Creating More Complete Streets in Charlotte, NC

CSS National Dialog
August 11, 2010
Norm Steinman, AICP
- Manager, CDOT Planning and Design Division
Content

- Explain Why Charlotte Needs Complete Streets
- Discuss How the USDG Are Intended to Create Complete Streets
- Describe Some of the Plans and Projects Completed with the USDG
Why Does Charlotte Need Complete Streets?

- Existing Deficiencies
- Public Opinion
- Growth
Existing Deficiencies

- ~45% thoroughfares - no sidewalks
- ~75% local streets - no sidewalks
- ~50% intersections - poor pedestrian level-of-service
- ~95% intersections - poor bicycle level-of-service
- ~20% thoroughfares - highly congested
Do you believe streets should be designed to accommodate all users including motorists, pedestrians, bicyclists, and transit users?

- Yes: 80%
- No: 18%
- Don't know: 2%
“They Are Coming”

- Charlotte’s 30 year population growth equals:
  - St. Louis (348,000)
  - Pittsburgh (335,000)
  - Cincinnati (331,000)
Transportation Action Plan (TAP) and Urban Street Design Guidelines (USDG)

- TAP is Charlotte’s long-range comprehensive transportation plan
- TAP describes policies, projects and programs
- USDG are applied to design streets and blocks
How the TAP and USDG Work Together

- TAP Goal 2 – provide more and better travel choices

- “More” (quantity) specified in TAP policies and TAP programs

- “Better” (quality) defined by the USDG
The City will promote context-sensitive streets (i.e., by designing transportation projects within the context of adjacent land uses, to improve safety and neighborhood livability, promote transportation choices and meet land use objectives), consistent with the City’s Urban Street Design Guidelines.
Key Content of the USDG

- (17) policy statements
- (6-step) planning and design process
- (land-use based) street options
- design requirements and expectations (dimensions, tradeoffs)
Intent of USDG Policy Statements

- Apply street classifications and design elements throughout Charlotte and ETJ
- Apply 6-step process
- Apply USDG to publicly and privately built streets
- Mutually reinforce land use and transportation decisions
• Create better network for pedestrians, bicyclists, and neighborhood residents (require appropriate block lengths and creek crossing intervals)

• Expand tree canopy

• Design intersections for all modes

• Include traffic calming
By adopting the USDG, the City Council declares that it is the policy of the City of Charlotte to:

#1: Apply the USDG to the planning and design of new and modified streets in Charlotte and its Sphere, including State-maintained surface streets.
The Six-Step Process

1. Define Land Use Context
2. Define Transportation Context
3. Identify Deficiencies
4. Describe Future Objectives
5. Define Street Type and Initial Cross-Section
6. Describe Tradeoffs and Select Cross-Section
Step 2: Existing and Future Transportation

- Daily and hourly traffic volumes?
- Posted and operating speeds?
- Bicycle lanes or routes?
- Bus stops or transit services?
- Sidewalks and crossings?
- Relationship to street network?
- Changes in connectivity and capacity?
USDG - A Variety of Street Types

Main Street  Avenue  Boulevard  Parkway
Local Street

Pedestrian-Oriented  Land Uses and Street Designs  Auto-Oriented
Context-Based Prescriptive Design

Residential Street - Medium
*B.O.C. - Back of Curb
Context-Based “Not Prescriptive” Design

Avenue
For dimensional information refer to specific guidelines for each zone (development, pedestrian, green, bicycle, parking, motor vehicle)
Transportation Research Record No. 1878

Methodology to Assess Design Features for Pedestrian and Bicyclist Crossings at Signalized Intersections

Norm Steinman and David Keith Hines
Applications of the USDG

• CIP projects
  – Major Roadways
  – Farm-to-Market Roads
  – Intersections
  – Sidewalks
  – Neighborhood Improvement
  – Connectivity
  – Traffic Calming

• Area plans

• Rezonings
<table>
<thead>
<tr>
<th>Completed</th>
<th>Since 2005</th>
<th>Anticipated /Underway</th>
</tr>
</thead>
<tbody>
<tr>
<td>9</td>
<td>Thoroughfares rebuilt/extended</td>
<td>17</td>
</tr>
<tr>
<td>19</td>
<td>Streetscapes and road-conversions</td>
<td>8</td>
</tr>
<tr>
<td>11</td>
<td>Intersections</td>
<td>8</td>
</tr>
<tr>
<td>37</td>
<td>Sidewalks</td>
<td>66</td>
</tr>
<tr>
<td>9</td>
<td>Area Plans</td>
<td>6</td>
</tr>
<tr>
<td>171</td>
<td>Rezonings</td>
<td></td>
</tr>
</tbody>
</table>
Charlotte’s Urban Street Design Guidelines

For further information, contact:

Tracy Newsome
tnewsome@charlottenc.gov

or

Mark Cole
mcole@charlottenc.gov