

II. VISION

component:

4

Transportation

Roads and parks are not necessarily incompatible....



Potomac Parkway, Washington, D.C.



Memorial Parkway, Washington, D.C.

A Balanced Transportation Concept

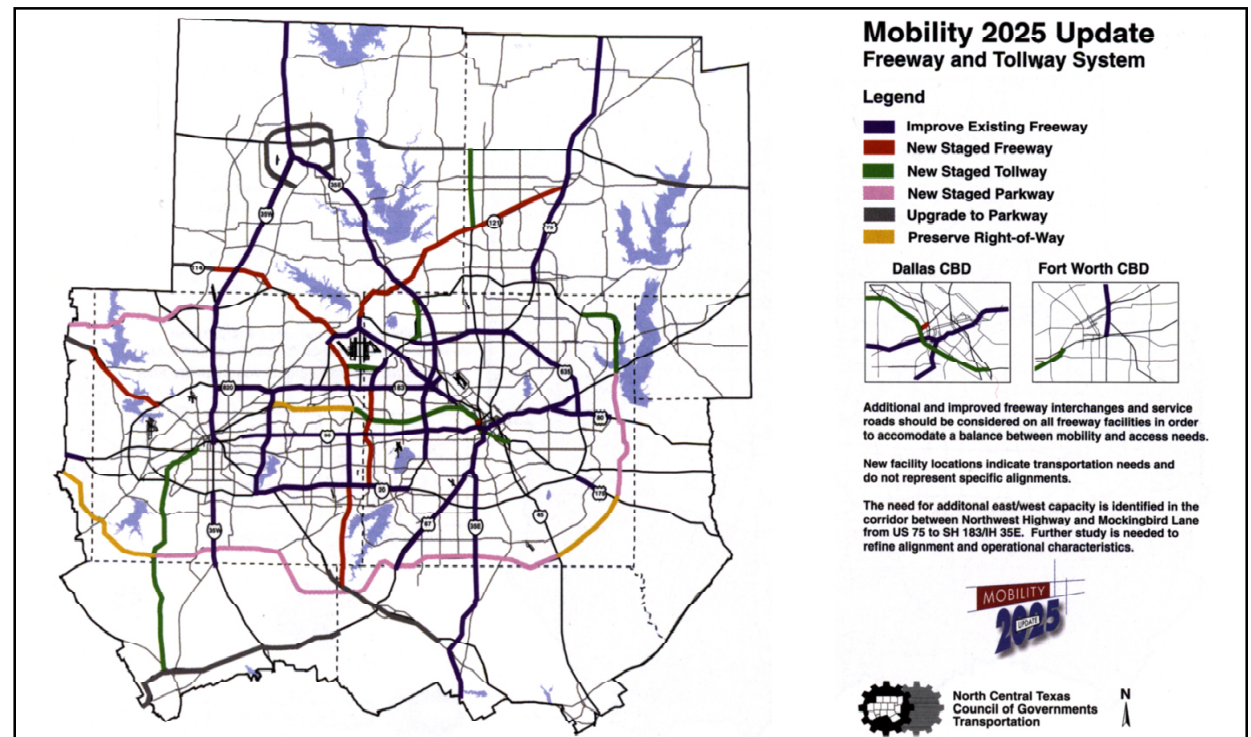
This urban design study has introduced a concept for transportation improvements referred to as the “Balanced Transportation Concept”. This concept actually has 4 integrated components, all necessary to meeting the objectives:

1. The Trinity Parkway itself from SH 183 in the northwest to US 175 in the southeast
2. Industrial Boulevard, which serves as a

Collector/Distributor and simplifies the Parkway’s role in providing access to downtown Dallas

3. Oak Cliff Levee-top Road which could serve as a critical regional transportation linkage to major highways
4. Vehicular and pedestrian access to the Park and Lakes

Dallas has been planning for a Trinity Parkway for a long time. That planning has been influenced by regional mobility demands,



The Regional Freeway and Tollway System of the Dallas-Fort Worth Metropolitan Transportation System.

financing needs and its potential location within a proposed park. Two primary objectives for the Parkway have emerged:

1. To serve as a permanent reliever route, a part of a remedy for the heavy traffic flows along the Lower Stemmons, Mixmaster and Canyon.
2. To fulfill the goal of providing access to and visibility for the proposed Trinity River Park with a context-sensitive design.

The “stakeholders” in this balanced transportation concept - the City of Dallas, TxDOT, NTTA, NCTCOG, and the Trinity River Urban Design Team - have agreed that the

parkway component of the concept should be included in the Trinity Parkway Environmental Study (EIS) already underway. The Parkway component of this balanced concept is called the “Modified-Combined” alternative and is a variation of another EIS alternative.

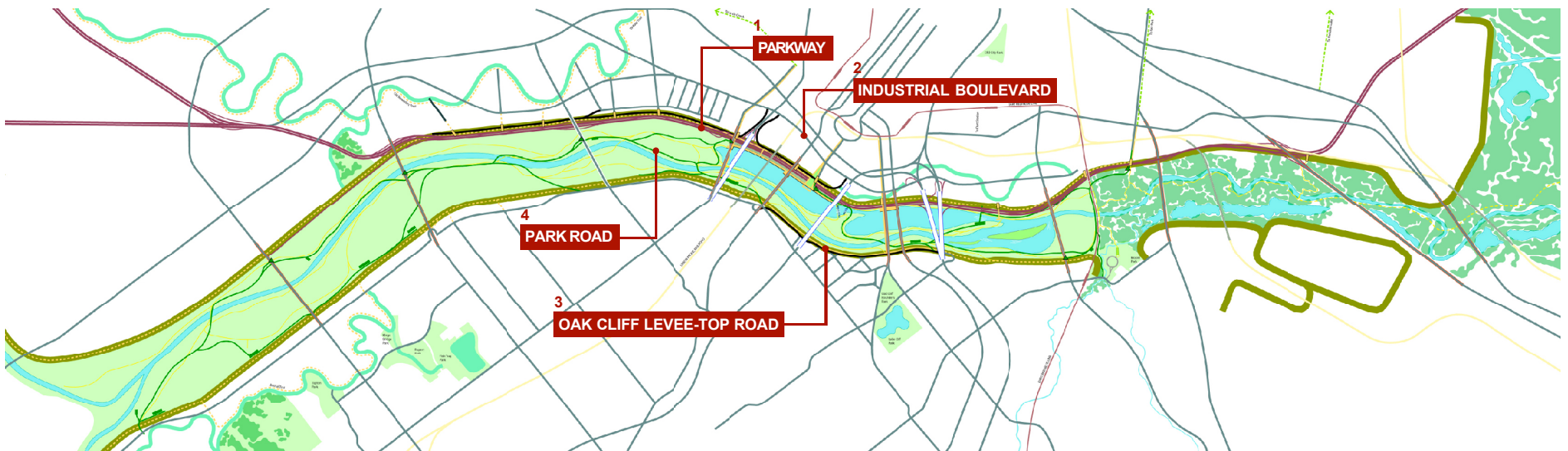
In the 1998 Major Transportation Investment Study (MTIS), the Trinity Parkway Corridor was defined as a northwest to southeast corridor including the Lower Stemmons, Mixmaster, the Canyon, Industrial Boulevard **and potential alignments for a new roadway within or adjacent to the Trinity River levees**. Obviously, this “Parkway Corridor” included major freeway sections. The MTIS explains that the term “Trinity Parkway” Corridor is based on

a placeholder name used in the Metropolitan Transportation Plan to imply a broad corridor centered on the Trinity River. “It was not intended to imply a specific type of transportation facility” (page 1-1, MTIS).

In this report, “Parkway” refers to the new roadway within the levees and related connections to other streets.

Parkway Concept

The following section describes the overall concept. Later sections will provide more detailed descriptions of the northerly, central and southern portions.



The 4 integrated components of the “Balanced Parkway Concept”.

- The Parkway alignment is patterned after NTTA's previous "Combined Parkway East Levee" alternative. The conceptual alignment is illustrated in the figure on the following pages.
- The parkway will be a limited access roadway with no at grade crossings. Pedestrians will need to pass over the parkway on structures or underneath it at sumps.
- The number of lanes will be limited to 6 north of Continental and 4 to the south of Continental when the parkway is built. Though the design accommodates a future widening to 6 lanes throughout, the balanced transportation concept is to retain the 4 lane section through 2025.
- The entire length of the Parkway will be tolled, in order to assist in capital financing and O&M costs for the project.¹
- The entire length will be posted at 55 m.p.h., with a design speed of 60 m.p.h.. This speed was necessary to maintain the partnership with NTTA. The effects of this higher speed will be partially mitigated with berms in the central section that will limit sound transmission in this narrow reach.
- The Parkway's compatibility with the Park

will be maintained by:

Restricting trucks (such as semi's, tractor trailers, pole trailers and cement trucks). This restriction may be enforced through the imposition of high tolls for trucks, by a proposed City of Dallas ordinance prohibiting truck use or by other means.

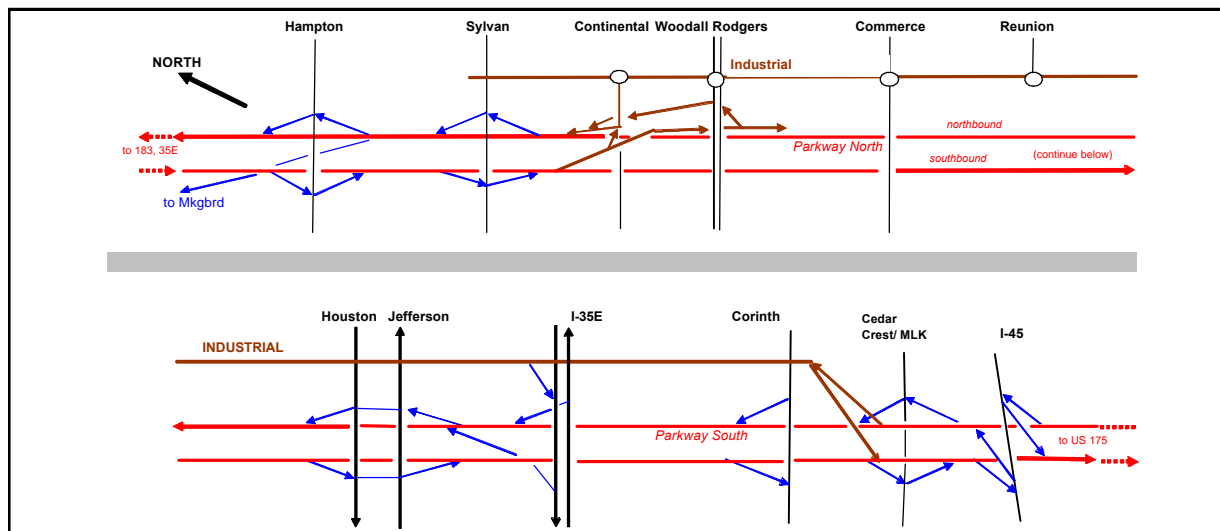
The agencies will diligently seek context-sensitive design recognizing that the road is passing through a major urban park. This design approach may include narrower lanes and shoulders, enhanced landscaping and design features, and reduced vertical clearances, all subject to FHWA approval.

The Parkway will be above the 100-year flood level, or protected by flood walls where it must pass under bridges crossing the Trinity River.

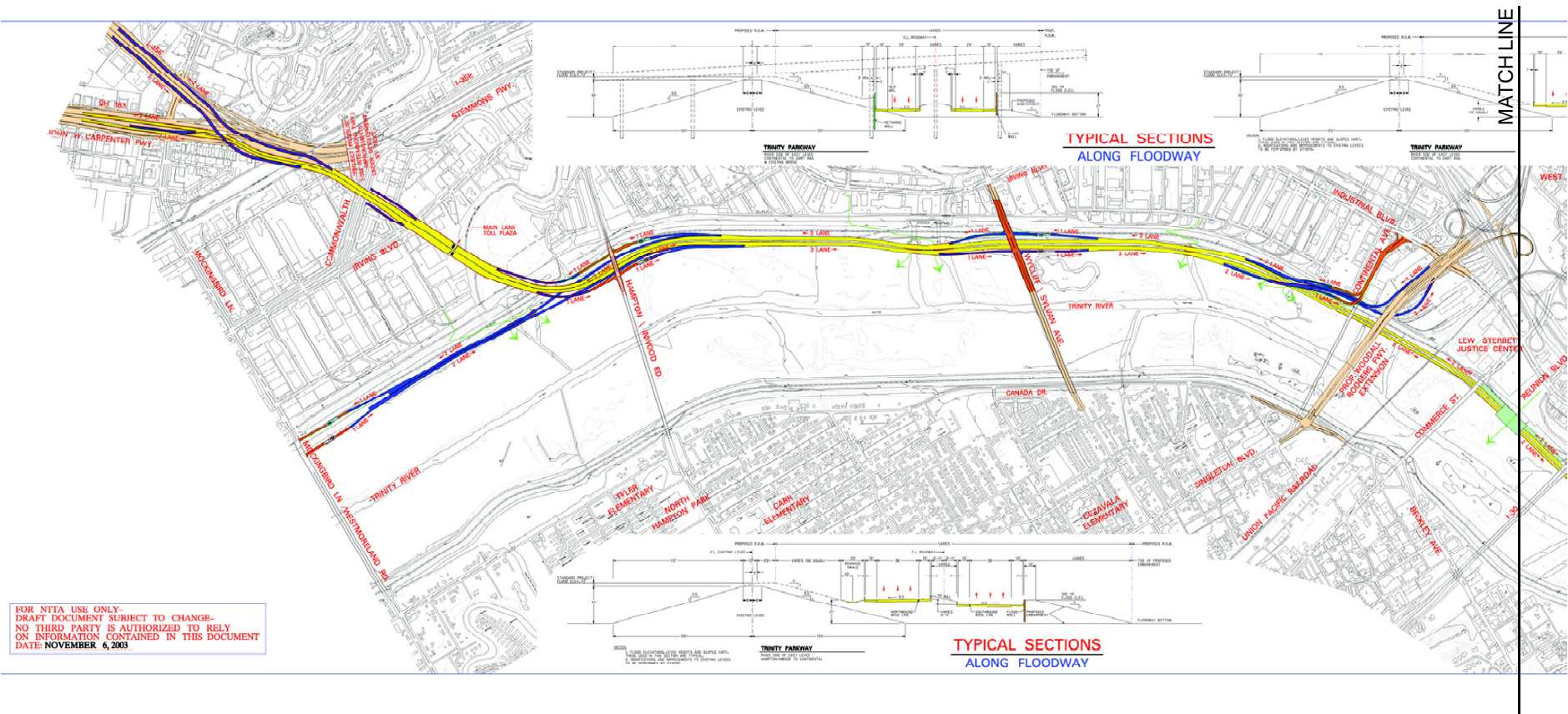
Revenues from tolls will assure maintenance of the roadway and landscaping, and will also provide for clean up after flooding.

- Access connections in the balanced transportation concept are shown schematically in the adjacent figure.

¹ For certain events, the parkway may be free to users, with a "shadow toll" paid by the City, or others, to NTTA.



Schematic of parkway connections to other roadways.



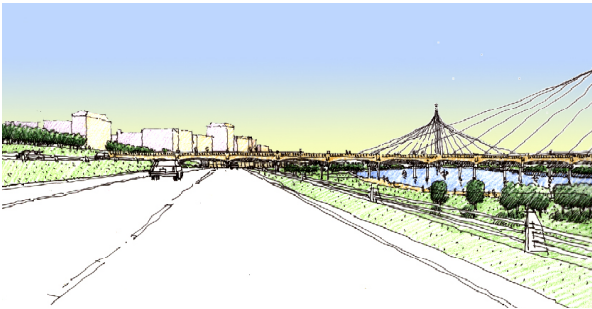


Description of Individual Parkway Sections

The paragraphs below describe specific characteristics of individual sections of roadway (the common characteristics of all Parkway sections, described above, are not repeated here).

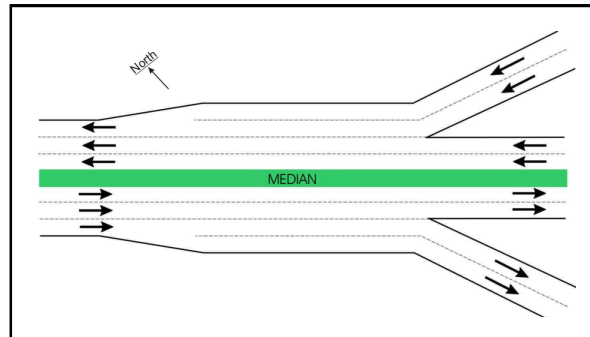
NORTHERN PARKWAY (SH-183 to Continental)

- 6 lane section crosses to the River side of the east levee just north of Hampton.
- Projected 2025 daily volume: 90,000-105,000 vehicles per day (vpd).
- Design context: gateway transition from city to park.
- Views: outstanding views of park and downtown skyline.
- Roadway Platform: terraced to allow views of the River and lakes from either direction.
- Transition from 6 lanes to 4 lanes. North of the Continental ramps, the Parkway will



View from the road: northern segment of the Parkway.

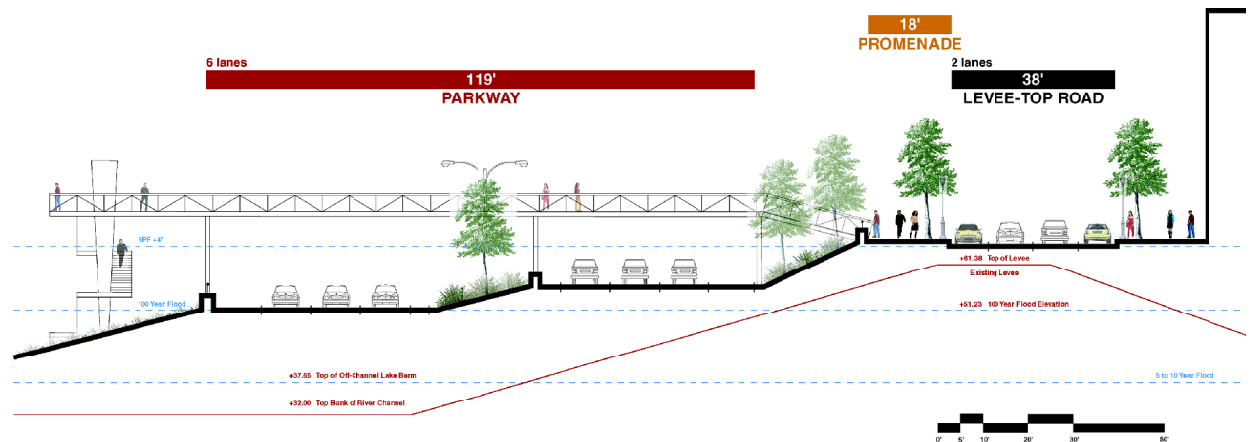
- have 6 lanes; south of the ramps, 4 lanes.
- See cross-section details below



Schematic diagram showing the transition of the Parkway from 6-lanes to 4-lanes.

CENTRAL PARKWAY (Continental to Corinth)

- 4 lane section on the river side of the downtown levee (expandable to 6 lanes)
- Projected 2025 daily volume: 80,000-90,000 vpd
- Design context: this is the narrowest section of the floodway and the Parkway must fit between downtown and the Lake. It is also the area of most intense park use.
- Views: drivers see close views of landscaping; people in park and city are screened from road views.
- Roadway Platform: single level with generous landscaping on both sides. Where it is necessary for the road to drop below the 100-year flood level for adequate bridge

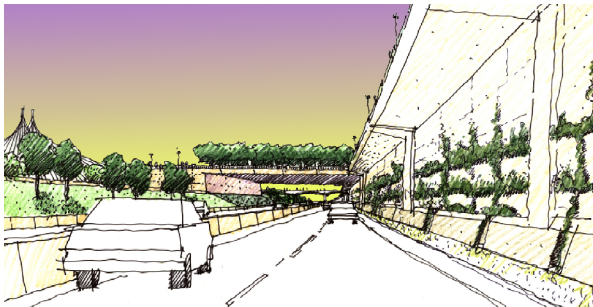


Cross-section through the northern segment of the Parkway (SH-183 to Continental).

- clearance, flood walls will be provided.
- See cross-section details below

SOUTHERN PARKWAY (south of Corinth to US 175)

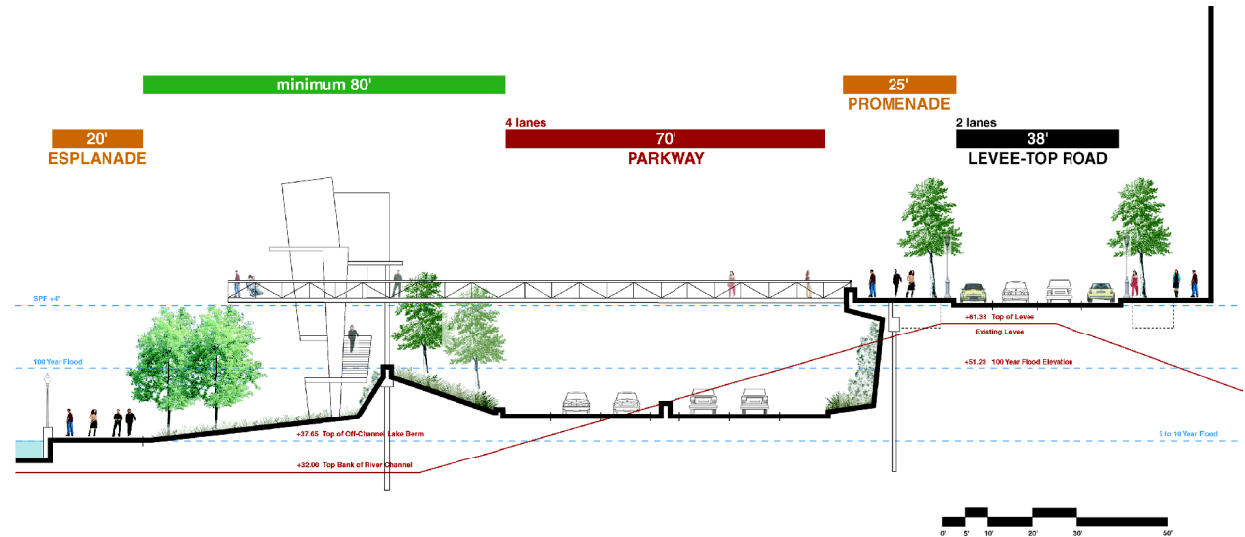
- 4 lane section on the River side of the downtown levee until it crosses over the levee south of Corinth (expandable to 6 lanes if needed after 2025).
- Projected 2025 daily volume: 80,000-110,000 vpd
- Design context: transition from alignment in Park to community.
- Views: maximize views of the Park, River and lakes from the Parkway by lifting the road above the flood level where possible.
- Roadway Platform: can be terraced to allow views of the River and lakes from either direction.
- See cross-section details following page.



View from the road: central segment of the Parkway.



The Trinity Parkway's visual impact can be reduced through context sensitive design.



Cross-section through the central segment of the Parkway (Continental to Corinth).

Widening of Central and Southern Sections of the Parkway (to six lanes)

There is consensus among the agencies that the central and southern sections of the Parkway should be built with 4 lanes. The Balanced Transportation Concept goal is to retain this cross-section through 2025. A future decision to expand this parkway section to 6 lanes should balance the need for traffic capacity with the need to maintain a high quality park setting and connection to the urban fabric. In particular, a future decision to expand the parkway in this area should consider:

- Actual traffic demands and congestion levels;
- Use of managed lanes, differential toll structures and other transportation system management approaches that reduce peak demands on key facilities;
- Ability of public transportation to serve a larger share of the trips in this corridor;



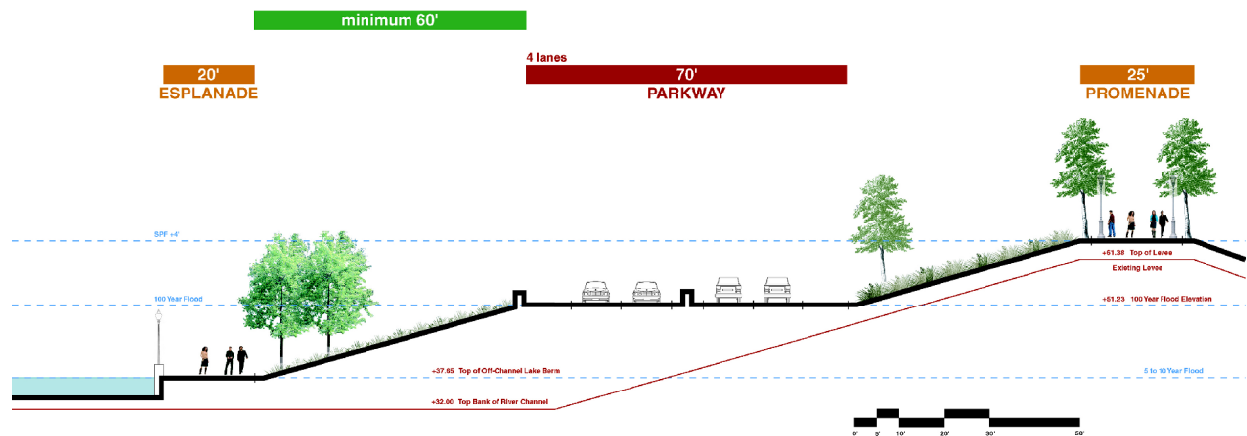
View from the road: southern segment of the Parkway (non terraced).

- Ability to accommodate trips on other facilities in this corridor;
- Changing land use patterns and travel choices that reduce the number of single occupancy vehicle trips;
- Effect of the parkway expansion on the experience of the Trinity Central Park as developed;
- Effect of the parkway expansion on air quality and other environmental characteristics of the Trinity River Corridor;
- Effect of the parkway expansion on the actual urban development occurring adjacent to this part of the Trinity River Corridor.

Industrial Boulevard (Continental to south of Corinth)

This portion of Industrial Boulevard will serve as the collector/distributor for parkway trips destined to or from Downtown and the lower Stemmons area. It becomes the transition to the downtown street system. It relieves the central section of the Parkway from having to perform this function.

- 8 lanes with turn lanes at selected, signalized intersections.
- Projected 2025 daily volume: 27,000-39,000



Cross-section through the southern segment of the Parkway (non-terraced section shown).

- vpd north of Commerce.
- 35 m.p.h. posted speed.
- Design can be accommodated within existing right-of-way, except possibly at some intersections.
- Trucks will be permitted.
- Provides additional connections between the Parkway and Woodall Rodgers.
- Design should support enhanced economic activity on adjacent properties.
- Landscaping and pedestrian improvements will improve the travel experience.

Oak Cliff Levee-top Road

This road will provide regional service along the west levee with connections to Beckley, IH-30, IH-35, and the Houston/Jefferson couplet. It will also play a vital role in providing access to the development parcels (see Levee-top Road Development Area in figure on page 60) fronting on the road and facing the Trinity Park and lakes. It will probably require 4 lanes in the peak periods; 2 of those lanes could provide parking during off-peak times. Its posted speed should be 35 m.p.h.. The latest design review has identified a method to directly connect this road to both IH-30 and IH-35; this provides the Oak Cliff Levee-top Road with an important role in the regional transportation system.

Transit Access to the Park

Existing and planned DART service will provide transit access to Trinity Park at several locations. There is existing transit service:

- At Union Station and the Convention Center Station for the Red Line and Blue Line of DART's light rail service. There is connecting bus service on Continental, Commerce, Houston/Jefferson.
- In the long run, with economic development on sites south of downtown, the Cedars Station of the Red and Blue lines may provide connections.
- On the west side, the 8th & Corinth station of the Red line at Moore Park provides access from Oak Cliff and other westside communities. It will be the major transit access point for a principal gateway into the Trinity Park.
- The Trinity Railway Express will provide commuter rail service at Union Station.
- In the southern portion of the Park, many local and express bus routes on Continental, Commerce, Houston/Jefferson, I-35E to Cadiz, Industrial will provide connections to other areas of Dallas.
- In the north, bus routes on Westmoreland, Hampton, Sylvan and Irving Boulevard will provide connections.
- DART's planned Southeast Corridor expansion will also include stations near the

Great Trinity Forest at Lake June and Buckner.

Enhancements to Other Arterials

S.M. Wright Freeway

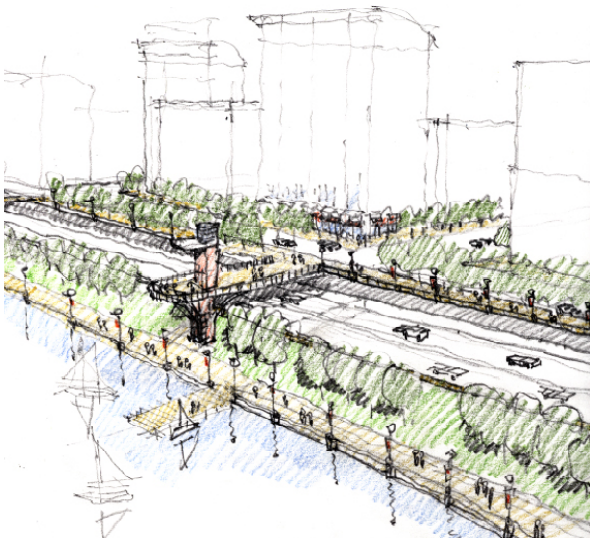
S. M. Wright Freeway should be converted to an arterial street and its design enhanced to serve as a local boulevard. This concept, identified in past community discussions by NTTA and documented as part of the Comprehensive Land Use Study, is very important to the revitalization of surrounding communities because it removes a barrier that currently divides them. Changes would lower speeds, remove the overpasses and replace them with at-grade intersections. The frontage roads would not remain. With these changes, this would become a City street rather than a State highway.

South Lamar Street

Lamar Street is currently an unattractive, underused street with a 5 lane cross-section. It is wide enough for 4 to 6 lanes, though additional right-of-way might be needed at intersections with turn lanes. It needs pedestrian improvements and landscaping. Such enhancements would give this roadway a boulevard character and should support economic revitalization in this area.

Downtown Levee-top Roads

These roads provide access to adjacent properties whose economic value will be enhanced by the Park, Lakes, Parkway and other roadway improvements. These will probably be two-lane streets with parking on both sides. More detailed design could indicate the need for 4 lanes in some locations and turn lanes at specific intersections. These streets would have a speed limit of 30 m.p.h. and 10 foot vehicular lanes (with 14 foot outside lanes where used for parking and bicycling.) They would not necessarily be continuous, but would be located where they will support substantial economic development. The map at the end of this section indicates some potential locations.



Levee-top roads will support riverfront development.

Summary

The Balanced Transportation Concept achieves a balance with other goals for the Trinity River Corridor:

- The scale of the Parkway has been reduced from the 8-lanes of previous concepts.
- The Parkway is anticipated to carry an estimated 80,000 to 100,000 vehicles per day.
- About 250,000 persons per day are afforded a variety of exposures to the Park and the Lakes.
- Vehicles will have access to the park at 12 locations, including Westmoreland, Hampton, Sylvan, Continental, Houston, Jefferson, and Canada Drive.
- In addition to other park access points, pedestrians will have access over the Parkway at 8 new pedestrian bridges, Reunion Plaza and 4 vertical stairs or ramps connecting to existing viaducts.
- With connections to the Parkway, the Houston/Jefferson couplet will be better utilized than it is currently. These connections will provide access to/from the Parkway for the Oak Cliff community (and to/from downtown).
- The Oak Cliff Levee-top Road will provide improved regional connections for the West Dallas and Oak Cliff communities and access for the economic development areas.
- The Downtown Levee-top Roads will provide access for the economic development areas on the downtown side.
- NTTA will operate and maintain the Trinity Parkway.

BACKGROUND FOR THE BALANCED PARKWAY CONCEPT

The transportation system described above meets Dallas' goals for regional mobility and local access. It also balances these goals with those of other aspects of the Trinity River Corridor. Five key factors explain this balance; each is discussed below:

- Guidelines.
- Design Principles.
- Is this still a Parkway?
- What other alternatives were considered.
- Impact on historic structures.

Guidelines

Development of Parkway system alternatives was to be constrained by certain requirements,

namely:

- Design of the Parkway, in its alignment, speeds, number of lanes, dimensions, signing and landscaping should recognize dual objectives of providing access and visibility of a major urban park and serving as a reliever.
- The system should serve projected regional travel demand for 2025. However, the Parkway corridor should not be viewed as an opportunity for unlimited future expansion. That would not be appropriate to the unique location and objectives.
- Modifications to the previous Combined Parkway East Levee alternative must be sensitive to the impact they may have on status and timing of the environmental review process.
- Plans for these transportation facilities should maintain neighborhood mobility and access to Dallas jobs for Oak Cliff and South Dallas.
- The parkway concept should retain funding partnerships with NTTA and TxDOT.
- It should maintain access connections to other roadways of other NTTA alternatives, or provide substitute connections where more appropriate to the selected concept.

Design Principles

The parkway alignment is to be varied to provide diverse views, support the development potentials of adjacent properties and allow for park connections.

- The agencies will work together using context-sensitive design principles to assure the Parkway's compatibility with the Park.
- Where safe and functional operation allows a range of standards, Parkway design will emphasize using minimum values for widths of lanes, shoulders and ramp lengths. See page 54 for Context Sensitive Guidelines.
- To the extent permitted by construction efficiency and timing of travel demand growth, improvements will be built in stages.

Is This Still a Parkway?

Yes, because:

- It will have the landscaping and views of a Parkway.
- Trucks will be restricted.
- Speed limits, though higher than some parkways, are still moderate and will be enforced.
- It will be designed in the context of a road passing through a park.

What Other Alternatives were Considered?

Other Corridors

Early steps in this process investigated the potential for other corridors, such as Loop 12, to carry the reliever volumes. However, a test using NCTCOG's 2025 trip tables did not uncover effective alternatives.

Other Alternatives Within the Corridor

Trinity Parkway MTIS and EIS Alternatives:

Possible roadway alternatives within the Trinity River Corridor have been the focus of extensive study and discussion since 1995, when the Texas Department of Transportation began a Major Transportation Investment Study (MTIS) for this corridor.

This study, completed in 1997, was intended to develop a plan of action to solve regional transportation problems along the Trinity River Corridor in Dallas. It recommended a package of transportation investments including a new reliever route; the package also contained improvements to the Canyon/Mixmaster; the Woodall Rodgers connection to Beckley; DART, bicycle and pedestrian facilities; and strategies for freeway management and employee trip reduction. The MTIS evaluated 39 alternatives for the reliever route, studied three options in detail and recommended a split-riverside

Context Sensitive Design Guidelines for the Trinity Parkway

A Balanced Vision Plan for the Trinity River Corridor

PARKWAY:	SH 183 to Continental	Continental to South of I-35E	South of I-35E to US 175	CD on Industrial
Alignment	Combined, East Levee	Combined, East Levee + Industrial, Depressed	Combined, East Levee then NTTA Alt. 3	North of Continental to North of Corinth
Lanes (initial stage)	6	4	4	8
Maximum Platform (lanes)	6 lanes	6 lanes	6 lanes	Add Turn Lanes
Platform Type	Terraced	Single Level	Terraced	At Grade
Design Speed (mph)	60	60	60	40
Posted Speed (mph)	55	55	55	35
Lane Width (feet)	11	11	11	11 - 12
Median Width (feet)	25	6	25	
Right Shoulder Type	Paved	Stabilized Turf	Stabilized Turf	Paved
Left Shoulder Type	Paved	Paved	Paved	Paved
Right Shoulder Width (feet)	10	10	10	2
Left Shoulder Width (feet)	4	2	4	2
Section Type	Curbed or Open Slope	Slope on River Side with Floodwall Beyond	Curbed or Open Slope	Curbed
Tolls?	Yes	Yes	Yes	No
Reduced Toll Plaza?	Yes	N/A	Yes	N/A
Trucks Allowed	No	No	No	Yes
Pedestrian Caps	N/A	Yes (600 ft)	N/A	N/A
Visual Narrowing	Maybe, at North Levee Crossing	Yes	Maybe, at South Levee Crossing	
Park Character, Signs	Yes	Yes	Yes	No

alternative. This recommended option was adopted as the locally-preferred alternative in fall 1997 by the Dallas City Council and other regional transportation agencies.

The Dallas City Council chose to evaluate the Trinity Parkway reliever route as a toll facility in December 1997. The process to prepare an Environmental Impact Statement (EIS) for the project began in 1999. The EIS defined six alternatives for study. These are:

1. No-Build
2. Industrial Elevated
3. Industrial At-Grade
4. Combined Riverside
5. Split Riverside
6. Split Landside

Although the draft EIS has not yet been

completed, information and analysis previously presented in public forums was shared with the Transportation and Urban Design Study team. These alternatives were considered in the development of this Balanced Vision Plan.

Urban Design and Transportation Study Alternatives:

This study's direction was to provide needed transportation capacity while balancing this issue with other objectives for the corridor. To develop a parkway that is a 'good neighbor' to a major park, alternatives were examined that varied the roadway's alignment, number of lanes, speed, tolling, connections to the surrounding street network and other characteristics. Approximately a dozen alternatives were modeled to test their ability to meet regional transportation demands.

Transit

The MTIS considered the role of transit and concluded that enhanced transit could provide about 2% of the traffic capacity goal for the Lower Stemmons and Mixmaster. To meet the corridor's travel needs with transit alone is too optimistic a role for transit. This is because development patterns in the Dallas Metroplex, like so much of the U.S., limit transit to very specific, higher density, markets.

Impact on Historic Structures

In order to provide equitable access to Oak Cliff neighborhoods, the concept requires connections to the Houston Street Bridge, which is listed in the National Register of Historic Places. Significant modifications have already been made at the downtown Dallas end of the bridge at the Convention Center. If well designed, these connections will add value to the Houston Street Bridge by increasing the productive use of this currently underutilized asset. The Houston Street Viaduct should provide safe use by pedestrians and cyclists.

Although less celebrated, the Corinth, Commerce and Continental Bridges are eligible to be designated as historic structures. Pedestrian and vehicular access to the park from these structures will be beneficial to the park and can present opportunities to enhance the historic qualities of the bridges.



The DART river crossing downstream of Corinth.



The Houston Street Viaduct.



PROPOSED TRINITY PARKWAY

- Length of Parkway from SH 183 to US 175: 9.1 miles
- Posted speed limit: 55 mph
- Design speed: 60 mph
- Number of lanes:
 - 6 lanes north/west of Continental Ave.
 - 4 lanes south/east of Continental Ave.
- Expandable to 6 lanes for the full length after 2025 if sufficient traffic volumes warrant expansion
- Lane widths: 11 feet (with FHWA approval)
- Trucks restricted by ordinance, high tolls or other measures
- Vertical Clearances: reduced from highway standards (with FHWA approval)
- Parkway is a tolled facility

INDUSTRIAL BOULEVARD

- Number of lanes: currently 6 lanes; proposed 8 lanes with some additional turning lanes
- Speed Limit: 35 mph
- Enhanced landscape and street trees

SOUTH LAMAR BOULEVARD

- Number of lanes: currently 4 lanes; proposed 6 lanes with some additional turning lanes
- Speed Limit: 35 mph
- Enhanced landscape and street trees

DOWNTOWN LEVEE-TOP ROAD

- Support development on properties near the levee on the downtown side
- Number of lanes: 2 travel lanes with on-street parallel parking
- Speed Limit: 30 mph
- Lane widths: 10 feet vehicular lanes (with 11 feet outside lanes where used for parking and bicycling)

OAK CLIFF LEVEE-TOP ROAD

- Length of Oak Cliff Levee-top Road: 1.8 miles from Beckley to I-35
- Number of lanes: 4 travel lanes with off-peak, on-street parallel parking

S.M. WRIGHT FREEWAY

- Downgrade to surface boulevard status
- May become a city street
- Enhanced landscape and street trees

PUBLIC TRANSIT

- DART service at Union Station, Convention Center, Cedars West and Moore Park
- Trinity Railway express at Union Station
- Bus connections: Westmoreland, Hampton, Sylvan and Irving Boulevard routes
- Bus routes cross Continental, Commerce, Houston and Jefferson Viaducts