

# Memorandum



CITY OF DALLAS

DATE 17 October 2014

TO The Honorable Members of the Transportation and Trinity River Project Committee:  
Vonciel Jones Hill (Chair), Lee Kleinman (Vice Chair), Deputy Mayor Pro Tem Monica Alonzo,  
Mayor Pro Tem Tennell Atkins, Sandy Greyson, and Sheffie Kadane

SUBJECT Trinity Lakes Amenities Design Concepts

On Monday, 20 October 2014, you will be briefed on the Trinity Lakes Amenities Design Concepts. Dr. Gail Thomas, Ph.D., President, Chief Executive Officer Trinity Trust, will be joining staff for a portion of the briefing. The briefing materials are attached for your review.

Please feel free to contact me if you need additional information.

A handwritten signature in blue ink that reads "Jill A. Jordan".

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

## Attachment

c: Honorable Mayor and Members of the City Council  
A.C. Gonzalez, City Manager  
Warren M.S. Ernst, City Attorney  
Craig D. Kinton, City Auditor  
Rosa A. Rios, City Secretary  
Daniel F. Solis, Administrative Judge  
Ryan S. Evans, First Assistant City Manager

Eric D. Campbell, Assistant City Manager  
Mark McDaniel, Assistant City Manager  
Joey Zapata, Assistant City Manager  
Jeanne Chipperfield, Chief Financial Officer  
Sana Syed, Public Information Officer  
Elsa Cantu, Assistant to the City Manager – Mayor & Council

# Trinity Lakes Amenities Design Plan

Transportation and Trinity River Project  
Committee Meeting  
20 October 2014



# Purpose

- To provide background on the development of a conceptual plan for potential amenities around the proposed Phase I Lakes – Urban Lakes
- To present the potential amenities for fundraising efforts by The Trinity Trust
- To provide feedback to The Trinity Trust as fundraising efforts begin

# Background

- Designs are underway for the City's effort to begin construction of the Phase I Lakes – Urban Lakes and West Dallas Lakes in Spring 2015
  - Previous briefings are included in the Appendix for reference to design parameters and strategy for moving forward
- The Trinity Trust provided a donation to explore potential amenities around the Phase I Urban Lakes
  - Includes associated renderings and preliminary cost estimates to be used for their fundraising efforts



# Background

- Amenities visioning included the following parameters:
  - Establish amenities that can advance the Balanced Vision Plan with both temporary and permanent features within the existing Phase I Lakes locations
  - Create a fundraising package for the amenities
  - Maximize the appearance of continuous and connected lakes
  - Bring life to the floodway through concessions and “pop-up” programs

# Proposed Fundraising Package

- Amenities have been categorized in three areas:
  - Permanent improvements in their final location
  - Permanent improvements that can be moved into their final location at a later date
  - Temporary improvements

# Proposed Fundraising Package

- Cost estimates have been developed based on conceptual layout and current pricing
  - Estimates will be revised during design
- Total fundraising package is estimated at \$76M
  - Downtown Fundraising Package - \$28M
  - West Dallas Fundraising Package - \$48M
- Amenities will only be built if funding is raised



# TRINITY LAKES AMENITIES DESIGN CONCEPTS

WALLACE ROBERT & TODD, LLC  
Brad and Diana Goldberg

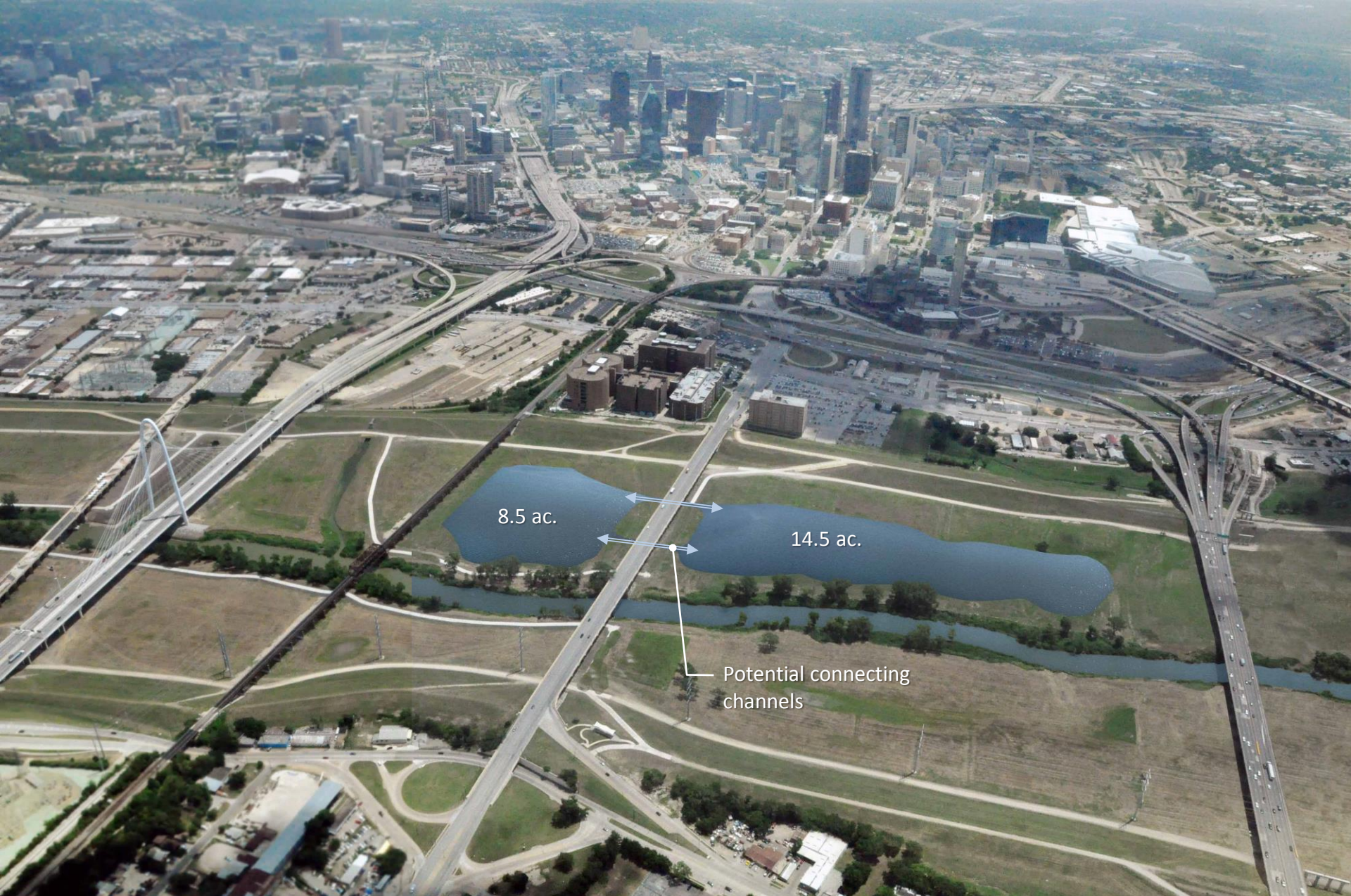






**Floodway Core Area**

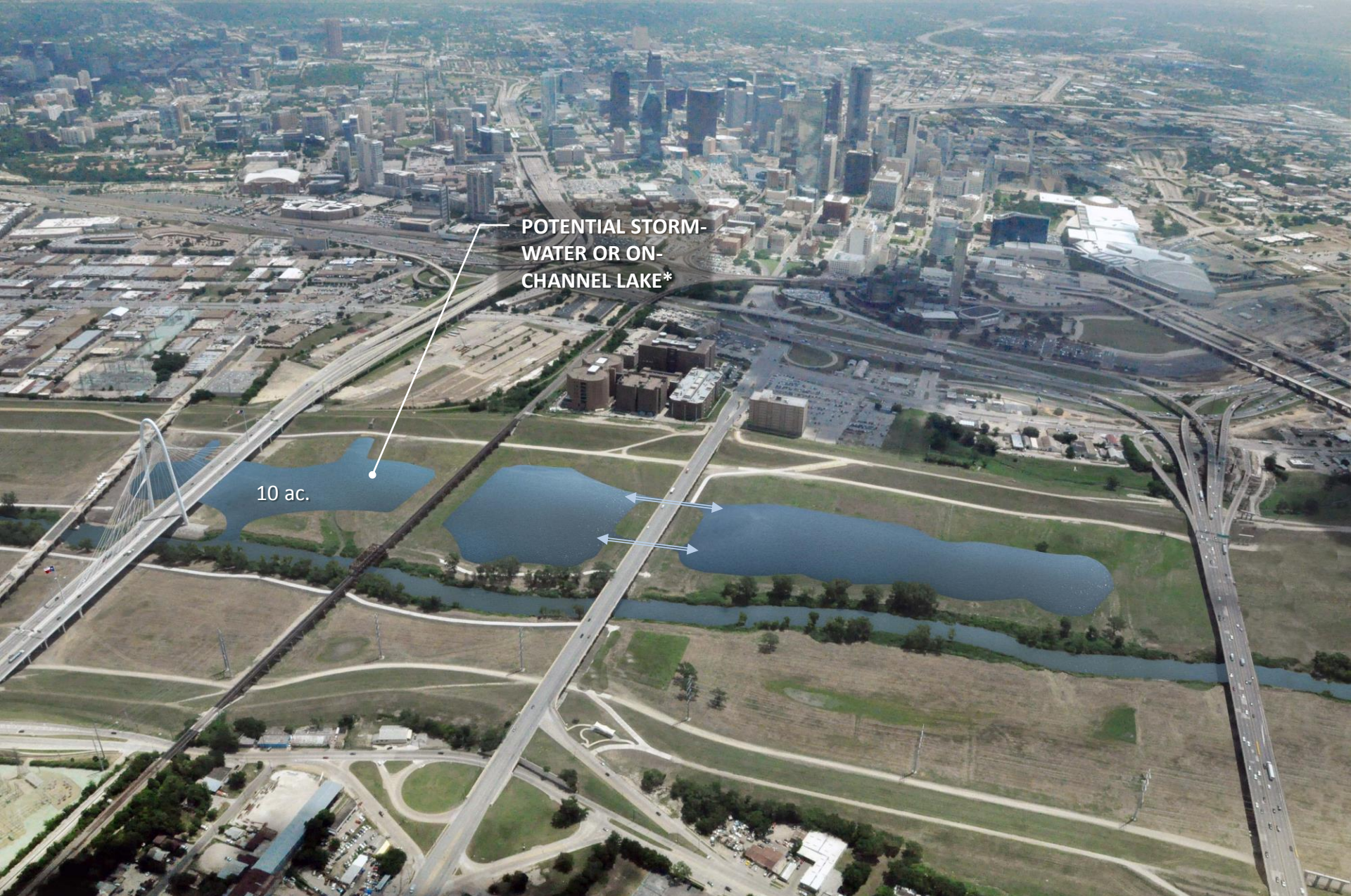




## Proposed Lakes (well-fed)

\* Funded excavation work.





POTENTIAL STORM-WATER OR ON-CHANNEL LAKE\*

10 ac.

## Potential Third Lake

\* Engineering studies are necessary to determine the feasibility of this lake.



The lakes would anchor a potential mile-long, 200-acre recreation zone with amenities on both sides of the river.



## Potential Amenities





**Potential Initial Phase** (\$28 million, est. – excludes lakes' excavation)





**Island Park Below Commerce Street Bridge**





**“Pop-Up” Plaza below Commerce Street Bridge**



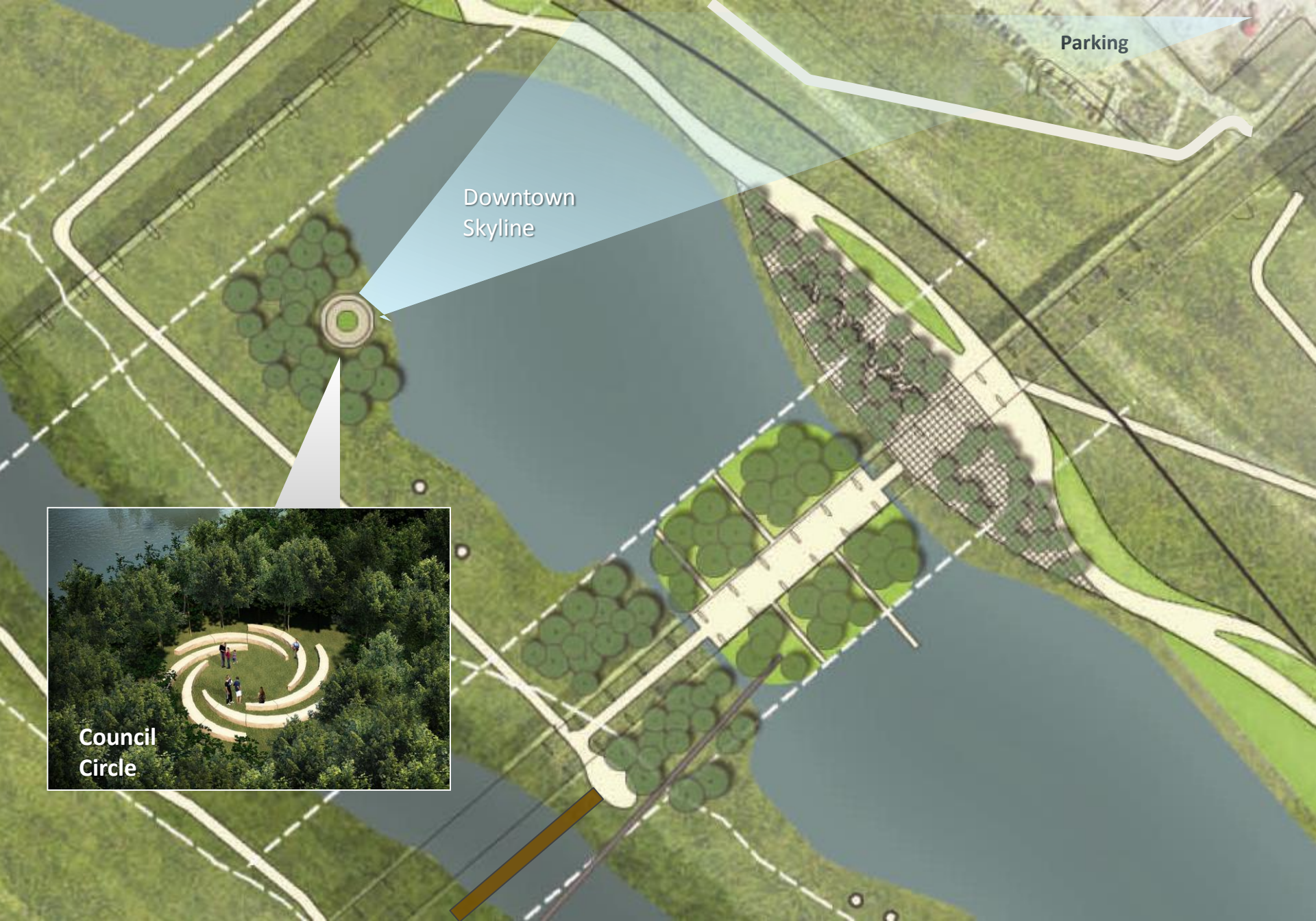


# CASE STUDY: THE OVAL POP-UP PARK

Philadelphia, PA







Parking

Downtown  
Skyline



Council  
Circle





WATER MAZE



SPRAY FOUNTAIN





Note: Zip Line would be a concession-operated amenity.

**View Due South from Commerce Street Bridge**





**View Due West from Commerce Street Bridge – with Parkway**





Parkway  
floodwall

**View of Promenade – with Parkway Floodwall**





Parkway

Overlook

CONTINENTAL BR.

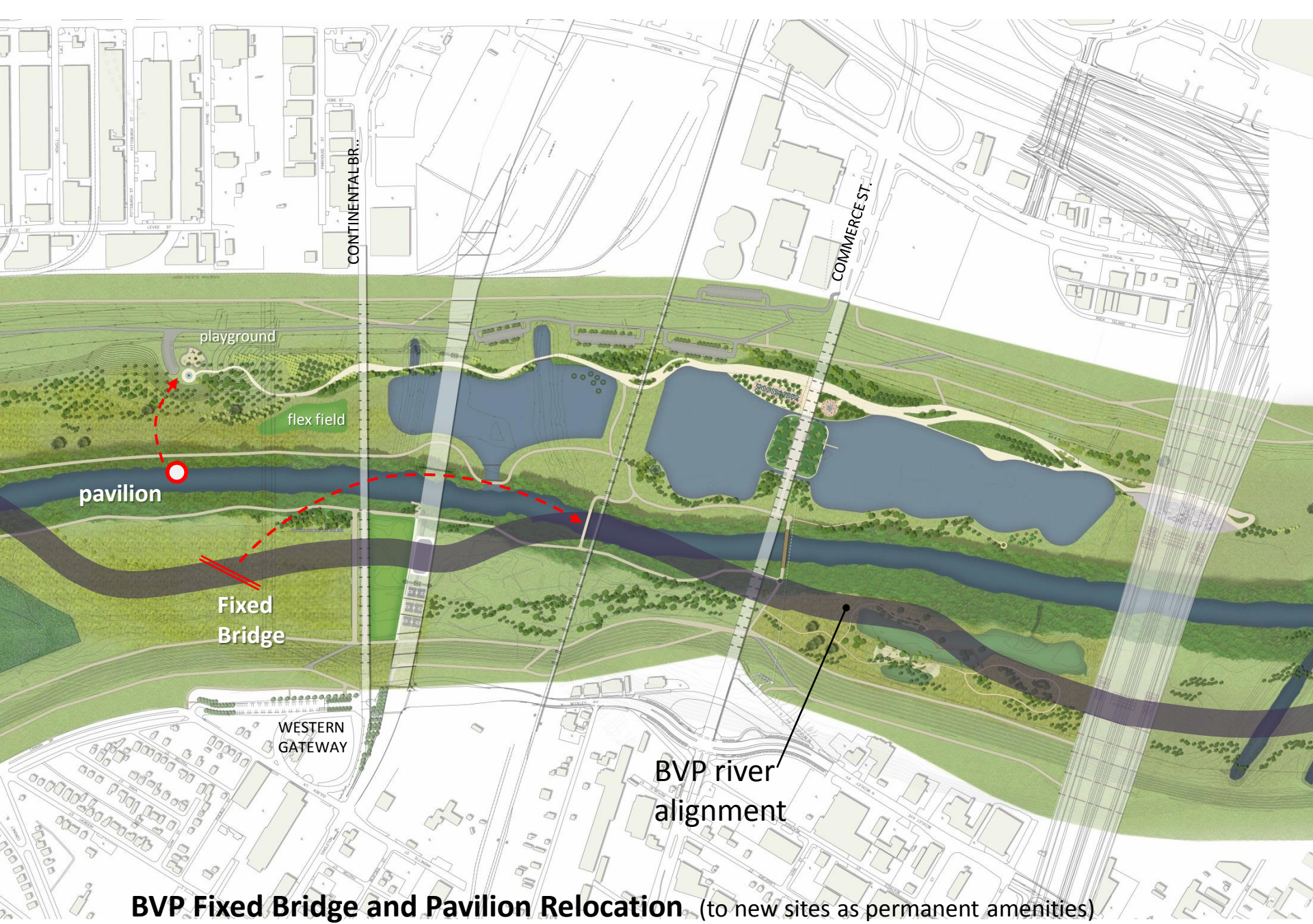
COMMERCE ST.

WESTERN GATEWAY

Note: excepting the access road and parking, proposed amenities lie outside the parkway footprint.

**Parkway Interface**





playground

flex field

pavilion

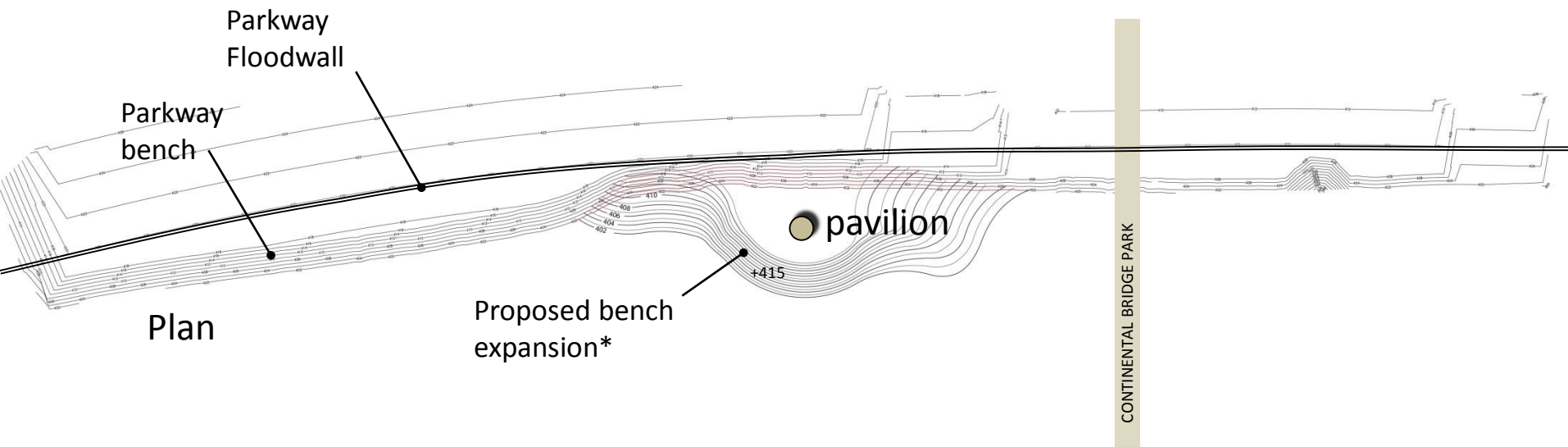
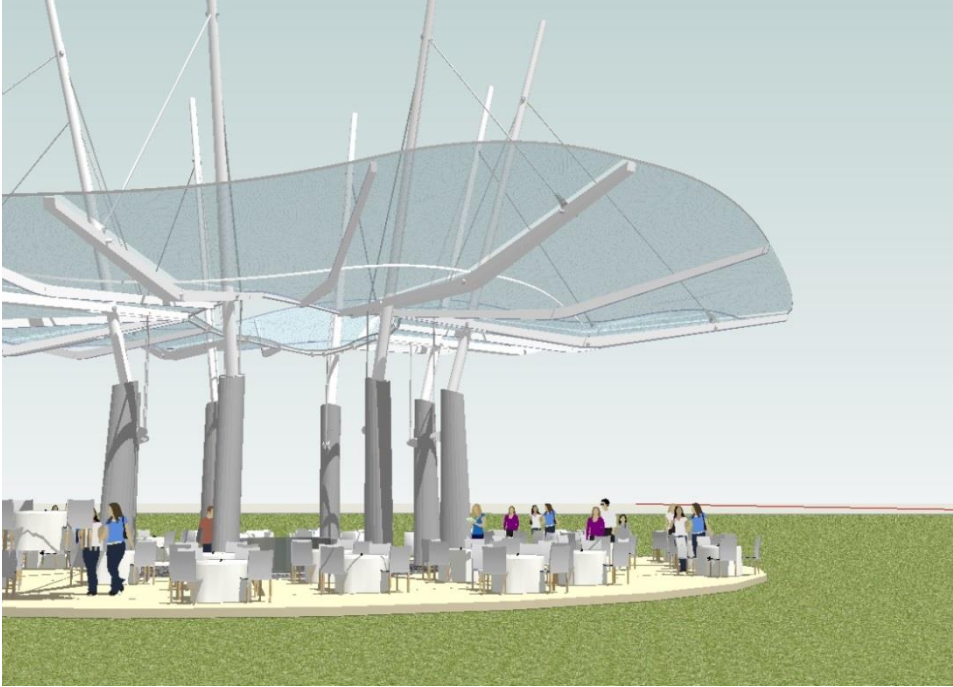
Fixed  
Bridge

WESTERN  
GATEWAY

BVP river  
alignment

**BVP Fixed Bridge and Pavilion Relocation** (to new sites as permanent amenities)





## Large Pavilion per BVP

\* Hydrologic studies are necessary to determine the feasibility of pavilion bench



Removable  
BMX Track  
and/or  
synthetic ice  
rink

Food trucks, portable toilets  
under Continental Bridge Park

### Playfields & Courts





Lighting potentially mounted on bridge undersides.

## Playfields & Courts





**Disc Golf: PV-Lighted 18-Hole Course**





**Prairie Walk & Nature Playground**





**Swing Bridge**





Note: Zip Line would be a concession-operated amenity.

**View towards Swing Bridge from Commerce Street Bridge**

# Summary

- City has funding for the basic lakes and water source to begin construction in Spring 2015
- Renderings show potential amenities could be built if funding becomes available
  - Amenities will have to be designed and approved by the Corps

# Summary

- Trinity Trust will begin a fundraising campaign this Fall
  - Phase I concentrates on amenities on the Downtown side of Trinity River - \$28M
  - Phase II includes amenities on both sides of the river - \$48M
- Concepts shown would only be designed and built if funding becomes available

# Feedback

# Appendix

# Appendix A

10 February 2014

Update of Design of Trinity Borrow  
Area/Lakes Phase I

Transportation & Trinity River Committee





PRELIMINARY BENDERING OF INITIAL CONCEPT. SUBJECT TO CHANGE.



Key Focus Area  
Economic Vibrancy



Key Focus Area  
Culture, Arts & Recreation



# Purpose

- Update on proposed Phase I of Trinity Borrow Area and Trinity Lakes
- Seek direction and approval on next steps

# Trinity Lakes Background

- Mid-1990s, voters met to shape the vision and plan for:
  - flood protection, recreation, transportation, ecosystem restoration and economic development
- In 1998, voters approved \$246M in bond funds for Trinity River Corridor Project
- Balanced Vision Plan was approved by City Council in December 2003

# Trinity Lakes Background

- Recreation Component of Balanced Vision Plan called for three lakes:
  - Natural Lake
  - Urban Lake
  - West Dallas Lake



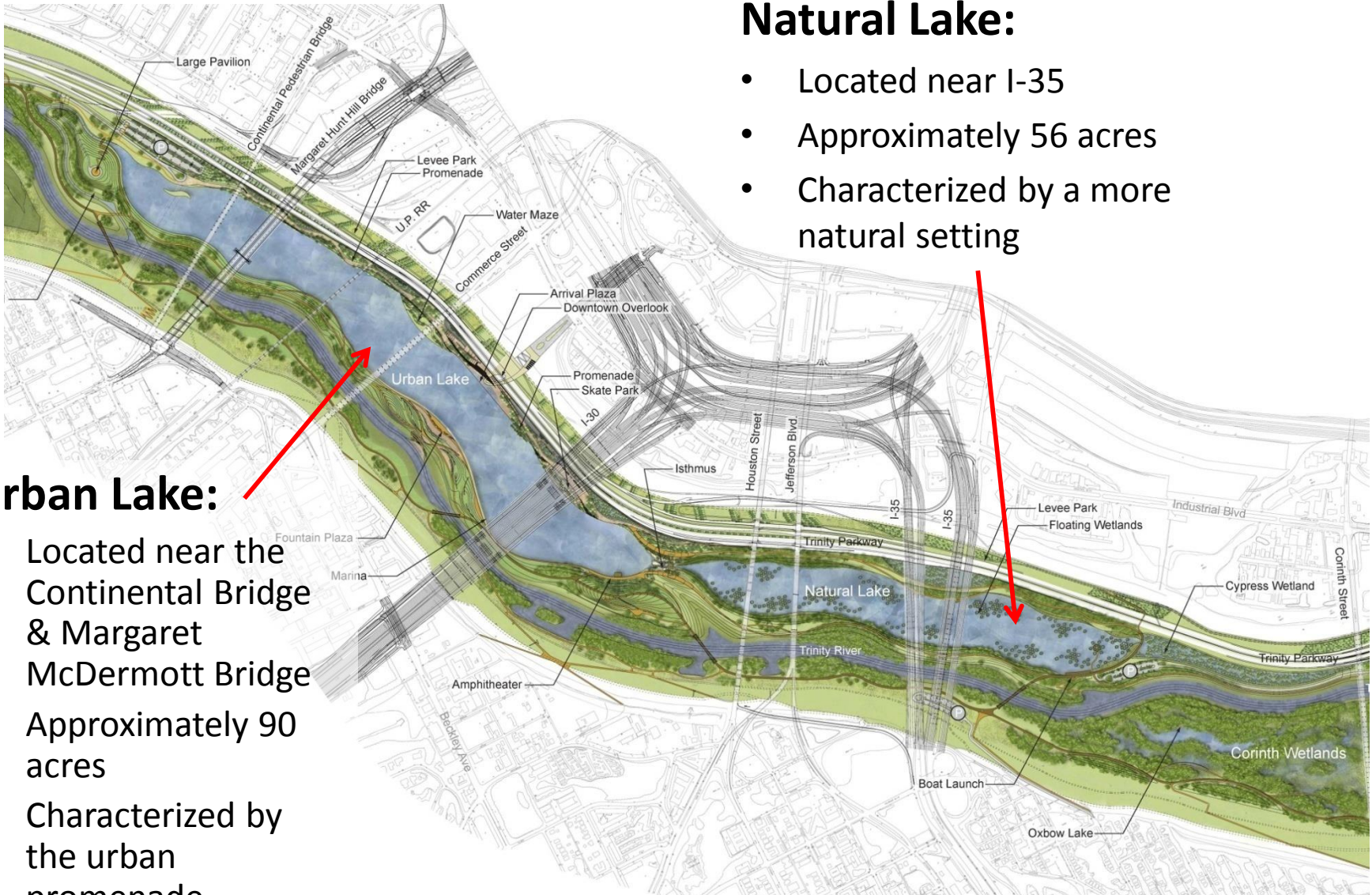
# Background: Balanced Vision Plan

## Natural Lake:

- Located near I-35
- Approximately 56 acres
- Characterized by a more natural setting

## Urban Lake:

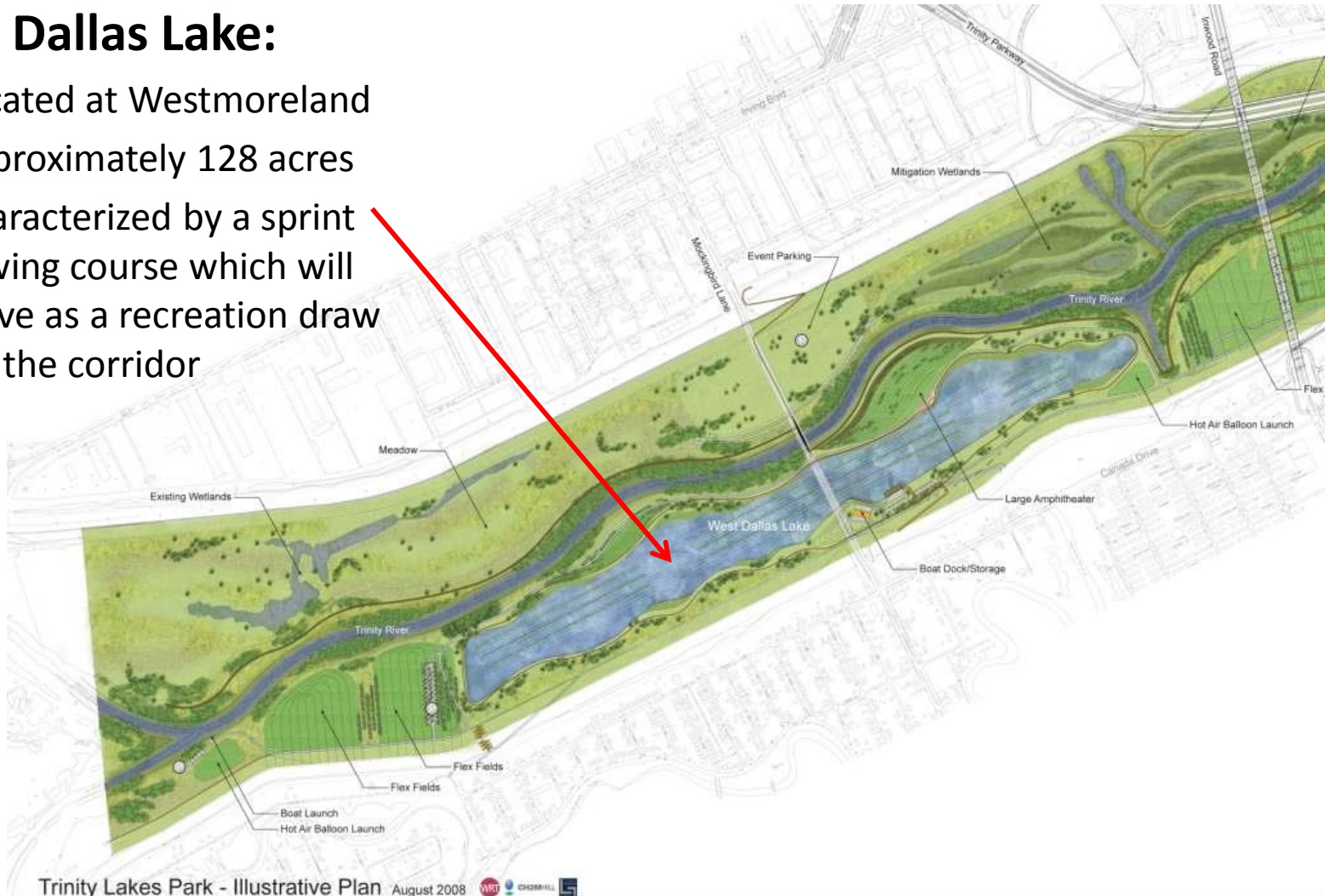
- Located near the Continental Bridge & Margaret McDermott Bridge
- Approximately 90 acres
- Characterized by the urban promenade



# Background: Balanced Vision Plan

## West Dallas Lake:

- Located at Westmoreland
- Approximately 128 acres
- Characterized by a sprint rowing course which will serve as a recreation draw for the corridor





# Trinity Lakes Proposed Phasing Plan

- In Fall 2012, City Council directed staff to pursue advancing Trinity Lakes ahead of Corps' schedule
- Staff has worked with Corps, North Texas Tollway Authority and TxDOT to develop a path forward



# Phase I Parameters

- Borrow area is the area excavated for the lakes
- Use portion of existing footprint of Balanced Vision Plan lakes
- Design and construct with available funds
- Provide flood control maintenance enhancements by flattening and raising levees where appropriate
- Focus lakes adjacent to existing neighborhoods



# Phase I Parameters (cont'd)

- Complement other Trinity Project components
  - Such as Sylvan Avenue ramp to Crow Park, Continental Pedestrian Bridge/West Dallas Gateway, and Riverfront Blvd improvements
- Maximize development opportunities
  - Directly related to lake construction



# Trinity Lakes Proposed Phasing Plan

- Current estimate of Corps' timeline for construction, assuming funding becomes available:
  - Design could begin following EIS completion in early 2015
  - Construction would not begin until at least mid-2017



# Trinity Lakes Proposed Phasing Plan (cont'd)

- To accelerate this schedule, staff proposes:
  - Borrow Area and Lakes so that portions of lakes are complete earlier than Corps' schedule
    - Start design of Phase I February 2014
    - Start construction in early 2015

# Trinity Lakes Proposed Phasing Plan (cont'd)

- Budgets for Phase I have been developed based on City's available funding
  - \$44M total
    - \$28M in Trinity Parkway Funding from 1998 Bond Program
    - \$8M in Trinity Lakes Funding from 1998 Bond Program
    - \$8M in Stormwater Management Funding

**Note:** \$28M can only be spent on Parkway related excavation and dirt placement



# Trinity Lakes Proposed Phasing Plan (cont'd)

- Design to be performed by existing consultants working on Trinity Parkway, Trinity Lakes and Trinity Levee Improvements to minimize costs and expedite schedule
- Excavated material from the borrow area to be used for a bench along East Levee

# Trinity Lakes Proposed Phasing Plan (cont'd)





# Trinity Lakes Proposed Phasing Plan (cont'd)

## Rationale for location:

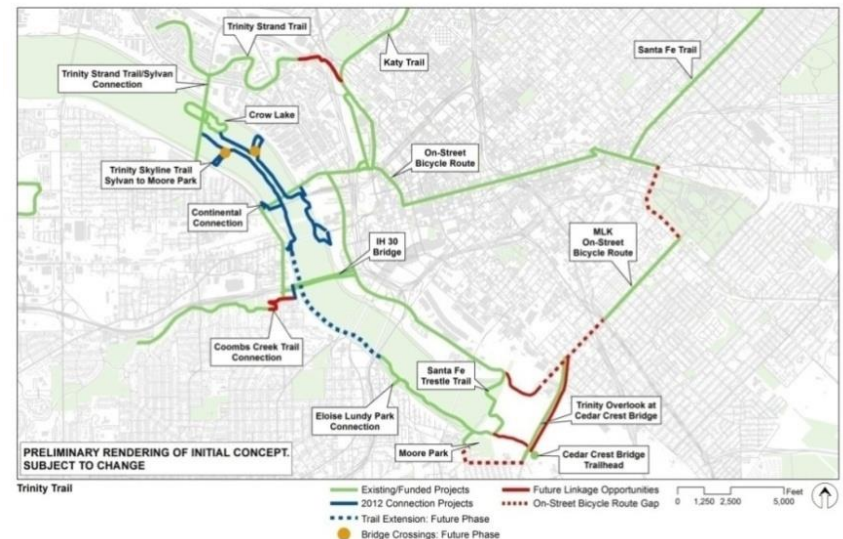
- Concentration of Trinity Project components near downtown core - draw for residents and visitors
- Avoids TxDOT's Horseshoe Project construction



# Trinity Lakes Proposed Phasing Plan (cont'd)

## Rationale for location (cont'd):

- Complements neighborhood improvement and development efforts underway or anticipated in area
- Adjacency to Skyline Trail on the East Levee





# Trinity Lakes Proposed Phasing Plan (cont'd)

## Design Parameters:

- Approximately 20 acres, 10'-12' deep, providing for a portion of Urban Lake
- Constraints
  - Bridge pier locations may result in separate smaller ponds or ponds may be interconnected by pipes or channels
  - River/bank stabilization results in minimum 200' clear zone from river channel

# Trinity Lakes Proposed Phasing Plan (cont'd)

## Design Parameters:

- Constraints
  - Requires water source such as a groundwater well
  - Storm sewer outfalls cannot be blocked and require extension or widening





# Trinity Lakes Proposed Phasing Plan (cont'd)

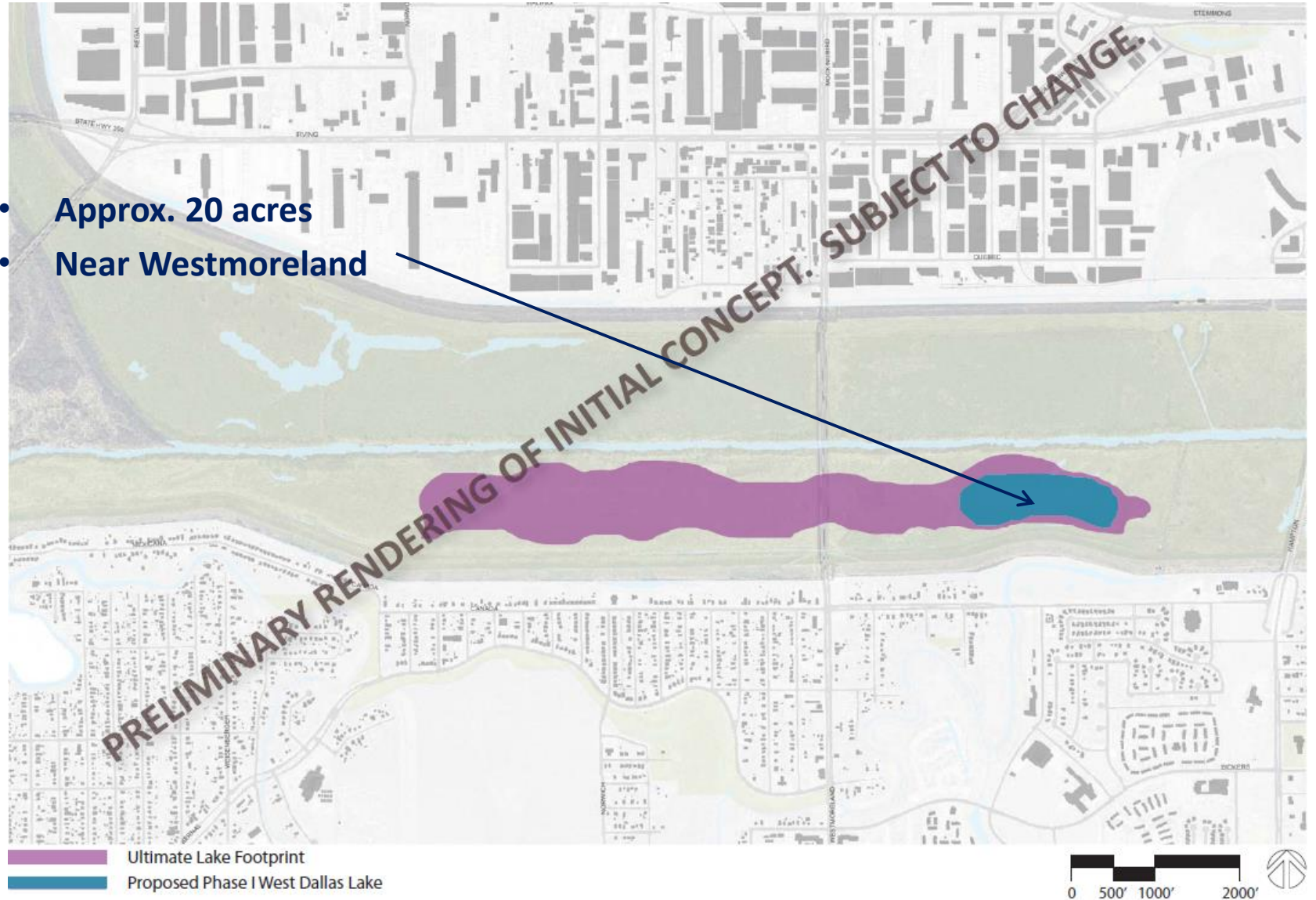
## Budget

- Up to \$36M (1998 bond funds)
  - Trinity Parkway Funds (\$28M) – Excavation of borrow area, Trinity Parkway bench and potential mitigation credits
  - Trinity Lakes Funds (\$8M) - clay liner and groundwater well

**Note:** \$28M can only be spent on Parkway related excavation and dirt placement

# Proposed Phase I West Dallas Lake

- Approx. 20 acres
- Near Westmoreland





# Proposed Phase I West Dallas Lake

- Approximately 20 acres, depth to be determined, of the 128-acre West Dallas Lake
- Estimated cost - \$8M
  - Stormwater funds to assist with operational needs of levee flattening and raising, where appropriate
  - May require water source in the future
- Future phases could be constructed, as appropriated annually

# Levee Raise

Where levee  
low spots  
would be  
raised

East Levee: 2.6 miles  
West Levee: 1.2 miles



# Estimated Schedule

- Design and obtain permit (as part of EIS process)
  - February to November 2014
- Begin construction following Record of Decision
  - December 2014/January 2015
- Complete construction
  - Early 2016, dependent upon weather

# Required Design Work

- To accomplish this plan, design and review work is needed:
  - Design for the borrow and lakes
  - Review for compliance with Corps' standards and regulations
  - Review for compliance with City's levee standards
- Existing design and review teams will minimize costs and maximize schedule opportunities



# Required Design Work (cont'd)

- Engineering Design Contract with Huitt- Zollars
  - NTTA's designer for this segment of Trinity Parkway
  - Contract includes:
    - Plans for excavation of borrow area and placement of dirt, funded with Trinity Parkway funds
    - Plans for groundwater well, connectivity between lakes and clay liner, funded with Trinity Lakes funds
    - Excavation plans for levee work for West Dallas Lake , including maintenance staging, funded with Stormwater funds
  - Not to exceed \$737,500

# Required Design Work (cont'd)

- Professional Services contracts with Safety Assurance Review Team Members
  - Use review team already in place who is familiar with floodway
  - Review of:
    - Compliance with Corps' regulatory standards
    - Geotechnical, hydraulics, scour analysis, construction, and operations and maintenance
  - Members: Arun Wagh (\$35.5K), David Williams (\$34K), George Sills (\$35.2K)



# Required Design Work (cont'd)

- Professional Services Contract with HNTB for Geotechnical Review
  - Provides third party review of proposed excavation sites and seepage control measures
  - Ensures consistency with previous seepage studies related to levees, risk assessment by Corps and levee certification efforts
  - Not to exceed \$48,863

# Required Design Work (cont'd)

- Trinity Trust has provided a donation to develop and recommend potential amenities for which the Trust can fund raise
  - Ensures integrity of Balanced Vision Plan
  - Includes visioning, renderings and basic cost estimates for donor packages
  - Professional services contract with Ignacio Bunster of WRT, consultant for landscape and amenities currently proposed in BVP
  - Not to exceed \$105,000



# Next Steps

- Seek confirmation of direction for proposed Phase I Trinity Borrow Area and Lakes
- Approve Huitt-Zollars and WRT contracts on the February 26, 2014 City Council Agenda

# Discussion

# Appendix B

15 August 2012

Trinity Lakes Project – Potential Phase I  
Lakes Design & Construction  
Dallas City Council





PRELIMINARY BENDERING OF INITIAL CONCEPT. SUBJECT TO CHANGE.



# Purpose

- Explore potential construction possibilities for Phase I of the Trinity Lakes
- Seek City Council direction on next steps



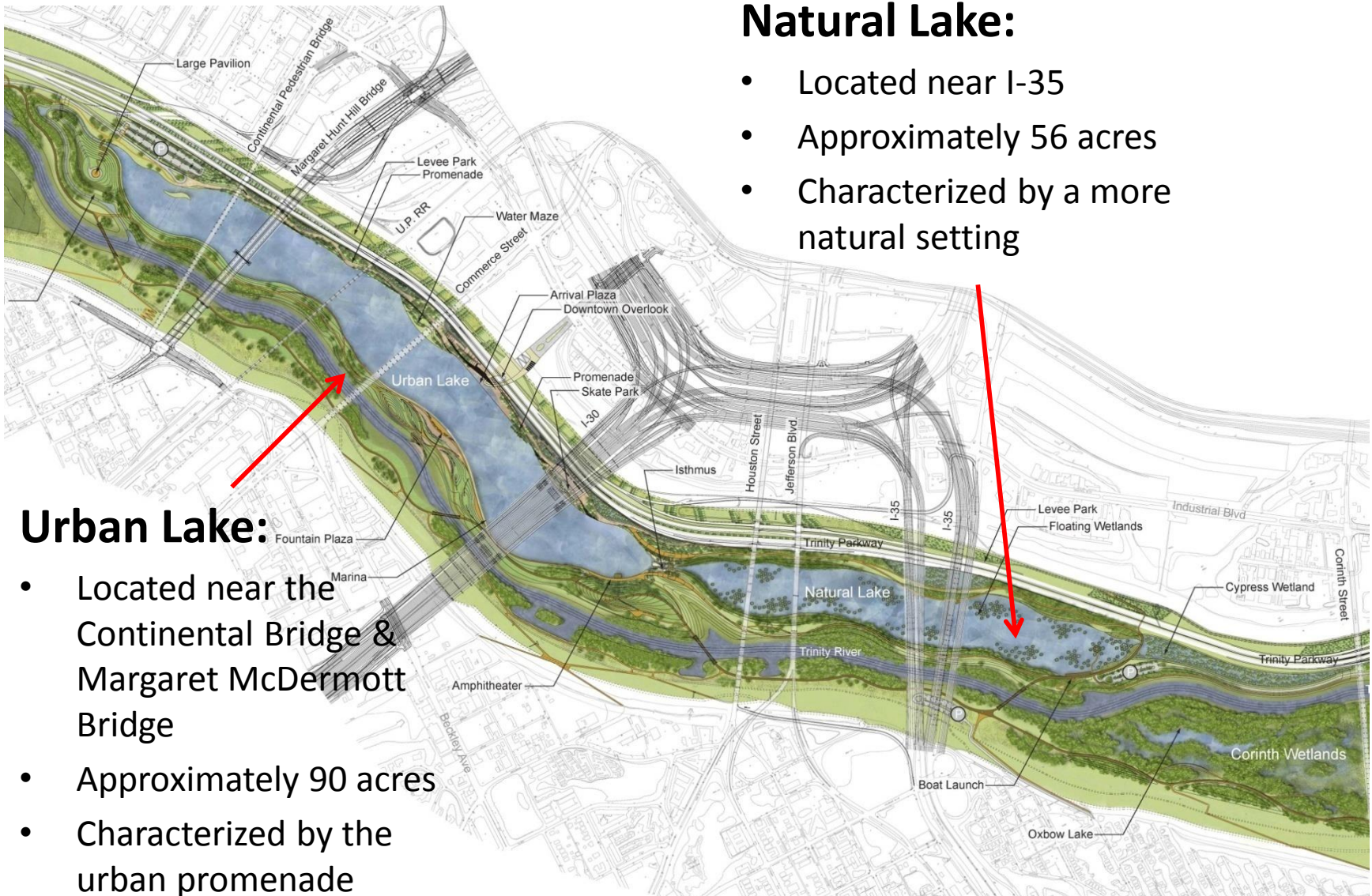
# Background: Balanced Vision Plan

## Natural Lake:

- Located near I-35
- Approximately 56 acres
- Characterized by a more natural setting

## Urban Lake:

- Located near the Continental Bridge & Margaret McDermott Bridge
- Approximately 90 acres
- Characterized by the urban promenade





# Background: Balanced Vision Plan

## West Dallas Lake:

- Located at Westmoreland
- Approximately 128 acres
- Characterized by a sprint rowing course which will serve as a recreation draw for the corridor



# Recent Background

- In 2009, the City and Corps focused efforts on levee analysis to determine the geotechnical condition of the levees
- In June 2012, the Corps determined the levees are more resilient than previously thought
- The Corps and City are proceeding to complete the Environmental Impact Study, which includes a phasing plan to allow build-out over time of the Trinity Project

# Trinity Lakes Proposed Phasing Plan

- The City's current estimate of the Corps' timeline for the lakes:
  - Design would begin following the completion of the EIS in mid-2014
  - Construction would not likely begin until mid-2017
  - Design and construction contingent upon federal funding
- City staff is proposing an approach to accelerate Phase I of the Trinity Lakes so that portions of the lakes are complete earlier than the city's current estimate of the Corps schedule
- Staff's phasing plan could provide citizens and visitors portions of the Urban and West Dallas Lakes as early as 2016



# Trinity Lakes Proposed Phasing Plan

- Planning details are VERY preliminary at this time
- Additional research is required on a number of items in order to fully determine the feasibility of the proposed phasing plan
- These are preliminary concepts and will be refined following discussions with partners and additional due diligence
- Design development is necessary to provide more detailed information concerning expected costs

***The purpose of today's briefing is to present a rough outline of the proposed approach and seek City Council direction on whether to proceed***

# Phase I Priorities

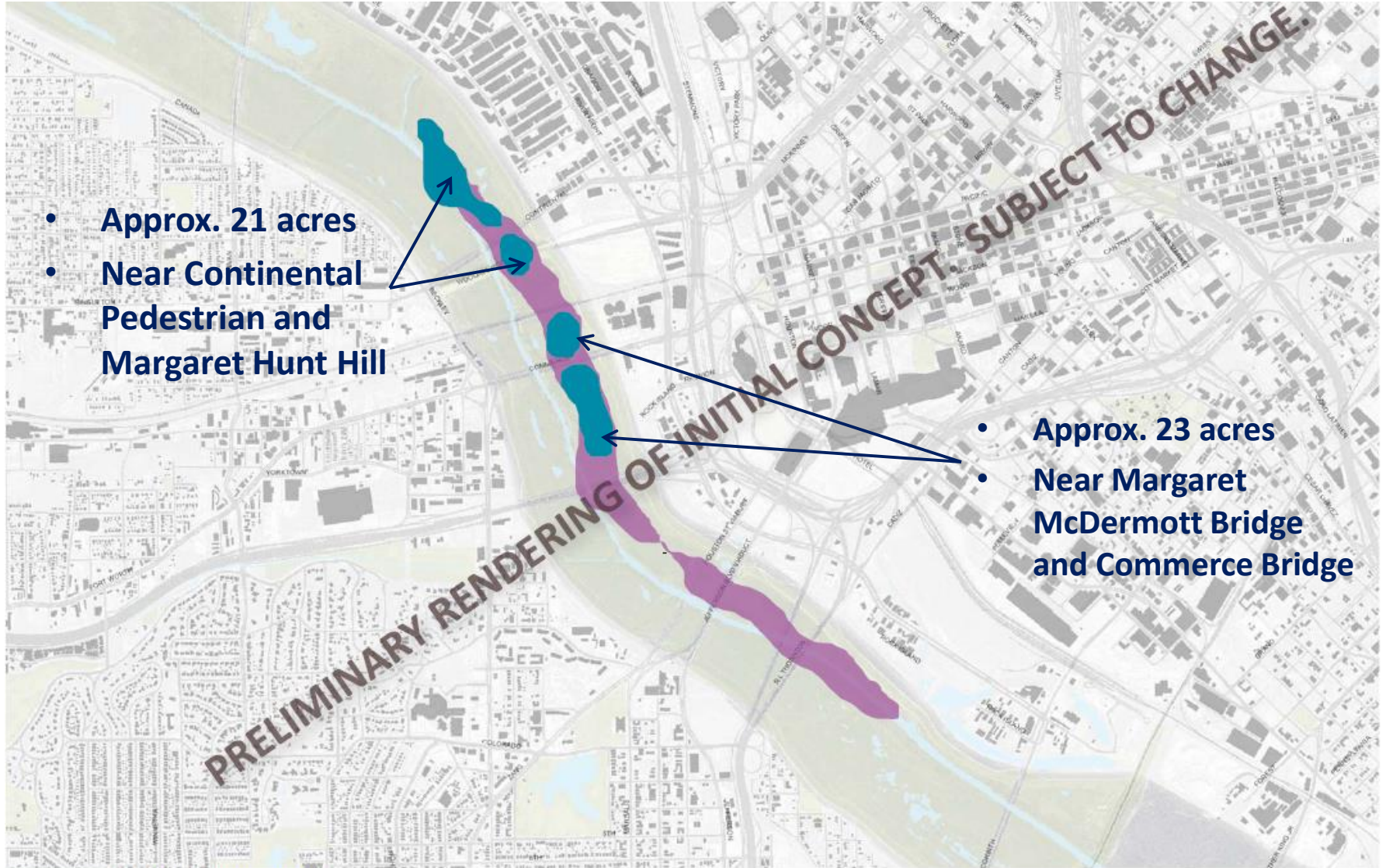
- Utilize the existing footprint of the Balanced Vision Plan lakes to align with the EIS
- Provide possible flood control maintenance enhancements
- Adjacency to existing neighborhoods
- Complement other Trinity Project components such as Sylvan Avenue ramp to Crow Park, Continental Pedestrian Bridge/West Dallas Gateway, and Riverfront Blvd improvements
- Maximize development opportunities directly related to the construction of lakes

# Proposed Phase I Urban Lake







# Proposed Phase I Urban Lake



- **Approx. 21 acres**
- **Near Continental Pedestrian and Margaret Hunt Hill**

- **Approx. 23 acres**
- **Near Margaret McDermott Bridge and Commerce Bridge**

 Ultimate Lake Footprint  
 Proposed Phase I Lakes



# Proposed Phase I Urban Lake



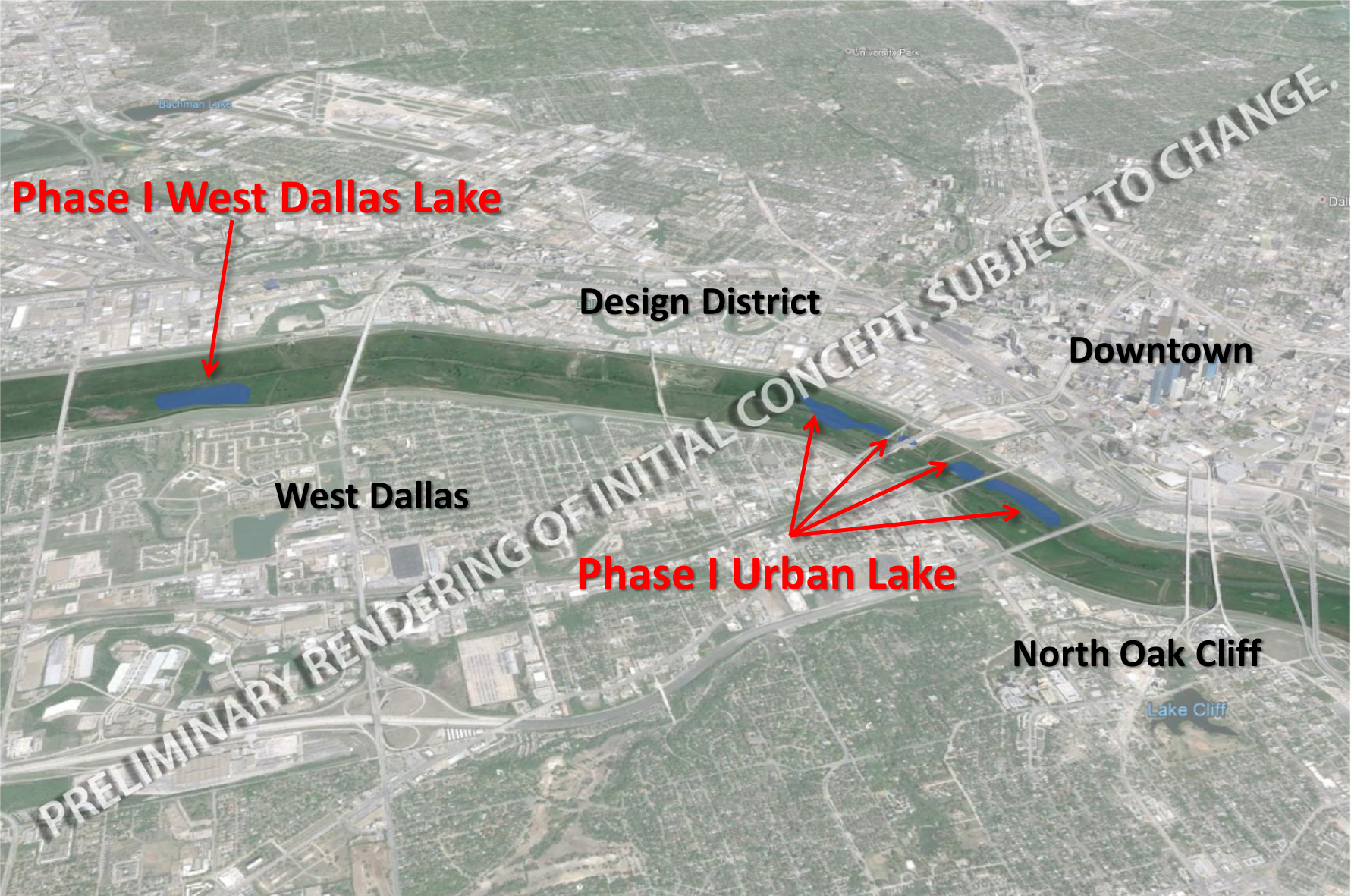


# Proposed Phase I Urban Lake

- Estimated Cost –\$33.2M
  - Anticipated funding - combination of 1998 and 2006 bond funds
  - Water source and associated costs still pending
- Approximately 44 acres, providing for nearly half of the Balanced Vision Plan Urban Lake in this first phase
- Contributes to a concentration of Trinity Project components either completed or underway near the downtown core to provide a draw for residents and visitors
- Complements neighborhood improvement and development efforts underway or anticipated in the area
- Avoids the footprint of construction for TxDOT's Horseshoe Project



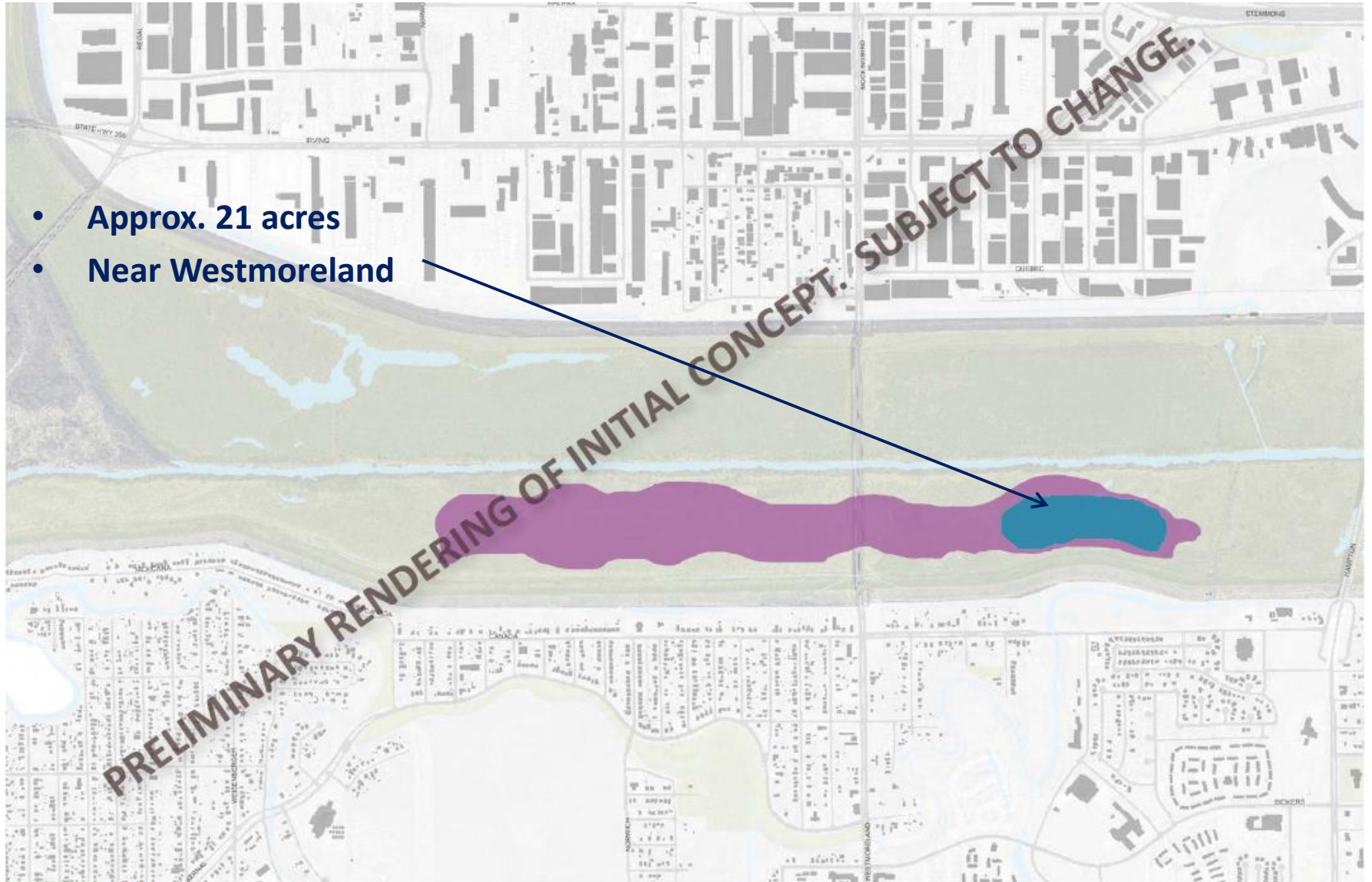
# Proposed Phase I West Dallas Lake





# Proposed Phase I West Dallas Lake

- **Approx. 21 acres**
- **Near Westmoreland**



■ Ultimate Lake Footprint  
■ Proposed Phase I West Dallas Lake



# Proposed Phase I West Dallas Lake





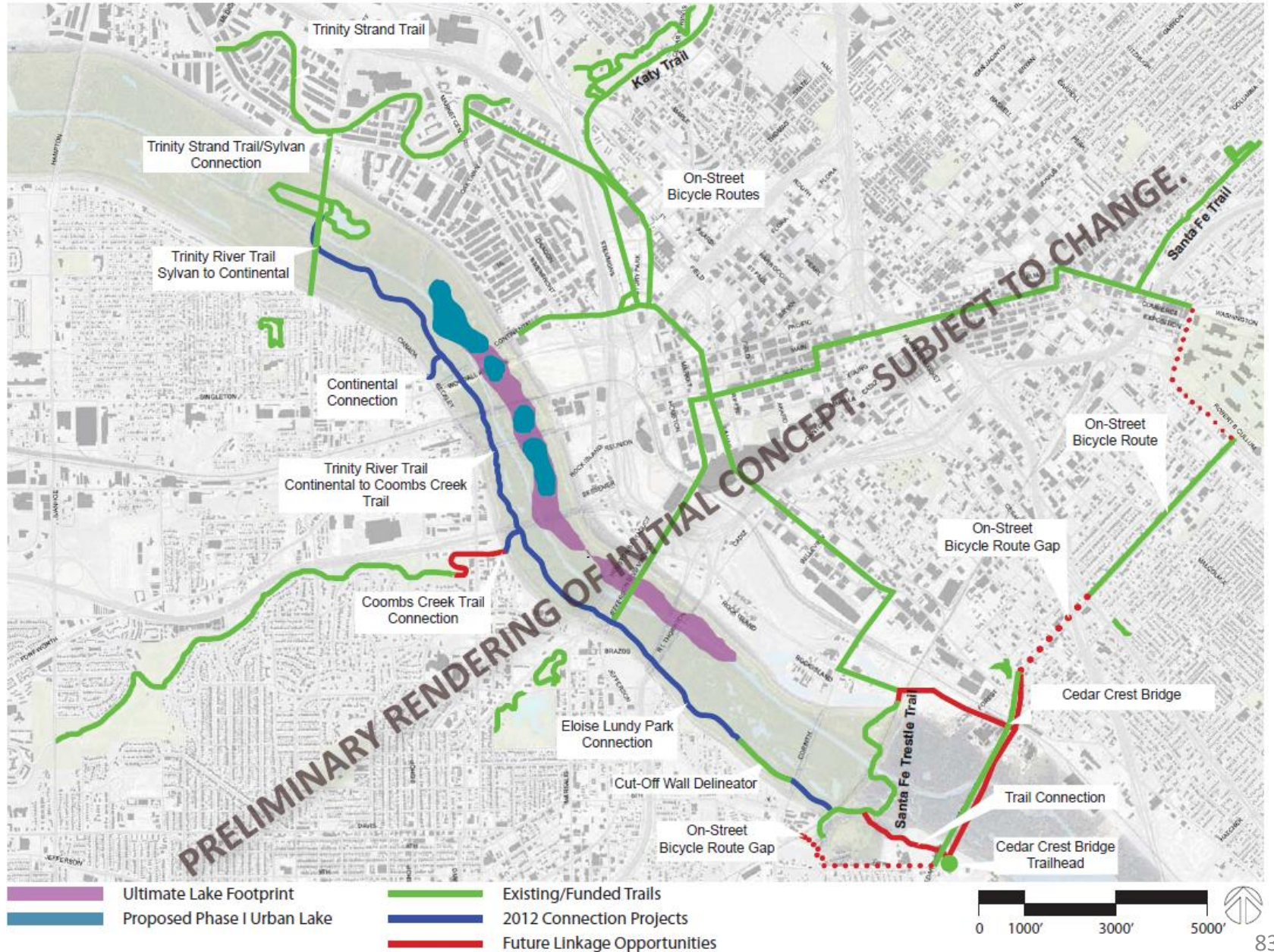
# Proposed Phase I West Dallas Lake

- Estimated cost - \$8M
  - Anticipated funding – future storm water funds
  - Water source and associated costs are still pending
- Approximately 21 acres of the 128-acre West Dallas Lake
- Supports implementation of desired operational needs to flatten levee slopes adjacent to the lake
- Could be phased annually to increase the initial 21-acre construction project, depending upon funding available for flood control maintenance
- Interest in building this lake within the private sector for rowing and waterskiing groups

# Phase I Linkage Opportunities

- Proposed bond package includes funds to facilitate pedestrian and bicycle connections through the corridor to connect:
  - Victory
  - Design District
  - West Dallas
  - North Oak Cliff
  - Cedars
  - Fair Park

# Linkage Opportunities





# Phase I Items

## Requiring Further Evaluation

- There are a number of key concerns that could impact the feasibility of the proposed phasing plan
- Each of these will have to be fully vetted and discussed with partner agencies:
  - Funding constraints with use of City funds and any future credits for City's design and construction
  - Water sources and permitting requirements
  - Potential design criteria such as geotechnical mitigation (i.e. cut off walls, clay liner for the lakes), hydraulic considerations, bench criteria and water quality considerations
- Additional issues may arise following further research and due diligence

# Phase I Cost Considerations Requiring Further Evaluation

- Projected costs are only estimates and will be refined once designed
- City staff anticipates use of these funds to count towards our cost share requirements for the Corps' EIS and/or the Trinity Parkway EIS

# Phase I Water Source Requiring Further Evaluation

- Lakes will require a source of water to address evaporation losses and mitigate concerns related to downstream water rights
- Permits from TCEQ may be required to address water rights and/or water sources
  - Time to process any permitting requirements by TCEQ is unknown and could be lengthy
- Possible water sources could include groundwater, river water or re-use water
- Cost of water sources is unknown



# Next Steps

- Should City Council decide to continue on this path:
  - All work is contingent upon the Corps' and Trinity Parkway's EIS schedules
    - Until a Record of Decision has been received, no construction can commence on the proposed Phase I Lakes
  - If no fatal flaws are discovered through additional research, City Staff estimates the following design and construction timeline:
    - Design of these lakes could begin as early as the end of 2012 by modifying the existing Trinity Lakes Design contract
    - Design and permitting is estimated to last approximately 16-20 months
    - Construction is estimated to last approximately 18 -24 months
    - Timeline will be refined once additional detail is developed for the path forward

# Trinity Lakes Proposed Phasing

## Next Steps

- Staff is seeking City Council direction to move forward with more detailed planning
- If City Council chooses to direct staff to further refine proposed plan, then staff will brief City Council in 30-90 days on progress

# Discussion

PRELIMINARY BENDERING OF INITIAL CONCEPT. SUBJECT TO CHANGE.



# Appendix – Trinity Lakes History

# Trinity Lakes Background

- In the mid-1990s, thousands of citizens and elected officials met to shape the vision and plan for:
  - flood protection, recreation, transportation, ecosystem restoration and economic development
- In 1998, the voters approved \$246M in bond funds for the Trinity River Corridor Project
- The Balanced Vision Plan was approved by the City Council in December 2003

# Trinity Lakes Background

- The Recreation Component of the Balanced Vision Plan called for three lakes that also facilitate :
  - Flood protection through levee flattening and/or raising along areas of low spots
  - Transportation through provision of a multi-purpose bench for short term recreation and long term vehicular needs
  - Ecosystem restoration through creation of the meanders of the river and wetlands
  - Economic Development that would be a result of these amenities



# Trinity Lakes Background

- In 2006, the City awarded a contract to design the Trinity Lakes to 35% to advance the Corps' Environmental Impact Study
  - This design was done “at risk” and was intended to be part of the City's cost share for future Corps work on the Upper Trinity River Feasibility Study
- The Trinity Lakes included the:
  - Natural Lake
  - Urban Lake
  - West Dallas Lake

# Trinity Lakes Background

- In 2007, Section 5141 of the Water Resources Development Act authorized the Dallas Floodway Project as an official stand alone Corps project
  - Shifted work done for the Dallas portion of the Upper Trinity River Feasibility Study to this project
- In 2008, the plan was to complete the construction of the lakes, amenities and flood control improvements were intended to be complete by 2014
- In 2009, the levees were deemed unacceptable in Periodic Inspection #9

# Trinity Lakes Background

- In 2009, City Council approved a contract to investigate the condition of the levees and recommend solutions for 100-Year Flood Improvements
- In Spring 2012, the City began construction of cut off walls to address the 100-Year Flood Improvements
- In Summer 2012, the levees were deemed more resilient than previously thought
- In 2013, the City plans to submit to certification of the levees to FEMA



# Appendix C

## Preliminary Cost Estimates for Fundraising Packages

# Fundraising Preliminary Cost Estimate Phase I

Feature	Dimension	Cost (M)	Remarks	Cost Assumptions
"Hard" Lake Edge	2,000 feet	\$0.8	5' retaining wall	\$400/lf
"Soft" Lake Edge	5,000 feet	\$0.5	reinforced turf and wetland plants	\$100/lf
Great Lawn & Stage	1.5 acres	\$1.5	Includes paved stage apron and utilities	Lawn raised 2' above lake
Promenade: I-30 to UPRR	1/2 mile	\$6.5	includes furnishings, limited lighting	100,000 sf @ \$65/sf, 40'wide avg., 2' above lake
Water Maze Plaza	1 acre	\$5.0	Per Brad's design	
Spray Park	1/3 acre	\$1.5	Per Brad's design, minimal mech.	
Lake Channels (2)	280 feet (ea)	\$1.0	12'wide, 18" min depth, conc.	\$90/sf
Commerce Bridge Plaza	1 acre	\$2.2	paved underside + lighting & furnishings	\$50/sf for paving and furnishings
Picnic Park	1.5 acres	\$2.0	lawn, trees, tables, lighting, floating pier	\$25/sf
Council Circle	1	\$1.0	Per Brad's design + grading and trees	
Riverside Fire Pits	12	\$0.8	stone rings, 12' gravel access road.	Fire Safety via water truck on standby
Wayfinding	LS	\$0.2	Per Trinity design guidelines	
Access and Parking*	1 acre	\$1.2	120 spaces accessed from Commerce St.	Includes lighting and ped ramp to promenade
	SUBTOTAL	\$24.2		
* Preempted by Parkway	17% Soft Costs	\$4.1		
	TOTAL	\$28.3		

Note: Cost estimates were developed by consultant using preliminary planning efforts and current pricing. Cost estimates will be refined, if funded, through design efforts.

# Fundraising Preliminary Cost Estimate Phase II

POTENTIAL LATER PHASES: THIRD LAKE PLUS AMENITIES ON BOTH SIDES OF RIVER				
Vehicular Bridge	220' span	\$2.5	22' clear width	
Lake North of UPRR	10 acres	\$5.0	2 ped bridges + weir/dam;	includes clay liner, outlet weir & sump bridges.
Promenade: UPRR to Pavilion	1/2 + mile	\$4.0	includes furnishings, and limited lighting	80,000 sf @ \$50 / sf, 30' wide avg.
Pavilion	2 acre	\$4.5	15' high mound, path, lit structure + playground	
Continental Playfields & Courts	8 acres	\$1.5	Soccer, basketball, flex field, BMX, w lighting	
Swing Bridge	220' span	\$6.0	12' clear width	
Disk Golf Course	14.5 acres	\$0.3	18 holes, PV-lighted posts for nighttime play	
Oak Cliff Nature Playground		\$1.0	Climbing, stepping & sliding boulders	
O.C. Enhanced Wetland & Trails		\$1.5	Includes gravel trails and 400' boardwalk	
Trees & Landscape		\$0.8	Tree locations per BVP +/-	
Skate Park Under I-30	2.0 acres	\$8.0	includes 600' promenade extension	\$55 /sf
Access Road & Parking	2 miles	\$4.8	22' wide, concrete, 150 paved parking spaces	Road: \$350/lf
Commerce St. Gateway	1 acre	\$0.8	includes entry plaza and 120 parking spaces	
Wayfinding	LS	\$0.2	Per Trinity design guidelines	
Security	LS	\$0.3		
	SUBTOTAL	\$41.2		
	17% Soft Costs	\$7.0		
	TOTAL	\$48.2		

Note: Cost estimates were developed by consultant using preliminary planning efforts and current pricing. Cost estimates will be refined, if funded, through design efforts.