

Durham Comprehensive Bicycle Plan

Public Workshop

Tuesday January 31st, 2006

Help make Durham a bicycle-friendly community

Why a bicycle-friendly community?

- Health and Physical Activity
- Improved Safety
- Reduced Traffic Congestion
- Affordable Mobility
- Improved Quality of Life
- Reduced Auto Dependency
- Conserve Fossil Fuels
- Increased Economic Vitality
- Connect the Community
- Bikes are FUN!



Waltown Neighborhood

Why create a bike plan?

- Update the 1993 Regional Bicycle Plan
- Increase mode share and safety with quality facilities and programs
- Accommodate needs of all kinds of cyclists
- To make Durham a great place to live and work



American Tobacco Trail

Why create a bike plan?

Accommodate Needs of All Cyclists



Public Workshop Purpose

1) **Learn about the project**, the planning process, and the work in progress



2) **Share your ideas** and provide your input: Identify key issues of concern and opportunities and constraints



3) **Help make Durham a more bicycle friendly community**

Bicycle Facility Examples



Bike Lanes



Shared-Use Paths



Wide Outside Lanes



Shoulder Bikeway



Bike-Transit Connections

Planning Process & Project Scope

- **Task 1: Project Kickoff Meeting** - *complete*
- **Task 2: Identify Stakeholders and Develop Public Involvement Plan** - *in progress*
 - **Form Citizens Bicycle Advisory Committee**
 - **Conduct Public Open House Meetings**
- **Task 3: Review Existing Data** – *in progress*
- **Task 4: Analyze Existing Policies and Codes** - *in progress*
- **Task 5: Bicycle Facility Design Guidelines and Standards** - *March 2006*
- **Task 6: Route Network Plan** - *March 2006*
- **Task 7: Comprehensive Bicycle Transportation Plan Report and Map** - *May 2006*

Current Efforts

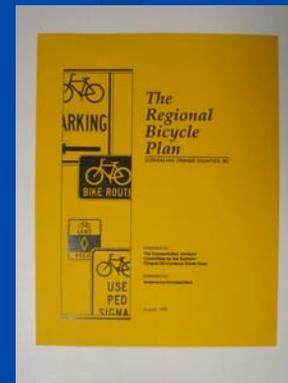
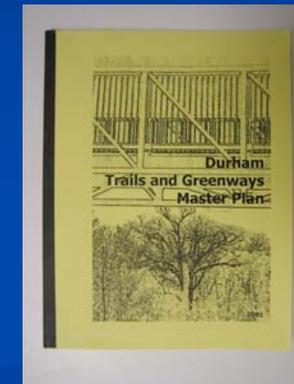
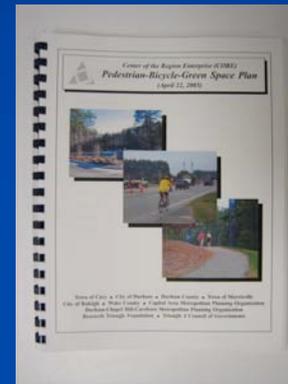


Brightleaf Square

- Reviewing Existing Plans and Policies
- Conducting Inventory of Existing Conditions
- Gathering Public Input & Assessing Bicycle Needs
- Drafting the Preliminary Bicycle Network

Current Efforts: Existing Plans and Policies

- 1993 Regional Bicycle Plan
- 2030 Long Range Transportation Plan
- Durham Trails and Greenways Master Plan
- Durham Universal Design Ordinance
- Durham Comprehensive Plan
- Center of the Region Enterprise (CORE) Plan
- NCDOT Bicycle Facilities Guidelines
- AASHTO Bicycle Facilities Guidelines



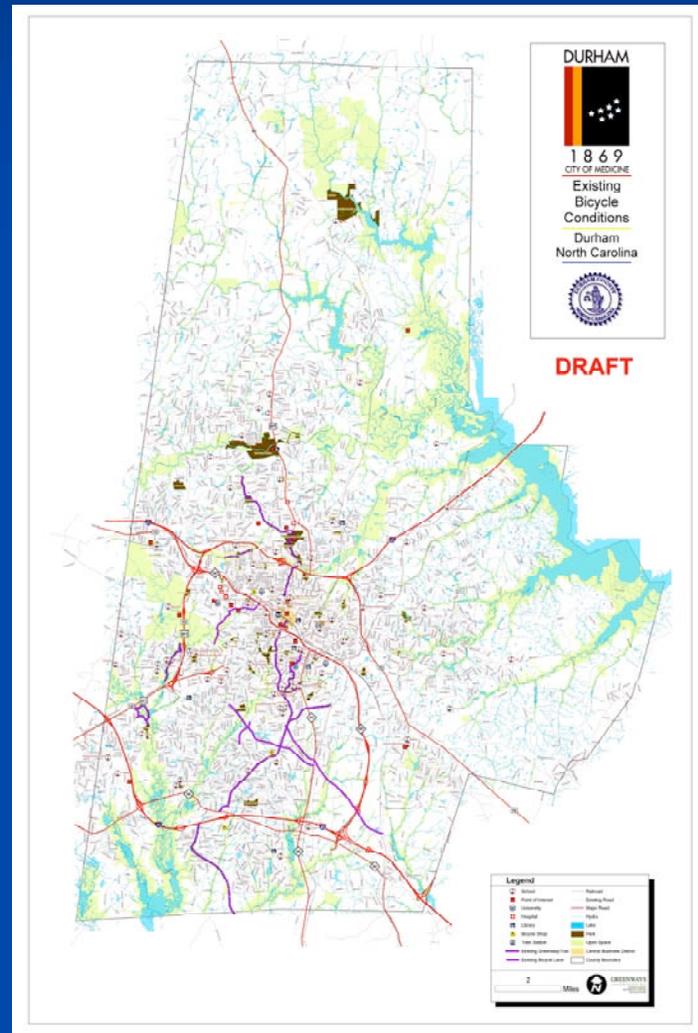
Current Efforts: Inventory Existing Conditions

- Fieldwork
- Review GIS info & prepare base maps
- Develop GIS layer for 1993 Bicycle Plan network



Field work on Broad Street

Existing Conditions Map



Existing Conditions



Current Efforts: Public Input & Needs Identification

- Public input form online at www.bikewalkdurham.org
- Public workshops
- Demand analysis
- Benefits analysis



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Durham City and County Comprehensive Bicycle Plan

5. How frequently do you bicycle? (select one)

never

few times per month

few times per week

5+ times per week

6. How many bicycles do you have in your household? (select one)

0

1

2

3

4

5+

Current Efforts: Demand Analysis

- Total Estimated Bicycle Trips in Study Area: ~ 28,000 per day
- Durham's Bike/Ped mode share is **DOWN** 11% in the past 10 years.
- Needs assessed for:
Commuters, Students,
Utilitarian trips,
Recreational travel, Etc.



Ninth Street

Current Efforts: Benefits Analysis

Existing and Potential Future Air Quality Benefits

Vehicle Travel Reductions	Existing	Future
Reduced Vehicle Trips per Weekday ⁽¹⁾	2,649	4,057
Reduced Vehicle Trips per Year ⁽²⁾	691,431	1,058,995
Reduced VMT per Weekday ⁽³⁾	19,625	32,458
Reduced VMT per Year ⁽²⁾	5,122,146	8,471,642
Vehicle Emissions Reductions	Existing	Future
Reduced PM ₁₀ (tons per weekday) ⁽⁴⁾	361	597
Reduced NO _x (tons per weekday) ⁽⁵⁾	9,789	16,190
Reduced ROG (tons per weekday) ⁽⁶⁾	1,425	2,356
Reduced PM ₁₀ (tons per year) ⁽⁷⁾	94,427	155,878
Reduced NO _x (tons per year) ⁽⁷⁾	2,554,926	4,225,655
Reduced ROG (tons per year) ⁽⁷⁾	371,868	815,041



Current Efforts: Benefits Analysis

Estimated Annual Benefits of an Enhanced Bikeway Network

Recreational Benefits ⁽¹⁾	Low Estimate	Mid Estimate	High Estimate
	\$7,011,813	\$23,840,165	\$56,095,507
Mobility Benefits ⁽²⁾	Per-Trip	Daily	Annually
Off-Street Trail Network ⁽³⁾	\$4.96	\$11,989	\$2,997,214
Bicycle Lane Network ⁽⁴⁾	\$4.20	\$20,169	\$5,042,493
Health Benefits ⁽³⁾	Low Estimate	Mid Estimate	High Estimate
	\$491,788	\$1,018,932	\$2,213,844
Decreased Auto Use	Urban	Suburban	Rural
 bicyclinginfo.org Pedestrian and Bicycle Information Center	\$312,170	\$192,104	\$24,013

Current Efforts: Benefits Analysis

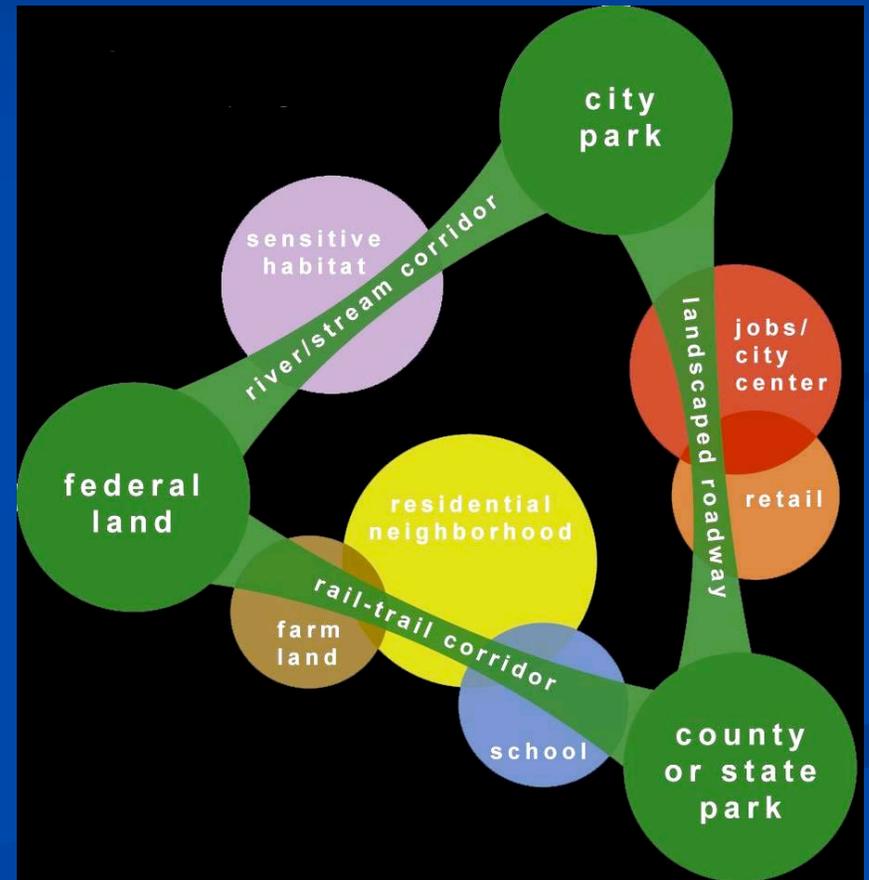
Estimated Annual Costs of Physical Inactivity in Durham

Variable	Estimated Annual Cost
Medical Care Costs	\$27,765,946
Workers' Compensation Costs	\$575,279
Lost Productivity Costs	\$165,769,237
Total Costs	\$194,100,462



Drafting the Preliminary Bicycle Network

- Utilizing previous plans and demand analysis
- Fieldwork
- Connectivity
 - Link origins and destinations
 - Hubs and Spokes



Complete Streets

- Integrate Bike Facilities in all road and transit projects
- Implement priority projects included in the Plan
- Provide for engineering, education, enforcement and encouragement programs (such as Safe Routes to School)

The Possible Future...



POLE MOUNTED SIGNS (ink on reflective sign blanks)



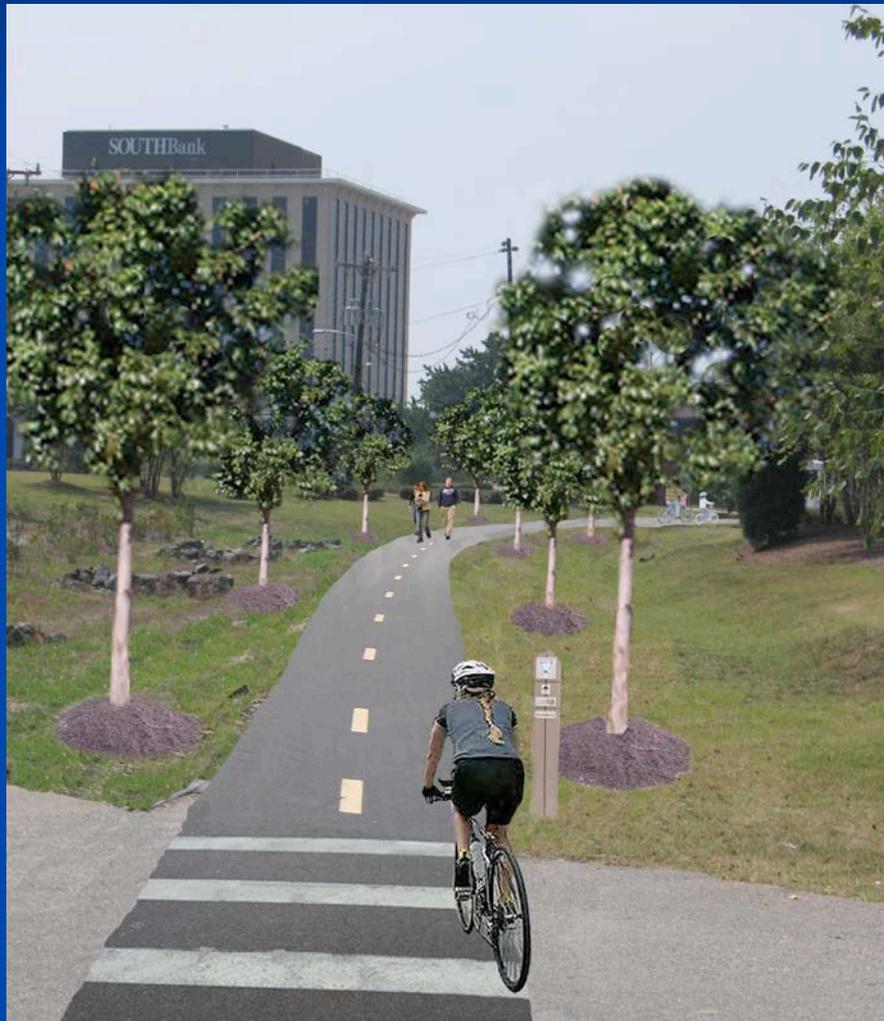
PAVEMENT MARKING SIGNS (cut out thermoplastic shapes)



The Current Environment...



The Possible Future?



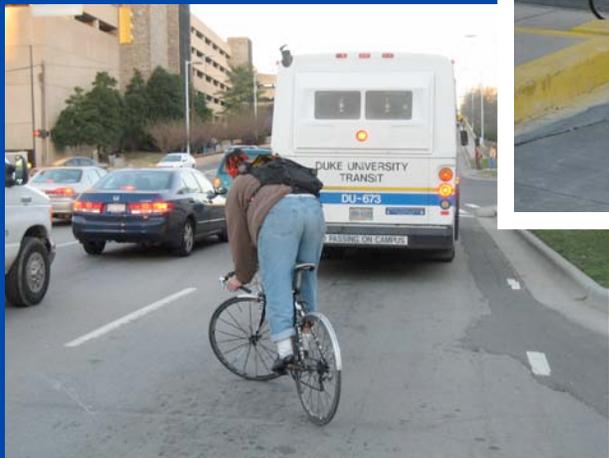
Participate in the Process!

Share your ideas for improving bicycling by writing or drawing on the Public Input Map

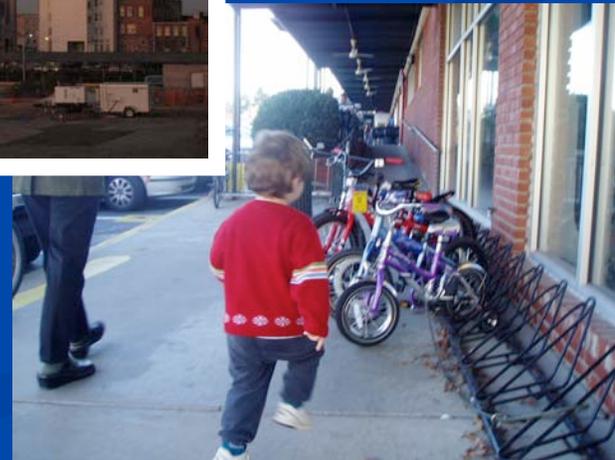
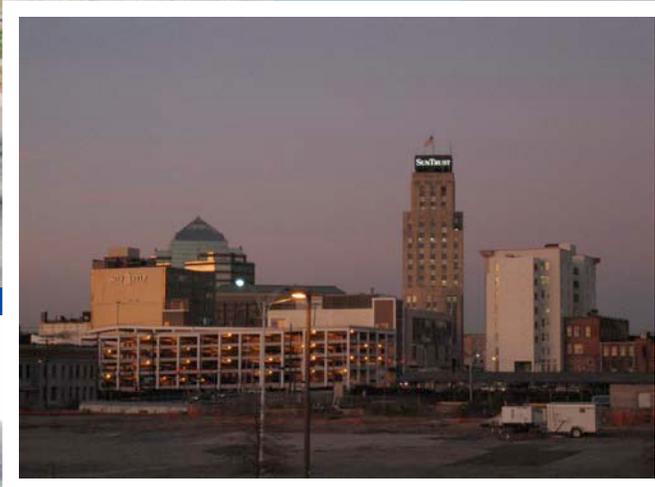
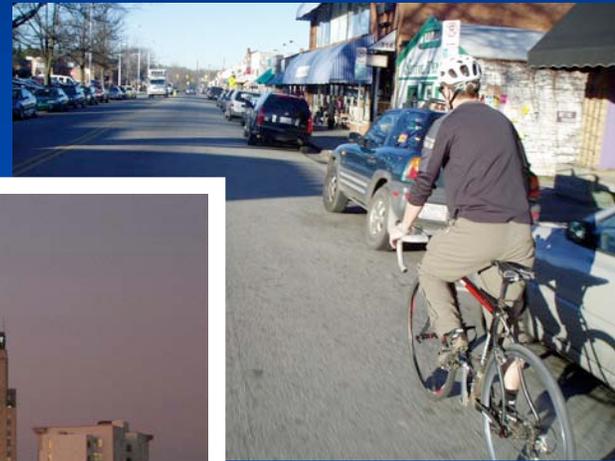
Talk with members of the Bicycle and Pedestrian Advisory Committee (BPAC) and Greenways Team

Complete a public comment form and **tell us what you value** in terms of bicycling

Bicycles around Durham.....



And more bicycles



“Good Things [for Bicycling] Are Happening In Durham”

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GREENWAYS
INCORPORATED

Landscape Architecture
Multi-Objective Trail Planning
Open Space Planning

