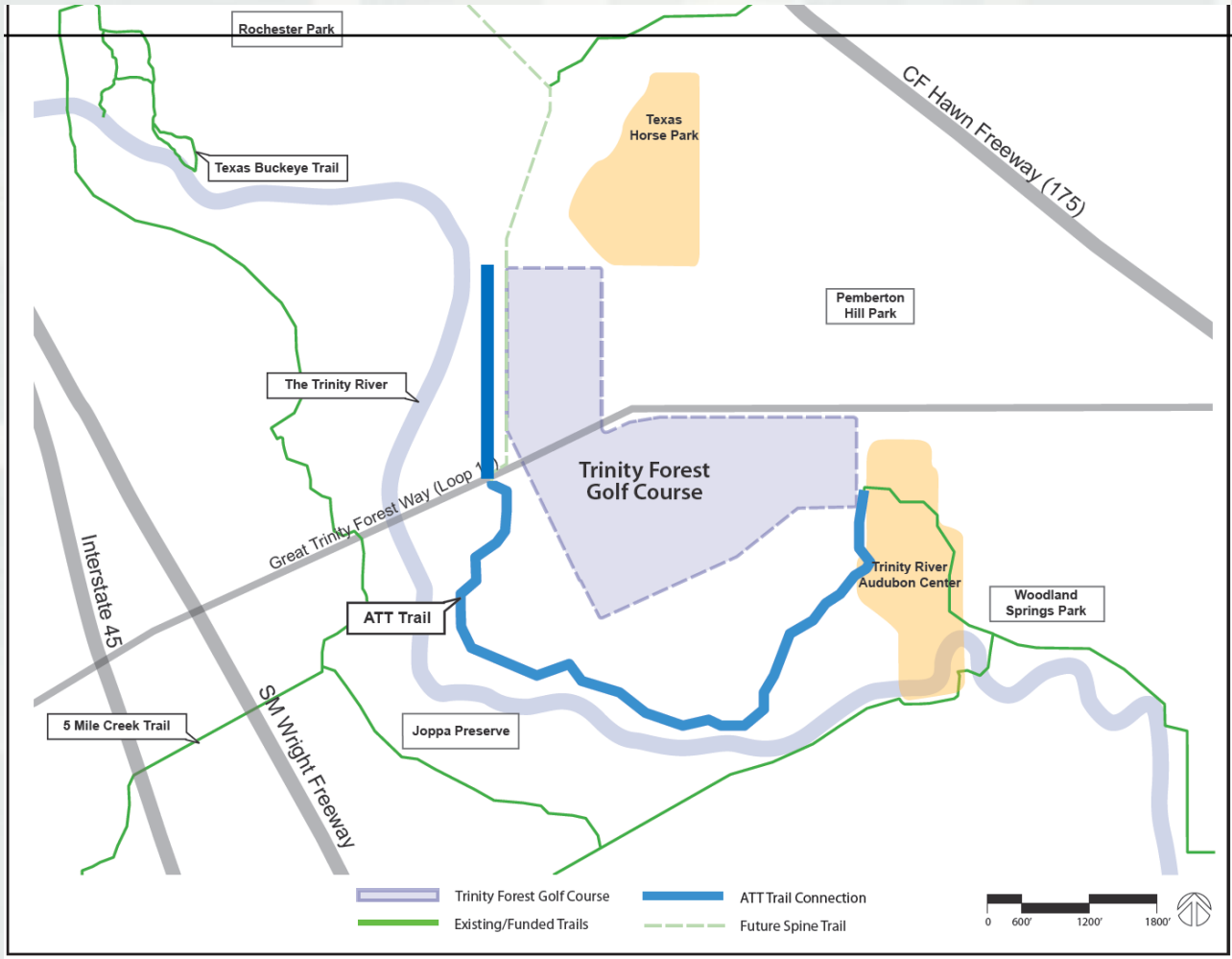
$800,000 to $900,000 construction budget from 2006 Bond Funds



Recreation
Trinity Forest Golf Course

Anticipated construction start: 2013; opening 2016
PGA tour site for the Byron Nelson by 2019

- 400-acre former landfill
- PGA quality 18-hole course
- 9-hole short course, practice facility
- Partnership of AT&T, SMU, city, SMU Golf Team, First Tee of Greater Dallas youth group and others



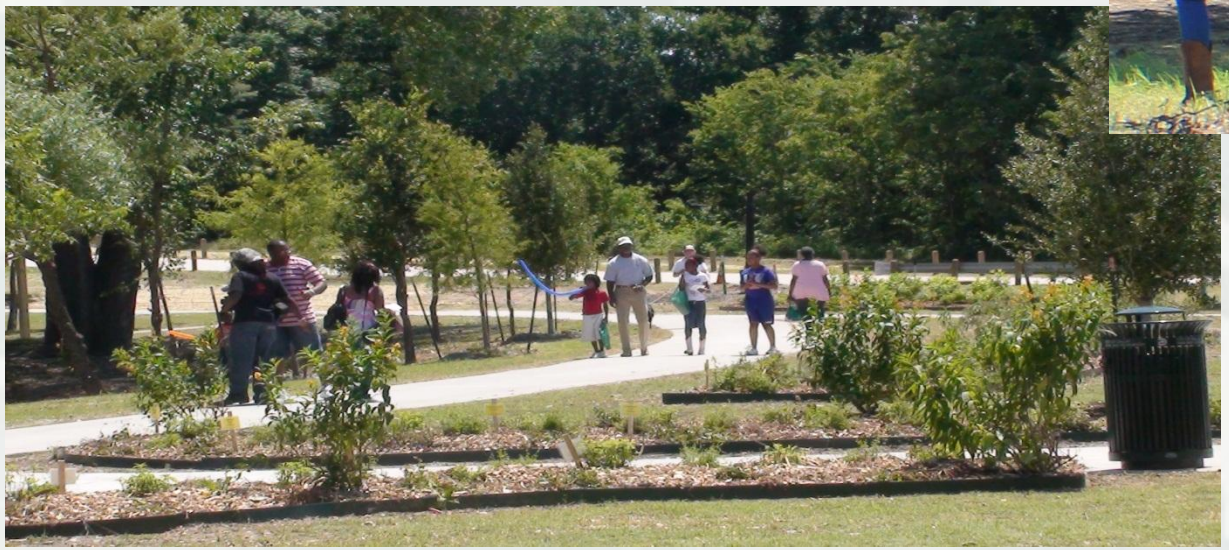
Recreation
Texas Horse Park

- Located at 811 Pemberton
- Construction started Summer 2013
- Estimated finish: Summer 2014
- Non-profit phase includes a therapeutic center, arenas, a camp house and trail ride opportunities
- $12 million cost from 1998 & 2006 bond funds and Hillcrest Foundation grants
- Partners include:
  - Equest Therapeutic Horsemanship
  - River Ranch Educational Charities
  - Texas Horse Park Foundation

Recreation

Great Trinity Forest Gateway and Horse Trails

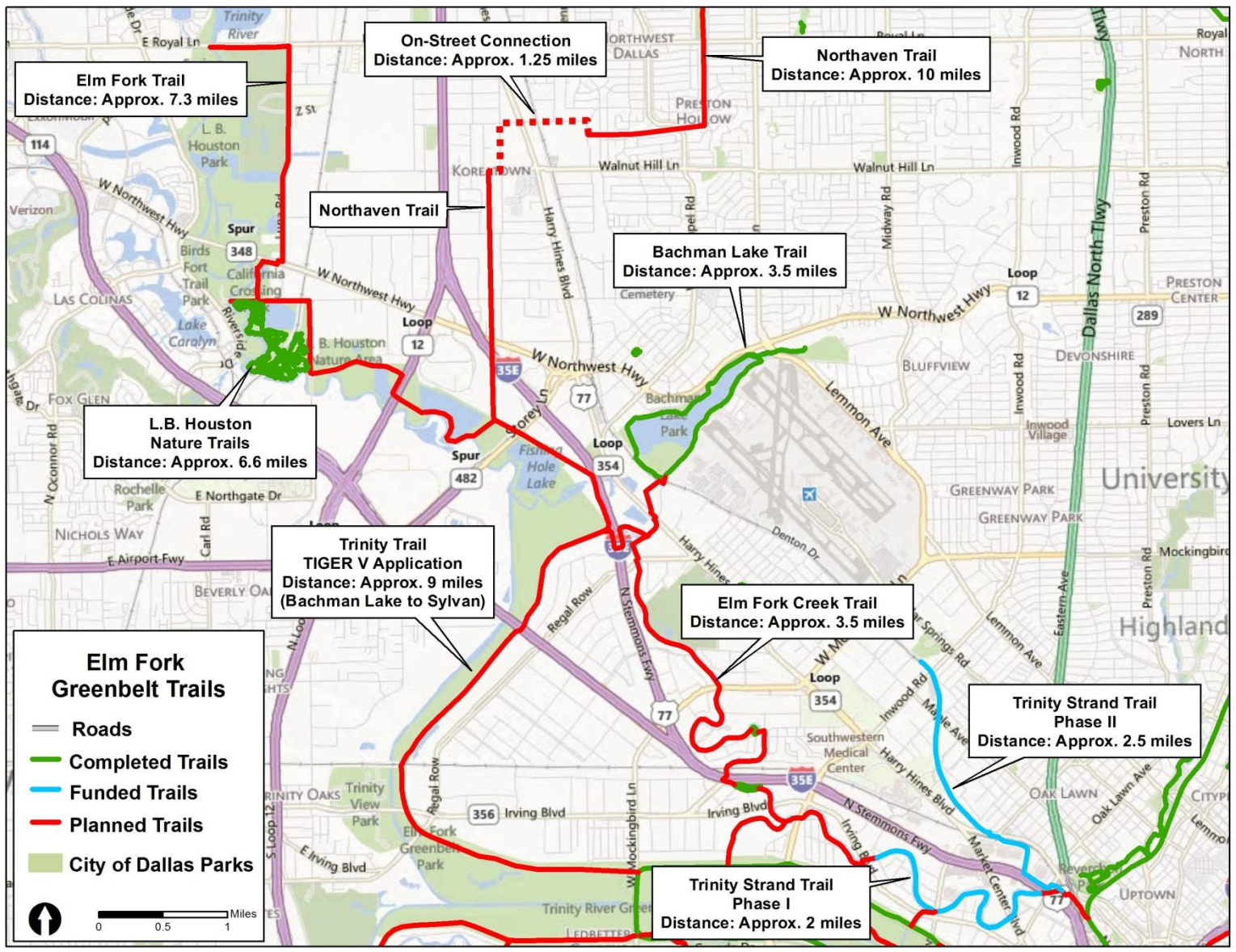
- Location: I-20 at Dowdy Ferry Road
- Opened in June
- Pavilion, fishing piers, bathrooms, hike/bike/equestrian trails
- $1 million from 1998 bond funds



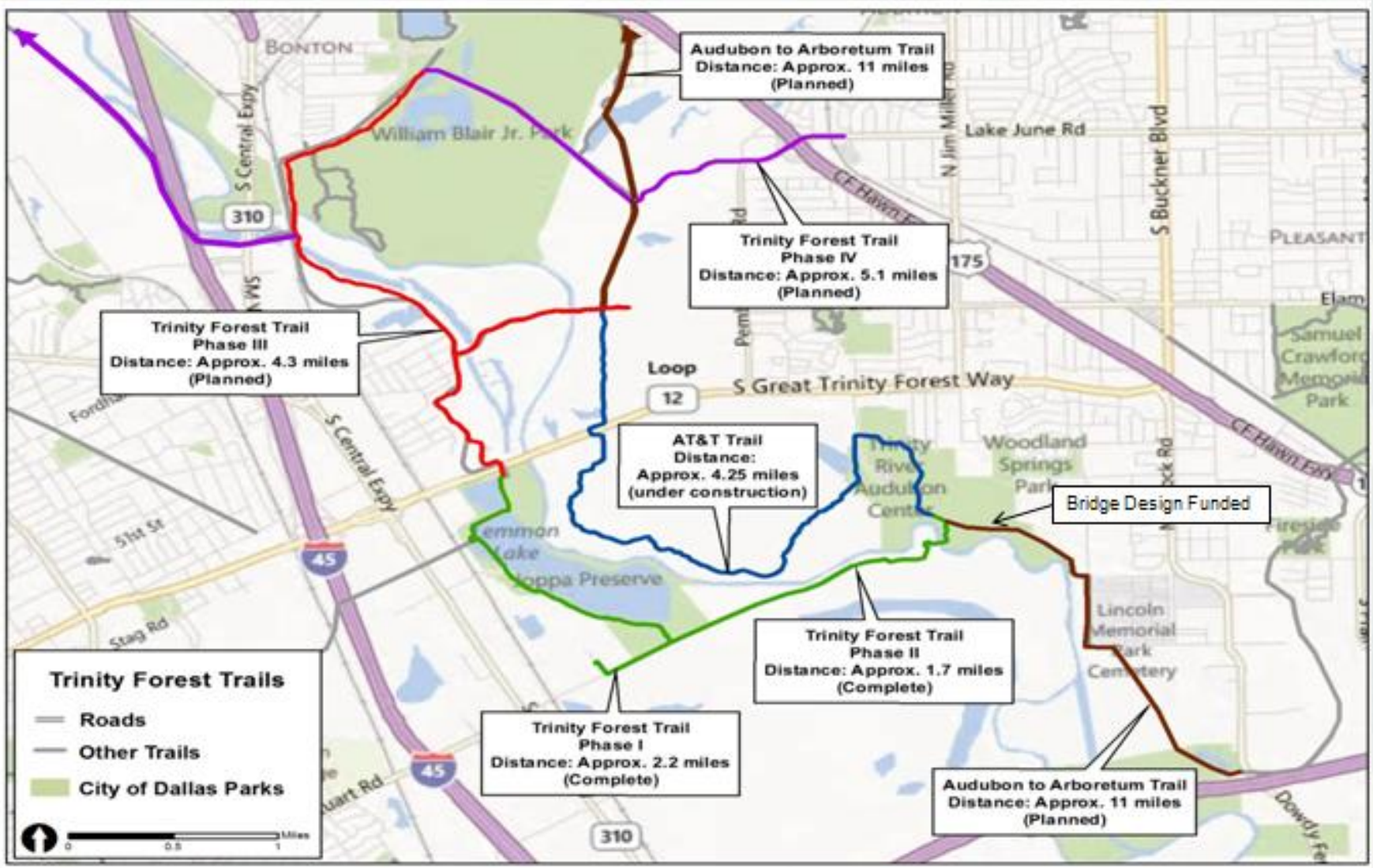
Trinity Trails Network Background

- Trinity Trails Network is a subset of the City's Trail Network System
- Extends from Royal Lane near Luna in the North to I20 & Dowdy Ferry in the South
- Hard surface trails – 62.7 miles planned (8 miles in service)
- Soft surface trails – 18.8 miles in service

Elm Fork Greenbelt Trails



Trinity Forest Trails

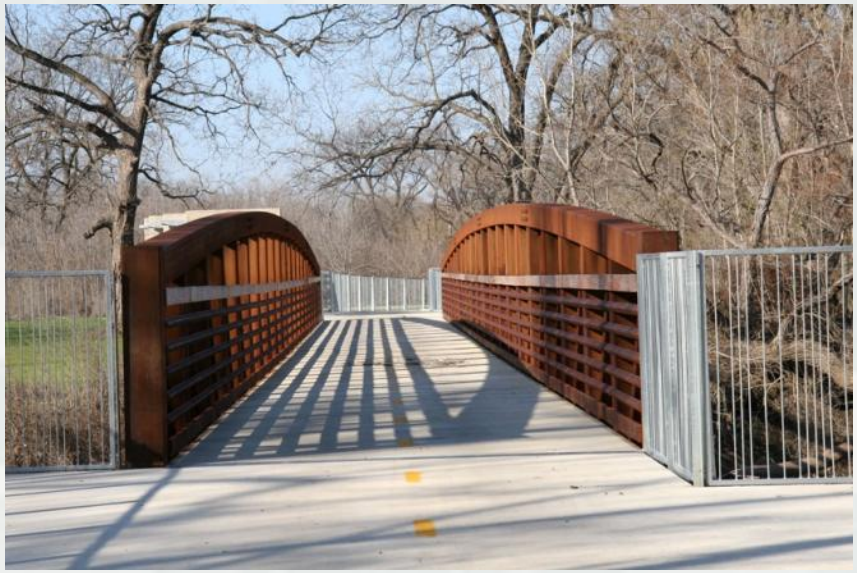


Santa Fe Trestle Trail

- Two trailheads: 2295 S. Riverfront Blvd, Dallas TX 75207 and 1837 E. 8th Street, Dallas TX 75203 (DART overflow parking lot)
- Trail length - .86 miles from west entrance at Moore Park (under construction as a separate project) to east parking lot inside floodway

Trinity Forest Trails

Phase 1 complete from Joppa Preserve to Eco Park



- Trailheads, 12’ wide hard surface trail, parking and kiosks
- Phase 1 Trail length – 2 miles
- Phase 2 Trail length – 2 miles

Phase 2 complete linking Joppa Preserve to Trinity River Audubon Center

Texas Buckeye Trail and Soft Surface Trails

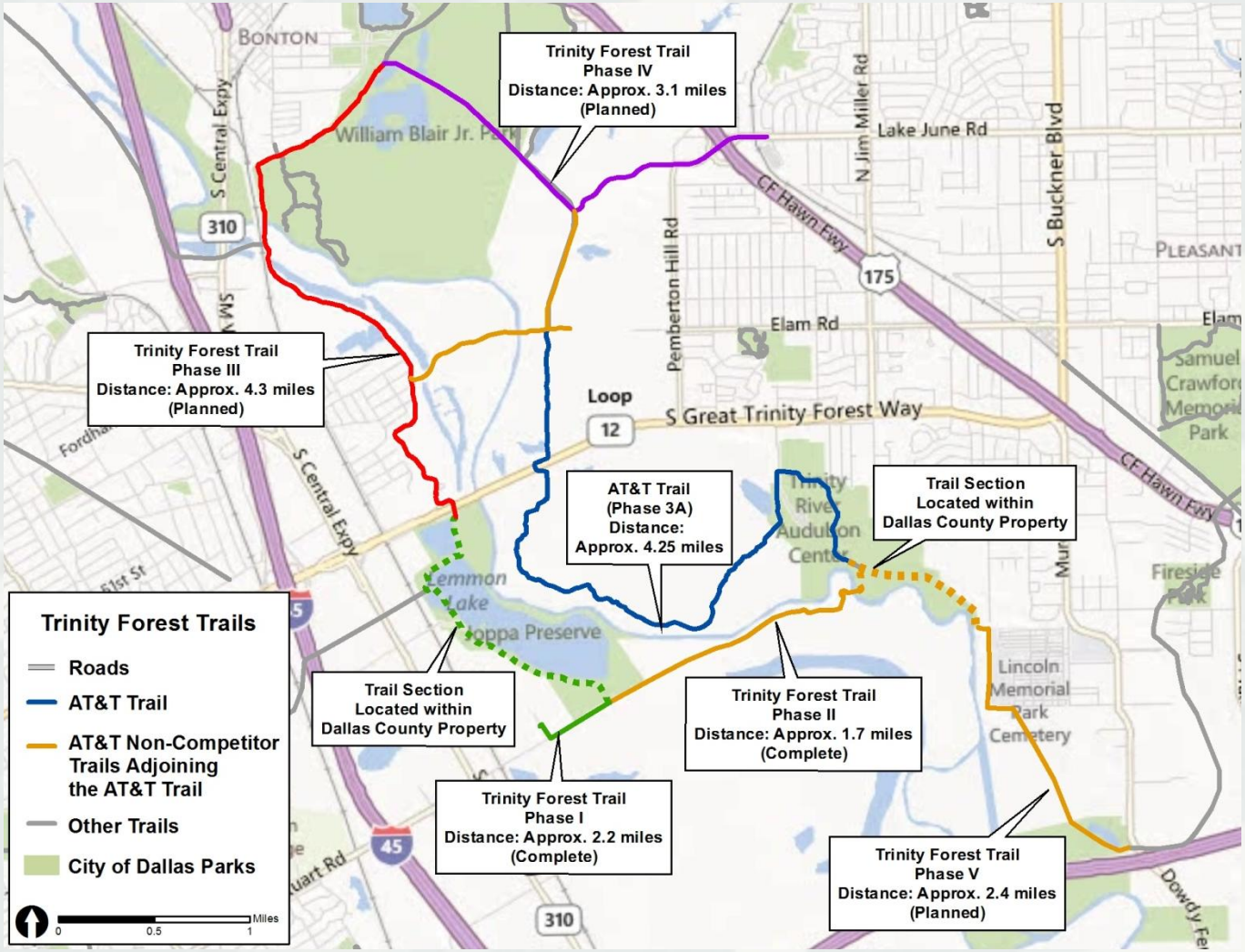
- Trailheads at 7000 Bexar Street and 3000 Municipal Street, Dallas, TX 75215
- Soft Surface Trail – Approximately 8 miles (Blue Line)
- Trailhead and ADA trail (Green Line)
- Trailhead and Trail (Red Line)

William Blair Jr. Park Gateway Trailhead

3000 Municipal Street, Dallas, TX 75215

AT&T Trails (Trinity Trails Phase IIIA) – Under Construction

- Starts at the Audubon and loops under Great Trinity Forest Way, ending at Elam Road
- Construction will begin in Summer 2013
- Could open in Winter 2014
- Construction cost approximately $1.9M from AT&T Donation

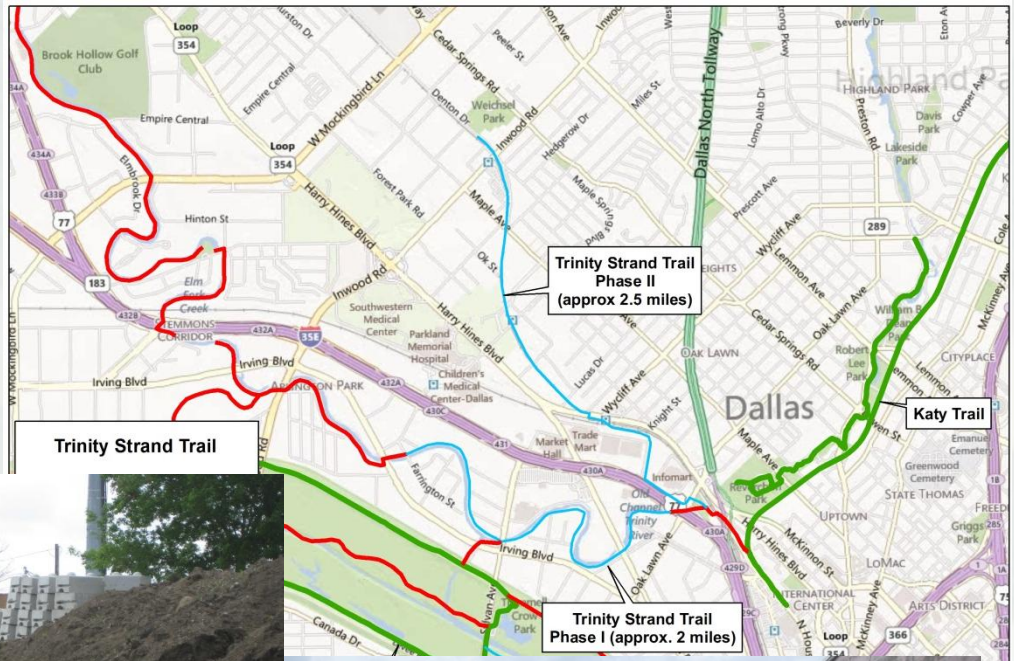


Trinity Forest Spine Trail

- Study funded through a grant from the Trinity Trust to be completed in 2014
- Connecting the southern most boundary of the Great Trinity Forest to the Dallas Arboretum
- Trailheads locations include the Great Trinity Forest Gateway & Horse Trails, Audubon Center, Bruton/Scyene DART Station, and Dallas Arboretum
- Construction estimated to be approximately $17M; Fundrasing campaign kick off by The Trinity Trust in May 2013

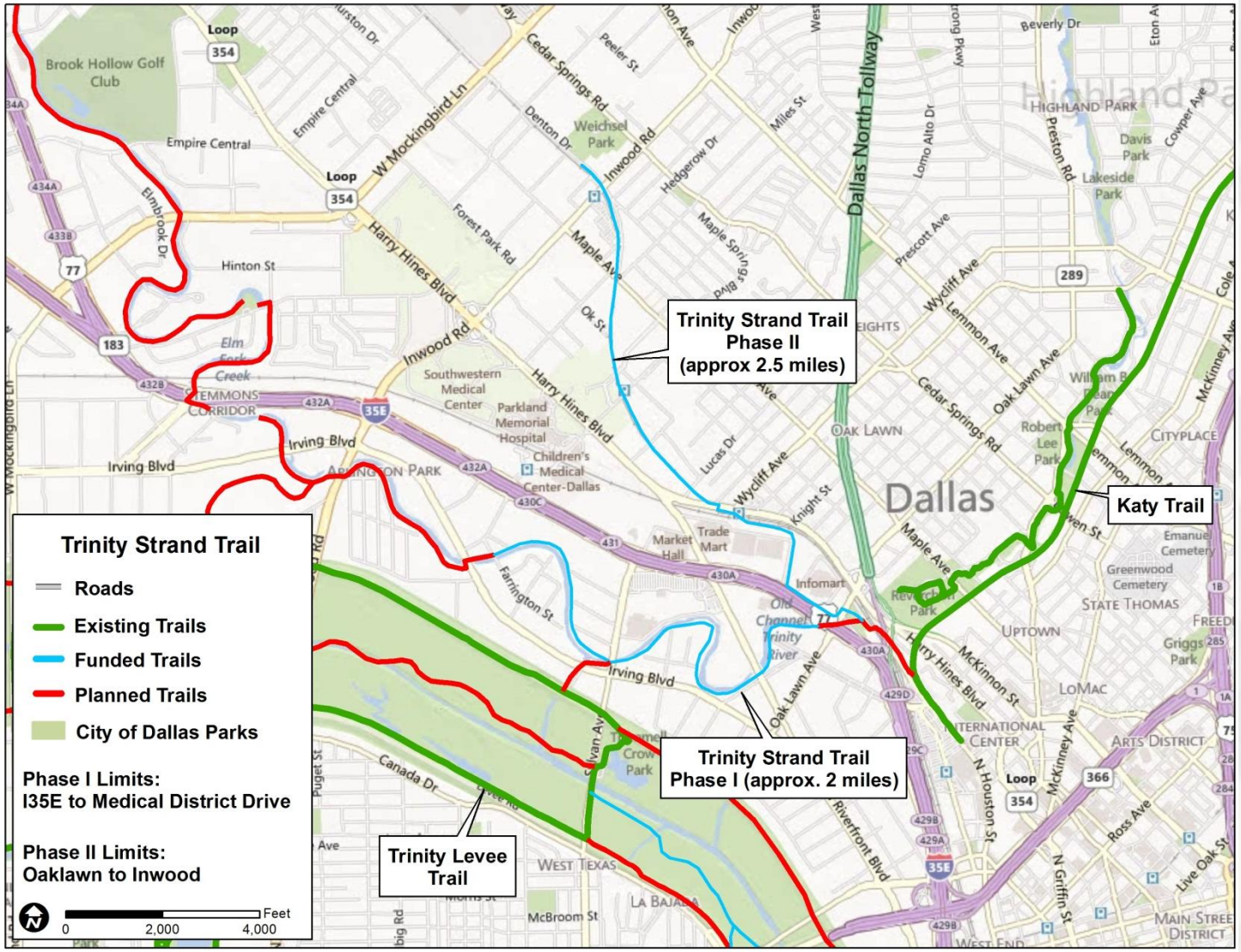
Trinity Strand Trail Phase I

- Trinity Strand Trail Phase I from Oak Lawn to Medical District Drive, connecting at Sylvan Avenue
- Construction could be complete Spring 2014
- Amenities include plaza at Turtle Creek, 12’ concrete trail
- Trinity Strand Trail Phase II from Oak Lawn to Inwood funded through 2012 Bond Program



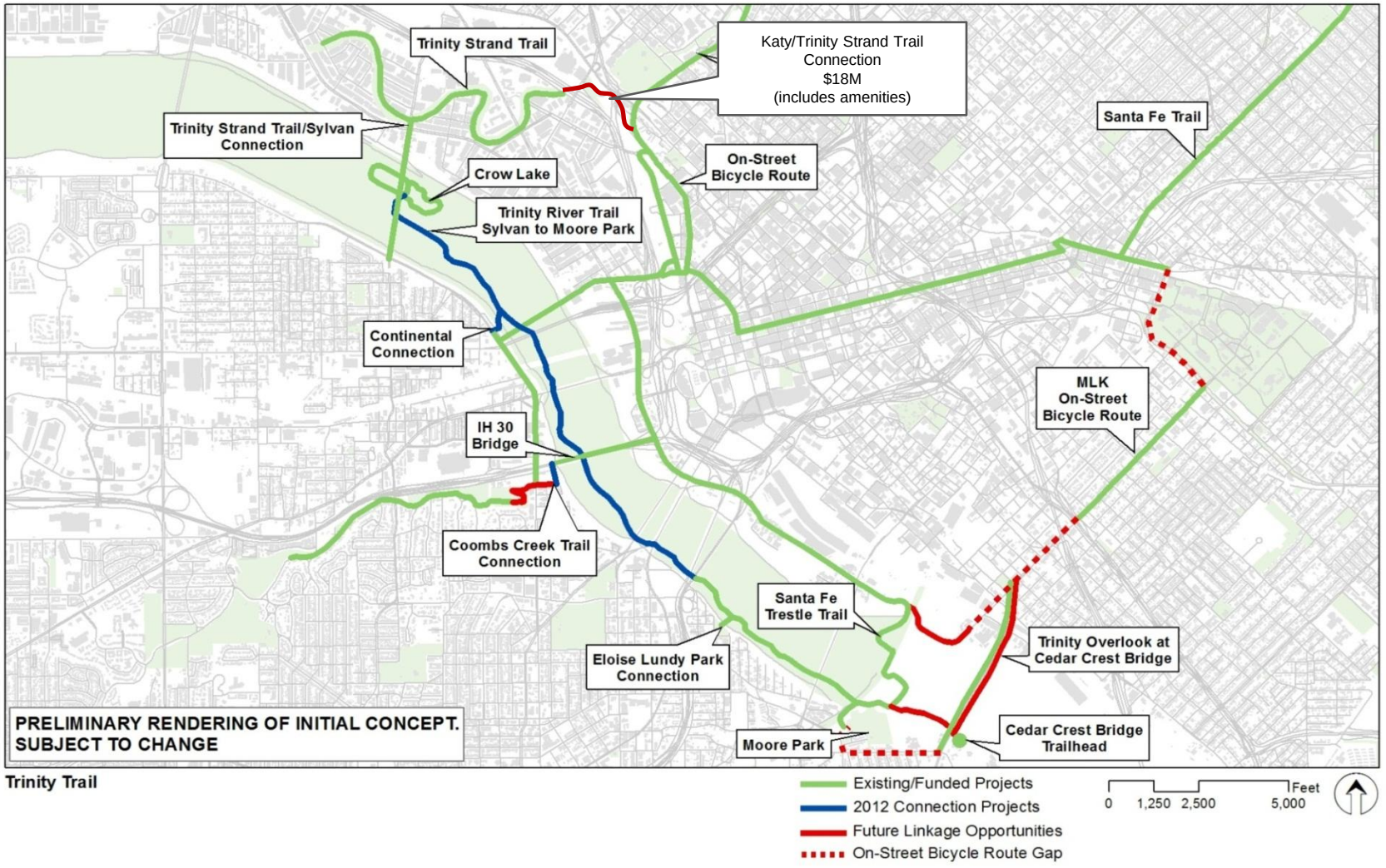
Trinity Strand Trail – Phase II

- Trinity Strand Trail Phase I from Oak Lawn to Medical District Drive, connecting at Sylvan Avenue
- Design begins in Fall 2013
- Construction could be complete Spring 2014
- Amenities include plaza at Turtle Creek, 12’ concrete trail
- Trinity Strand Trail Phase II from Oak Lawn to Inwood funded through 2012 Bond Program



Trinity Floodway Trails

2012 Bond Program included $6,418,400 for design & construction of Trinity Trails



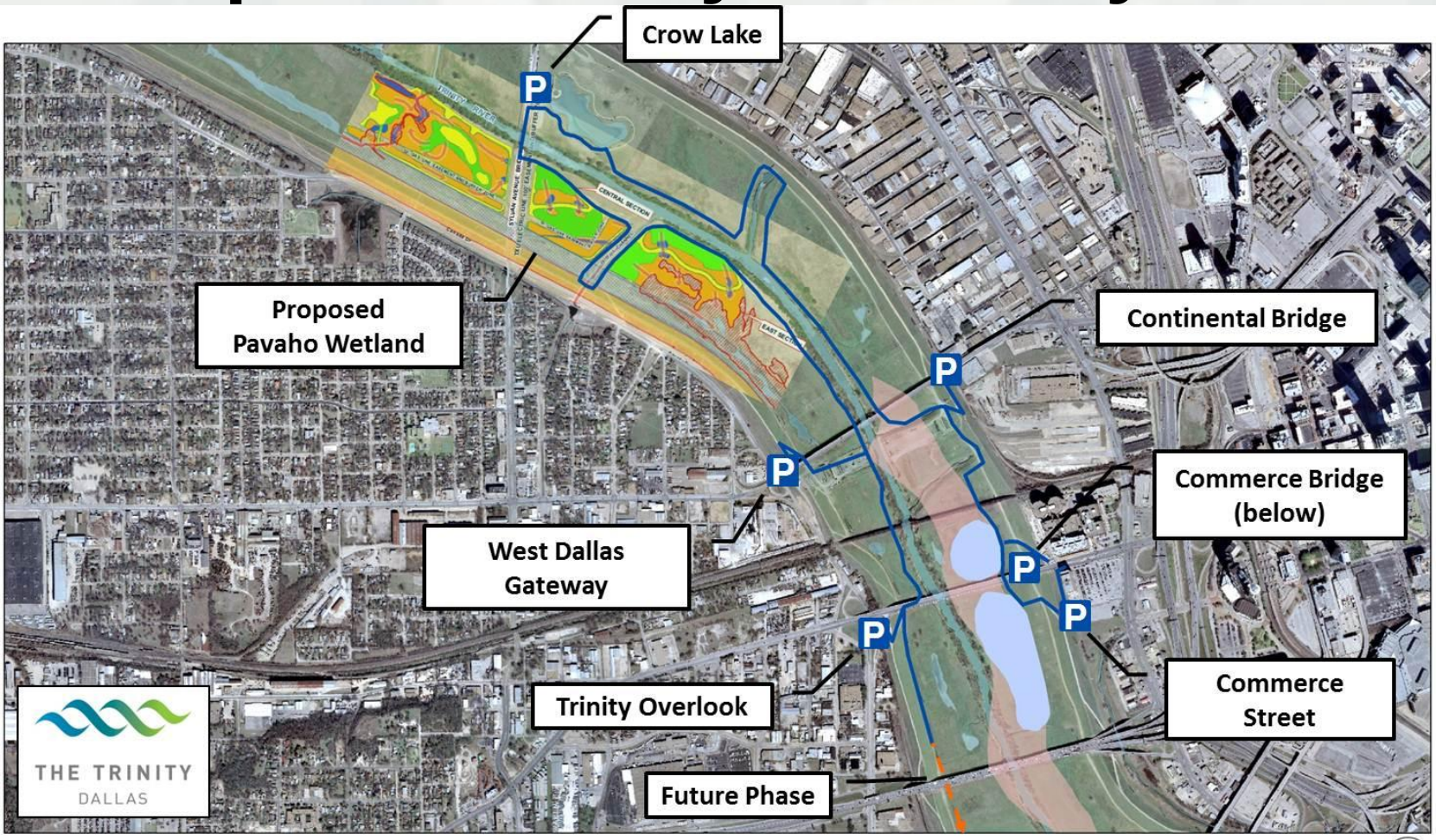
Proposed Alignment for All Weather Joint Use Maintenance Road / Trinity Floodway Trails

- To advance this trail ahead of the Corps' EIS, the 2012 Bond Program proposed alignment could be modified and constructed as an all weather joint use maintenance road for:
  - Maintenance trucks and other equipment
  - Pedestrians
  - Cyclists

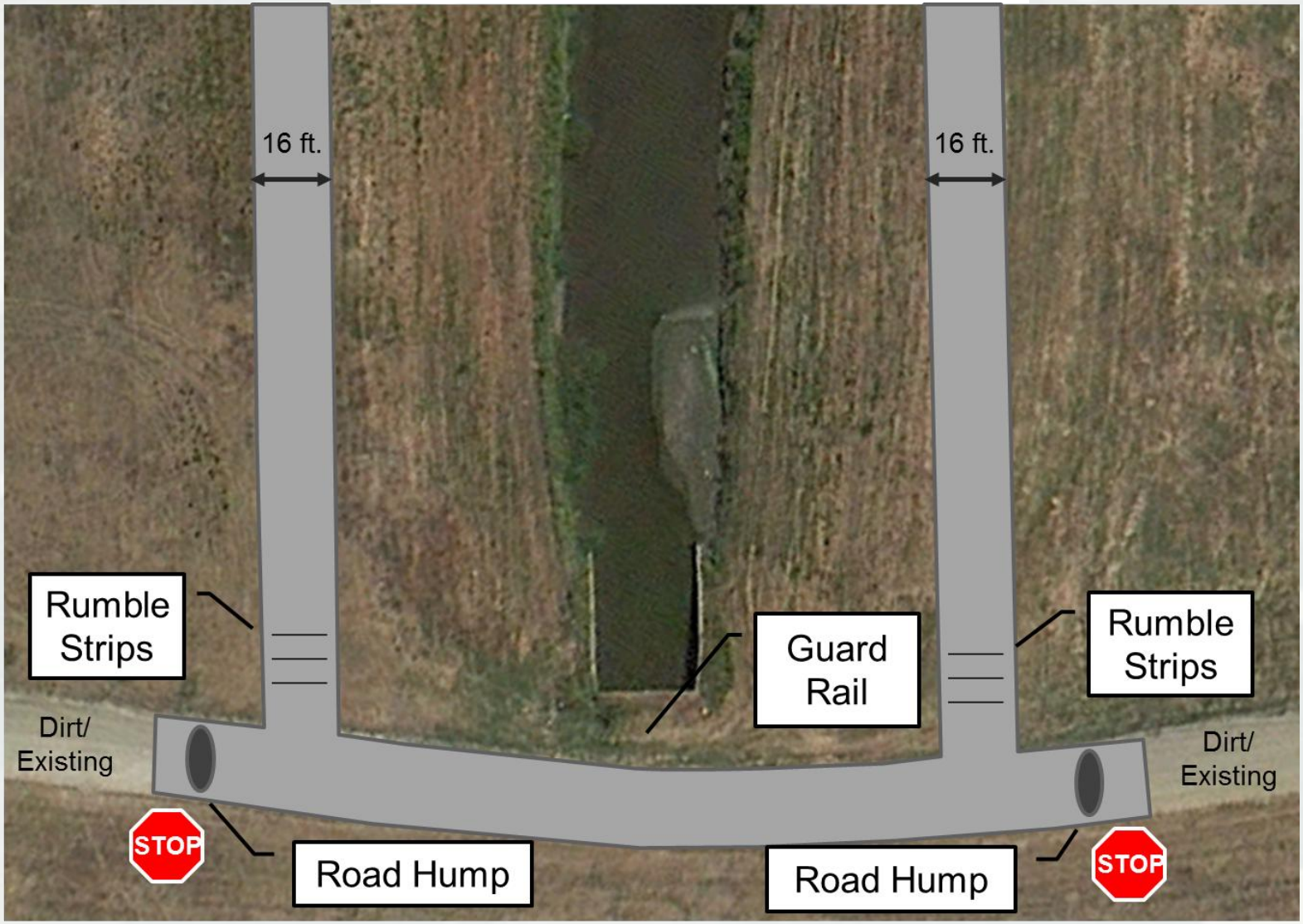
Proposed Alignment for All Weather Joint Use Maintenance Road / Trinity Floodway Trails

- In June 2013, the Trinity River Corridor Project Committee requested staff brief City Council in August:
  - Provide a refined, proposed alignment
  - Show safety recommendations
  - Request a recommendation to proceed with the construction of this alignment
- Safety measures will be in place to address pedestrian, bicycle and maintenance vehicle traffic

Proposed Trinity Floodway Trail



Joint-Use All Weather Facility Alignment



Proposed Alignment for All Weather Joint Use Maintenance Road / Trinity Floodway Trails

- Funds would be reserved to complete:
  - Connections crossing outfalls following the Dallas Floodway EIS (could begin in late 2014)
  - Connections to the Coombs Creek Trail at IH30 (as soon as IH30 is complete)
  - Connection between IH30 and IH35 following completion of Horseshoe Project (2017)

Recreation – Next Steps

- City Council will be asked to approve the proposed alignment of the Trinity Floodway Trail

- In Fiscal Year 2014:
  - Transportation and Trinity Project Council Committee will be briefed on the Trinity Forest Spine Trail
  - Begin design of possible lakes
  - Open AT&T Trail
  - Open TX Horse Park

Trinity River Corridor Project Update

Questions?

US Army Corps of Engineers
BUILDING STRONG®

THE TRINITY
DALLAS

Appendix A - History of Trinity River Corridor

History

- Since 1911, Dallas has been planning flood improvements, transportation and recreation within the Dallas Floodway. All of these planning efforts were undertaken independently
- 1926 – Dallas Levee Improvement District formed; first levees completed in 1930
- 1945 – Congress authorizes the Dallas Floodway Project (levees)
- 1953 – 1960 – Corps constructs the current Dallas Floodway levees
- 1965 – Congress authorizes the Dallas Floodway Extension (DFE) Project
- 1968 – Dallas Levee Improvement District dissolved; City assumes responsibility for levee maintenance

History (continued)

- 1970's – First proposal for a tollroad along the Dallas Floodway was made
- 1973 – A variation of the current DFE Project was defeated in the City of Dallas Bond Program
- 1978 – A variation of the lakes portion of our Dallas Floodway project and a variation of the current DFE Project were defeated in the City of Dallas Bond Program
- 1990 – Largest flood event since the levees were built occurred
  - As a result, City asks Corps to reevaluate the DFE project

History (continued)

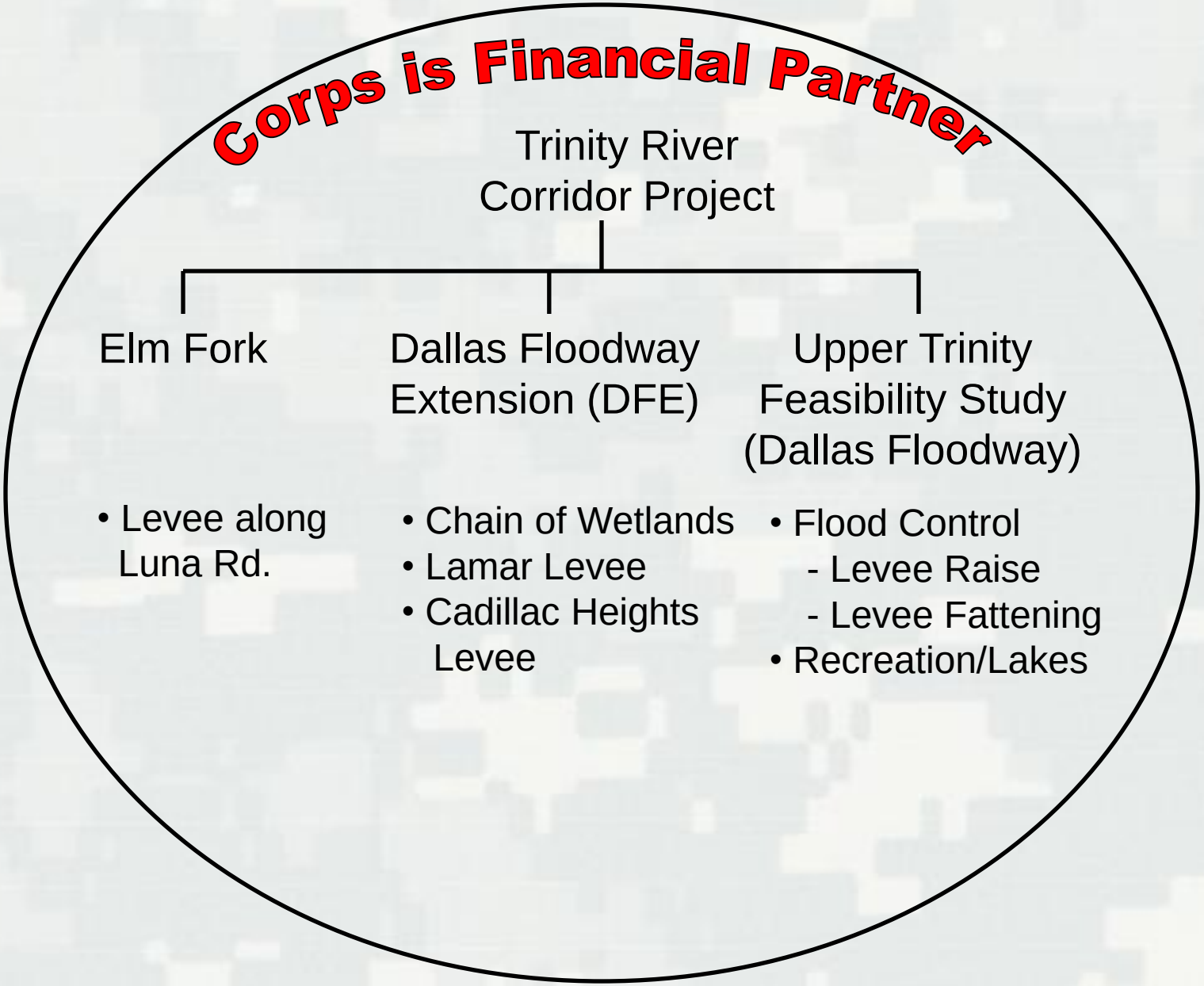
- 1990's – City builds Rochester and Central Wastewater Treatment Plant levees
- 1990 -1998
  - In preparation for the 1998 Bond Program, the City realized that we had lost Standard Project Flood Protection, that the levees occasionally experienced skin slides
  - No indication of other levees issues were identified at that time
- 1994 -1996 – Trinity River Corridor Citizen's Committee formed by Mayor Steve Bartlett, to develop the Trinity River Corridor Project vision
  - Thousands of citizens participated in hundreds of meetings
- The City realized that we could not get consensus on any single item as a stand alone bond proposition

History (continued)

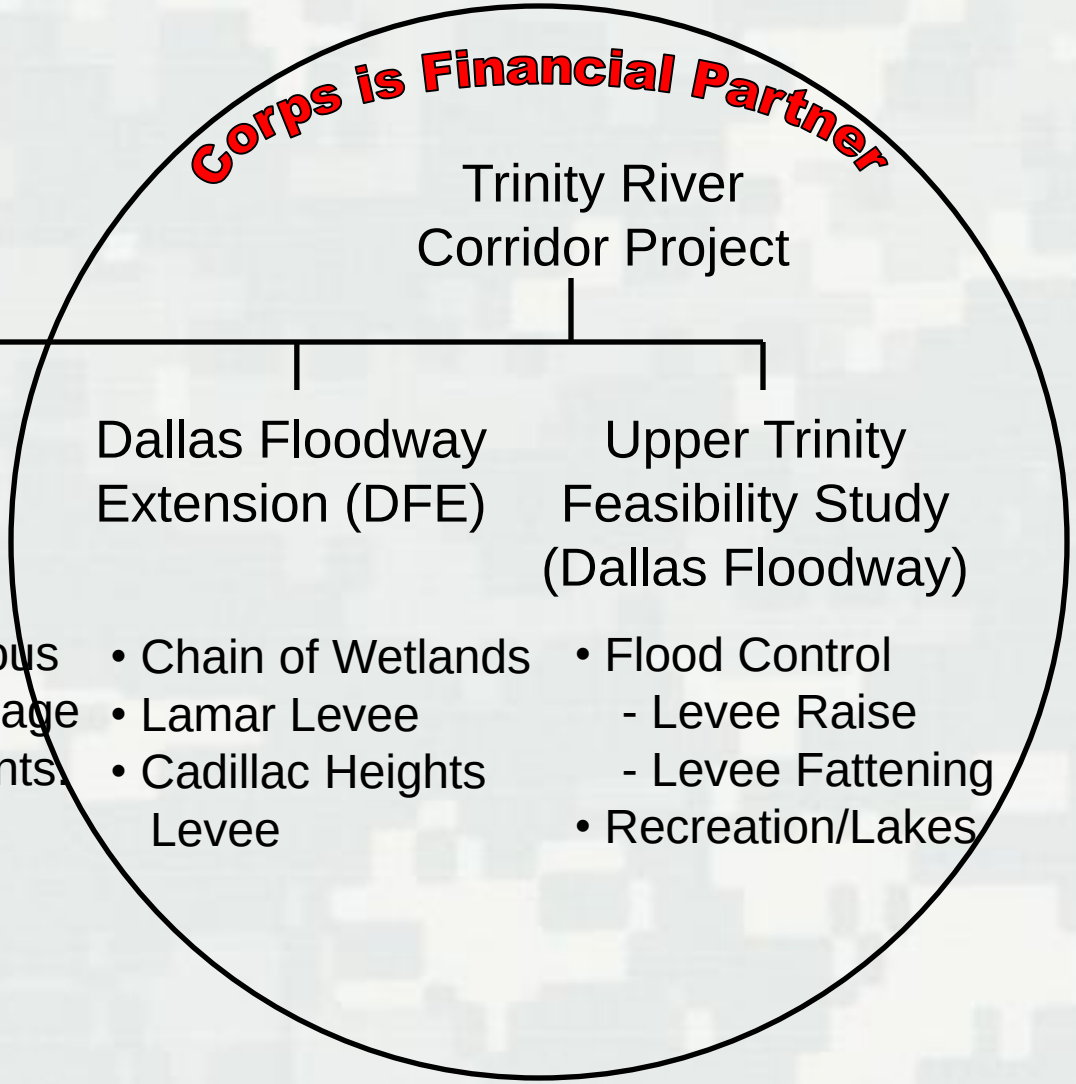
- **1998 – City Bond Program includes Proposition 11 for the Trinity River Corridor Project for $246M with multiple components**
- First and foremost is Flood Protection:
  - Dallas Floodway Extension Project ($24.7M)
  - Elm Fork Improvements, including Soccer Complex ($30M)
- **Other Project Components:**
  - Recreation
    - Chain of Lakes concept ($31.5M)
    - Athletic fields, trails and Gateway Parks ($41.5M)
  - Transportation
    - Trinity Parkway ($84M)
    - Woodall Rodgers Extension (Margaret Hunt Hill Bridge) ($28M)
    - Beckley/Commerce Intersection Improvements ($6M)
  - Environmental Restoration
    - Forest restoration and mitigation (part of DFE)
    - Wetlands (part of DFE)
    - Air Quality
  - Sustainable development and reinvestment in the heart of Dallas
- **2006 – City Bond Program includes funding for flood control, transportation and recreation projects**
- **2007 – Voters reconfirm support for the Trinity Parkway inside the levees**
- **2009 – Corps' Periodic Inspection #9 occurs**
- **2011 – Corps' Risk Assessment determines levees are more resilient and actually provide 1500-year flood protection**
- **2012 – City Bond Program includes funding for flood control and trails**

Appendix B - Historical Funding Partnership City / Corps

1998


Corps is Financial Partner
Trinity River Corridor Project
Elm Fork
Dallas Floodway Extension (DFE)
Upper Trinity Feasibility Study (Dallas Floodway)
• Levee along Luna Rd.
• Chain of Wetlands
• Lamar Levee
• Cadillac Heights Levee
• Flood Control
- Levee Raise
- Levee Fattening
• Recreation/Lakes

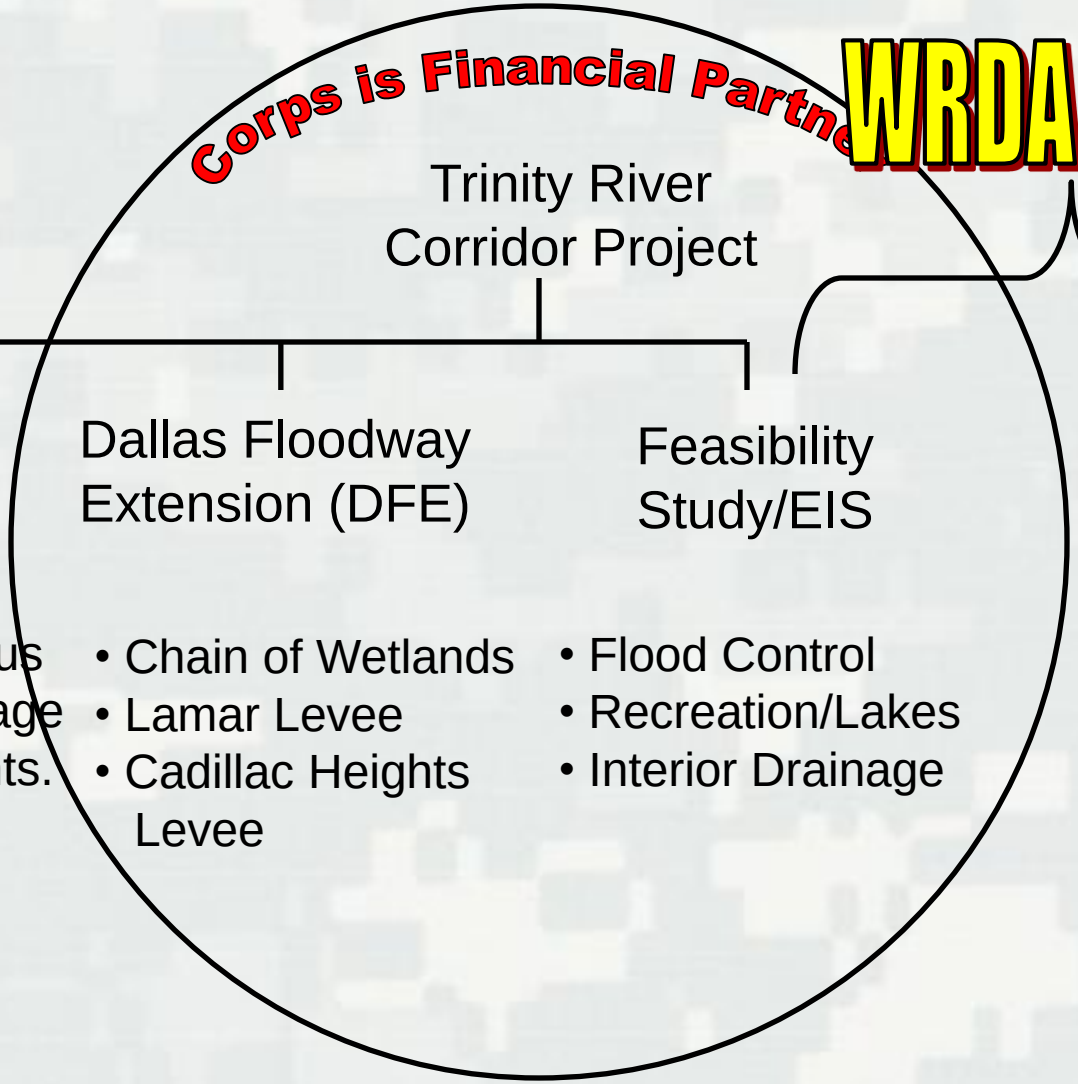
2006



Interior Drainage Projects

- 2006 Bond Program
  - Able Pump Station
  - Baker Pump Station
  - Pavaho Pump Station

2007



WRDA 2007

Trinity River Corridor Project

Elm Fork

- Miscellaneous Small Drainage Improvements.

Dallas Floodway Extension (DFE)

- Chain of Wetlands
- Lamar Levee
- Cadillac Heights Levee

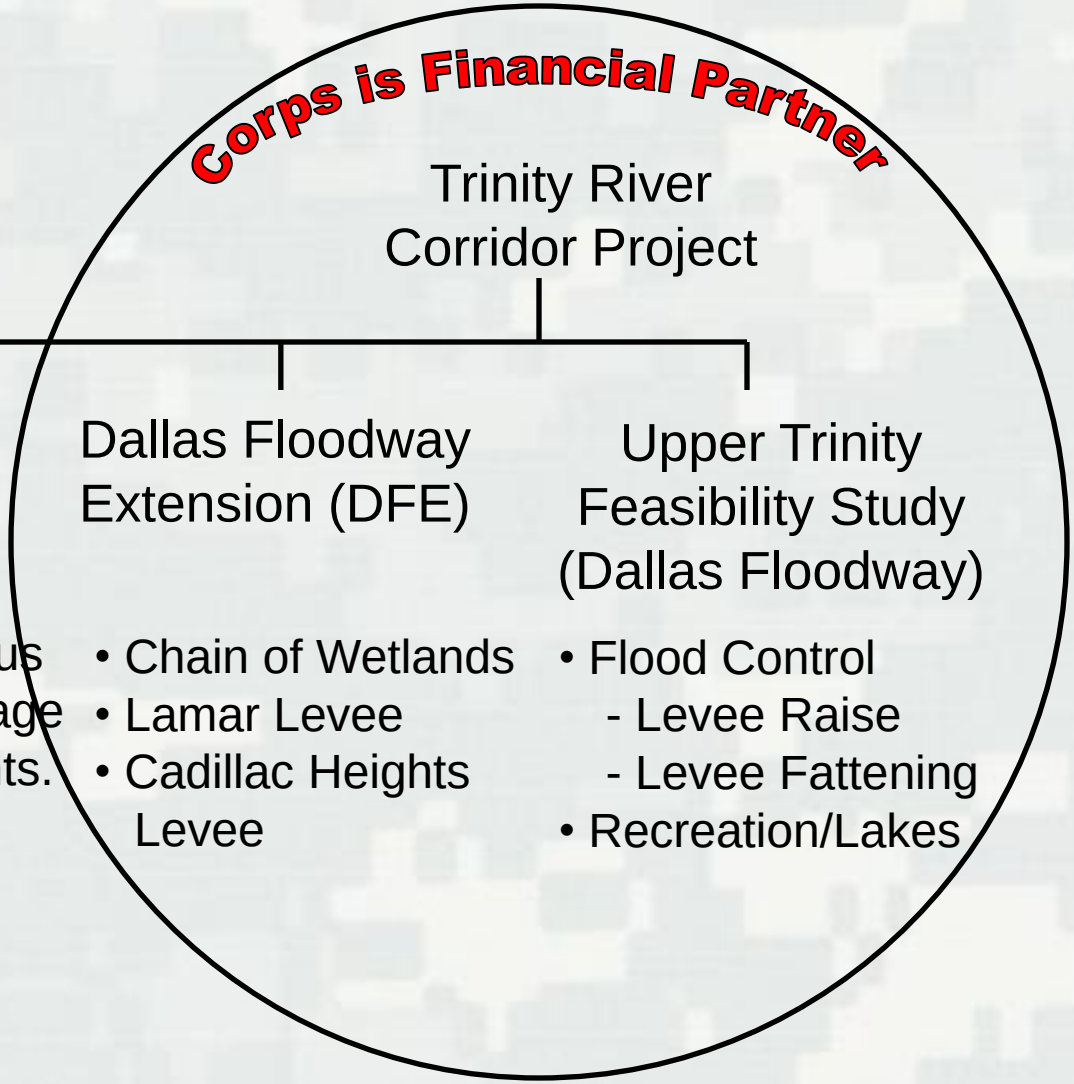
Feasibility Study/EIS

- Flood Control
- Recreation/Lakes
- Interior Drainage

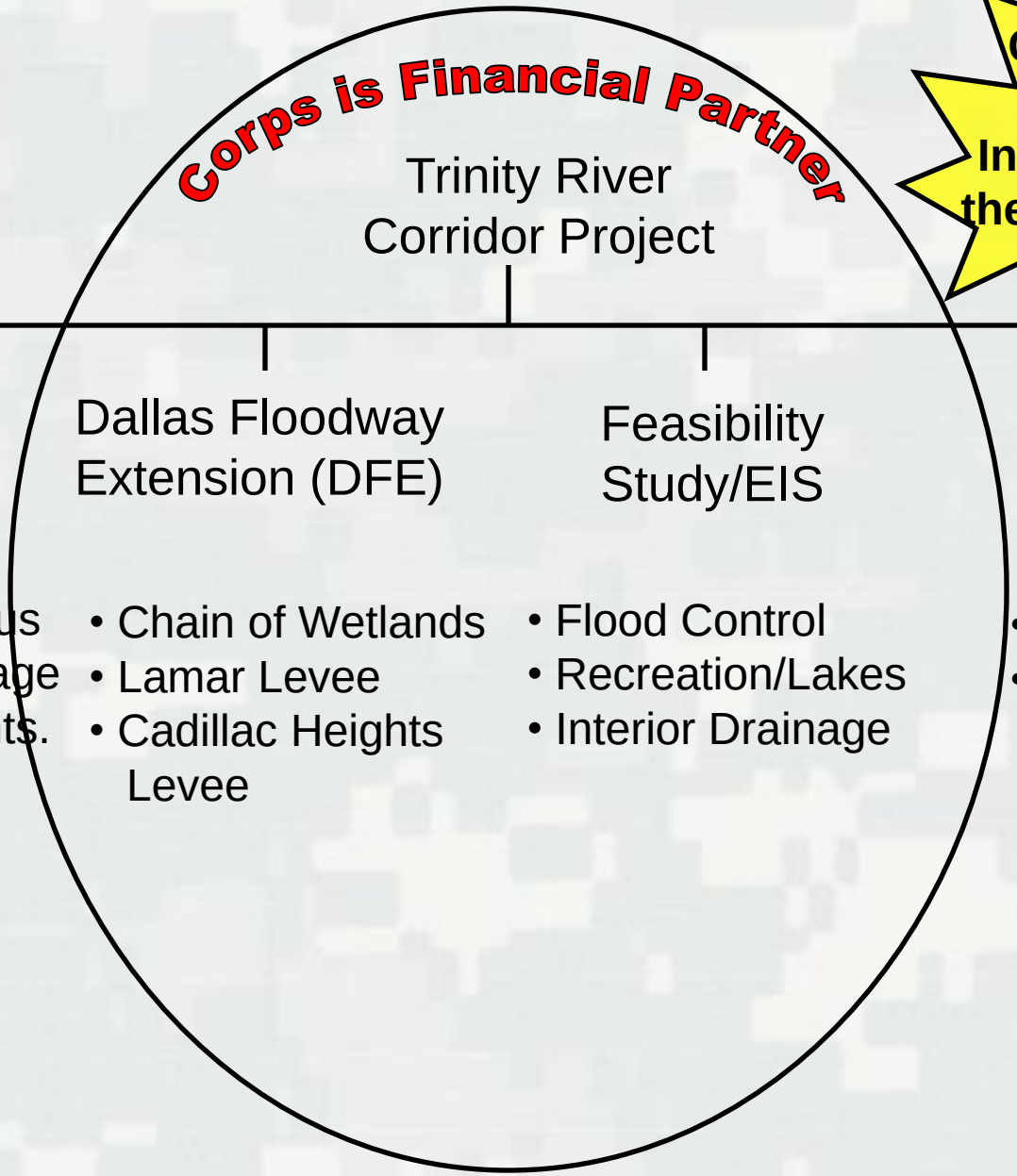
Interior Drainage Projects

- 2006 Bond Program
  - Able Pump Station
  - Baker Pump Station
  - Pavaho Pump Station

2007


Corps is Financial Partner
Trinity River
Corridor Project
Elm Fork
Dallas Floodway
Extension (DFE)
Upper Trinity
Feasibility Study
(Dallas Floodway)
• Miscellaneous
Small Drainage
Improvements.
• Chain of Wetlands
• Lamar Levee
• Cadillac Heights
Levee
• Flood Control
- Levee Raise
- Levee Fattening
• Recreation/Lakes

2009



Trinity River Corridor Project

Corps issues Periodic Inspection #9 of the Dallas Levees

Elm Fork

- Miscellaneous Small Drainage Improvements.

Dallas Floodway Extension (DFE)

- Chain of Wetlands
- Lamar Levee
- Cadillac Heights Levee

Feasibility Study/EIS

- Flood Control
- Recreation/Lakes
- Interior Drainage

Operations & Maintenance Corrections

- MDCP
- PL 84-99
  - 1 year to correct
  - Extension & waiver

2009

Trinity River Corridor Project

Corps issues Periodic Inspection #9 of the Dallas Levees

Elm Fork

- Miscellaneous Small Drainage Improvements.

Dallas Floodway Extension (DFE)

- Chain of Wetlands
- Lamar Levee:New Design Criteria
- Cadillac Heights Levee: New Design Criteria
- Rochester Levee Upgrades

System Study/Feasibility Study/EIS

- Flood Control
  - Levee fixes for Seepage
  - Levee Raise
  - Levee Fattening
- Recreation/Lakes
- Interior Drainage

Operations & Maintenance Corrections

- MDCP
- PL 84-99
  - 1 year to correct
  - Extension & waiver

Appendix C - Funding Summary

Funding Summary

- Federal funds directed to the project approximately $225M
- Private donations approximately $60M
- Public Bond Programs supporting flood protection, ecosystem restoration, transportation and recreation

Funding Summary
1998 Bond Program

1998 Bond Program - Trinity Proposition	Total	Expended/ Committed	Remaining
	($ M)	($ M)	($ M)
Trinity Parkway	77.2	66.3	10.9
MHH Bridge	36.0	36.0	0.0
Lakes	31.3	31.3	0.0
Trinity Forest/Park	41.5	41.2	0.3
DFE	24.7	24.7	0.0
Elm Fork	30.0	17.8	12.2
Beckley Improvements	6.0	6.0	0.0
Total - 1998 BP - Trinity	$246.7	$223.3	$23.4

Funding Summary
2003, 2006, 2012 Bond Programs

	Total	Expended/ Committed	Remaining
	($ M)	($ M)	($ M)
2003 Bond Program			
Elm Fork Soccer	$2.9	$2.7	$0.2
Total - 2003 BP	$2.9	$2.7	$0.2
2006 Bond Program			
Recreation	40.9	39.2	1.7
Flood Control	143.6	141.3	2.3
Transportation	17.0	13.1	3.9
Total - 2006 BP	$201.6	$193.7	$7.9
2012 Bond Program			
Able Pump Station	91.7	0.0	91.7
Trinity Floodway Trails	6.4	0.0	6.4
Total - 2012 BP	$98.1	$0.0	$98.1