Six Forks Road Corridor Study
Raleigh, North Carolina
PROJECT STUDY DOCUMENT
November 2014
DESIGNWORKSHOP
Six Forks Road Corridor

- Corridor Study
- Visioning workshop – September 2012
- CIP funds and donations totaling $185,000
- Consultants – Design Workshop and Stantec
- Corridor study process kickoff – May 2014
- Design workshop – September 2014
- Draft plan and review – 2015
Six Forks Corridor Vision

- Unique sense of place
- Enhanced fluidity of movement
- Environmental sensitivity
- Enhanced connectivity
- Transportation modes of all types
- Active pedestrian life
- Safety and accessibility
- Attractive urban thoroughfare
- Irresistible gathering place
Our job included:

- Sharing our work and listening to all input
- Conducting technical analysis
- Working with agencies on technical requirements
- Responding to the realities of site
- Creating acceptable compromises, while holding onto the Vision
- Maximizing the outcome to create the most benefit for all interests
A HOLISTIC MASTER PLAN FOR THE SIX FORKS CORRIDOR

Public Meetings
• 6 dedicated public meetings – 323 attendees
• 4 focus group meetings – 47 attendees
• 4 presentations to CAC’s – 110 attendees
• 4 City Commission Meetings – Stormwater Management Advisory Commission, Bicycle and Pedestrian Advisory Commission, Appearance Commission, Planning Commission

Public Comments
• Email – 104 comments
• SeeClickFix – 27 comments
• Cityzen – 52 comments
• Cityzen Polls – 120 votes
<table>
<thead>
<tr>
<th>Traffic</th>
<th>5 Lane Section (existing condition)</th>
<th>6 Lane Section 106’ (Maximized Efficiency)</th>
<th>6 Lane Section 125’ (Goldilocks)</th>
<th>6 Lane Section 146’ (Fully Loaded)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Level of Service</td>
<td>The current level of service at the Milbrook Intersection is level F</td>
<td>All intersections would function at an acceptable LOS with a 6 lane divided cross section.</td>
<td>Need some of the data from Mike to discuss the Travel Time with 6 lanes</td>
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</tr>
<tr>
<td>Travel Time</td>
<td>The typical capacity of a 5-lane urban section is 26,000 vpd. 80% of the Corridor is currently over-captcity</td>
<td>The typical capacity of a 6-lane divided urban section is 50,000 vpd. Only 20% of the Corridor would be over-capacity by 2040.</td>
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</tr>
<tr>
<td>Safety</td>
<td>Crashes along the Corridor are currently 2.8 times above the statewide average</td>
<td>A median divided cross section only will reduce crashes by 21%</td>
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<tr>
<th>Multimodal</th>
<th>5 Lane Section (existing condition)</th>
<th>6 Lane Section 106’ (Maximized Efficiency)</th>
<th>6 Lane Section 125’ (Goldilocks)</th>
<th>6 Lane Section 146’ (Fully Loaded)</th>
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<tbody>
<tr>
<td>Bike Infrastructure</td>
<td>Currently None</td>
<td>Minimum infrastructure, not likely to encourage new cyclists, will accommodate existing cyclists</td>
<td>Buffered bike lanes will give more space between cyclist and traffic, larger sidewalks will accommodate families with small children</td>
<td>Two-way cycle track on either side of the street allows for cyclists to have their own street for riding the Corridor</td>
</tr>
<tr>
<td>Pedestrian Infrastructure</td>
<td>Sidewalks are narrow and close to the road, but are continuous along the entire Corridor except for one block</td>
<td>Aside from adding the missing sidewalk section, sidewalk will maintain the size and distance from street</td>
<td>Wider sidewalks and potential street trees will create a more comfortable pedestrian experience</td>
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<td>Transit Infrastructure</td>
<td>Changing lane configurations make navigating bus difficult, many stops but only a couple shelters</td>
<td>Outside lane can be signed and marked for frequent transit stops, advocating slower speeds, section does not accommodate future rail or BRT</td>
<td>Simplified cross-section will make bus travel easier, section does accommodate minimum space for future rail or BRT</td>
<td>Simplified cross-section will make bus travel easier, section does accommodate preferred space for future rail or BRT</td>
</tr>
</tbody>
</table>

| Aesthetics and Character | Minimal space for improvement, existing aesthetic condition not rated very high by the public | Minimal space for improvement, existing aesthetic condition not rated very high by the public | Increased space for landscape allows for opportunity to plant street trees and roadside plantings | Increased space for landscape allows for street trees at the edges and center of the median |
| Edge Impact | Little to no impact | Minimal impact | Moderate impact | Major impact, significant right-of-way requirements |
| Connectivity | Free flow connectivity makes access easy for vehicles but creates a more chaotic environment for motorists and pedestrians alike | Reorganized connectivity with medians and enhanced crosswalks create a predictable roadway for motorists and pedestrians | Reorganized connectivity with medians and enhanced crosswalks create a predictable roadway for motorists and pedestrians | Reorganized connectivity with medians and enhanced crosswalks create a predictable roadway for motorists and pedestrians |

<table>
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<tr>
<th>Neighborhood Concerns</th>
<th>5 Lane Section (existing condition)</th>
<th>6 Lane Section 106’ (Maximized Efficiency)</th>
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<th>6 Lane Section 146’ (Fully Loaded)</th>
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<td>Real Estate Value</td>
<td>No investment, properties will continue to develop at the current status quo</td>
<td>Minimal investment, likely to deliver minimal gain do to the lack in perceived change and priority</td>
<td>Moderate investment, moderate to major return</td>
<td>Major investment, likely major return over a long period of time</td>
</tr>
<tr>
<td>Business Accessibility</td>
<td>Business access will not be impacted, perceptions of difficult right and left turns will continue</td>
<td>Business access will be organized allowing for businesses to be accessed by backstreet connections or at controlled intersections</td>
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<tr>
<td>Cost</td>
<td>Minimal Cost</td>
<td>Moderate Cost</td>
<td>Moderate to Major Cost</td>
<td>Major ROW and Construction costs</td>
</tr>
</tbody>
</table>
Recommendations

- Six Forks Road streetscape
  - Urban and Parkway Boulevard types
  - Separated, above curb bike lanes
  - Materials, furnishings, public art
  - Access management – medians & turn lanes, additional traffic lights
  - 35 mph speed limit throughout corridor

- Neighborhood gateways

- Consolidation and improvement of bus stops

- LID/stormwater management techniques

- Comprehensive Plan amendments - Future Land Use Map, Street Plan
Two Distinct Streetscape Characters
- Each sensitive to the context it goes through
Complete Street that accommodates all users & modes of travel

- Meets traffic demand
- Creates safe, separated zones for bike and pedestrians
- Provides landscaped median and designs for the edge conditions
- Reduces speed limit to 35 mph
Urban Boulevard Streetscape Type

In urbanized areas, the Edge Zone can serve as an extension of the sidewalk paving, creating seating areas and/or small plazas in front of adjacent buildings.

A small planting strip softens the transition from the building to the streetscape.
**Urban Boulevard Streetscape Type**

<table>
<thead>
<tr>
<th>EDGE TRANSITION ZONE</th>
<th>SIDEWALK ZONE</th>
<th>BIKE ZONE</th>
<th>TRAFFIC ZONE</th>
<th>MEDIAN ZONE</th>
<th>TRAFFIC ZONE</th>
<th>BIKE ZONE</th>
<th>SIDEWALK ZONE</th>
<th>EDGE TRANSITION ZONE</th>
</tr>
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<tbody>
<tr>
<td>6' Minimum Planted Buffer and Pavement Extension</td>
<td>6' Sidewalk</td>
<td>6' Planting Buffer</td>
<td>Three 11' Wide Travel lanes</td>
<td>22' Shared Median and Turn Lane</td>
<td>Three 11' Wide Travel lanes</td>
<td>6' Bike Lane with 3' Planting Buffer</td>
<td>6' Planting Buffer</td>
<td>6' Minimum Planted Buffer and Pavement Extension</td>
</tr>
<tr>
<td>2.5' Curb</td>
<td>1.5' Curb</td>
<td>2.5' Curb</td>
<td>1.5' Curb</td>
<td>Optional Pedestrian Refuge Island</td>
<td>125'-136' ROW</td>
<td></td>
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</tr>
</tbody>
</table>
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Parkway Boulevard Streetscape Type

[Diagram showing streetscape design elements such as tree planting, bike lanes, and pedestrian spaces.]

- Second Tier Large Tree Planting
- Street Tree Planting Set 15' off Power Line
- Marking at potential conflict zone between pedestrians and cyclist
- Above Ground Power Line
- Small Tree Planting Under Powerline
- A 3 foot minimum buffer must be maintained between the bike path and both the drive lanes and the sidewalk
- Canopy tree at back of sidewalk
- Meandering bike lane
- Small Tree Planting Under Powerline
- Tree and Shrub plantings in Edge Zone tie streetscape into existing landscape
Parkway Boulevard Streetscape Type

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<tr>
<th>EDGE ZONE</th>
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<th>BIKE ZONE</th>
<th>SIDEWALK ZONE</th>
<th>EDGE ZONE</th>
</tr>
</thead>
<tbody>
<tr>
<td>6'-8&quot; Planted Buffer</td>
<td>6' Sidewalk</td>
<td>8' Planting Buffer</td>
<td>5' Bike Lane with 3' Planted Buffer Strip</td>
<td>2' Curb</td>
<td>3' 11&quot; Wide Travel Lanes and Turn Lane</td>
<td>20' Shared Median and Turn Lane</td>
<td>3' 11&quot; Wide Travel Lanes</td>
<td>5' Bike Lane with 3' Planted Buffer Strip</td>
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Master Plan – Block-by-block plans to guide implementation
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Streetscape Elements
• Materials and furnishings
• Inclusion of public art – integrated into the design of elements and freestanding pieces
Neighborhood Gateway Plans
- Promote pedestrian scale
- Establish neighborhood identity
- Incorporate traffic calming
- Create place for artistic expression
Transit Stops

- Consolidate existing stops (●) to new enhanced stops (○) spaced for ¼-mile walking radius (○)
- New and attractive bus shelters with signage & furniture
Environmental Responsibility – Incorporate LID strategies into streetscape design to improve stormwater management.
Off-Corridor Improvements

Planning frameworks to guide potential redevelopment and street networks
Proposed 2030 Comprehensive Plan Amendments

Future Land Use Map (FLUM) Changes
Proposed 2030 Comprehensive Plan Amendments

Street Plan Map Changes
## Multimodal Level of Service Improvements

<table>
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<tr>
<th>Mode</th>
<th>Existing LOS</th>
<th>LOS with Plan</th>
</tr>
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<tbody>
<tr>
<td>Car</td>
<td>D / E / F</td>
<td>C / D</td>
</tr>
<tr>
<td>Pedestrian</td>
<td>D / E</td>
<td>C</td>
</tr>
<tr>
<td>Bicycle</td>
<td>E</td>
<td>B</td>
</tr>
<tr>
<td>Bus</td>
<td>E / F</td>
<td>B / C</td>
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Implementation

Phase 1: Lynn Road south to Rowan Street

- $1.8 million for design - 2013 Transportation Bond item (FY17 CIP Budget)
- $28.5 million for construction and ROW acquisition - propose for future funding consideration (part of future Transportation Bond package)

Phase 2: Rowan Street to I-440

- $13.2 million total project cost
- Propose for future funding consideration
- Partner with private development

Phase 3: I-440 Interchange Pedestrian Improvements

- $750,000 total project cost
- Propose for future funding consideration
- Partner with NC Department of Transportation
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Recommended Council Action

• Receive Council comments
• Determine next steps
  • Plan adoption
• Comprehensive
  Plan amendments