

Healthy by Design:

The origins and future of City Living

Harriet Tregoning

District of Columbia Office of Planning

Active Living Research Conference 2008

Connections between Community Design & Health

- **Related to automobile dependency**

- ↑ air pollution
- ↑ climate change contribution
- ↑ traffic-related injuries

- **Related to land use**

- ⇒ physical activity
- ⇒ water quantity and quality
- ⇒ heat island effect

- **Related to social processes**

- ↓ mental health impact
- ↓ social capital

Why do we plan?

Planning helps to answer key questions facing the District:

- Where should the District invest its capital resources?
- How can the private sector invest in neighborhoods?
- How will people get around the city?
- How will we resolve the affordable housing crisis and increase housing choices?
- How can we ensure that District residents have access to the thousands of new jobs we are expecting?
- How will the character of our neighborhoods be conserved and improved?
- How can we improve health outcomes, quality of life, and well-being outcomes for DC residents?
- How do we provide more convenient, higher quality retail choices?
- How can we reduce storm water runoff into the Potomac & Anacostia Rivers?
- How can we improve public safety with more “eyes on the street”?

Attributes of a Globally Competitive City/Region



Distinctive Neighborhoods and Districts

Example: Southeast / Capitol Riverfront Plan



Multiple Transportation Options, Including Transit

Example: DC Circulator and Great Streets Program



A Walkable Urbanity

Example: Proposed Eye Street, Hines development at Old Convention Center



Attributes of a Globally Competitive City/Region



Green and Sustainable Development Practices

Example: Hines LEED-certified development at Old Convention Center site



Shared Social and Economic Prosperity

Example: City Vista (under construction); 20% affordable housing at 20-80% AMI



Quality Environments and Access to Nature

Example: Proposed Canal Blocks Park, Capitol Riverfront SE



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Distinctive Neighborhoods & Districts





Distinctive Neighborhoods: A Waterfront Identity

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Multiple Transportation Options, Including Transit

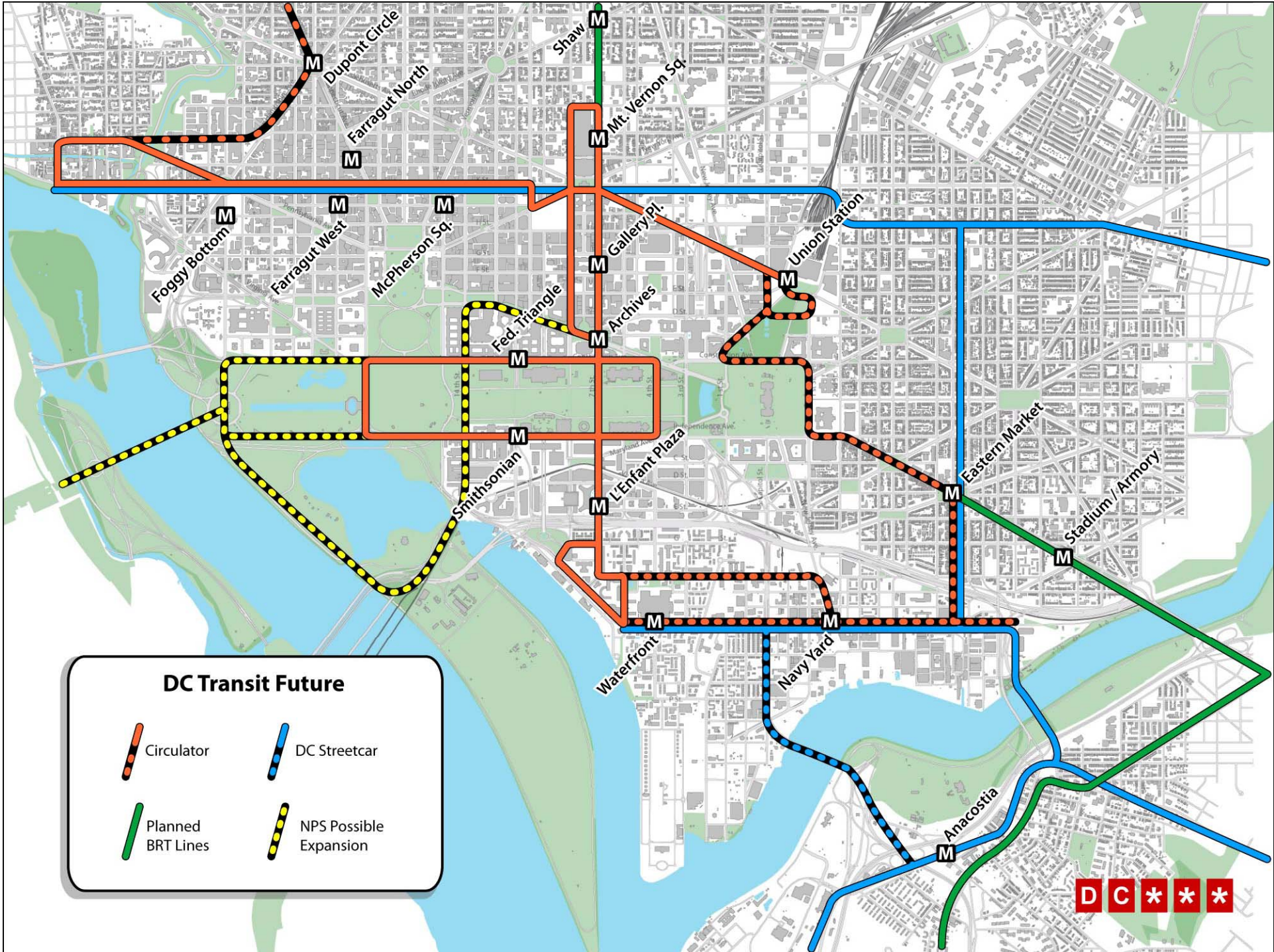
Example: DC Circulator and Great Streets Program



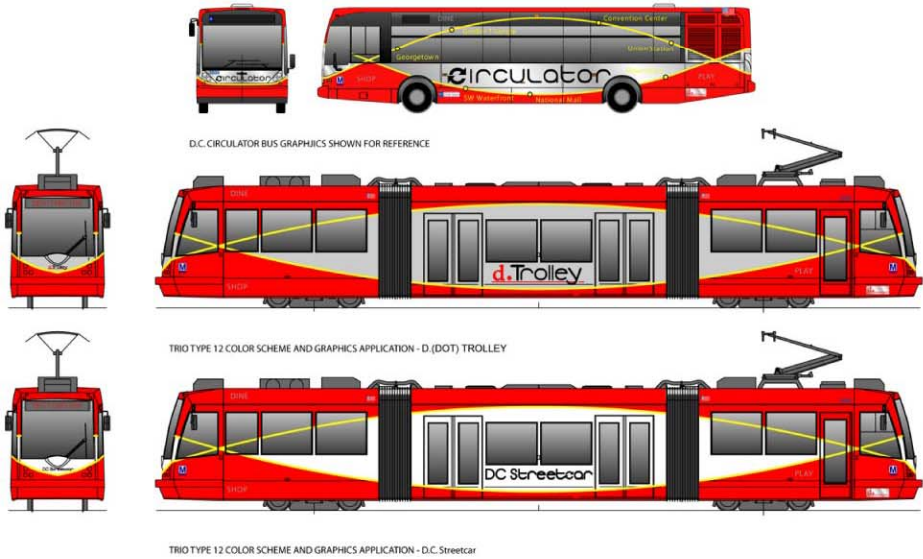
A Walkable Urbanity

Example: Proposed Eye Street, Hines development at Old Convention Center





DC Streetcars are designed and undergoing tests in Europe



Diversifying Transportation

- Biking

 - Paris SmartBikes

 - ...Coming to DC in 2008

 - Bike Lanes – 26 miles -- > 60

- Car Sharing

 - 700+ cars in 26 DC Neighborhoods



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Walkable Urbanity

Many parts of the District are designed to encourage walking and active lifestyles:

- Compact Development
- Interesting streetscape & public realm
- Notable Historic Character
- Great destinations including shopping districts, parks and recreation centers
- Safe pathways



Types of Walking

- Rambling
- Utilitarian Walking
- Strolling, Lingerin
- Promenading
- Special Events



How could we walk more?

- Half the trips we make are less than three miles;
- 40 percent are less than two miles;
- 28 percent are less than one mile ;
and
- 13.7% are less than a half mile.
- ***Yet 75 percent of trips of less than one mile are made by car.***



Sources: National Household Travel Survey, 1995, 2001-2002, US FHA; National Walking and Bicycling Study, Environmental Building News, Aug 2007, Driving to Green Buildings: The

How could we walk more?

- The average US citizen takes about 1,500 daily trips a year.
 - 45 percent of daily trips are taken for shopping and errands
 - 27 percent of daily trips are social and recreational, such as visiting a friend
 - 15 percent of daily trips are taken for commuting



Sources: National Household Travel Survey, 1995, 2001-2002, US FHA; National Walking and Bicycling Study, Environmental Building News, Aug 2007, Driving to Green Buildings: The

Walkscore.com

Multiple Choices all within a mile walk...

- Grocery
- Schools
- Parks
- Libraries
- Fitness
- Drugstores
- Hardware
- Clothing
- Restaurants
- Bars
- Theaters

1200 NY Ave = 100

Walk Score™ Find a Walkable Neighborhood.

Why Walking Matters | Walkable Neighborhoods | How It Works | How It Doesn't Work | Real Estate Tile | Blog

Please type an address
Address: 1200 New York Avenue NW **United States**

Walk Score: 100 out of 100 Worst Best

Expand all

- Grocery Stores**
Food Partners 0.06 Mi
- Restaurants**
Bobby Van's Grill 0.01 Mi
- Coffee Shops**
Coffee Espresso 0.07 Mi
- Bars**
Capitol City Brewin 0.07 Mi
- Movie Theaters**
Children's Theater 0.24 Mi
- Schools**
Carnegie Mellon Uni 0.01 Mi
- Parks**
Franklin Park 0.17 Mi
- Libraries**
Boma International 0.01 Mi
- Bookstores**
Curiosity Bookstore 0.05 Mi
- Fitness**
Fitness Co 0.09 Mi
- Drug Stores**
Sterling Drugs 0.07 Mi
- Hardware Stores**
Arab American Chamb 0.16 Mi
- Clothing & Music**
Payless Shoe Source 0.17 Mi

What's My House Worth?
HouseValues' free service helps you determine the value of your home.

ShortSale Secret Revealed
Step-by-Step Guide To Getting Banks To Discount Properties by 40%!

Ads by Google

Map Satellite Hybrid

Washington

What is Walk Score? We help homebuyers, renters, and real estate agents find houses and apartments in great neighborhoods. Walk Score shows you a map of what's nearby and calculates a Walk Score for any property. Buying a house in a walkable neighborhood is good for your health and good for the environment.

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Example: Hines LEED-certified development at Old Convention Center site



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Quality Environments and Access to Nature

Example: Proposed Canal Blocks Park, Capitol Riverfront SE



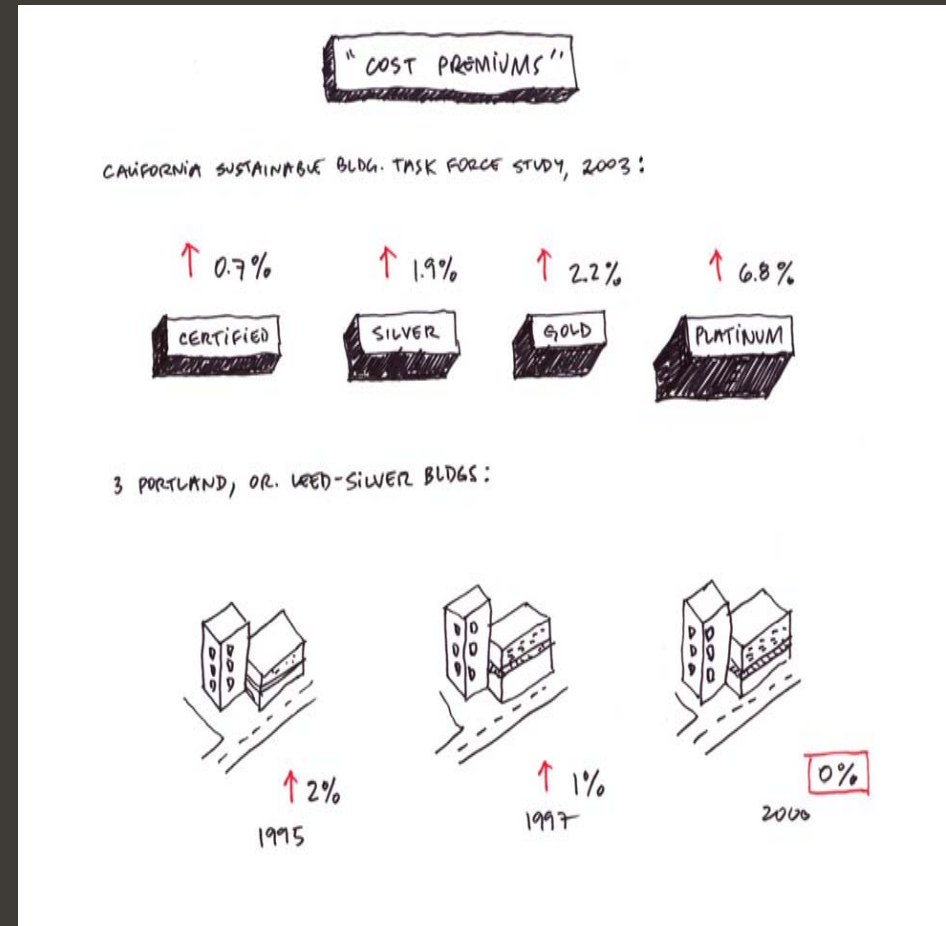
District of Columbia Green Building Act of 2006



New Green Building Legislation

Public Buildings

- Initially Funded in FY'08
 - District or Instrumentality; New Construction, Disposition by Lease
 - Meet LEED NC or CS, Silver
 - Schools
 - Residential (10,000+ sf)
 - Green Communities Standard
- Initially Funded in FY'09
 - Projects receiving > 15% public financing



Private Sector

- Beginning **January 1, 2009**

- Non-Residential (50,000+ sf)

- Submit LEED Checklist to DCRA (at time of any permit app.)

- First Building Permit submitted after **January 1, 2010**

- Public Property Disposed by Sale (50,000+ sf)

- Meet LEED NC or CS, Basic Certification

- Beginning **January 1, 2012**

- All Non-Residential (50,000+ sf)

- Meet LEED NC or CS, Basic Certification

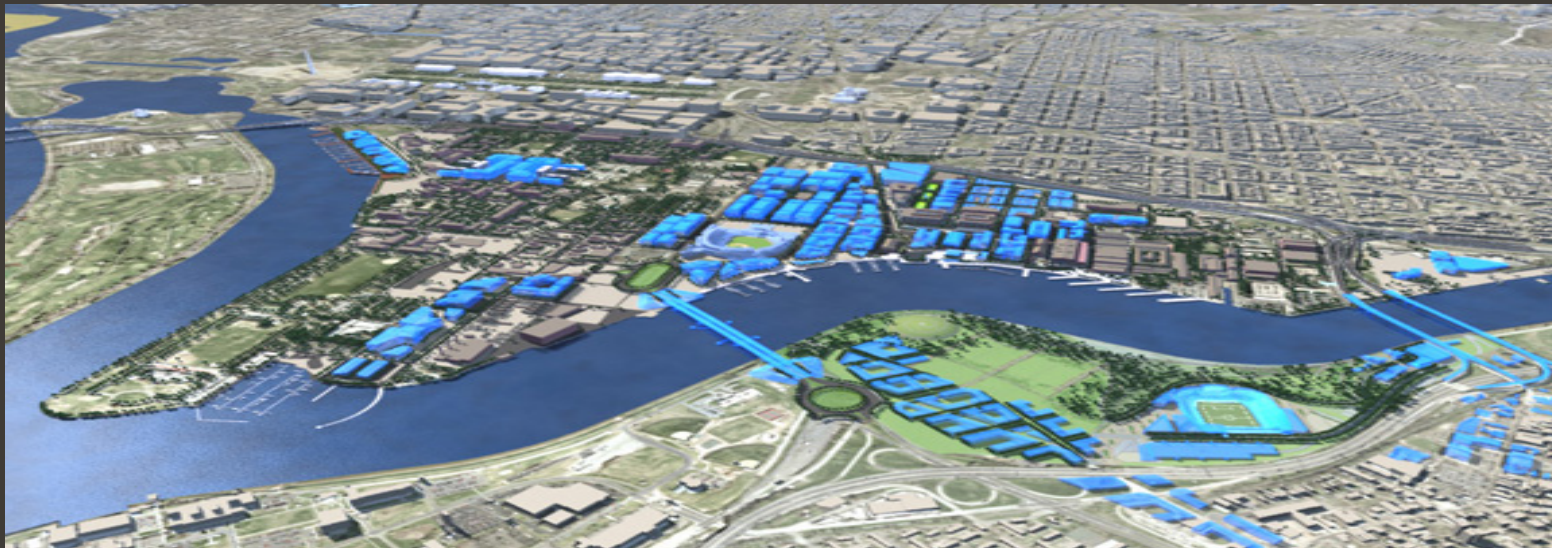
- Performance Bonds (after Jan. 1, 2012)



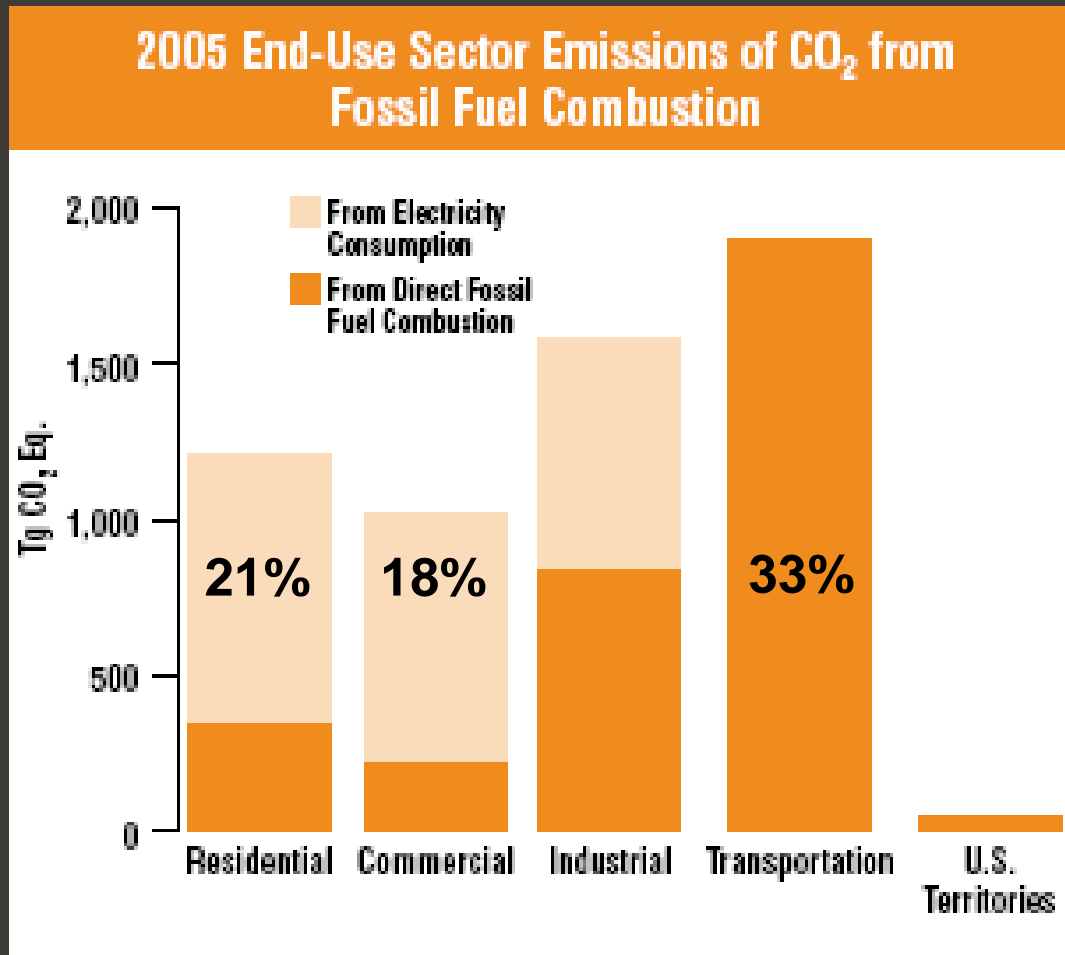
7th and H Street, NW – Gallery Place

LEED Projects in DC

- LEED Certified : 20 (6)
- LEED Registered: 204 (40)
- LEED ND Pilots: 8



CO2 Emission Sources



Buildings and Transportation account for 72% of US CO₂ emissions

Source: EPA; INVENTORY OF U.S. GREENHOUSE GAS EMISSIONS AND SINKS: 1990-2005

So Buildings Alone are not the Answer...

	U.S. UNITS	METRIC UNITS
Average U.S. commute distance – one way ¹	12.2 mi	19.6 km
U.S. average vehicle fuel economy – 2006 ²	21.0 mi/gal	8.9 km/liter
Work days	235 days/yr	
Annual fuel consumption	273 gal/year	1,030 liters/yr
Annual fuel consumption per automobile commuter ³	33,900 kBtu/yr	9,890 kWh/yr
Transportation energy use per employee ⁴	27,700 kBtu/yr	8,100 kWh/yr
Average office building occupancy ⁵	230 ft ² /person	21.3 m ² /person
Transportation energy use for average office building	121 kBtu/ft ²	381 kWh/m ²
Operating energy use for average office building ⁶	92.9 kBtu/ft ² -yr	293 kWh/m ² -yr
Operating energy use for code-compliant office building ⁷	51.0 kBtu/ft ² -yr	161 kWh/m ² -yr
Percent transportation energy use exceeds operation energy use for an average office building	30.2%	
Percent transportation energy use exceeds operation energy use for an office building built to ASHRAE 90.1-2004 code	137%	

Comparing Transportation and Operating Energy Use for an Office Building

THE GLOBAL WARMING GAMBLE



FUEL MIX



VEHICLE
EFFICIENCY



DEMAND

Policy Levers to Reduce
Transportation - Related CO₂ emissions



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ELEMENTS OF SMART GROWTH > housing > economy > children & schools > environment

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*a national coalition
working towards better
choices for our communities*

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Friday, December 15, 2006



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- Latest edition and archives



Smart Growth at the Ballot Box

RECENT HEADLINES

[Americans drive less for](#)

The movement for forward-looking, people-oriented planning and development is at the ballot box this fall.

Governors in at least 10 states have adopted platforms with strong commitments to investment on expanding affordable housing, transportation investments; and protecting of 30 transportation initiatives, citizens voted more than \$5.7 billion in transit and other transportation investments, a 7% rate since the Trust for Public Land began its

Perhaps most encouraging, voters in three states – California, Colorado, and Idaho – rejected anti-taxpayer measures and efforts to protect property value and make development. For more, see [SGA's post-](#)

New Transportation Resources

With anxiety over oil security mounting along with concerns over traffic congestion, even as most states are reaching a decision point over transportation funding, the nation is reaching a decision point over transportation policy, a [points out in this excellent column.](#) ([his follow-up column.](#))

The Surface Transportation Policy Partnerships and local communities aren't left out of the interactive sessions with communities across

Growing Cooler: The Evidence on Urban Development and Climate Change



Reid Ewing, Keith Bartholomew, Steve Winkelman, Jerry Walters and Don Chen
with Barbara McCann and David Goldberg

Growing Cooler

- What reduction in vehicle-miles traveled (**VMT**) is possible in the United States with **compact development** rather than continuing urban sprawl?
- **What reduction in CO2** emissions will accompany such a reduction in VMT?
- **What policy changes** will be required to shift the dominant land development pattern from sprawl to compact development?
- AND DO COMMUNITIES **WANT** IT?

20-40% VMT Reduction for Each
Increment of Compact Development

7-10% Reduction in Total CO₂
Emissions*

** Based on past behavior...*

Any reason to believe behavior will change?



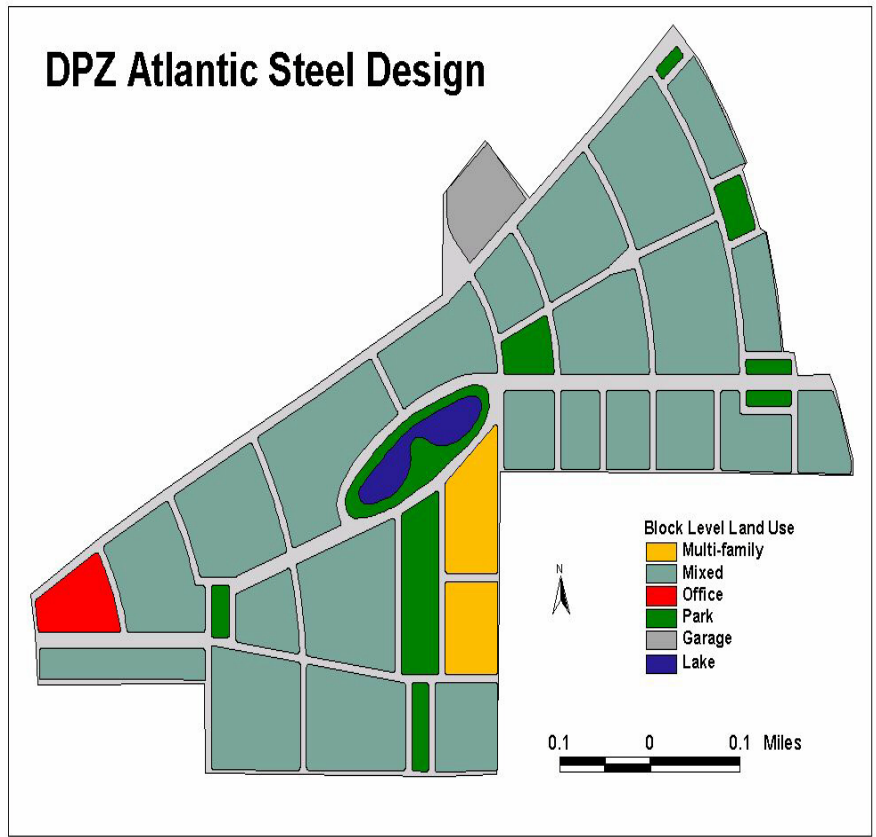
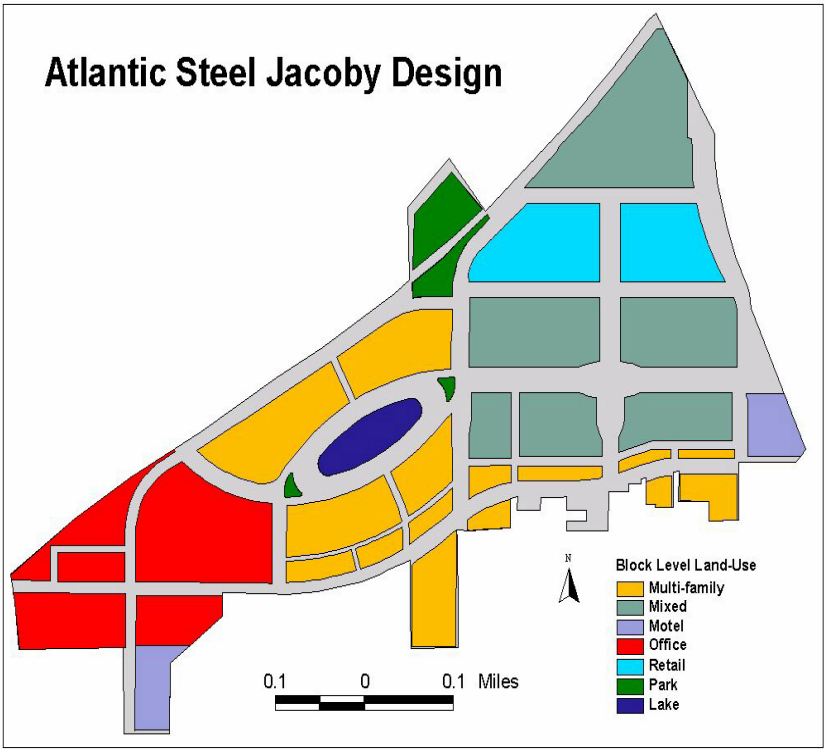
BedZed (London Borough of Sutton)

Residential VMT decreased 65%

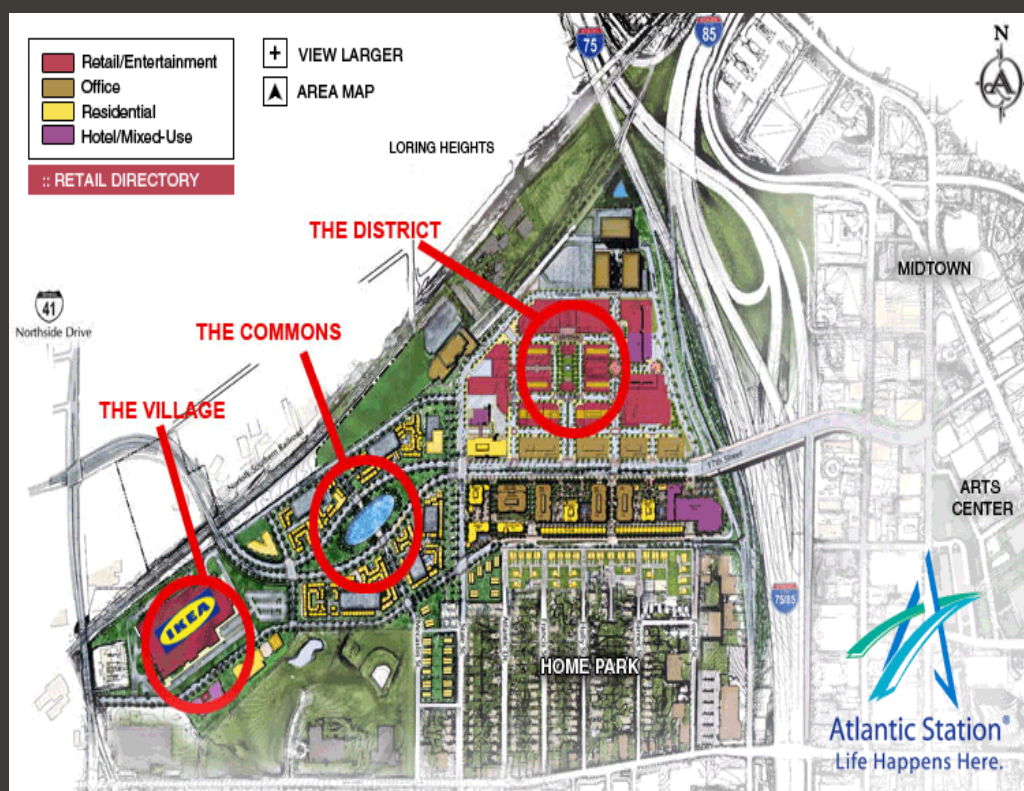
Green Transport Plan

- Solid Transit Links
- 'Pedestrian First' Priority
- Limited Parking
- Car Sharing
- Car Pool

Any reason to believe behavior will change?



Any reason to believe behavior will change?



Branding

Atlantic Station has dubbed itself: "National model for smart growth and sustainable development. Live, Work, Play in the same community."

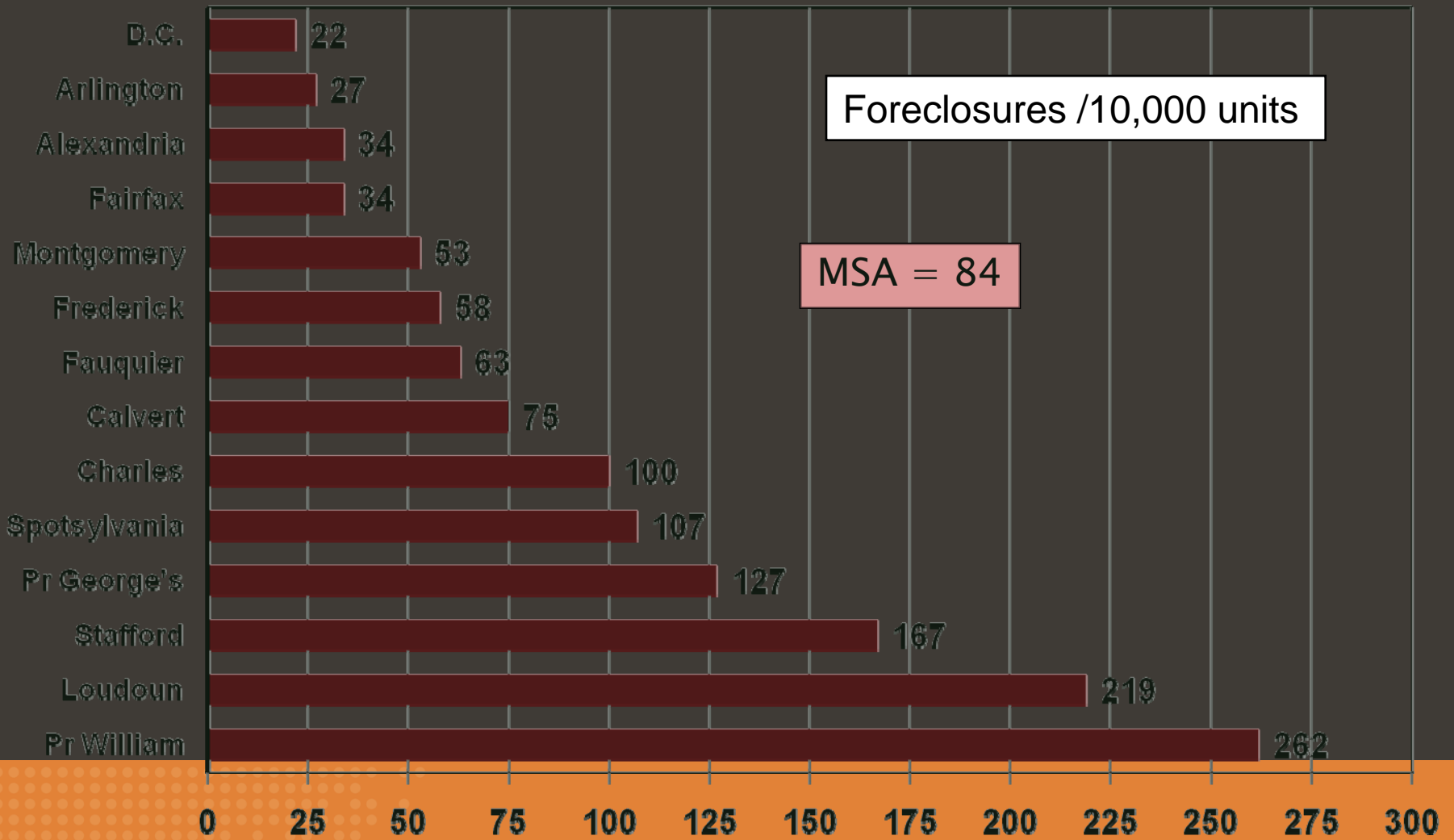
Land Use matters...

2001 Nation-wide study of kids in Atlanta region that indicated that kids living in mixed use communities were twice as likely to have a walking trip over two days vs. kids living in non-mixed use communities

Household benefits

- Time with family
- Convenience of daily goods and services
- Additional disposable income:
 - Decreased utility expenses (One Atlantic Station family saved 60% monthly savings for heating/cooling vs. suburban home)
 - Car fuel

Mortgage Foreclosure Rates by County - Nov 30, 2007

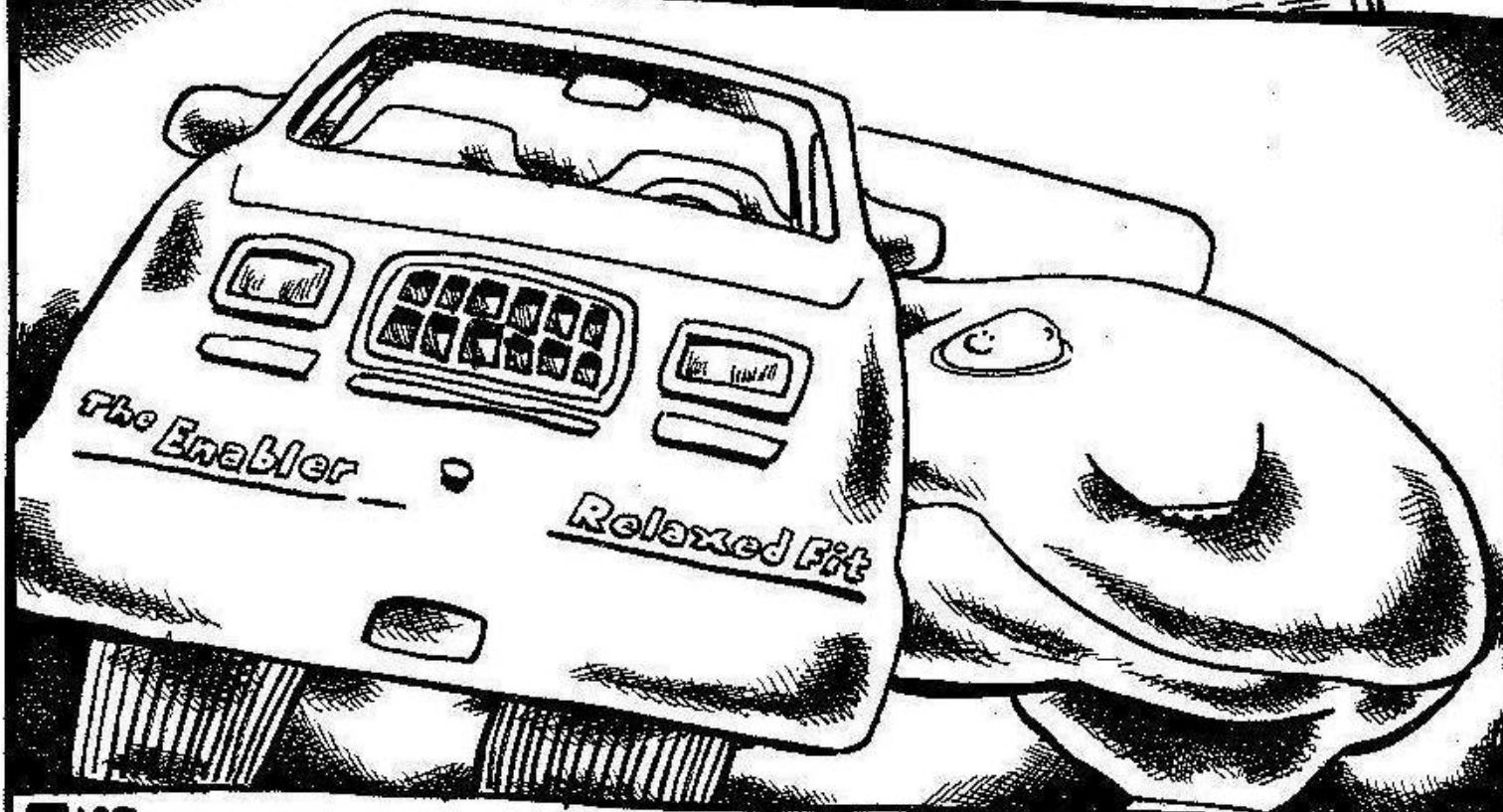


Source: RealtyTrac, Center for Regional Analysis

SUVs Explained!

DRIVING CAUSES OBESITY

THE MORE
YOU DRIVE,
THE BIGGER
YOU GET.
— STUDY



TALS

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PERHAPS IT'S TIME TO REDEFINE
FOSSIL FUELS AS A CARE. —

13

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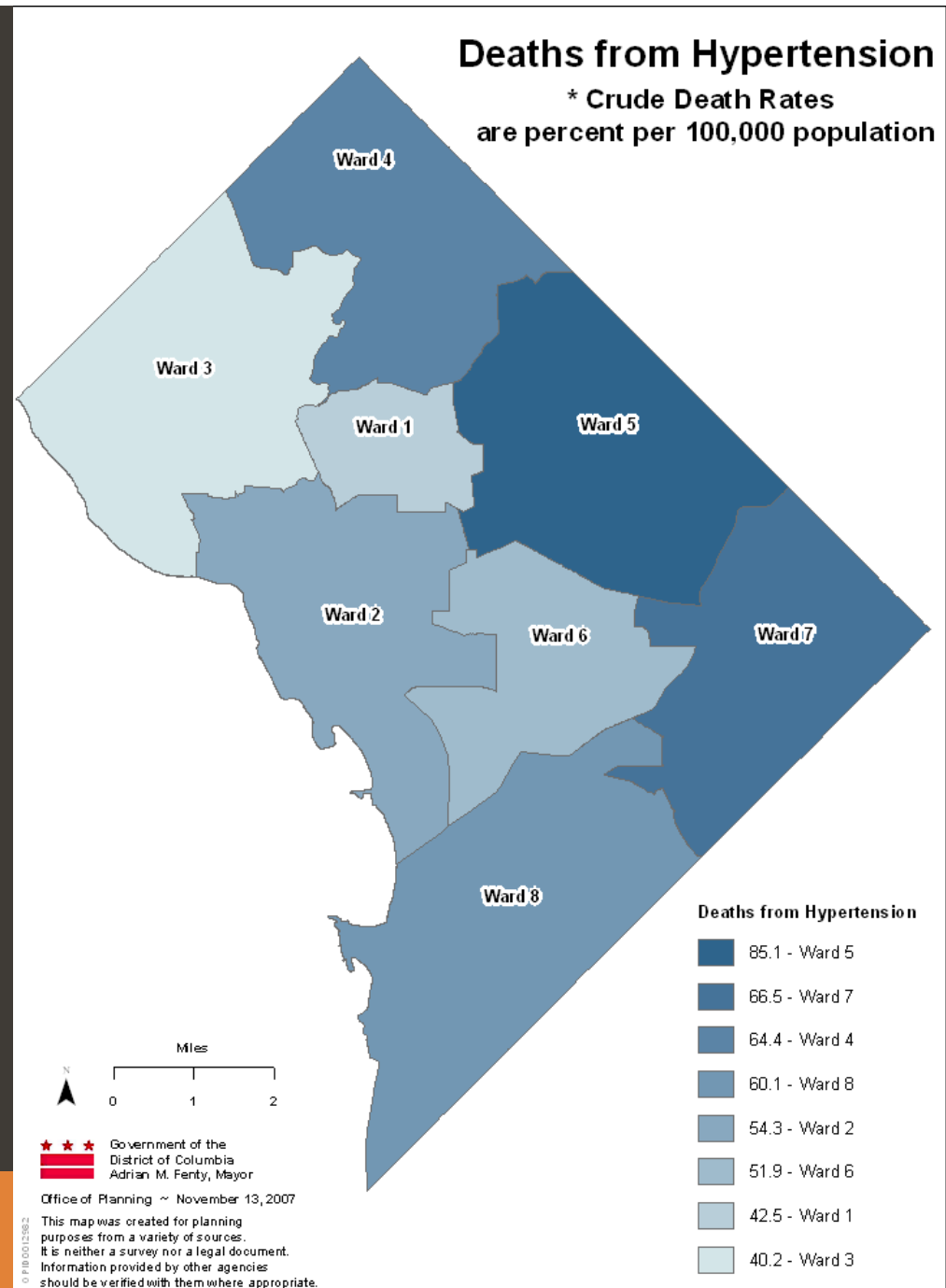


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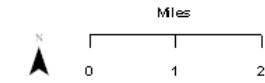
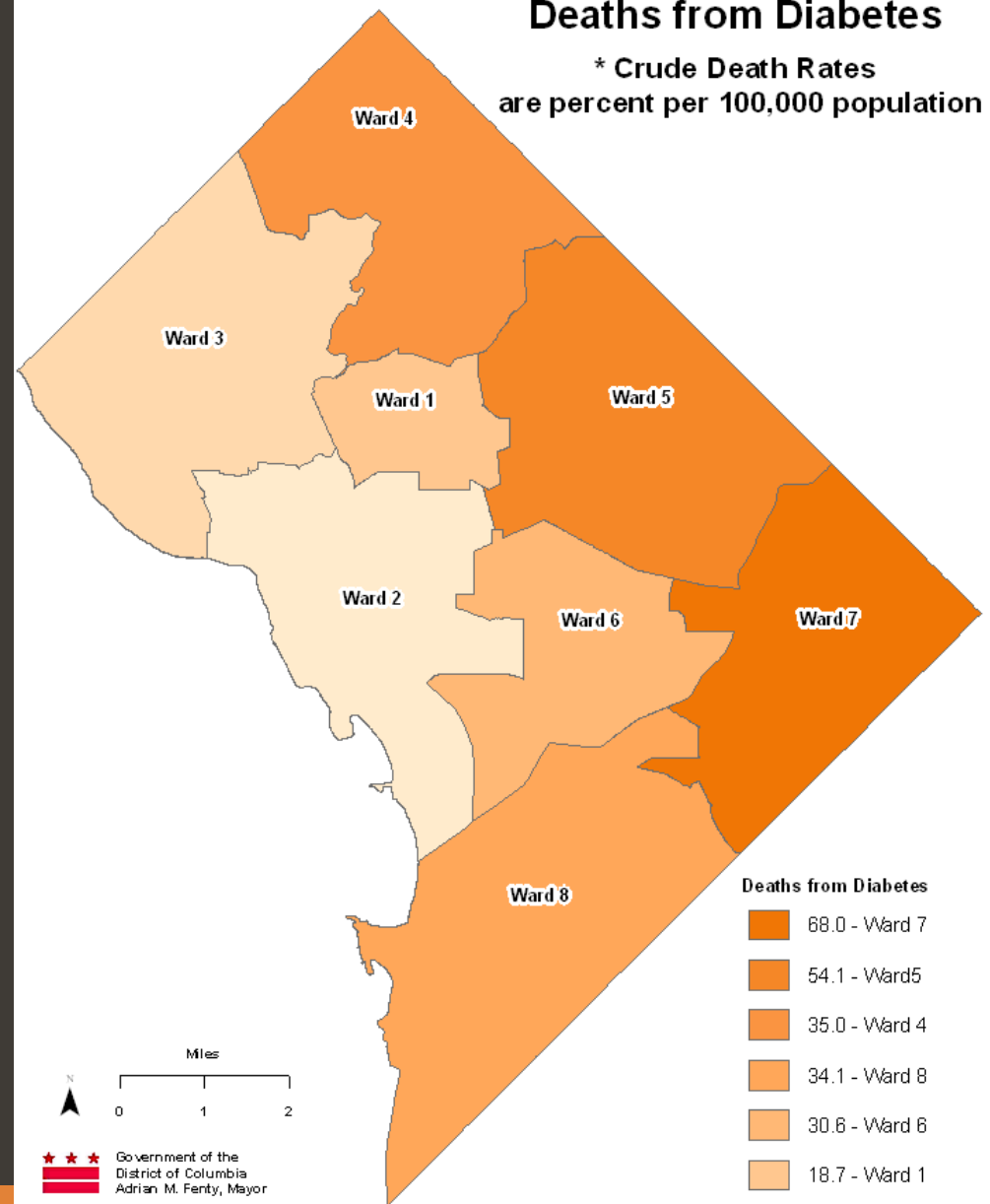
Health Outcomes for District Residents: Hypertension



Health Outcomes for District Residents: Diabetes

Deaths from Diabetes

* Crude Death Rates are percent per 100,000 population



Government of the District of Columbia
Adrian M. Fenty, Mayor

Office of Planning ~ November 13, 2007

This map was created for planning purposes from a variety of sources. It is neither a survey nor a legal document. Information provided by other agencies should be verified with them where appropriate.

0 P18001283

The Challenge for DC: Health Trends in the District

	Washington DC	United States
Percentage of Adults with Asthma (2004)	15.3%	13.2%
Percentage of Adults with Diabetes (2004)	8.2%	7.0%
Percentage of Adults with Obesity (2004)	22.5%	23.2%
Percentage of Children with Obesity (2004)	22.8%	N/A
Percentage of Adults with Hypertension (2003)	25.2%	24.8%
% of Adults no physical activity in the past month (2003)	22.5%	22.0%

Sources: Trust for America's Health and District of Columbia Department of Health

Availability of Healthy Eating/Active Living amenities in DC's neighborhoods

% of DC population located within 10-minute walk of...	
HEALTHY EATING	
Farmer's Market	11%
Large Chain Grocery Store	17%
ACTIVE LIVING	
Recreation Center	28%
Entrance to Metrorail transit station	15%

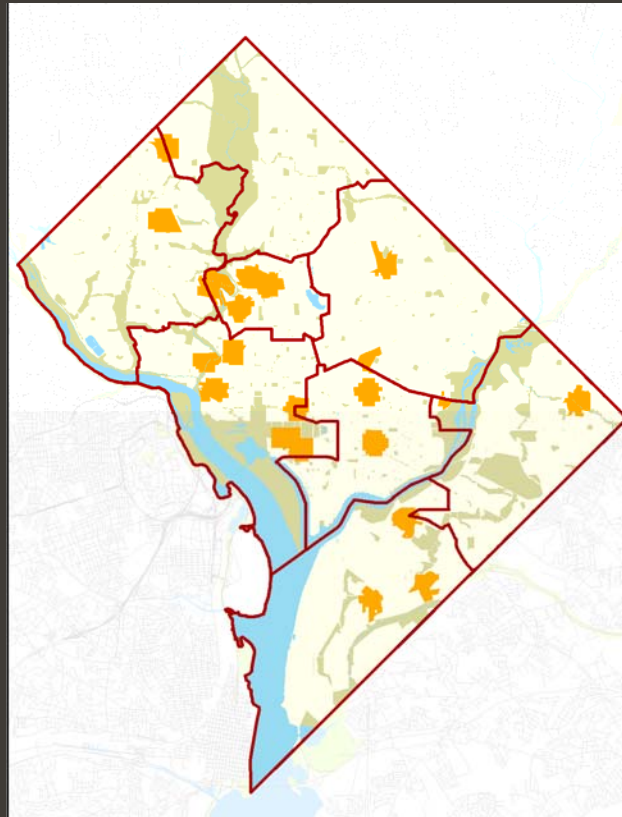
How can we increase access for DC residents?

Picture of Access varies across the city

Availability of Farmer's Markets not necessarily linked to income in DC

Ward 3 Household
Income: \$71,875

Ward 3 Access to
Farmer's Markets: 6%

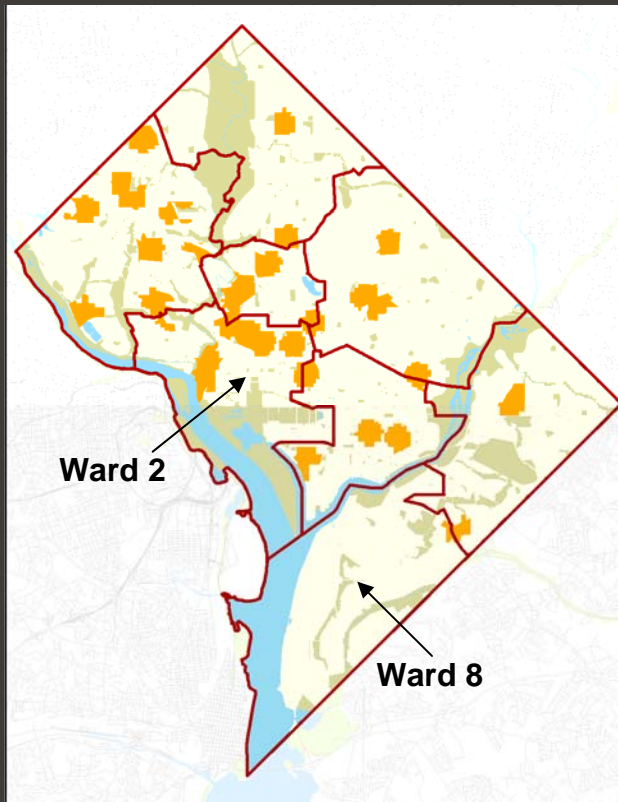


Ward 1 Household
Income: \$36,902

Ward 1 Access to
Farmer's Markets: 33%

Picture of Access varies across the city

There are disparities in access to fresh food across the District



Within a 10 minute walk (quarter mile) of home:

- 45% of Ward 2 residents have access to a large chain grocery store
- Less than 1% of Ward 8 residents have access to a large chain grocery store

This may be connected to health outcomes in these areas:

- 11% of Ward 2 residents are classified as obese
- 36% of Ward 8 residents are classified as obese

Childhood Obesity is a Major Issue in DC

- The Mayor's Children Health Action Plan makes Childhood Obesity the #1 Issue
- Specific actions of the plan include:
 - Increase neighborhood-based access to healthy food choices (grocery stores, corner stores, vendors, farmers markets)
 - Increase availability of safe, green spaces in all communities for children and families to be active.
 - Expand programs, policies and public-private partnerships that enable low-income families to participate in physical fitness activities.



Killer Sofa.

Lack of exercise and a poor diet puts kids at serious risk for Heart Disease, Diabetes, Asthma, Joint Pain and more.

There are steps every parent can take...small steps that can make a big difference. Maybe it's a family walk once a week or having fruit around for snacks instead of chips. And keeping fast food to a minimum. Start now. Help your kids make healthier choices. Ask your doctor for more information.

Make Healthier Choices.
Eat healthy foods. Get more exercise.

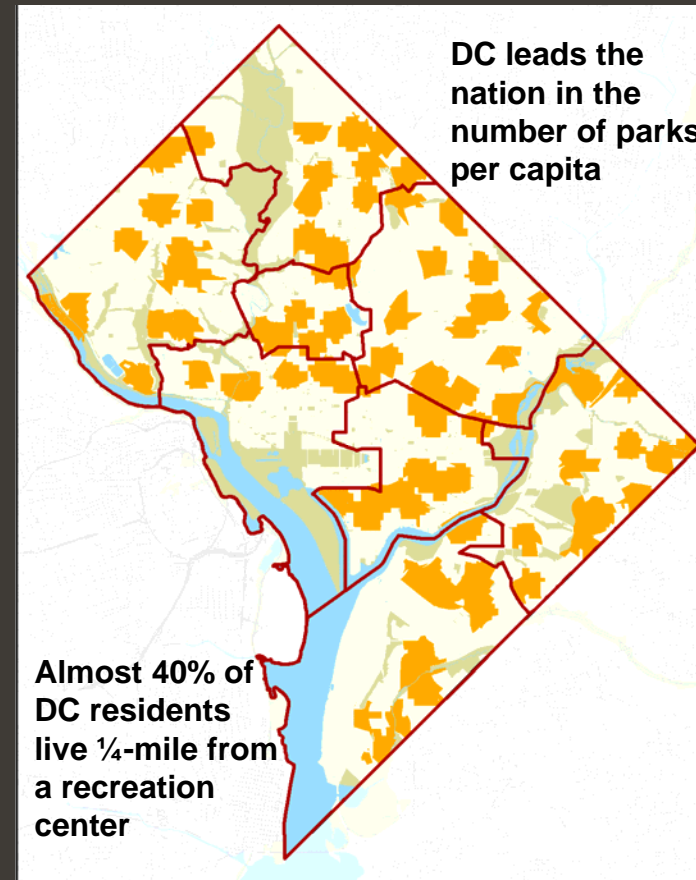
The HSC Health Care System
The HSC Foundation

MARYLAND
physicians care
MANAGED CARE ORGANIZATION

The future of DC is Healthy by Design

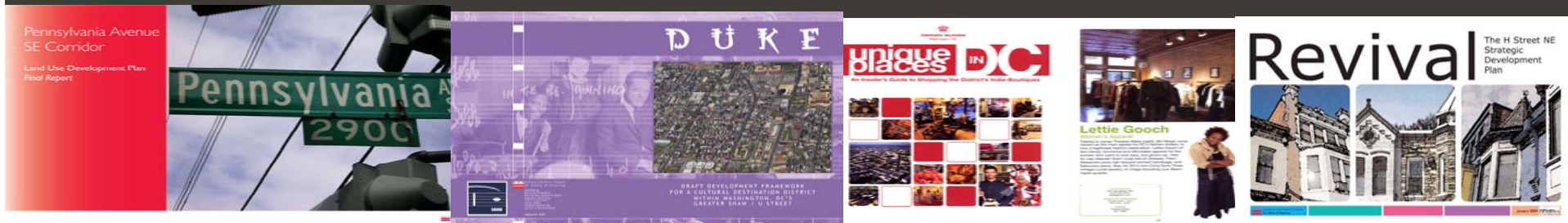
DC is examining ways improve residents' quality of life by increasing access to:

- Transit
- Healthy food
- Walkable destinations
- Health care facilities
- Park & public recreation facilities



Community-based planning for Healthy DC

- ❑ Small Area Plans
 - ❑ Create a plans to manage growth and change at the neighborhood or city block level
 - ❑ Measure and map the health outcomes in each neighborhood
 - ❑ Creating land use plans that encourage walking and cycling
 - ❑ Incentives for new grocery stores
 - ❑ Zoning changes for walkable community design
- ❑ Comprehensive Plan
 - ❑ 20-year Blueprint for the development of the city
 - ❑ Health Element



Top 20 Cities for healthy eating and active living*

1. Seattle, Washington
2. Portland, Oregon
3. Washington, DC
4. Minneapolis, Minnesota
5. San Francisco, California
6. Boston, Massachusetts
7. Denver, Colorado
8. Milwaukee, Wisconsin
9. Philadelphia, Pennsylvania
10. Tucson, Arizona
11. Baltimore, Maryland
12. Colorado Springs, Colorado
13. Pittsburgh, Pennsylvania
14. St. Louis, Missouri
15. New York, New York
16. Atlanta, Georgia
17. Austin, Texas
18. Chicago, Illinois
19. Las Vegas, Nevada
20. Kansas City, Missouri

Based on analysis by Cooking Light Magazine (2007) who rated major metropolitan cities based on: Zagat Survey ratings, organic dining options, farmers' markets, # of Trader Joe's and Whole Foods locations, ease of exploration by foot, green space availability, residents maintaining healthy weights, importance of exercise to the city's residents, Lowest rates of diabetes, living wage jobs, residents in good health

Toward a Healthy Eating/Active Living Future...

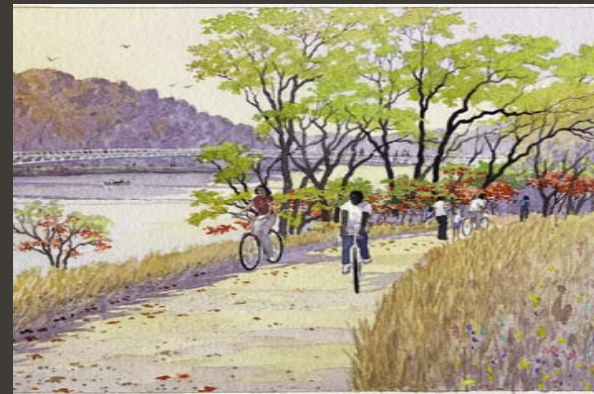
Policy is important but events and programming can make this a part of the “norm”

- Mayor Fenty’s walking campaign
- Senior walking clubs
- Healthy Living Council
- Ridesharing/Car Free Day
- Podcasts
- Bike to Work Day
- Green Building Legislation
- Safe Routes to School
- Capital Space
- Healthy Living Council
- Medical Homes DC



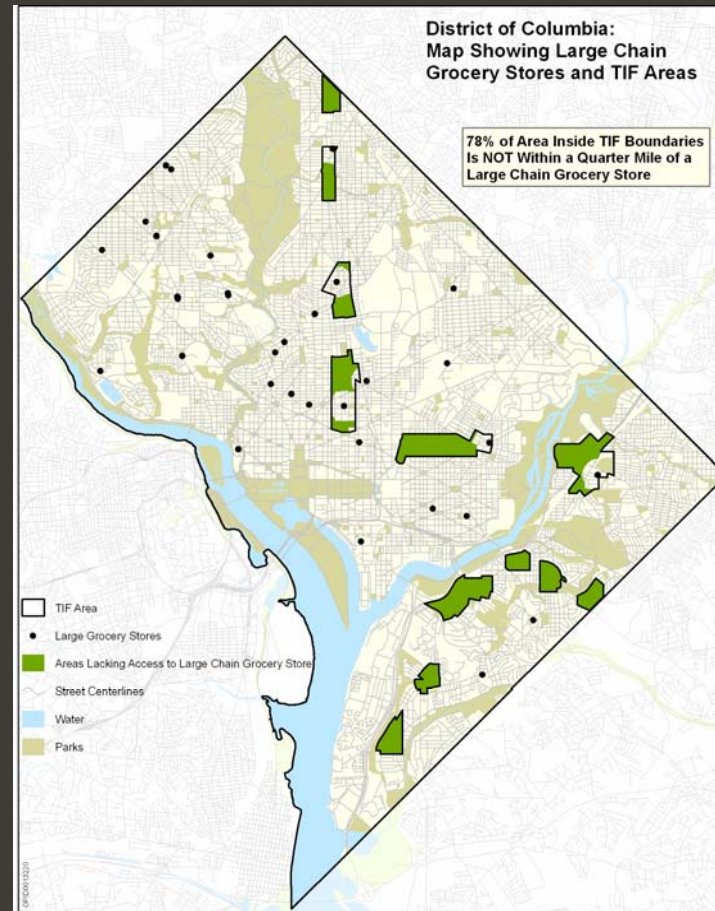
Building healthy communities requires partnerships

- Local Government (planning, Health, schools, transportation, recreation departments)
- Development companies
- Neighborhood groups
- Foundations
- Universities and Research Institutions
- Medical Service Providers



Targeted Incentives to promote access to healthy food within neighborhoods

- Tax Increment Financing (TIF)
- Supermarket Tax Exemption
- Energy Efficiency Grants and Loans



Opportunities to increase access to healthy food options within neighborhoods

- Traditional supermarkets of a variety of sizes (DC to open 4 new supermarkets in 2008)
- Community Supported Agriculture (CSA)
 - 13 drop off locations
 - 4 are year round
- Community & Schoolyard Gardens
 - 34 in DC
 - Additional benefits: exercise, eyes on the street and food production for low income families
- Farmer's markets
 - 18 in DC, 3 year-round
- Healthy Corner Stores
 - DC has a piloted a program with 2-3 stores in Wards with greatest cases of obesity related health issue; modeled after the success of the Philadelphia Food Trust's program.
- Subsidized grocery delivery - national or local supermarket chains
- Healthy Vending



For more information

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