

# Memorandum

2011 DEC -8 PM 10:26  
CITY SECRETARY  
DALLAS, TEXAS



CITY OF DALLAS

DATE December 8, 2011

TO Honorable Members of the Quality of Life & Government Services Committee:  
Sandy Greyson (Vice Chair), Mónica R. Alonzo, Dwaine Caraway, Carolyn Davis

SUBJECT Quality of Life & Government Services Committee Meeting Agenda

**Monday, December 12, 2011, 9:30 a.m.**

Dallas City Hall - 6ES, 1500 Marilla St., Dallas, TX 75201

The agenda for the meeting is as follows:

- |   |  |
|---|--|
| 1. Approval of November 14, 2011 minutes<br>(9:30 a.m. – 9:31 a.m.)                                     | Angela Hunt, Chair                                       |
| 2. Pavement Markings<br>(9:31 a.m. – 10:15 a.m.)  | Elizabeth Ramirez, Assistant Director<br>Street Services |
| 3. Bike Plan Implementation and the<br>Thoroughfare Plan Amendment Process<br>(10:15 a.m. – 11:00 a.m.) | Rick Galceran, Director<br>Public Works                  |
| 4. Adjourn<br>(11:00 a.m.)  | Angela Hunt, Chair                                       |

Please let me know if you have any questions.

Handwritten signature of Angela Hunt in cursive, with the initials 'ahs' written below it.

Angela Hunt  
Chair

cc: Honorable Mayor and Members of the City Council  
Mary K. Suhm, City Manager  
Rosa A. Rios, Acting City Secretary  
Thomas P. Perkins, Jr., City Attorney  
Craig D. Kinton, City Auditor  
C. Victor Lander, Administrative Judge  
Stephanie Cooper, Assistant to the City Manager

A.C. Gonzalez, First Assistant City Manager  
Ryan S. Evans, Assistant City Manager  
Jill A. Jordan, P.E., Assistant City Manager  
Forest E. Turner, Assistant City Manager  
Joey Zapata, Assistant City Manager  
Jeanne Chipperfield, Chief Financial Officer

DATE December 1, 2011  
SUBJECT Quality of Life & Government Services Committee Meeting Agenda  
PAGE 2 of 2

A closed executive session may be held if the discussion of any of the above agenda items concerns one of the following:

1. Contemplated or pending litigation or matters where legal advice is requested of the City Attorney. Section 551.071 of the Texas Open Meetings Act.
2. The purchase, exchange, lease or value of real property, if the deliberation in an open meeting would have a detrimental effect on the position of the City in negotiations with a third person. Section 551.072 of the Texas Open Meetings Act.
3. A contract for a prospective gift or donation to the City, if the deliberation in an open meeting would have a detrimental effect on the position of the City in negotiations with a third person. Section 551.073 of the Texas Open Meetings Act.
4. Personnel matters involving the appointment, employment, evaluation, reassignment, duties, discipline or dismissal of a public officer or employee or to hear a complaint against an officer or employee. Section 551.074 of the Texas Open Meetings Act.
5. The deployment, or specific occasions for implementation of security personnel or devices. Section 551.076 of the Texas Open Meetings Act.

# Quality of Life Council Committee

## Meeting Record

(DRAFT)

**Meeting Date:** 11-14-2011

**Convened:** 9:36 a.m.

**Adjourned:** 10:55 a.m.

Angela Hunt, Chair  
Sandy Greyson, Vice-chair  
Monica R. Alonzo  
Carolyn R. Davis  
Dwayne R. Caraway

**Briefing Presenter(s):**

- Joey Zapata, Assistant  
City Manager  
- Robert Curry, Chairman  
Urban Forest Advisory  
Committee

**Staff Present:**

Forest Turner, Lisa Christopherson, Clifton Gillespie, Jimmy Martin, James Childers, Michael Hellman, Karen Woodard, Phil Erwin, Ricardo Sinyard, Vernon Young

**AGENDA:**

1. **Approval of the October 24, 2011 minutes**

**Presenter(s):**

**Information Only:** \_\_\_\_\_

**Action Taken/Committee Recommendation(s):**

Motion to approve the October 24, 2011 minutes.

Motion made by: Sandy Greyson

Item passed unanimously: \_\_X\_\_

Item failed unanimously: \_\_\_\_\_

Motion seconded by: Monica R. Alonzo

Item passed on a divided vote: \_\_\_\_\_

Item failed on a divided vote: \_\_\_\_\_

2. **Downtown Vending**

**Presenter(s):** Joey Zapata

**Information Only:** \_\_\_\_\_

**Action Taken/Committee Recommendation(s):**

The purpose of the briefing was to review proposed amendments to street vending regulations designed to foster vibrant streets and public spaces.

The suggestion was made to have staff review committee suggestions/questions and bring back to the Quality of Life Committee in early January 2012.

Motion made by: Angela Hunt

Item passed unanimously: \_\_X\_\_

Item failed unanimously: \_\_\_\_\_

Motion seconded by: Sandy Greyson

Item passed on a divided vote: \_\_\_\_\_

Item failed on a divided vote: \_\_\_\_\_

3. **An Update for Revisions to Article X Tree and Landscaping Ordinance**

**Presenter(s):** Robert Curry

**Information Only:** \_\_\_\_\_

**Action Taken/Committee Recommendation(s):**

# Quality of Life Council Committee

## Meeting Record

(DRAFT)

The purpose of the briefing was to provide “fine tune” changes to the existing ordinance such as encourage native plant species to reduce water use, add changes to tree removal, reforestation fund, measures for tree preservation during construction, etc.

Councilmember Hunt suggested that Councilmember Greyson work with staff to provide more information and return to the Quality of Life Committee in 2012.

Motion made by: Angela Hunt

Item passed unanimously: \_\_X\_\_

Item failed unanimously: \_\_\_\_\_

Motion seconded by: Sandy Greyson

Item passed on a divided vote: \_\_\_\_\_

Item failed on a divided vote: \_\_\_\_\_

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Angela Hunt, Chair

Quality of Life Committee

# Memorandum



DATE December 9, 2011

TO Honorable Members of the Quality of Life Committee: Angela Hunt (Chair),  
Sandy Greyson (Vice Chair), Monica R. Alonzo, Dwaine R. Caraway, Carolyn R.  
Davis

SUBJECT Pavement Markings Briefing

On Monday, December 12, 2011, you will be briefed on Pavement Markings.  
The material is attached for your review.

If you have questions or need additional information, please let me know.



Forest E. Turner  
Assistant City Manager

Attachment

cc: Honorable Mayor and Members of the City Council  
Mary K. Suhm, City Manager  
Rosa A. Rios, Acting City Secretary  
Thomas P. Perkins, Jr., City Attorney  
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Joey Zapata, Assistant City Manager  
Jeanne Chipperfield, Chief Financial Officer  
Frank Libro, Public Information Office  
Stephanie Pegues-Cooper, Assistant to the City Manager

# Department of Street Services

## Pavement Markings

Presented to:

- Transportation and Environment Committee
- Quality of Life Committee

December 12, 2011

# Briefing Purpose and Overview

- ❑ Provide information on the current street striping program
- ❑ Provide information on costs to stripe bike lanes as a part of the striping program
- ❑ Discuss requirements prior to bike route implementation

# Pavement Markings

## Inventory

- ❑ Lane lines
  - 7.7 M linear feet of stripes over 1,011 miles of roadways
- ❑ 7,400 Crosswalks
  - Most are at traffic signals
  - 3,400 school related
- ❑ 5,500+ Stop bars
- ❑ 2,700+ pavement legends (left and right turn arrows)



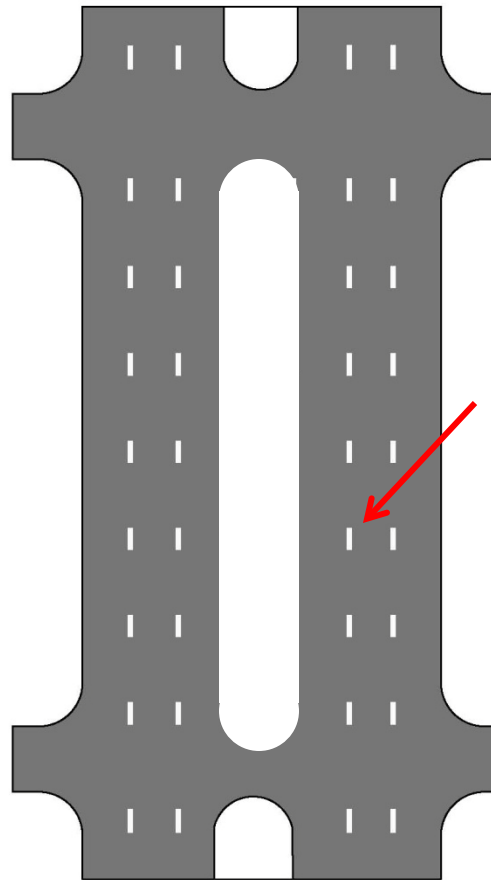
Street Striping Machine



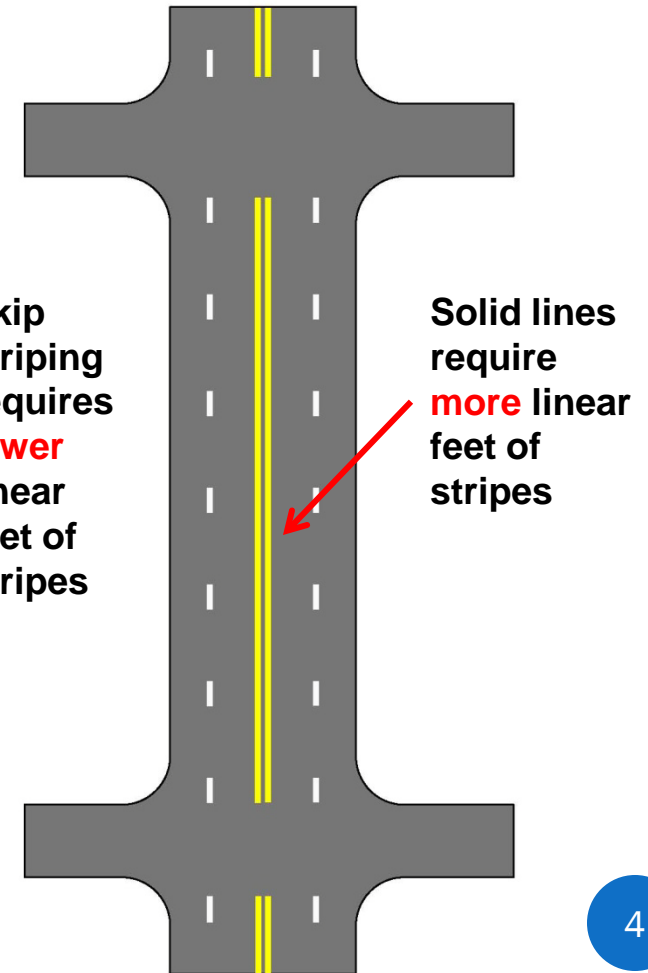
# Examples of Striping Quantities

- ❑ Staff reports linear miles of stripes installed each year not lane miles
- ❑ Quantities per mile each street varies depending on street type
  - More lanes do not necessarily result in higher striping quantities per mile

6 Lane Divided Street  
5,280 Linear Feet of Stripes per Mile



4 Lane Undivided Street  
15,840 Linear Feet of Stripes per Mile



# Installation and Materials

- All street striping is installed by contractors
  - Seasonal work
  - Markings should be applied to dry surfaces with temperatures greater than 50 degrees to allow markings to properly adhere
  - Majority of maintenance striping is completed between March and October
  
- Materials Used
  - City uses specifications developed by TxDOT based on research and statewide committee input
  - Materials available:
    - Thermoplastic (2 to 4 years)
    - Water based (six months to 1 year)
    - Pre-formed Tape (4 to 6 years)
    - Epoxy (under test by TxDOT)

# Cost Comparison of Striping Materials

- ❑ City uses mostly thermoplastic material since it is the most cost effective over time
- ❑ Problem spots with high traffic volumes or constant weaving may warrant use of pre-formed tape

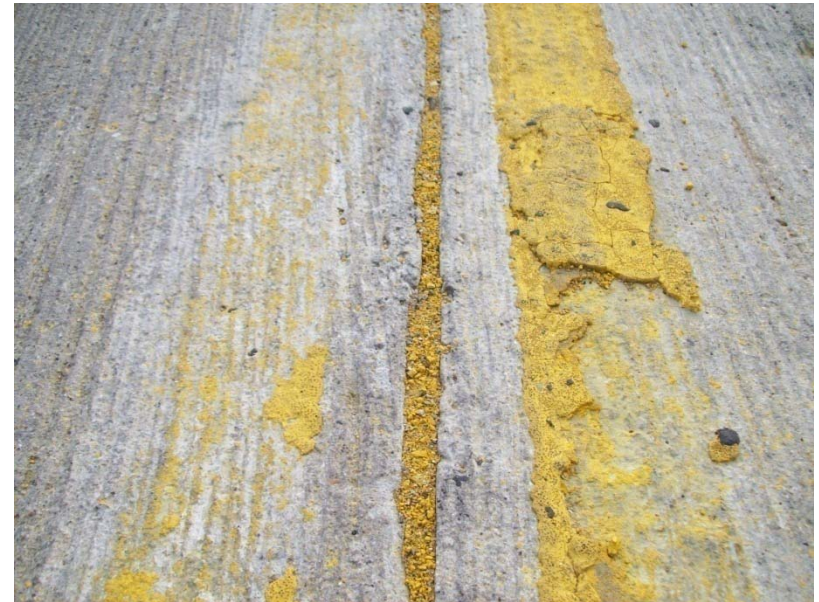
## Example

for Major Street with **30,000** Vehicles per Day

Marking Material	Life (1) Street with 30,000 vehicles per day	4 Inch Lane Line Cost	Average Cost over 10 years
Thermoplastic	3 years <sup>(1)</sup>	\$0.33 LF	\$1.09 LF
Water-based	1 year <sup>(1)</sup>	\$0.22 LF	\$2.20 LF
Pre-formed Tape	5 years <sup>(1)</sup>	\$2.60 LF	\$5.20 LF

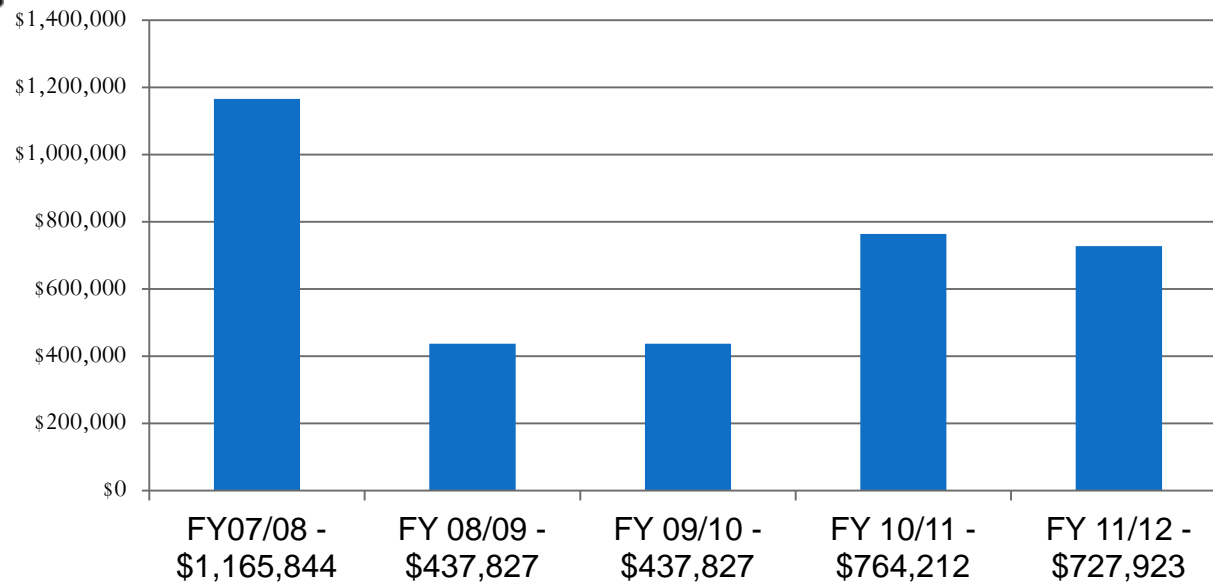
(1) Life of markings vary based on traffic volume, pavement surface and weather conditions. Higher traffic volumes will result in shorter life and higher average cost over 10 years.

# Factors Affecting Visibility and Life of Markings



- ❑ Average daily traffic volume
- ❑ Type of pavement surface (concrete or asphalt)
- ❑ Weather conditions
- ❑ Application methods and thickness of stripe

# Budget History



- ❑ Budget determines number of miles striped per year
- ❑ Staff implemented cost efficiencies to allow more streets to be striped with lane lines:
  - Reduced lane line width from 6 inches to 4 inches
  - No surface preparation
  - Installation or maintenance of raised reflective buttons not funded
  - Installation or maintenance of edge lines not funded
  - Maintenance of crosswalks at traffic signals not funded

## Annual Inspection for Visibility

- ❑ 1,011 miles of roadway segments inspected and rated each year for lane line visibility
- ❑ Lane Line Ratings (A, B or C)
  - A - 467 miles (visible)
  - B - 337 miles (visible but worn)
  - C - 207 miles (little to no visibility)
- ❑ FY11/12 budget funds striping on worst condition streets
  - All 207 miles of “C” rated streets funded and 115 miles of “B” rated streets funded
- ❑ \$510,000 required to stripe remaining 222 miles of “B” rated streets
  - Striping “B” rated streets allows striping to be installed before visibility is lost

# Annual Inspection for Visibility

- ❑ Crosswalks = 7,388 total
  - 2,807 (38%) rated A – Visible
  - 1,405 (19%) rated B - Visible but worn
  - 3,176 (43%) rated C - Little to no visibility
  
- ❑ Currently budgeted to repaint 100 crosswalks per year
  
- ❑ Staff only approves restriping of crosswalks that are school related or safety-related sites; all other requests put on hold
  
- ❑ Additional **\$2.3 M** required to repaint all crosswalks rated “C” = little to no visibility



# Striping for Bikes

- ❑ Bike Plan adopted by Council in June of 2011
  - Defines routes
  - Recommends type of bike facility for each route
- ❑ 840 miles total “on-street” bike route miles
  - \$15.8 M to install bike markings & signage citywide
    - **Currently program is not funded**
    - Staff seeking grant fund opportunities
    - Includes contract inspection and engineering
  - **\$ 3.2+ M** annual O&M after full plan implemented
    - Restriping **every 4 years on average**
    - Sign maintenance (knockdowns, graffiti)

# Striping for Bikes

- ❑ The Bike Plan recommends a phased strategy to implement bike routes:
  - **Demonstration/Early Implementation (Priority)**
  - Near-term
  - Mid-term
  - Long-term
  
- ❑ 2006 Bond Program
  - Street Reconstruction Projects – Some of the routes defined in the **Demonstration/Early Implementation phase** overlay with 2006 bond program street reconstruction projects. Depending on individual project savings, bike markings may be included as part of these projects
  - Resurfacing Projects – All resurfacing projects not completed will not have savings available for the added cost of bike lanes

# Bike Marking Types



Shared Lane



Bike Lane (No Buffer)

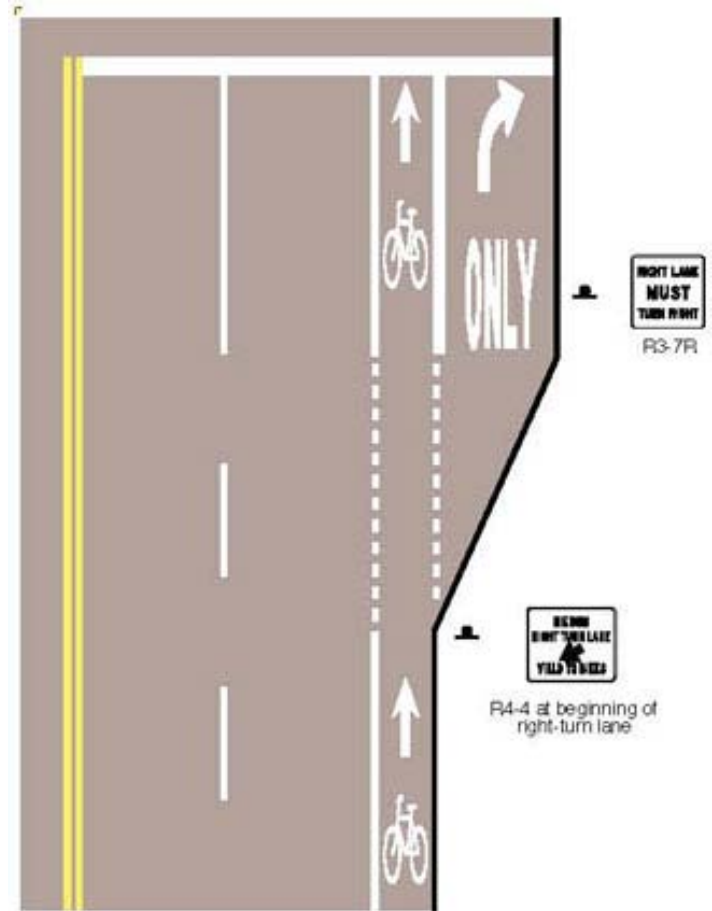


Buffered Bike Lane

Facility Type	Estimated Miles
Shared Lanes	206
Bike Lanes (No Buffer)	123
Bike Lanes Buffered	132
Paved Shoulders	19
To be determined	360
<b>Total</b>	<b>840</b>

- Painted bike symbols and signs recommended every 250 feet
- Some streets may require “No Parking” signs every 250 feet
- Thoroughfare Amendment required for many routes prior to implementation

# Typical Bike Markings



## ❑ Dotted Extensions

- Used to reduce conflicts between bikes and turning vehicles
- Used at intersections where bike lane passes through intersection
- Creates awareness and designates space for bikes



City of Dallas

# Bike Marking Enhancements



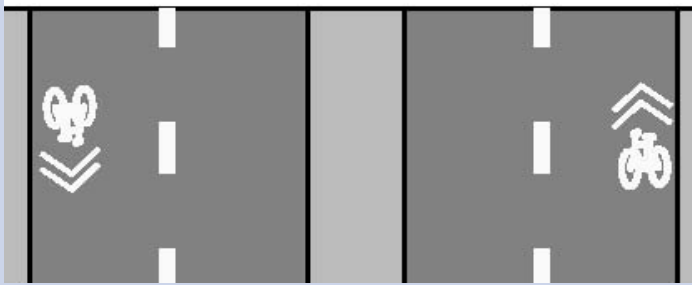

30 foot by 4 foot  
Color Conflict Zone  
Cost = \$600



## Colored Lanes (\$4 cost per square foot)

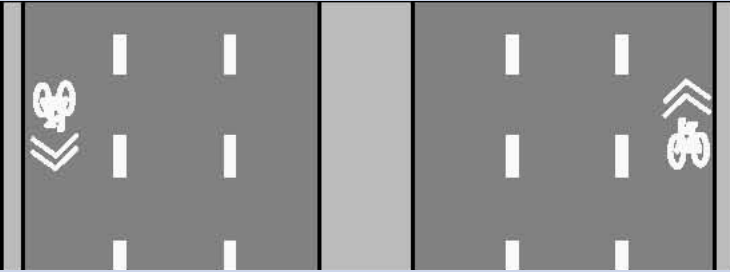
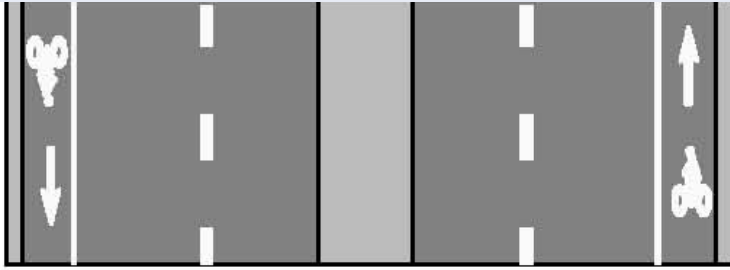
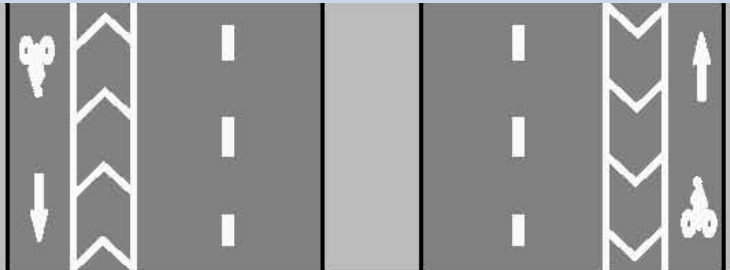
- Enhancement to dotted extensions at right turn lanes
- Color creates awareness and designates space
- Used in problem areas (not a standard installation)

# Example Per Mile Costs

	4 Lane Divided Street	Standard Striping	Cost to Add Bike Lanes
Shared Bike Lane		\$871	\$17,400
Buffered Bike Lane		\$871	\$24,500

- ❑ Standard striping on divided roadways uses mostly “Skip” striping (10 foot stripe spaced 30 feet apart) and results in lower quantities
- ❑ Bike markings result in much higher lane line quantities since they require two solid stripes and bike legends and signs every 250 feet

# Example Per Mile Costs

	6 Lane Divided Street	Standard Striping	Cost to Add Bike Lanes
Shared Lane		\$1,742	\$17,400
5 foot Bike Lane		\$1,742	\$21,500
Buffered Bike Lane		\$1,742	\$24,500

# Implementation Scenarios

	Scenario	Increase to Annual Budget
1	Increase annual budget to add bike lanes during routine striping maintenance	\$3.9 M
2	Trade maintenance striping miles for bike lane miles	\$0 M
3	Increase annual budget to add 10-20 bike miles per yr	\$174 K-\$490 K
4	Increase annual budget to add bike markings citywide over the next 10 years	\$1.58 M

# Implementation Scenarios

- ❑ Scenario 1 – Add bike lanes during routine striping maintenance
  - **\$3.9 M** additional funding required per year to add bike markings and signs while striping street segments with low-visibility stripes
  - Only portions of routes will be completed leaving bicyclists without guidance or protection when striped/signed portion ends
  - No cost savings by simultaneously striping bike lanes with standard lane lines
    - Contractor charges by linear foot with no mobilization fee
    - Markings for legends and cross-hatching are installed with different machines



# Implementation Scenarios



## Scenario 2 – Trade maintenance striping miles for bike lane miles

- Trade miles of bike lanes for miles of lane line striping and maintain \$727K budget
- The disproportionately high cost of bike markings quickly reduces miles funded for standard lane line striping

Examples of Bike Mile Increases	Resulting Miles For Maintenance Striping
Existing Budget - 0 miles of bike markings	322
Add 10 miles of Shared Lanes	245
Add 10 miles of 5' Bike Lanes	227
Add 10 miles of Buffered Bike Lanes	214
Add 20 miles of Shared Lanes	168
Add 20 miles of 5' Bike Lanes	132
Add 20 miles of Buffered Bike Lanes	105

# Implementation Scenarios

- Scenario 3 – Increase current budget to add 10 to 20 miles of bike routes year

Examples of Bike Mile Increases for different facilities	Standard Striping (miles)	Bike Striping (miles)	Added Cost to Budget
Existing Budget (1)	322	0	\$0
Add 10 miles of Shared Lanes	322	10	\$174 K
Add 10 miles of 5' Bike Lanes	322	10	\$215 K
Add 10 miles of Buffered Bike Lanes	322	10	\$245 K
Add 20 miles of Shared Lanes	322	20	\$348 K
Add 20 miles of 5' Bike Lanes	322	20	\$430 K
Add 20 miles of Buffered Bike Lanes	322	20	\$490 K

(1) Existing budget for Lane Line Striping = \$727K

# Implementation Scenarios

- ❑ Scenario 4 – Increase annual budget to add bike markings citywide over the next 10 years
  - \$15.8 M = Total Bike Plan implementation cost with signage and engineering
  - Annual Cost of 10 years = \$1.58 M
    - Add approximately 80 to 100 miles per year depending on cost of facility types in each implementation phase
    - Bike route miles implemented using phases defined in Bike Plan

# Future O&M Costs

- ❑ Ideal annual striping budget to properly maintain stripes for all modes of transportation
  - \$6.5 M will be required annually to keep vehicle lane lines, crosswalks and bike markings visible (**once entire bike system is in place**)
    - Vehicle and crosswalk striping
      - \$727 K = **Current** annual maintenance for vehicle lane lines and crosswalk markings
      - \$3.3 M = **Ideal** budget to keep vehicle lanes lines and crosswalks visible (using a 3 year average striping life)
    - Bike lane striping
      - \$0 = **Current** annual budget
      - \$3.2 M = **Ideal** budget to keep bike markings visible once entire bike route system is in place (using 4 yr. average bike marking life)

# Actions Required Prior to Bike Route Implementation

1. Identify funding
2. Public meetings and amendment to Thoroughfare Plan if the bike markings will change street operations along the route
3. Public meetings and notification for routes not on Thoroughfare Plan

Note: Presentation today on Thoroughfare Plan

# Department of Street Services

Questions / Comments?

# Memorandum



CITY OF DALLAS

DATE December 9, 2011

Honorable Members of the Quality of Life & Government Services Committee:  
TO Angela Hunt (Chair), Sandy Greyson (Vice Chair), Mónica R. Alonzo, Dwaine Caraway,  
Carolyn Davis

SUBJECT **Bike Plan Implementation and Thoroughfare Plan Amendment Process**

On Monday, December 12, 2011, the Quality of Life Committee will be briefed on the Bike Plan Implementation and Thoroughfare Plan Amendment Process. The briefing materials are attached for your review.

Please feel free to contact me at 214-670-5299 if you need additional information.

A handwritten signature in black ink, reading "Jill Jordan".

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

c: The Honorable Mayor and Members of the City Council  
Mary K. Suhm, City Manager  
Rosa A. Rios, Acting City Secretary  
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Joey Zapata, Assistant City Manager  
Jeanne Chipperfield, Chief Financial Officer  
Frank Libro, Managing Director, Public Information Office  
Edward Scott, CPA, City Controller  
Theresa O'Donnell, Director of Sustainable Development and Construction  
Rick Galceran, Director of Public Works  
Stephanie Cooper, Assistant to the City Manager

# Bike Plan Implementation and the Thoroughfare Plan Amendment Process



UrbanAdvantage



Presented to:

- Council Quality of Life Committee
- Council Transportation and Environment Committee

December 12, 2011

# Purpose

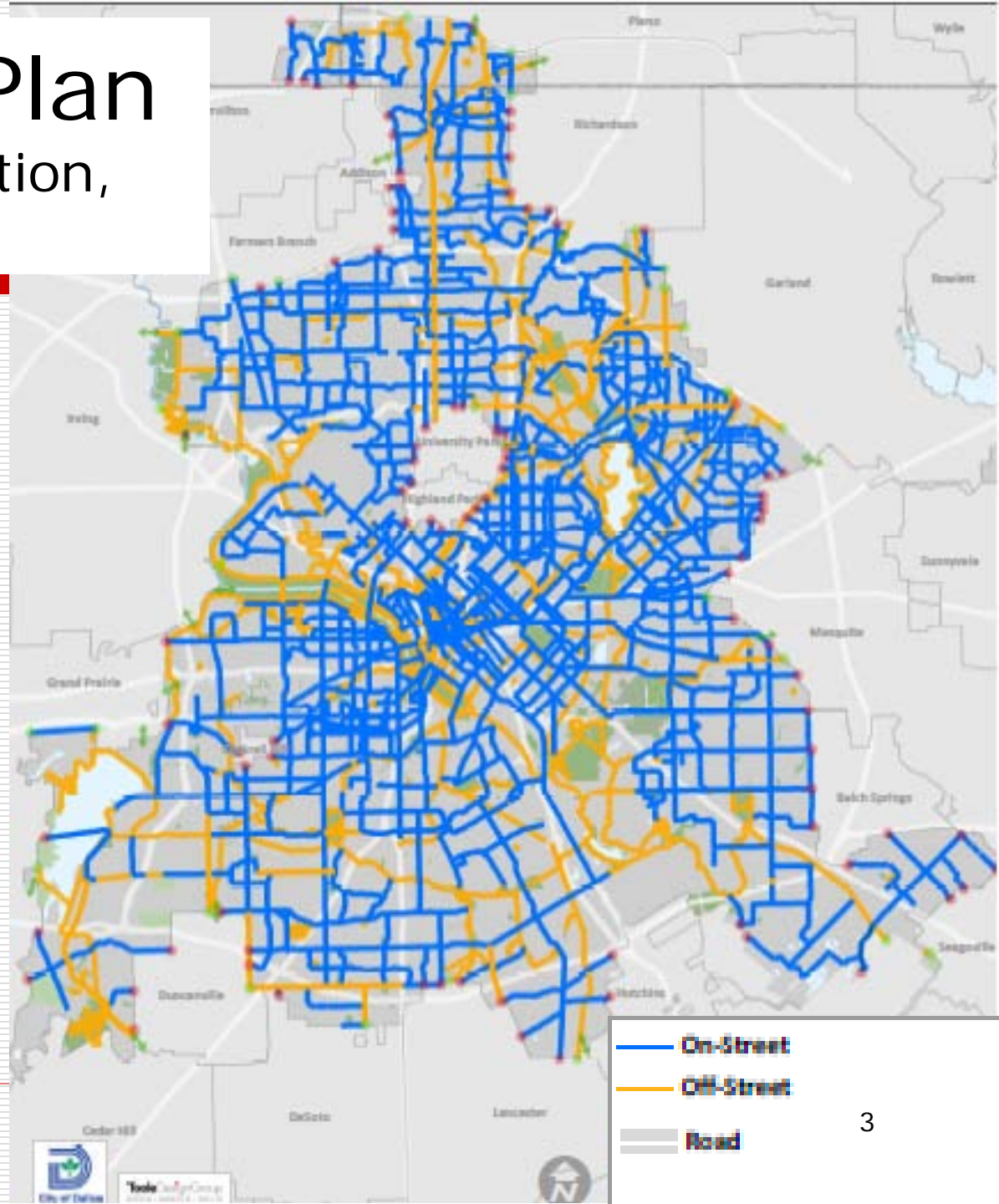
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- Present the current recommendations regarding implementation of the Dallas Bike Plan
- Clarify the Bike Plan implementation and Thoroughfare Plan Amendments
- Present options for the Bike Plan and roadway design recommendations for Fort Worth Avenue
- Receive Committee input and guidance on the options presented

# Dallas Bike Plan

Adopted by Resolution,  
June 2011

- A long range vision for a bike route network with preliminary recommendations for bike facility types
- No funding for implementation has been secured – not a fiscally constrained plan



# Dallas Bike Plan System Overview

**Current:** 115 total miles

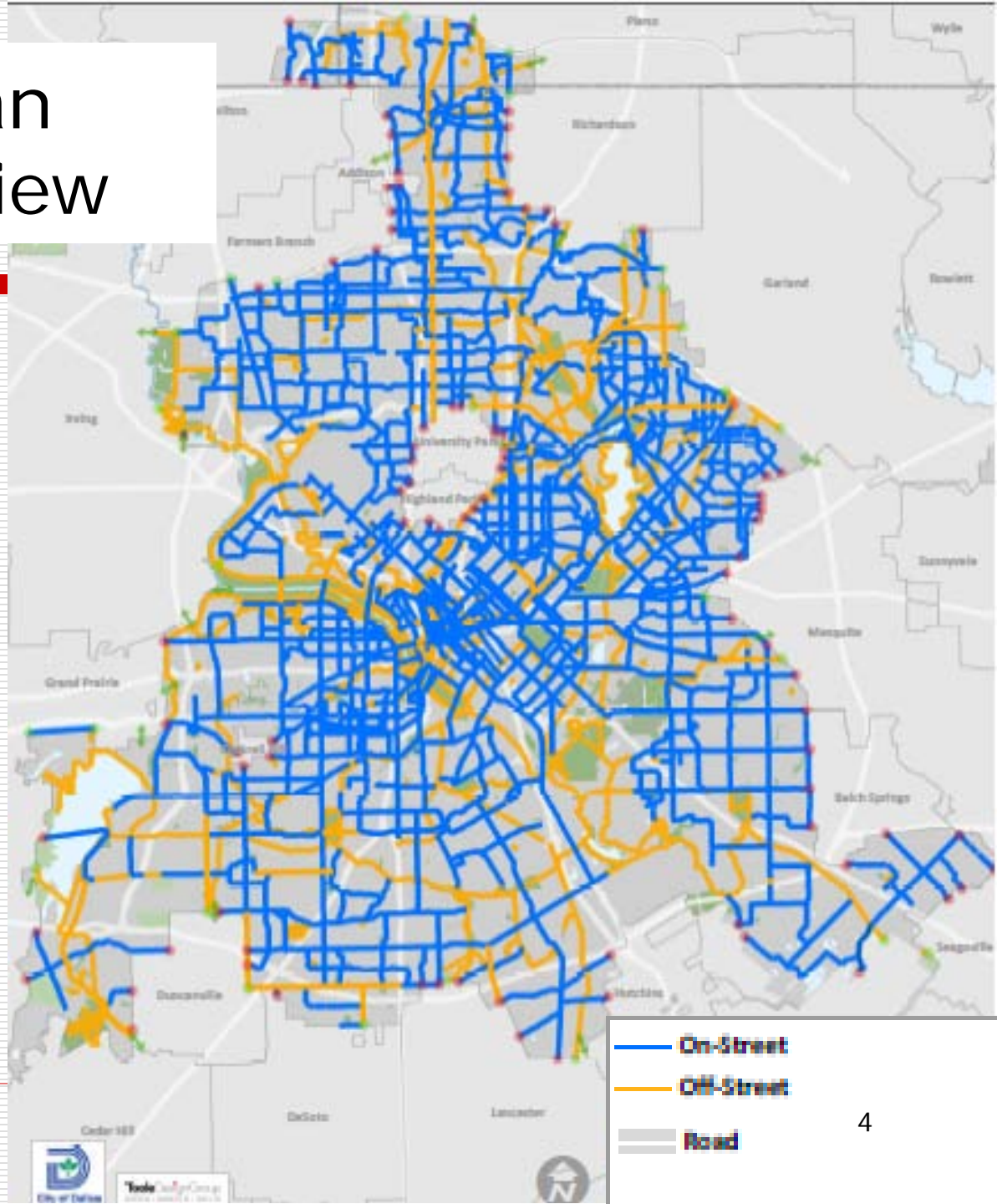
On-street : 0 miles

Off-street : ~115 miles

**Vision:** 1,296 total miles

On-street: ~840 miles

Off-street: ~456 miles





# Early Implementation / Demonstration Projects

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- ❑ 18 fully or partially funded street segments with design already underway to incorporate Bike Plan recommendations
- ❑ 70 trail-road crossings along five existing trails (STEP grant funded)
- ❑ Bike route signage removal/replacement (not funded)
- ❑ Four strategic area linkage projects (not funded)
  - Central Core Connection Project
  - West Dallas Neighborhoods Project
  - North-Central (NC) Route
  - Southern Sector (Wonderview Area) Project

# Ten-Year Phased Implementation

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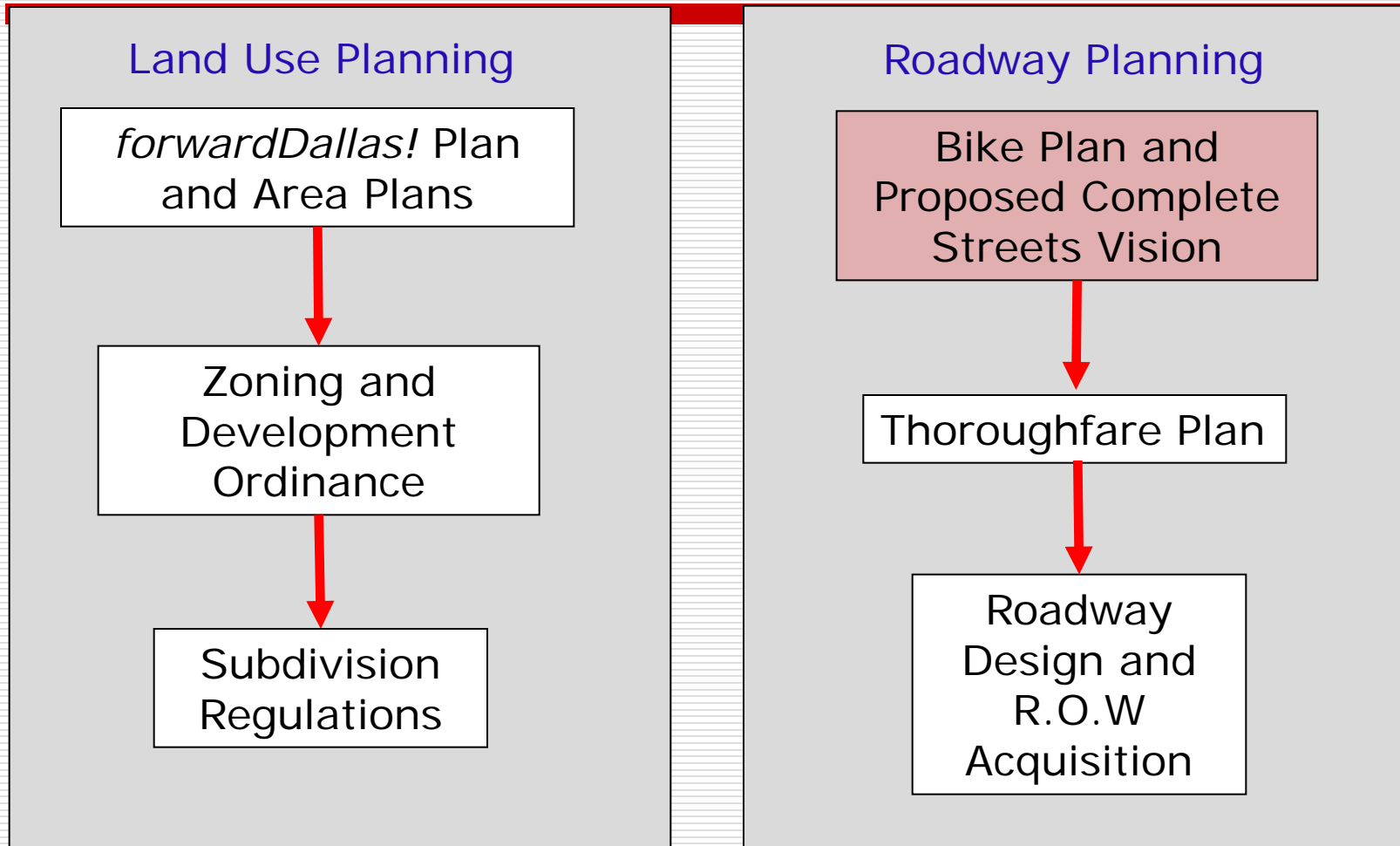
- Near-Term (2013 – 2014): 82 miles of bike facilities
- Mid-Term (2015 – 2017): 281 miles of bike facilities
- Long-Term (2018 – 2021): 364 miles of bike facilities

# Implementation of the Bike Plan and the Thoroughfare Plan

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- ❑ Bike Plan does acknowledge need for Thoroughfare Plan amendments prior to implementation, where necessary
- ❑ Adoption process did not meet the standard for public hearings required for Thoroughfare Plan amendments
- ❑ Dallas City Charter and Development Code sets out the process for Thoroughfare Plan amendments

# Plans Vs. Regulations



# Plans Vs. Regulations

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- Provide vision and policy direction for long term implementation
  - Not designed to be legally binding; Typically more general and flexible
  - Adopted by resolution with a lower standard of public notification and involvement
- Provide clear rules for immediate application
  - Legally binding; Typically more specific and less flexible
  - Adopted by ordinance with a higher standard of public notification and involvement

# Thoroughfare Plan

## City Charter – Chap. XV, Sec. 8

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- The city council shall by ordinance adopt a thoroughfare plan. A thoroughfare plan now in existence or hereafter adopted by the city council shall not be changed except by an ordinance duly adopted after a public hearing as herein provided.

# Thoroughfare Plan

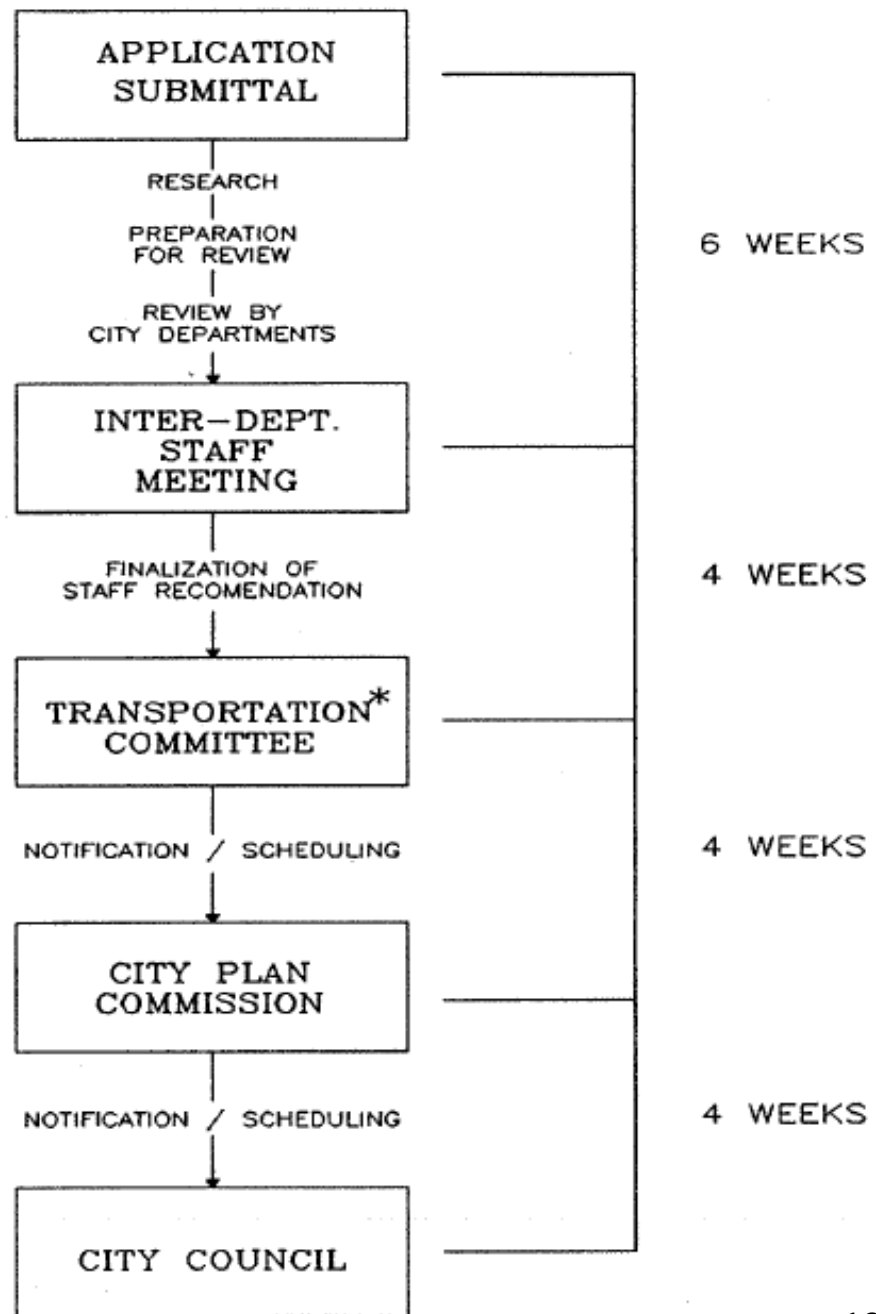
## City Charter – Chap. XV, Sec. 8

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- Prior to any change in a thoroughfare plan, the city council shall hold a public hearing. Written notice of all public hearings before the city council on proposed changes in the thoroughfare plan shall be sent to owners of real property lying within 200 feet of the area of the proposed change, such notice to be given, not less than 10 days before the date set for hearing, to all such owners who have rendered their said property for city taxes as the ownership appears on the last approved city tax roll.

# Thoroughfare Plan Amendment Process

- Chapter 51A of the Dallas Development Code and the Thoroughfare Plan establish the amendment process in compliance with the Charter provisions



# Why are Thoroughfare Plan amendments necessary and useful?

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- Public input and consensus is an important part of designing and constructing roadways
- Changes to roadway operation or function impact citizens
- Often differing perspectives need to be weighed and balanced:
  - Residents
  - Adjacent property owners
  - Commuters
  - Issue-based advocates
- Sometimes there are tough choices to be made

# Thoroughfare Plan Amendment Process

## City initiated Roadway Projects

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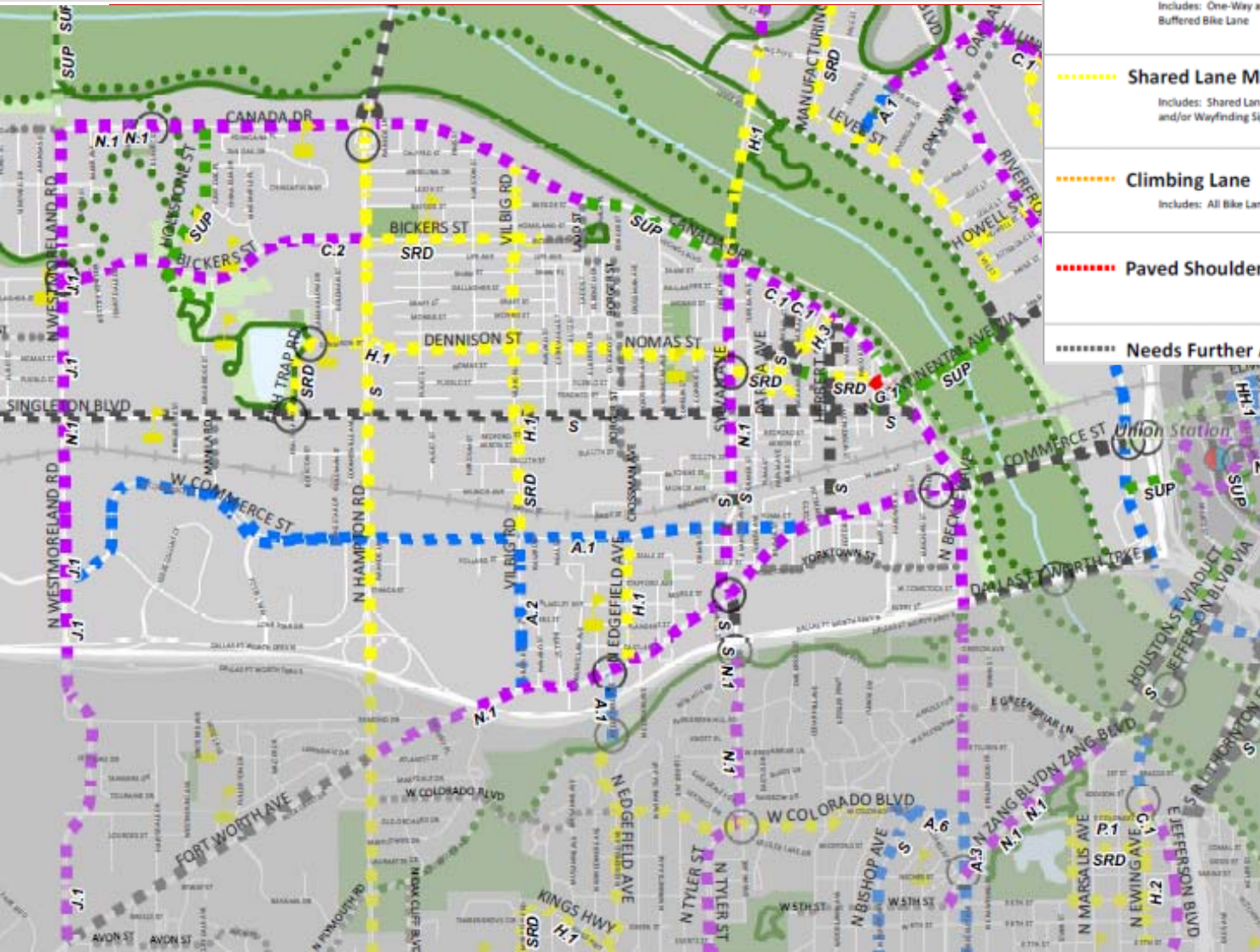
- ❑ Thoroughfare Plan amendments are typically scheduled after conceptual designs are developed and broad-based community input is received
- ❑ Thoroughfare Plan amendment hearing process allows property owners directly adjacent to the roadway to be notified and involved prior to proceeding with engineering design and implementation
- ❑ In recent years, public input during the conceptual design and Thoroughfare Plan amendment process has resulted in design changes

# Fort Worth Avenue – West Commerce Bike Plan Recommendations

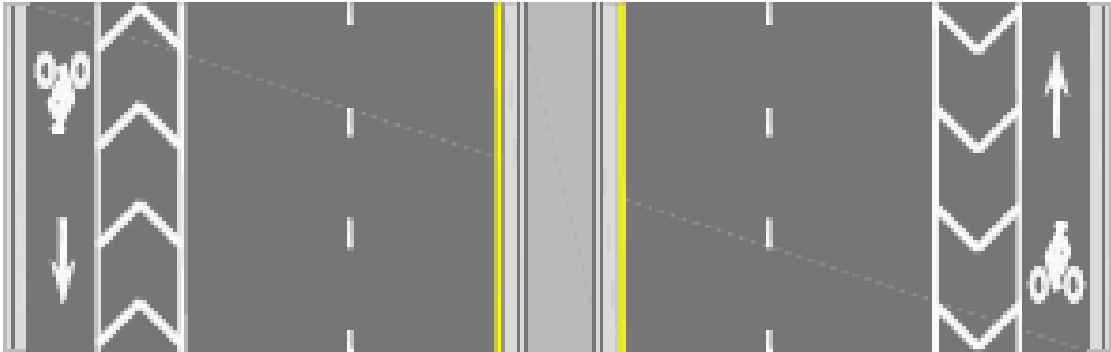
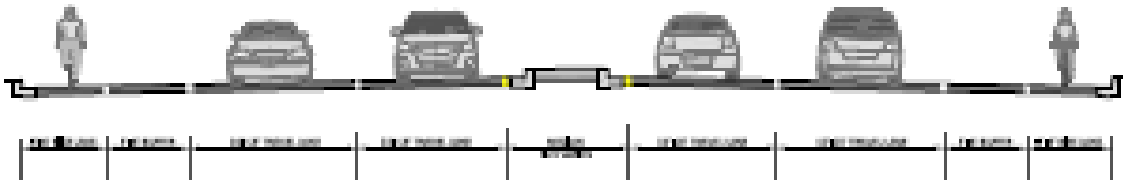
## Dallas Bikeway System Network Recommendations

### Bikeway System On-Street Facility Types

- **Bike Lanes**  
 Includes: Bike Lanes, One-way Bike Lane, Bus Bike Lane, Floating Bike Lanes, and other Bike Lane Combinations
- **Cycletrack or Buffered Bike Lane**  
 Includes: One-Way and Two Way Cycletracks on One or Both Sides, Buffered Bike Lane
- **Shared Lane Marking**  
 Includes: Shared Lane Markings, Pavement Markings, and/or Wayfinding Signs
- **Climbing Lane**  
 Includes: All Bike Lane / Sharrow Combinations
- **Paved Shoulder**
- **Needs Further Analysis**



# Fort Worth Avenue – West Commerce Bike Plan Recommendation



R.1. 4 Lane Buffered Bike Lanes with Median No Parking

# Fort Worth Avenue – West Commerce Bike Plan Recommendations

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- ❑ Bike Plan recommends a dedicated bike lane for Fort Worth Avenue between Hampton and Beckley
- ❑ The bike facility recommendation for the Commerce linkage east of Beckley to Downtown is unresolved (“needs further study”)
- ❑ Although an important part of the ultimate citywide bike network, this corridor does not currently link many destinations and poses potential safety concerns for bicyclists without the critical Downtown linkage
- ❑ Bike Plan does not identify Fort Worth Avenue for early implementation

# Fort Worth Avenue – West Commerce Conceptual Design Plans

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- ❑ Public Works, in conjunction with Economic Development hired Huitt-Zollars to develop conceptual design plans for Fort Worth Avenue – West Commerce, from Westmoreland to Beckley
- ❑ Preliminary community input indicated desire to explore designs with alternative lane configurations
- ❑ Conceptual design process is 50% complete with preliminary concept designs prepared and initial community meetings held
- ❑ To facilitate coordination, Fort Worth Avenue has been identified as a Complete Streets Initiative Pilot Project

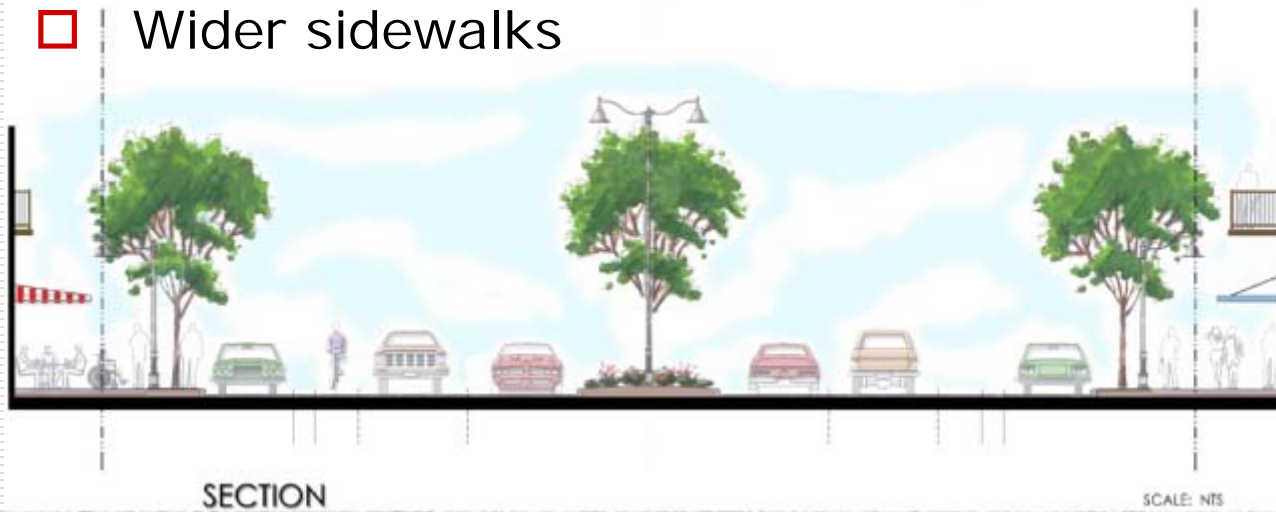
# Fort Worth Avenue – West Commerce Multiple Inter-Related Projects

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- ❑ Two Thoroughfare Plan amendments – Sylvan corridor, Beckley-Commerce
- ❑ Three zoning cases
- ❑ Street resurfacing and restriping
- ❑ Complete Streets Initiative

# Fort Worth Avenue – West Commerce Preliminary conceptual design

- ❑ Reduction of automobile travel lanes to two in each direction
- ❑ Buffered bike lanes in each direction
- ❑ On-street parking where existing R.O.W. allows (land acquisition may be needed for on-street parking in some locations)
- ❑ Wider sidewalks



\* Some design components vary along the length of project

# Fort Worth Avenue – West Commerce Implementation Options

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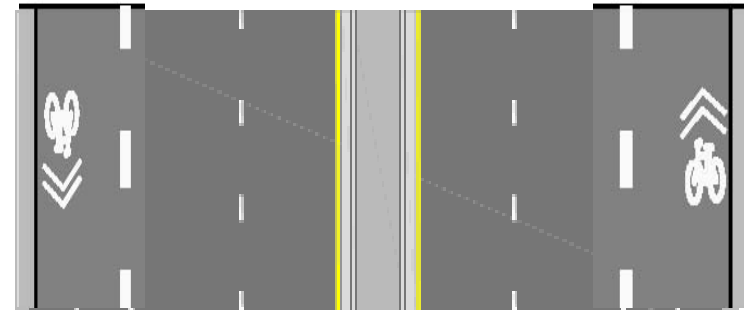
- ❑ Option 1: Temporary Shared Bike Lanes
- ❑ Option 2: Temporary Buffered Bike Lanes
- ❑ Option 2a: Permanent Buffered Bike Lanes
- ❑ Option 3: Complete Street Design

# Option 1

## Temporary Shared Bike Lanes

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- ❑ Restripe outside lanes as shared bike lanes with water-based paint for a 90 day trial period (maximum allowed by code)
- ❑ Bike lanes can be installed without a Thoroughfare Plan amendment
- ❑ Conceptual design process for long-term design solution will proceed
- ❑ Striping would be done in March 2012 when warm weather returns and removed after trial period



# Option 1

## Temporary Shared Bike Lanes

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### □ Cost Considerations

- Estimated cost of installation (1.29 miles) - \$22,500
  - Water-based paint “Sharrows” bike markings at 250 foot intervals
  - Installation of “No Parking” and Bikeway signs at 250 foot intervals
- Estimated cost of removal – \$7,000
  - Removal of markings when test period ends

# Option 1

## Temporary Shared Bike Lanes

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### Pros:

- Allows bike route to be tested with a relatively inexpensive interim solution
- Allows conceptual design for long-term solution to proceed
- Reduces concerns regarding network connectivity at two ends of the project where bike facility terminates
- Does not reduce roadway lane capacity

### Cons:

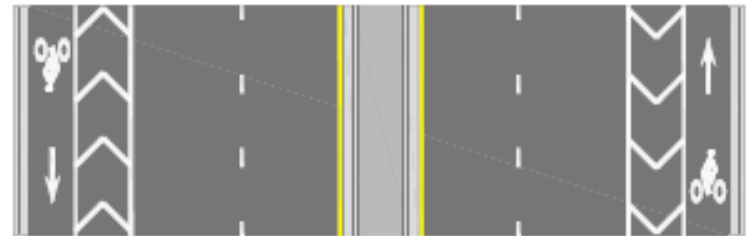
- Major safety concerns given current traffic levels and speeds
- Does not test impact of reduced roadway capacity
- Departure from Bike Plan recommended facility type

# Option 2

## Temporary Buffered Bike Lanes

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- ❑ Restripe outside lanes as buffered bike lanes for a 180 day trial period
- ❑ Amend code to increase trial period from 90 to 180 days
- ❑ Temporary bike lanes can be installed without a Thoroughfare Plan amendment
- ❑ Striping would be done in March 2012 when warm weather returns



# Option 2

## Temporary Buffered Bike Lanes

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### □ Cost Considerations

- Estimated cost of installation (1.29 miles) - \$32,000
  - Thermoplastic bike symbol paint markings at 250 foot intervals
  - Installation of “No Parking” and Bikeway signs at 250 foot intervals
- Estimated cost of removal – \$30,000
  - Removal of markings when test period ends

# Option 2

## Temporary Buffered Bike Lanes

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### □ Pros:

- Implements Bike Plan recommended facility type
- Allows bike lane to be tested while a Thoroughfare Plan amendment is in process
- Safer solution than shared lanes, given current traffic levels and speeds

### □ Cons:

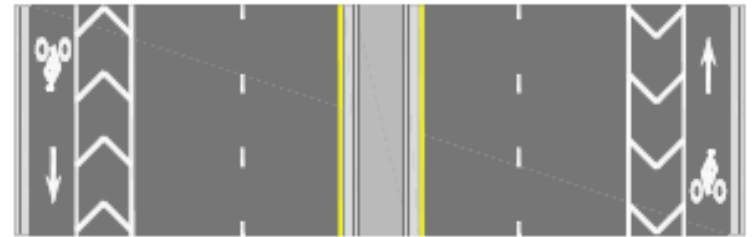
- Safety concerns remain at project terminus where bike lanes end
- Existing parking in the outside lane will be affected without any public involvement
- May raise concerns during test period that cause Thoroughfare Plan amendment to be delayed
- Bike lane installation will need to be removed if the facility is not made permanent through a Thoroughfare Plan amendment

# Option 2a

## Permanent Buffered Bike Lanes

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- ❑ Initiate Thoroughfare Plan amendment process immediately to convert outside traffic lanes to buffered bike lanes
- ❑ Scope of amendment would be limited to allowing buffered bike lanes, without addressing other design issues related to comprehensive street design
- ❑ Thoroughfare Plan amendment could be initiated in early January and completed in April 2012
- ❑ Thoroughfare Plan amendment approval would make temporary buffered bike lanes permanent



# Option 2a

## Permanent Buffered Bike Lanes

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### Cost Considerations

- Estimated cost of installation (1.29 miles) - \$32,000
  - Thermoplastic bike symbol paint markings at 250 foot intervals
  - Installation of "No Parking" and Bikeway signs at 250 foot intervals
  
- Ongoing maintenance cost - \$29,000 every four years
  - Restriping every four years plus maintenance/replacement of signs
  - Additional street sweeping costs not included

# Option 2a

## Permanent Buffered Bike Lanes

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### Pros:

- Enables implementation of Bike Plan recommendation
- Allows a permanent bike facility to be installed rather than a temporary test facility
- Delays other long-term design decisions

### Cons:

- Thoroughfare Plan amendment will precipitate premature public debate on unresolved long-term design issues such as on-street parking, wider sidewalks and questions about right-of-way acquisition that may cause delay
- Thoroughfare Plan will likely have to be amended again later to accommodate long term design solution
- Safety concerns at project terminus where bike lanes end
- Funds have not been identified for installation, additional annual maintenance and street sweeping for a permanent facility

# Option 3

## Complete Street Design

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- ❑ Finish Huitt Zollars conceptual design process and hold public meeting in Jan 2012
- ❑ Initiate Thoroughfare Plan amendment in Feb 2012 and complete process in May 2012
- ❑ Restriping for permanent buffered bike lane could be done in June 2012



# Option 3

## Complete Street Design

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### □ Cost Considerations

- Estimated cost of installation (1.29 miles) - \$32,000
  - Thermoplastic bike symbol paint markings at 250 foot intervals
  - Installation of "No Parking" and Bikeway signs at 250 foot intervals
- Ongoing maintenance cost - \$29,000 every four years
  - Restriping every four years plus maintenance/replacement of signs
  - Additional street sweeping costs not included
- Complete street project implementation – \$ TBD (contingent upon future bond program)

# Option 3

## Complete Street Design

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### □ Pros:

- Allows thorough community involvement on all street design issues
- Allows comprehensive, long-term street design to be developed and issues resolved before the public hearing to amend the Thoroughfare Plan
- Comprehensive design solution would also address the Bike Plan recommendation for a buffered bike lane

### □ Cons:

- Buffered bike route striping would be delayed by 3 months

# Comparison of Options

Options	Primary Considerations
Temporary Shared Bike Lane	<ul style="list-style-type: none"> <li>• Potential safety concerns during test period</li> <li>• Restriping during next seasonal contract</li> <li>• Fiscal note: \$29,500 (funds not identified)</li> </ul>
Temporary Buffered Bike Lane	<ul style="list-style-type: none"> <li>• Code amendment initiated in January</li> <li>• Restriping during next seasonal contract</li> <li>• Fiscal note: Up to \$62,000 (funds not identified)</li> </ul>
Permanent Buffered Bike Plan	<ul style="list-style-type: none"> <li>• Thoroughfare Plan amendment initiated in Jan, 2011</li> <li>• Fiscal note: Up to \$62,000 + increased O&amp;M (funds not identified)</li> </ul>
<b>Complete Street Design</b>	<ul style="list-style-type: none"> <li>• Conceptual design proceeds as planned</li> <li>• Thoroughfare Plan amendment initiated in Feb, 2011</li> <li>• Restriping during next seasonal contract</li> <li>• Fiscal note: Cost TBD (future bond program)</li> </ul>

# Bike Plan Implementation and the Thoroughfare Plan Amendment Process



Presented to:

- Council Quality of Life Committee
- Council Transportation and Environment Committee

December 12, 2011