



Transforming Forest Avenue

Land Use/Zoning and Transportation Alternatives

A Presentation to the Public Advisory Committee

June 15, 2011

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Portland Area Comprehensive Transportation Committee



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- Use-Based Zoning
- Form-Based Code
- Hybrid Code

Transportation Alternatives

- Connecting Destinations
- Greening Forest Avenue
- Creating a Transit Corridor

Discussion

Next Steps



Project Introduction and Purpose of Meeting



Introductions

Presenters

- Molly Casto, Project Manager, City of Portland
- Alex Jaegerman, Planning Division Director, City of Portland

- Martin Hull, Project Manager, IBI Group
- Tegin Teich, Project Planner, IBI Group

- Tom Gorrill, Transportation Engineer, Gorrill-Palmer Consulting Engineers

- Connie Gemmer, Public Involvement/Communications, Barton & Gingold
- Tobey Williamson, Public Involvement/Communications, Barton & Gingold

Purpose of Meeting

Base Map





Land Use/Zoning Alternatives



Existing Zoning

Zoning



Assessment:

- Range of commercial and residential land uses at fairly high densities on corridor (B-2, B-2B)
- Medium density residential abutting (1 to 2-fam homes) (R-3, R-5)
- Small patches of high density residential (R-6)

Summary of Conclusions from Existing Zoning

Use-Based Zoning

Euclidian Zoning: Use-based

- B-2B is permissive of TSD but also of auto-oriented development
- R-3 and R-5 support existing residential densities (desirable but somewhat low for transit)
- R-6 allows for more compact residential densities
- Minimum parking requirements exceed number of cars and people per household (though not all development fulfills these parking requirements)

Alternative 1: Use-Based Zoning

Use-Based Zoning

Euclidian Zoning with Performance-based/Incentive-based overlay

Enhance existing zoning and add performance and incentive-based standards

Benefits

- Easy to administer
- Certainty for developers
- Clear legal basis
- Widespread use

Constraints

- Inflexible
- Little or no control over design (unless accompanying design guidelines)
- Requires changes/variances for anything but the most straightforward development

Alternative 1: Use-Based Zoning

Use-Based Zoning

Euclidian Zoning with Performance-based/Incentive-based overlay

Incentive examples

- Minimum lots size removed if multiple uses
- Exempt from parking requirements or allow additional heights if 1st floor commercial
- Density bonuses (allow higher FAR) and tax incentives
- Reduction in parking requirements if carsharing

Performance examples

- Require LEED-ND based performance standards

Other examples to meet TSD goals

- Expand on-Peninsula code such as max residential density, front yard regulations, etc.
- Remove minimum parking requirements (economic incentive to provide parking) or reduce parking requirements

Alternative 1: Use-Based Zoning



Recommended changes to Existing Zoning Code

-  Added developmental controls to B2-b Community Business Zone
-  Added developmental controls to R-6 High-density Residential Zone
-  Rezoned to B2-b Community Business Zone
-  Special Overlay Zone

Alternative 1: Use-Based Zoning



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Alternative 1: Use-Based Zoning

Use-Based Zoning Improvements

Segment A: Deering Oaks Park

- Enhance 'green' nature of segment with performance and incentive-based overlay
- Rezone All parcels immediately abutting Bedford (not within USM overlay) to B-2b

Segment B: Central Forest Avenue

- Incorporate all recommended adjustments to B-2b zones
- Density bonuses

Segment C: Woodfords Corner

- Extend B-2b zone to parcels abutting Forest Avenue to Hartley Street and abutting Woodford Street between Beacon and Grace Street

Alternative 2: Form-Based Zoning

Form-Based Zoning

Smart Code/Corridor

- Focus on achieving urban form (e.g. vertical, site design)
- Use graphics to communicate vision
- Typically applied to specific area
- Highly prescriptive

Benefits

- Easy to administer
- Certainty of built form
- Flexible with respect to land use
- Better articulation of design and desired outcome

Constraints

- Not widely used (requires education)
- More costly/time-consuming to prepare
- Decisions are more discretionary and require design-informed decision makers



Typical FBC transect from the Miami 21 code
(<http://www.miami21.org/TheTransect.asp>)

Alternative 2: Form-Based Zoning

Form-Based Zoning

Smart Code/Corridor

Recommended features

- Create a 'vision' to develop character and cohesive identity (through design features and characteristics)
- Prioritize pedestrian-scaled improvements
- Earmark parcels for neighborhood services
- Specify mixed uses
- Require LEED-ND standards

Parking

- Provide centrally located parking
- Incentives to cooperative/joined parking
- Screen parking

Attract private investment

- Identify public projects that catalyze investment (public spaces, infrastructure)
- Provide incentives

Alternative 2: Form-Based Zoning



Recommended Character Zones

- Major Retail and Activity Corridor with mixed uses
- High Density Housing
- Medium Density Housing
- University
- Regional Retail and Entertainment Center with mixed uses

Opportunities

- Architectural response to Back Cove
- Enhanced connectivity and architectural transition between character zones
- Architectural form to create landmarks

Alternative 2: Form-Based Zoning



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Alternative 2: Form-Based Zoning

Form-Based Zoning Improvements

Segment A: Deering Oaks Park

- Develop a regional retail center, mixed use, student housing northeast of USM
- Parking plan for entire area
- Connect across regional retail center/USM to expand regional center south
- Preserve and retrofit US Post Office for mixed use development

Segment B: Central Forest Avenue

- Incentivize infill opportunities, particularly parking lots where setbacks allow plazas
- Specify mix of uses

Segment C: Woodfords Corner

- Comprehensive parking strategy for 'park once and walk'
- Specify mix of uses

Alternative 3: Hybrid Zoning

Hybrid Zoning

Euclidean Zoning/Form-Based and Performance-Based overlays

- Incentivize realization of overlays
- Often viewed as a step towards FBC

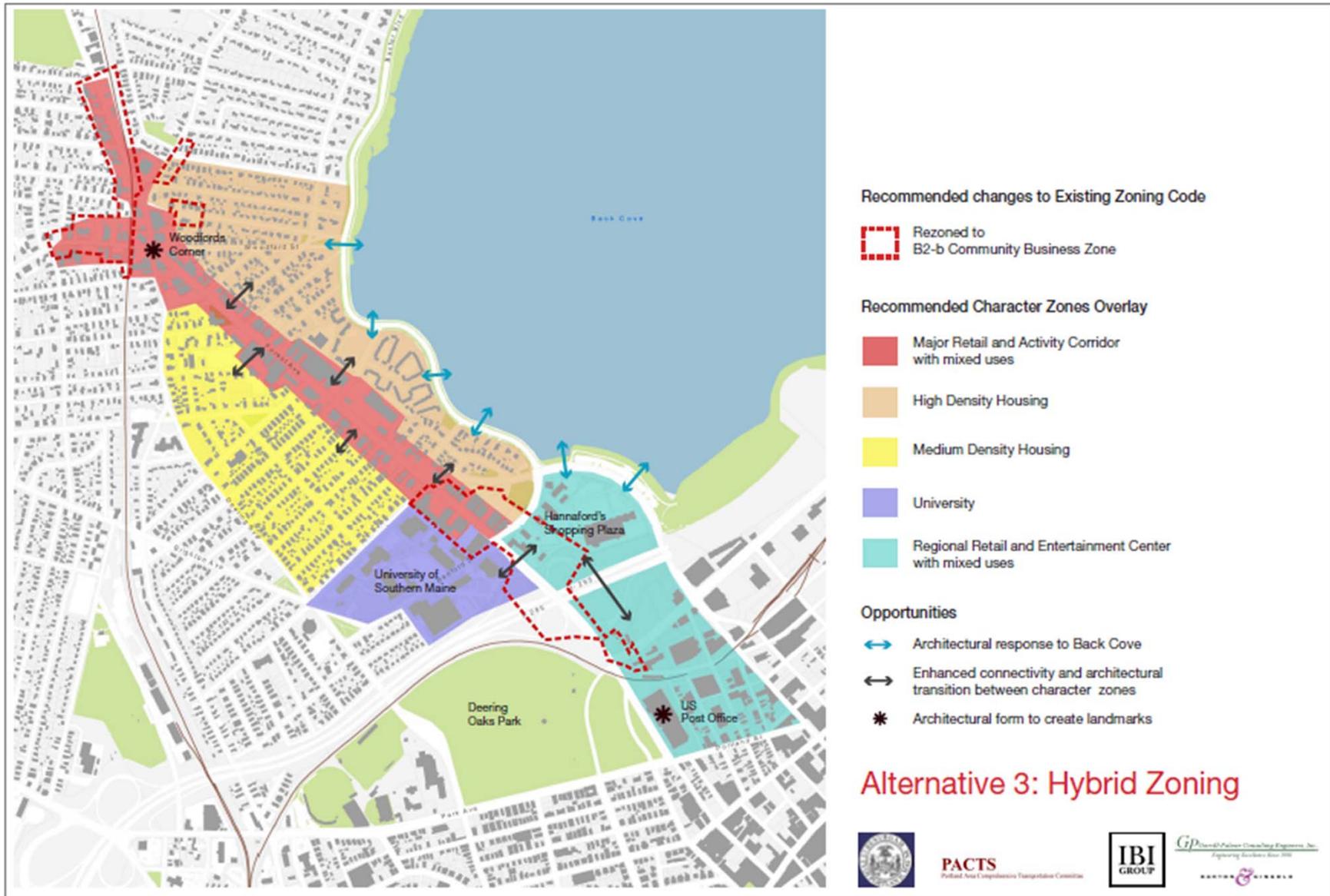
Benefits

- Easy to administer
- Certainty for developers
- Clear legal basis
- If FBCs are utilized:
 - Better articulation of design and desired outcome
 - Flexibility with respect to land use

Constraints

- Not widely used
- More costly/time-consuming to prepare
- May result in broken urban form if some developers refuse to apply FBCs
- If FBCs are utilized, decisions are more discretionary and require design-informed decision makers

Alternative 3: Hybrid Zoning



Evaluation Matrix – Land Use Alternatives

	Transit-Supportive Development Principles						
	Land Uses			Placemaking/Built Environment			
	Encourage vibrant and diverse uses	Encourage compact land uses	WEIGHTED AVERAGE	Design for architectural quality	Provide quality public space	Provide high quality parking	WEIGHTED AVERAGE
Weights	60%	40%	WEIGHTED AVERAGE	33%	33%	33%	WEIGHTED AVERAGE
Alternative 1: Use-Based Zoning	2	2	2	1	1	2	1
Alternative 2: Form-Based Zoning	4	4	4	4	4	4	4
Alternative 3: Hybrid Zoning	3	3	3	2	2	3	2

	TSD Principles			Feasibility			Overall Rating			
	Categories						Weighted Averages			
	Land Uses	Placemaking/Built Environment	WEIGHTED AVERAGE	Institutional Feasibility	Technical Feasibility	WEIGHTED AVERAGE	Complete Streets Principles	Feasibility	Cost	Overall Rating
Weights	50%	50%	WEIGHTED AVERAGE	50%	50%	WEIGHTED AVERAGE	40%	40%	20%	Overall Rating
	2	1	2	2	2	2	2	2	2	2
	4	4	4	0	1	1	4	1	1	2
	3	2	3	1	1	1	3	1	1	2



Transportation Alternatives



Overall Improvements

2035 traffic analysis shows about a 20% overall increase along Forest Avenue. The following interventions are intended to contribute to creating a Complete Street without adding to congestion.

Highest Ranking Overall Improvements

- Improve access for people with disabilities: textured ramps, countdown pedestrian signal heads
- Restripe all crossings and bicycle lane markings
- Traffic calm side streets (except Bedford/Baxter, Preble/Falmouth, Woodford, Revere, everything S of I-295)
- Improve amenities at bus stops (benches, signs with more information)
- Introduce additional wayfinding signage including distance and time to destinations on bicycle or on foot

Other:

- Minimum share-lane markings for cyclists
- Consolidate curb cuts
- Restrict left turns off of Forest Ave
- Optimize bus location and spacing 2S service
- Street furniture
- Recycled materials
- Pervious pavement
- Consolidate existing signage

Summary of Alternatives

Connecting Destinations

Main Street: busy, but not high-speed, locus of activity

Bike/Ped

- **Introduce additional mid-block pedestrian crossings and make 3-way pedestrian crossings into 4-way where possible**
- **Provide bicycle boxes at signalized intersections**
- Ped/bike flyover I-295 from future rails to trails into the university campus
- Shared lane markings NB and SB direction on most of corridor

Traffic

- **Yield/stop signs for I-295 ramps**
- **Narrow travel lanes when possible to 12' outer, 10' inner where possible**
- Reduce travel lane to one in each direction from High to Park Ave for bicycle lanes
- Reduce travel lanes to one SB on Forest Ave for 60' south of Woodfords Corner (to introduce bulb-outs or bicycle lanes)
- Consolidate/shared parking (long-term future shared parking)

Summary of Alternatives

Greening Forest Avenue

Enhanced Avenue: Greener and more environmentally friendly corridor

Bike/Ped

- Expand sidewalks along length of corridor (from removal of parking)
- Add bicycle lanes along length of corridor (grade separated from sidewalk, protected from road by tree buffer), if space from removing parking lane

Traffic

- Reduce travel lanes to one SB on Forest Ave for 60' south of Woodfords Corner (to introduce bulb-outs or bicycle lanes)
- Remove on-street parking for bicycle lanes and landscaped median

Transit

- Bus stops will be pull-out locations

Design

- Median with planting (from removal of parking)
- Consistent planting along entire corridor

Summary of Alternatives

Creating a Transit Corridor

Arterial: Major corridor with bus only lanes in SB direction

Bike/Ped

- Shared lane markings along entire corridor in both directions

Traffic

- Reduce travel lane to one NB/SB from High to Park Ave for bus lane
- Consider removing parking for turning lanes at Preble/Dartmouth
- Remove on-street parking for bus lane in SB direction

Transit

- Route 2 Express service with PNR
- Intelligent Transportation Systems
- Add bus lane in SB direction (from removal of parking)
- Bus lanes in both directions between High and Park (from removal of travel lane)

Segment A: Overall Improvements



Improved Pedestrian Lighting



Textured Ramps for Improved Accessibility



Bus Shelters with all Amenities



Pervious Paving



Innovative Stormwater Drainage solutions



Prominent Bicycle Lane Markings

BAXTER BOULEVARD INTERSECTION

- Improved access for people with disabilities
- Improved treatment (asphalt stamping) of pedestrian and bicyclist crossings
- Bicycle parking
- 'University of Southern Maine' branding

BAXTER BOULEVARD - I-295

- Improved paving treatment and pedestrian lighting
- 'University of Southern Maine' branding
- Distinctly visible bicycle lane/shared lane markings

I-295 UNDERPASS

- Improved paving treatment and pedestrian lighting

I-295 - MARGINAL WAY

- Improved paving treatment and pedestrian lighting
- Consolidated street signage with pedestrian and bicyclist wayfinding signage
- Distinctly visible bicycle lane/shared lane markings

MARGINAL WAY INTERSECTION

- Improved signal timing
- Improved access for people with disabilities
- Improved treatment (asphalt stamping) of pedestrian and bicyclist crossings
- 'Gateway to Portland' branding

HIGH STREET INTERSECTION

- Improved signal timing
- Improved access for people with disabilities
- Improved treatment (asphalt stamping) of pedestrian and bicyclist crossings

HIGH STREET - PARK AVENUE

- Improved paving treatment, pedestrian lighting, and trees
- Distinctly visible bicycle lane/shared lane markings
- Bicycle parking
- Consolidated curb cuts
- Consolidated bus stops with improved amenities
- Pedestrian and bicyclist wayfinding signage
- Provision of street furniture
- Innovative installations for storm water drainage

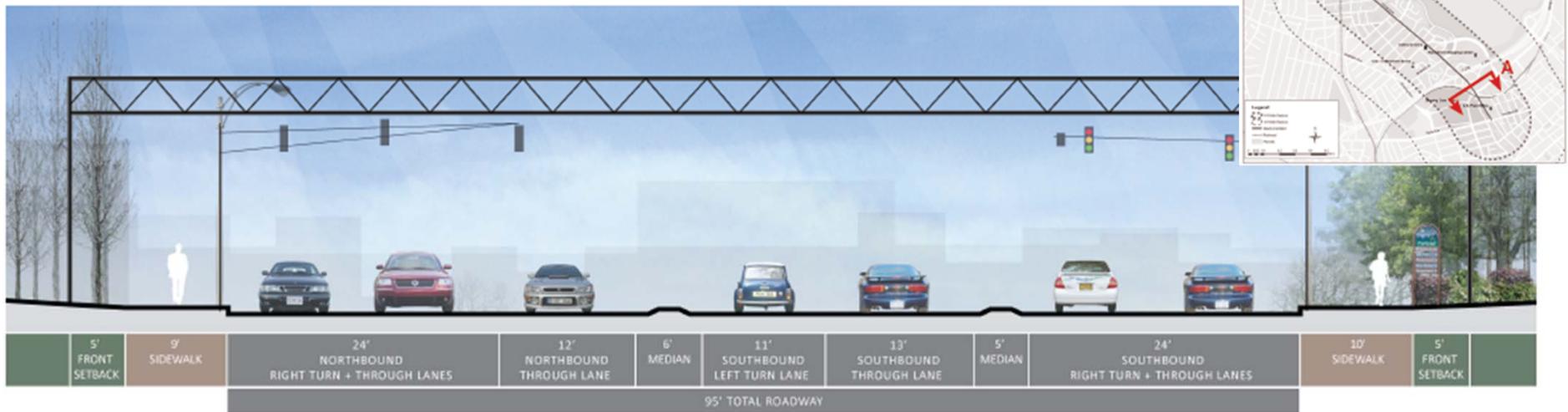
PARK AVENUE INTERSECTION

- Improved access for people with disabilities
- Improved treatment (asphalt stamping) of pedestrian and bicyclist crossings

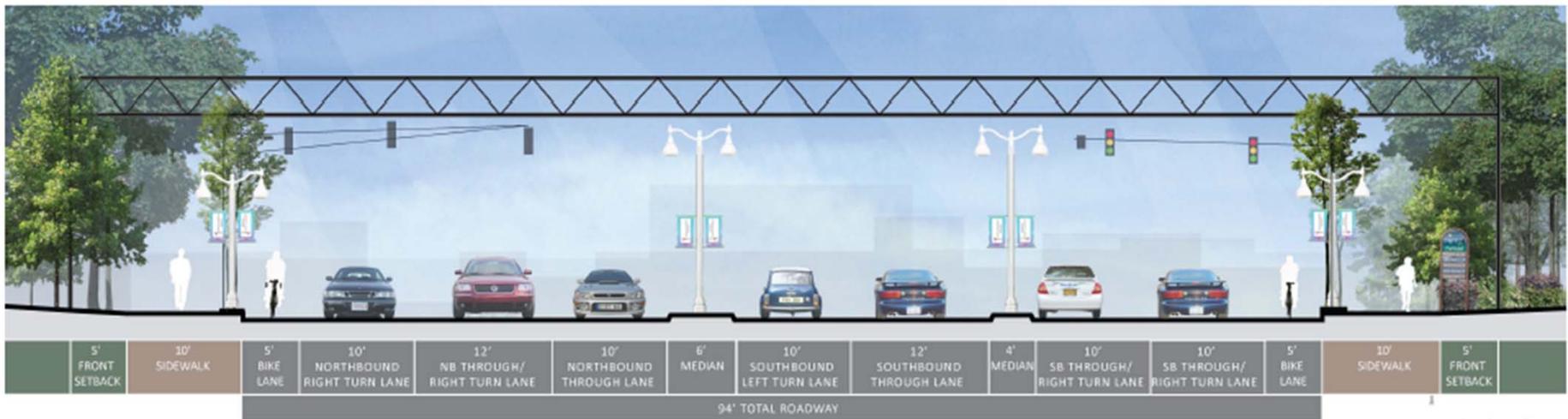


Segment A: Connecting Destinations

Existing

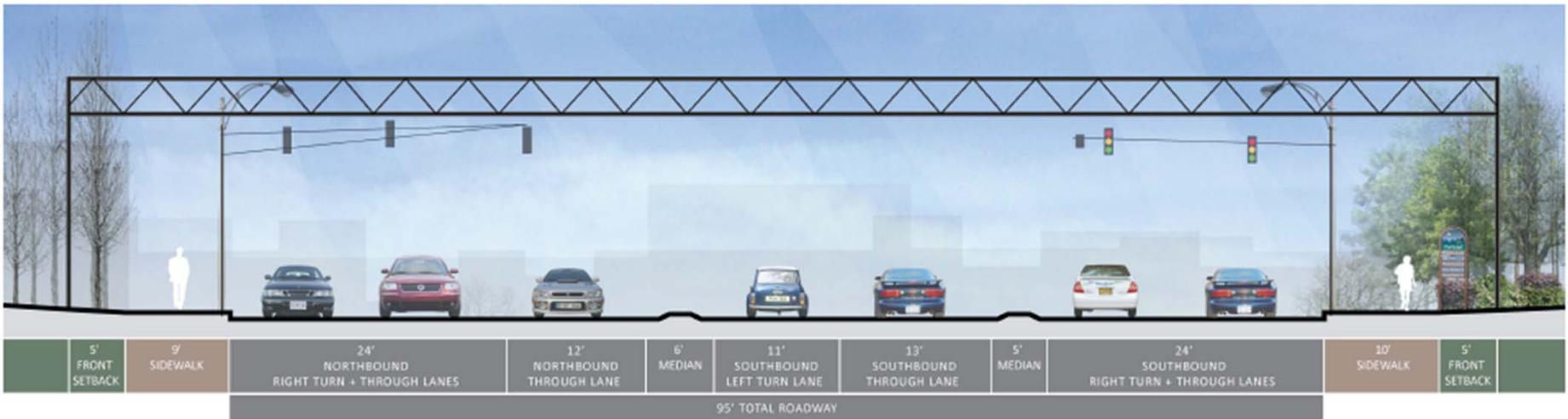


Proposed

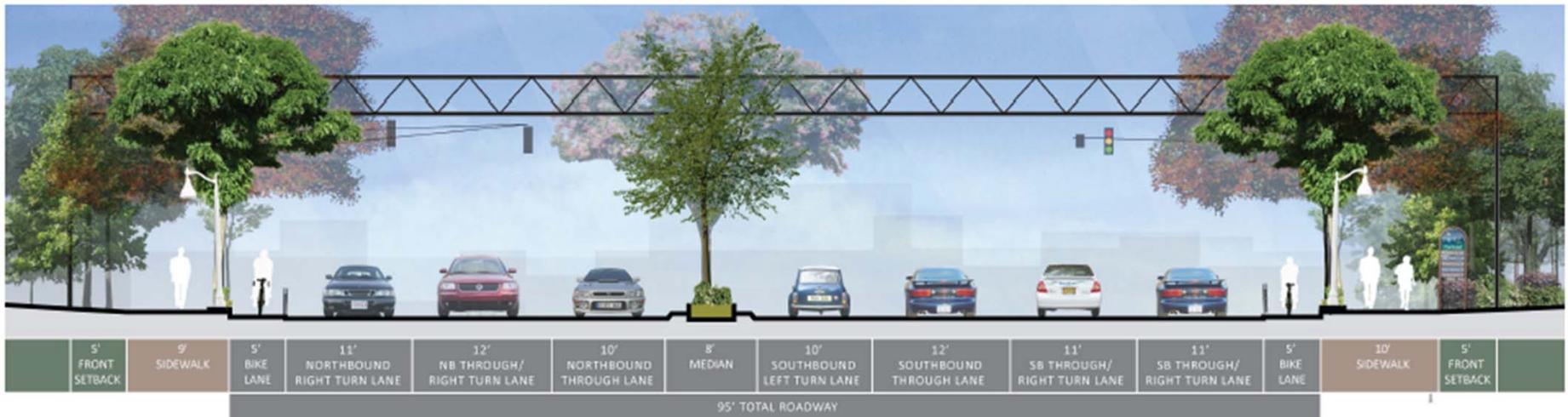


Segment A: Greening Forest Avenue

Existing

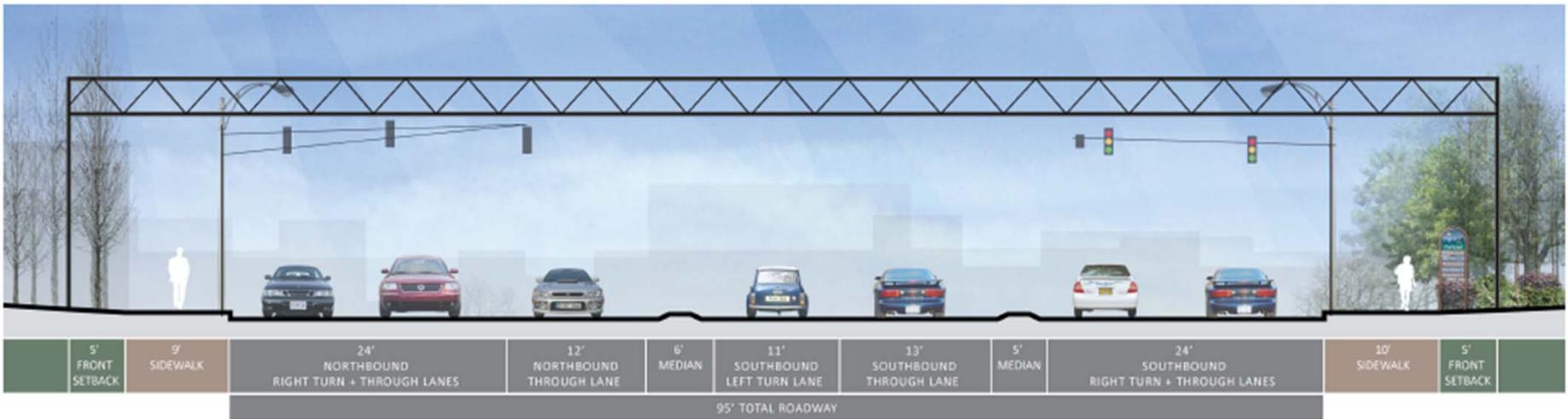


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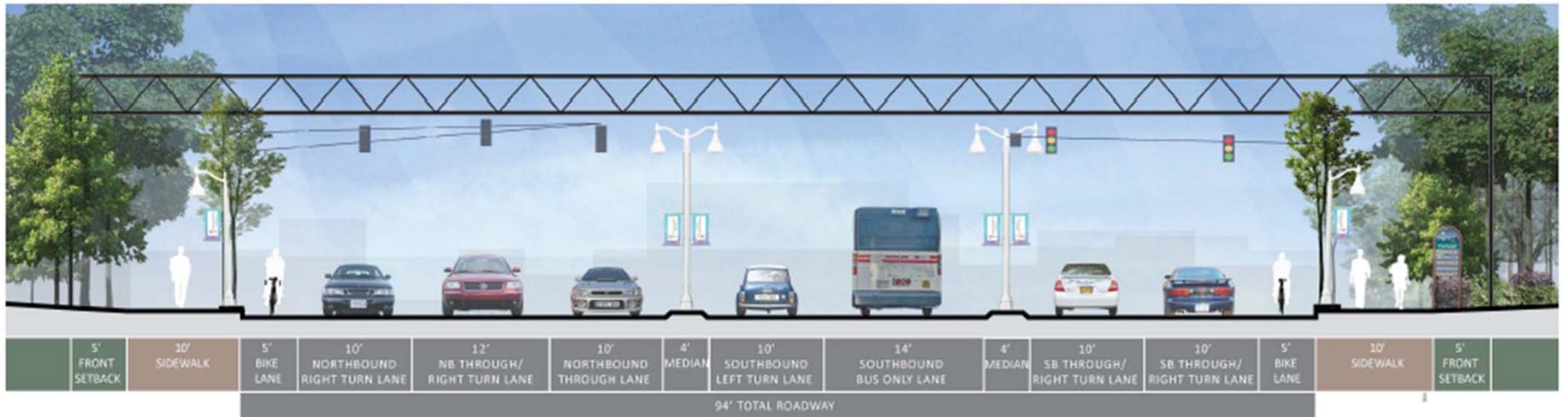


Segment A: Creating a Transit Corridor

Existing



Proposed



Segment B: Overall Improvements



Bicycle Shared Lane Marking



Bicycle Wayfinding Signage



Bicycle Parking



Improved Paving, Pedestrian Lighting and Trees



Pedestrian and Bicyclist Amenities



Improved Street Planting

COYLE ST INTERSECTION

- Improved access for people with disabilities
- Improved treatment (asphalt stamping) of pedestrian and bicyclist crossings
- Traffic calm side streets
- Restrict left turns

ASHMONT STREET INTERSECTION

- Improved signal timing
- Improved access for people with disabilities
- Improved treatment (asphalt stamping) of pedestrian and bicyclist crossings
- Traffic calm side streets

NOYES STREET INTERSECTION

- Improved access for people with disabilities
- Improved treatment (asphalt stamping) of pedestrian and bicyclist crossings
- Traffic calm side streets
- Restrict left turns

DARTMOUTH ST INTERSECTION

- Improved signal timing
- Improved access for people with disabilities
- Improved treatment (asphalt stamping) of pedestrian and bicyclist crossings
- Traffic calm side streets

WILLIAM STREET INTERSECTION

- Improved access for people with disabilities
- Improved treatment (asphalt stamping) of pedestrian and bicyclist crossings
- Traffic calm side streets
- Restrict left turns

PITT STREET INTERSECTION

- Improved access for people with disabilities
- Improved treatment (asphalt stamping) of pedestrian and bicyclist crossings
- Traffic calm side streets
- Restrict left turns

COYLE STREET - PREBLE STREET

- Improved paving treatment, pedestrian lighting, and trees
- Distinctly visible bicycle lane/shared lane markings
- Bicycle parking
- Consolidated curb cuts
- Consolidated bus stops with improved amenities
- Pedestrian and bicyclist wayfinding signage
- Innovative installations for storm water drainage

PREBLE STREET INTERSECTION

- Improved signal timing
- Improved access for people with disabilities
- Improved treatment (asphalt stamping) of pedestrian and bicyclist crossings

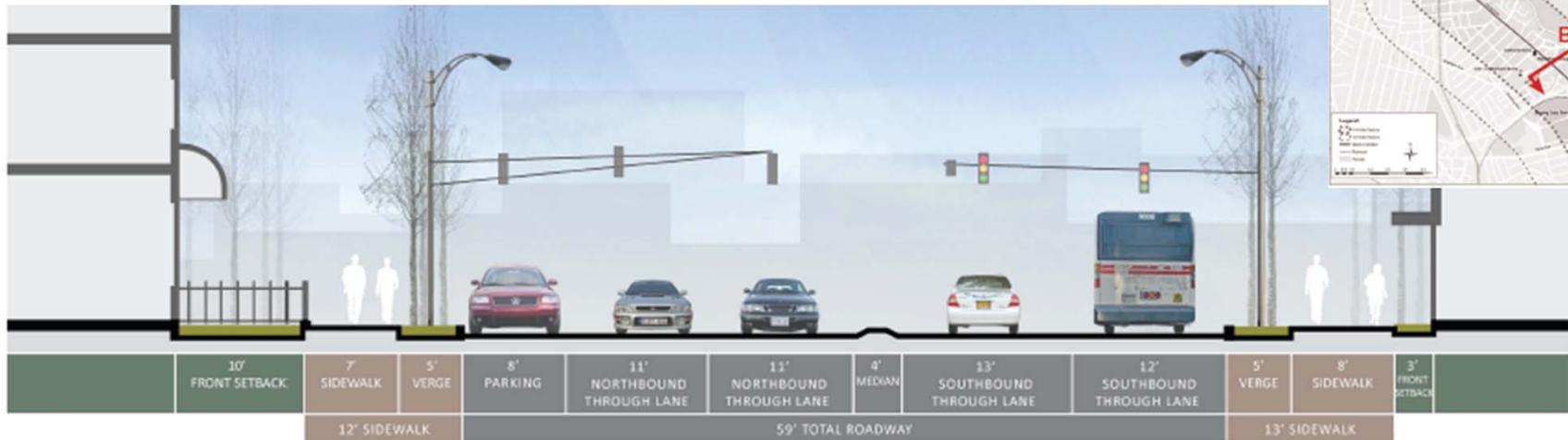
BEDFORD STREET - PREBLE STREET

- Improved access for people with disabilities
- Distinctly visible bicycle lane/shared lane markings
- Bicycle parking
- Consolidated curb cuts
- Innovative installations for storm water drainage
- Provision of minimal street furniture

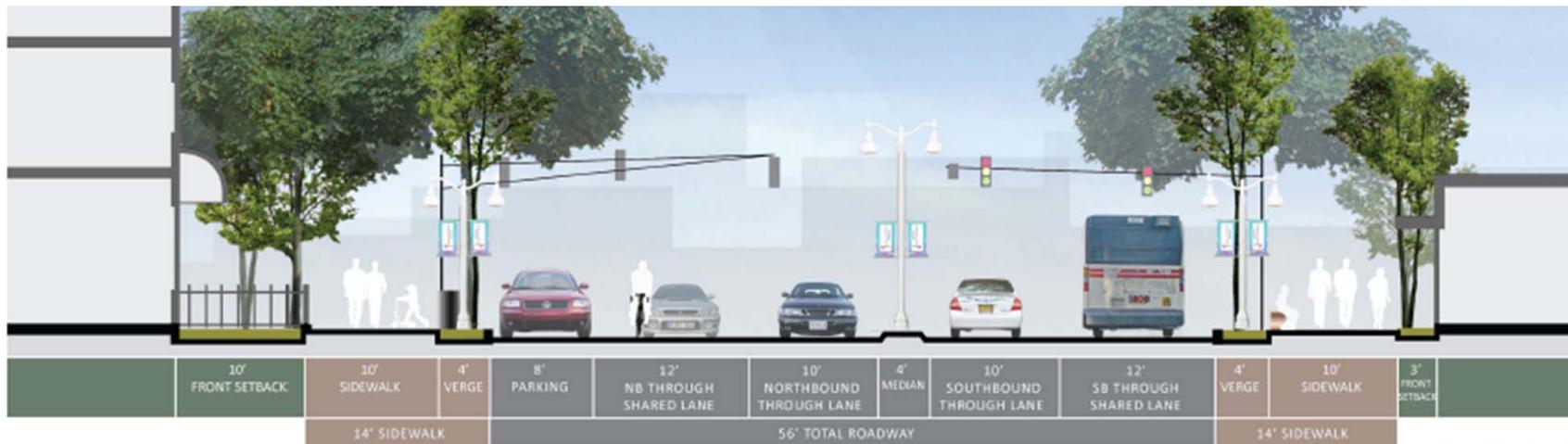


Segment B: Connecting Destinations

Existing

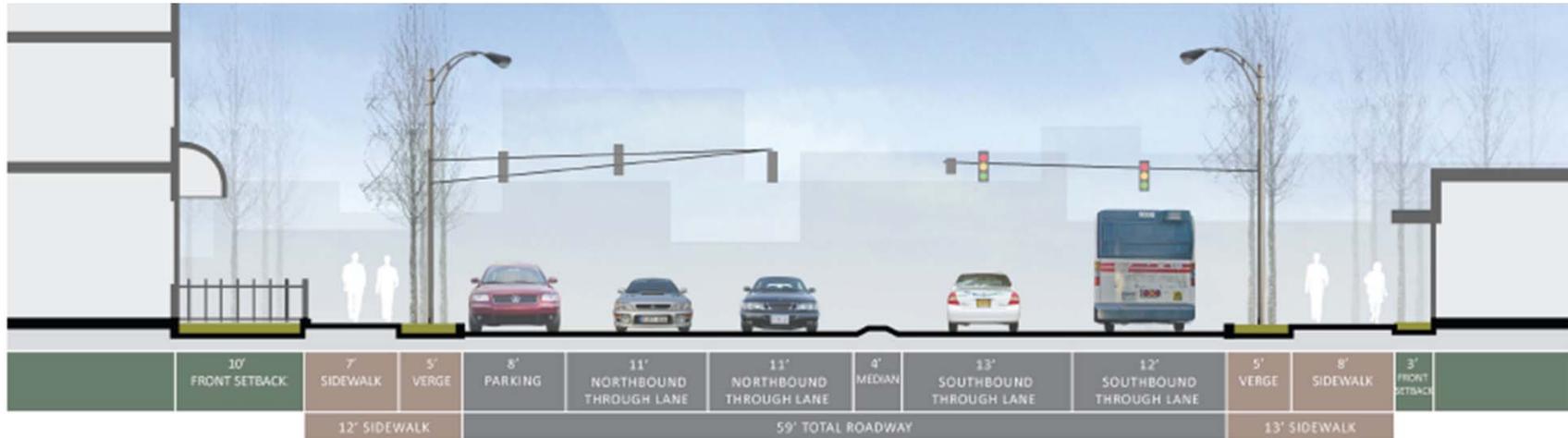


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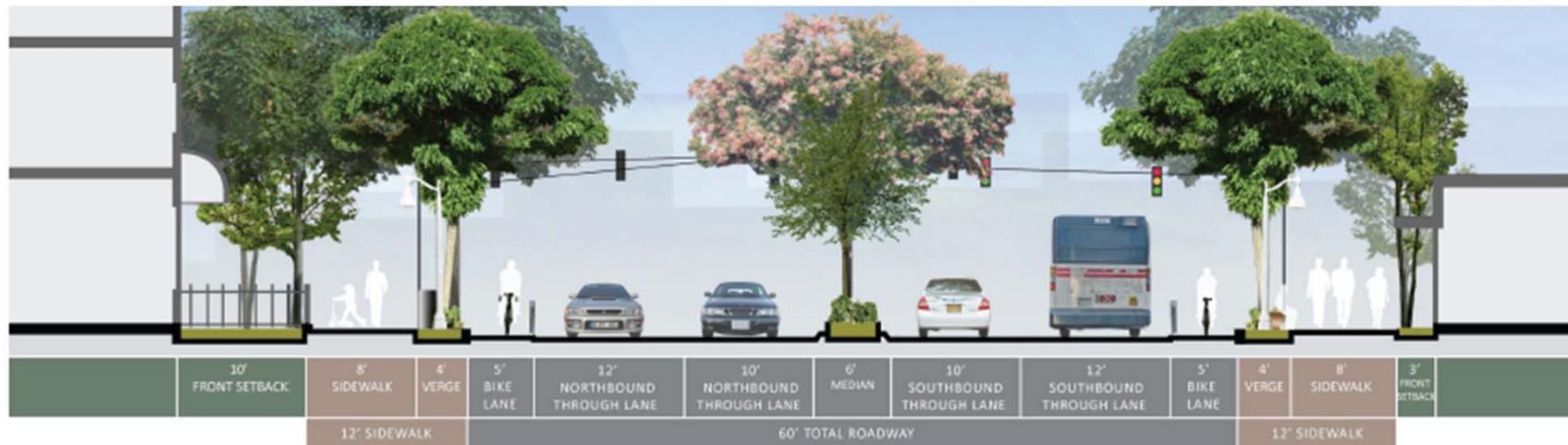


Segment B: Greening Forest Avenue

Existing

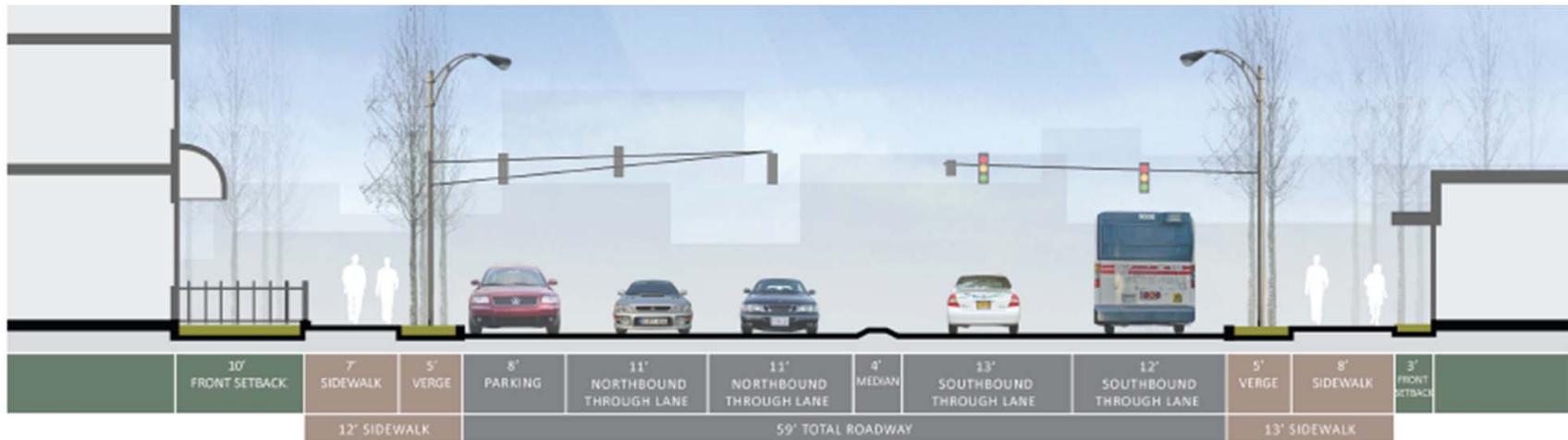


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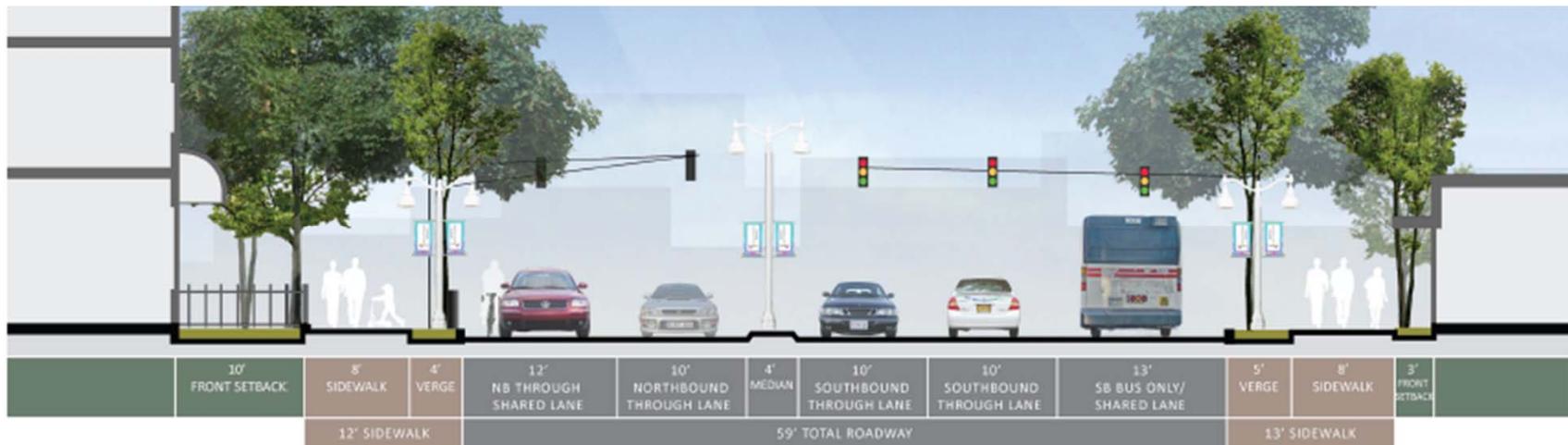


Segment B: Creating a Transit Corridor

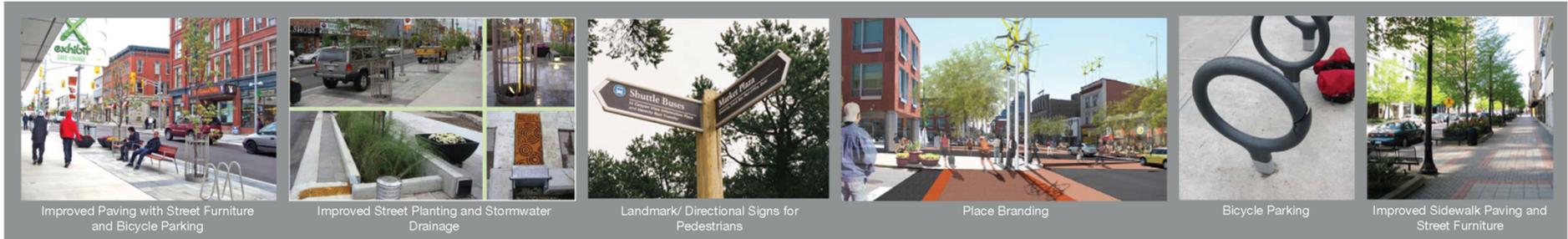
Existing



Proposed



Segment C: Overall Improvements

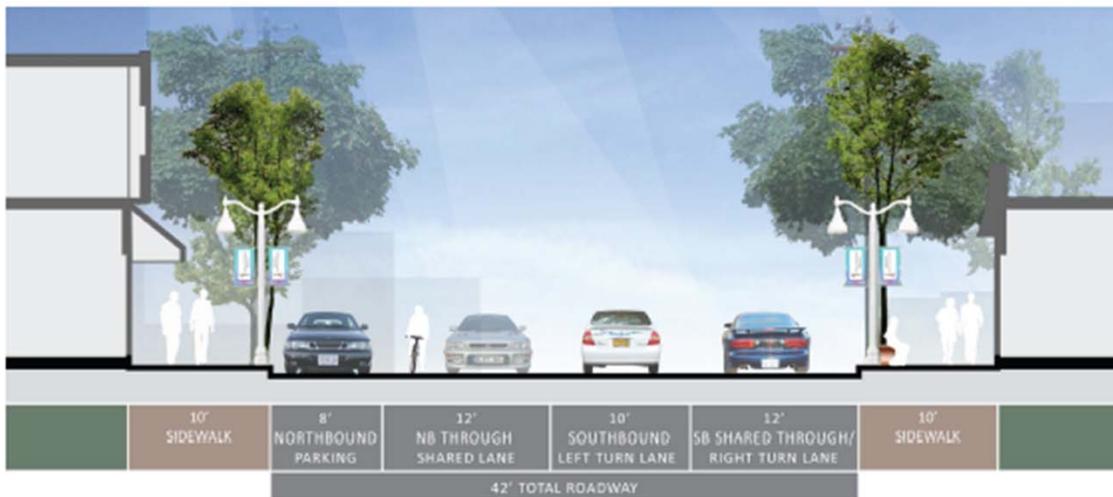


Segment C: Connecting Destinations

Existing

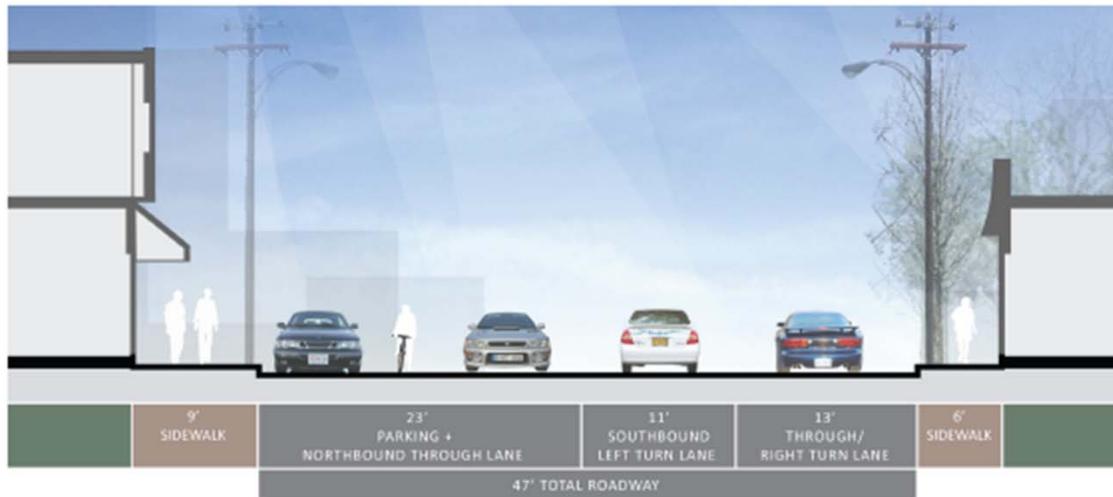


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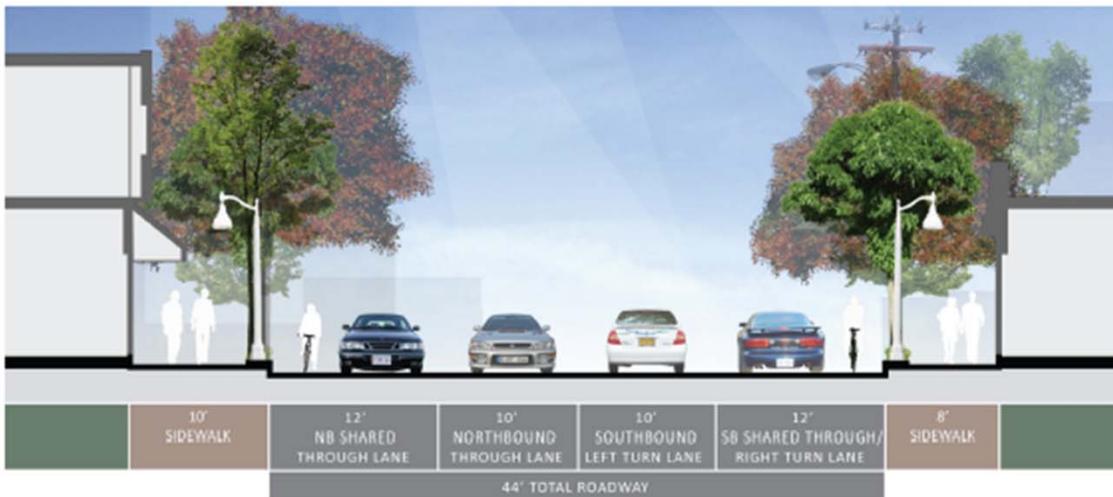


Segment C: Greening Forest Avenue

Existing

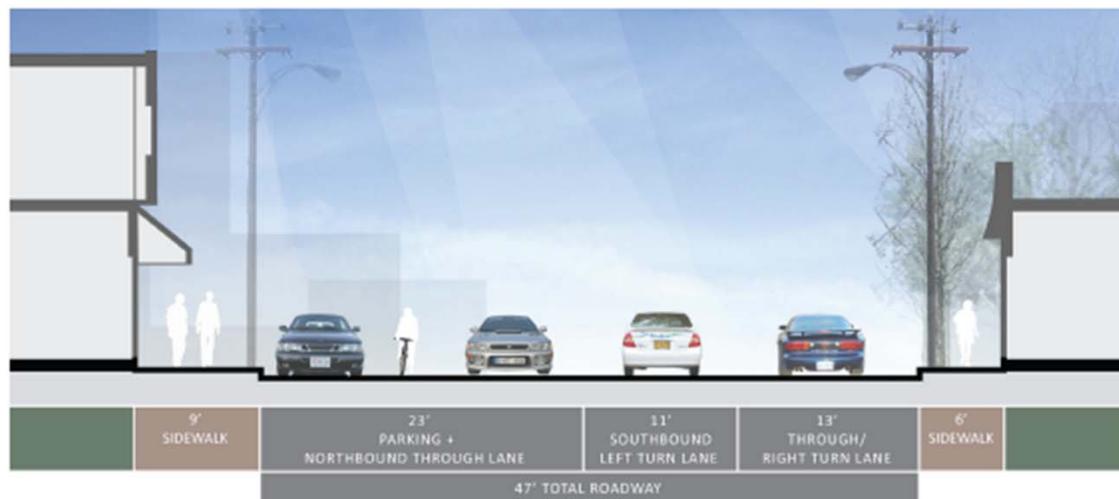


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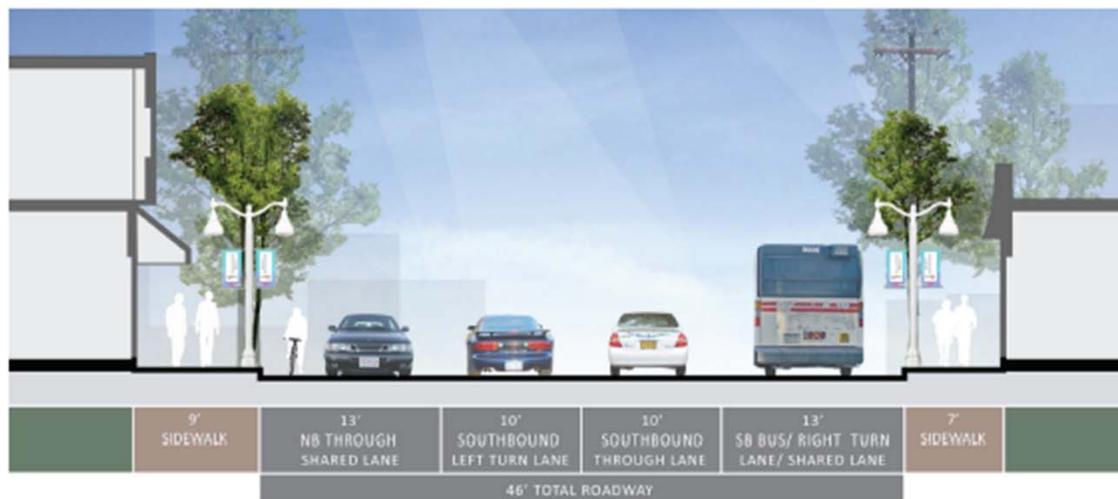


Segment C: Developing a Transit Corridor

Existing



Proposed



Evaluation Matrix – Transportation Alternatives

	Complete Streets Principles															
	Health and Safety				Accommodate All Modes						Connectivity/Accessibility			Environment		
	Promote Physical Activity	Enhance safety of vulnerable users	Manage vehicle speeds	WEIGHTED AVERAGE	Encourage multi-modality	Improve transit operations, facilities, and access	Mitigate traffic diversion	Manage parking	Increase comfort	WEIGHTED AVERAGE	Connect the street network	Provide wayfinding	WEIGHTED AVERAGE	Increase permeability	Reduce greenhouse gas (GHG) emissions	WEIGHTED AVERAGE
Weights	15%	50%	35%		25%	20%	25%	15%	15%		50%	50%		50%	50%	
Alternative 1: Connecting Destinations	3	3	2	3	3	2	2	2	3	2	2	2	2	2	3	2
Alternative 2: Greening Forest Avenue	3	3	2	3	3	2	2	2	3	2	2	2	3	3	3	3
Alternative 3: Creating a Transit Corridor	2	2	2	2	3	3	2	2	2	2	2	2	2	3	2	2

Evaluation Matrix

	Complete Streets Principles					Feasibility			Cost			Overall Rating			
	Categories											Weighted Averages			
	Health and Safety	Accommodate all Modes	Connectivity/Accessibility	Environment	WEIGHTED AVERAGE	Institutional Feasibility	Technical Feasibility	WEIGHTED AVERAGE	Capital Cost	Maintenance Cost	WEIGHTED AVERAGE	Complete Streets Principles	Feasibility	Cost	Overall Rating
Weights	25%	30%	25%	20%		50%	50%		50%	50%		40%	40%	20%	
Alternative 1: Connecting Destinations	3	2	2	2	2	2	1	2	2	1	2	2	2	2	2
Alternative 2: Greening Forest Avenue	3	2	2	3	2	1	1	1	1	1	1	2	1	1	2
Alternative 3: Creating a Transit Corridor	2	2	2	2	2	1	1	1	1	2	1	2	1	1	2

Evaluation (Mode Shift)

Alternative 1: Connecting Destinations

- 2S shuttle service between downtown peninsula and corridor

Alternative 2: Greening Forest Avenue

- 2S shuttle service between downtown peninsula and corridor with additional bike improvements

Alternative 3: Developing a Transit Corridor

- 2S shuttle service between downtown peninsula and corridor with additional bike improvements + Express Bus and a Bus Lane in the Corridor

PM Peak Hour Person-Trips		Change from Baseline		
		Alternative 1	Alternative 2	Alternative 3
Downtown Attraction:				
	Transit	13	12	16
	Walk/Bike	-2	4	0
	Drive Alone/Shared Ride	-11	-16	-16
Downtown Production:				
	Transit	19	17	23
	Walk/Bike	-1	8	0
	Drive Alone/Shared Ride	-18	-25	-23

Discussion

Next Steps

Next Steps

- Use feedback to develop Preferred Alternative
- Present to Public - June 22, 2011
- EPS for Preferred Alternative
- Final Concept Plan – June 30, 2011

Thank you!

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