



Broward Complete Streets Model Plan Framework

To facilitate the implementation of the Broward Complete Streets Guidelines, the Broward Complete Streets Initiative Technical Advisory Committee (TAC) created a "Model Plan Taskforce." Over the course of three months, this group developed a list of essential elements to include in the development of a Complete Streets Plan:

- Introduction
- An assessment of existing conditions and assets
- Forecast of future conditions
- Public Engagement
- Development of Goals/Objectives
- Implementation Plan
- Performance Measures
- Evaluation

Based on this outline and Taskforce guidance, UHP researched various online resources that can be used to provide an overview of a City's existing and forecasted conditions as well as an inventory of transportation-related infrastructure. These resources are categorized and listed by their Web address within the Planning Framework to help inform the City's planning efforts. Once a City has researched these resources and conducted a preliminary assessment, it can engage the public to help develop goals for Complete Streets.

From this public outreach city planners, will be able to identify key areas for Complete Streets investments and ultimately create a Complete Streets Plan. Ideally, all streets within a municipality will be considered "Complete," but with the creation of a Complete Streets Plan, cities can identify critical connections and corridors and prioritize investments.

This Policy Framework was designed to be malleable to address each jurisdiction's Complete Streets needs and priorities. Jurisdictions may adopt as many or as few of the components of this model as needed, depending on the goals of its residents and local leaders. For any questions or comments regarding this framework please visit, www.BrowardCompleteStreets.org or email UHP Director of Engineering and Transportation Planning, Laurie Fucini-Joy at laurie@urbanhs.com.

Acknowledgements:

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We also appreciate the close review by the Broward MPO Complete Streets Technical Advisory Committee.





DRAFT Model Plan Framework

I. Introduction:

The City of is home to many great parks, schools and natural assets that all residents have the right to access. As the City of progresses, it must maximize the use of its transportation corridors to fully accommodate all transportation modes and all users of all ages and abilities. The City of understands the value to balancing all modes in our rights of way. Our residents deserve the option to be able to walk, ride, bike or take transit on our streets. Considering streets make up percent of the land mass in the City of , we owe it to our residents to use this space efficiently.

Foundation in Policy: On insert date here the City of adopted a Complete Streets ordinance (or resolution provide #) to ensure the adoption of the Broward Complete Streets Guidelines and this plan provides the local context for the Guidelines as well as the steps the City of will take toward implementation.

By adopting Complete Streets Guidelines, we can create more options for physical activity, greater connections for all modes and ultimately a more walkable, inviting and livable environment.

a. What Are Complete Streets?

A Complete Street, as defined by the National Complete Streets Coalition (NCSC), is a street where the entire right-of-way is planned, designed, and operated for all modes of transportation and all users regardless of age or ability. Pedestrians, bicyclists, transit riders, and motorists of all ages and abilities must be able to safely move along and across a Complete Street. Complete Streets make it easy to cross the street, walk to shops, catch the bus, bike to work, and enjoy many other healthy activities.

b. Why Complete Streets?

In July 2012, the Broward Metropolitan Planning Organization endorsed the Broward Complete Streets Guidelines, which provide a comprehensive set of standards reflective of the Florida State Statute, Florida Department of Transportation (FDOT) and Broward County standards. These Guidelines include a flexible set of standards that have been thoroughly reviewed by relevant engineering, planning, environmental and health experts. Furthermore, FDOT is updating its Greenbook to incorporate similar Guidelines and FDOT District-4 has recently launched a "Lane Elimination Process" to handle the growing demands from communities who are trying to reduce space devoted exclusively to the car. Finally, in March, 2013 the Broward County Commissioners unanimously passed a Complete Streets measure which calls for the adoption of the Guidelines. Communities across Broward County are now





pursuing the adoption and implementation of the Complete Street Guidelines so that they can ensure safer, healthier streets.

According to the NCSC, the reasons to invest in Complete Streets are clear:

Complete Streets provide opportunities for increased physical activity by incorporating features that promote regular walking, cycling and transit use into just about every street. A report prepared by the National Conference of State Legislators found that the most effective policy avenue for encouraging bicycling and walking is incorporating sidewalks and bike lanes into community design – essentially, creating Complete Streets. The continuous network of safe sidewalks and bikeways provided by a Complete Streets policy is important for encouraging active travel.

A recent comprehensive assessment by public health researchers of actions to encourage more physical activity recommended building more sidewalks, improving transit service, and shifting highway funds to create bike lanes.

One study found that 43% of people with safe places to walk within 10 minutes of home met recommended activity levels; among those without safe places to walk just 27% met the recommendation. Residents are 65% more likely to walk in a neighborhood with sidewalks. Walkability has a direct and specific relation to the health of residents. A comprehensive study of walkability has found that people in walkable neighborhoods did about 35-45 more minutes of moderate intensity physical activity per week and were substantially less likely to be overweight or obese than similar people living in low-walkable neighborhoods.

Easy access to transit can also contribute to healthy physical activity. Nearly one third of transit users meet the Surgeon General's recommendations for minimum daily exercise through their daily travels. (Smart Growth America/National Complete Streets Coalition: "Complete Streets Promote Good Health. January," 2013)

Efforts to Date:

In this paragraph, City should cite previous efforts here that have led to this step. (Sustainability plan? Context sensitive corridors, Mobility plan, bike master plan, pedestrian master plan?) As stated in resolution/ordinance # , the City is moving forward with the next step of adopting the Complete Streets Guidelines.

c. Reference to the Complete Street Guidelines

Building upon the research conducted for the Broward Complete Streets Guidelines, the City of will ensure that its relevant practices reflect consideration of all modes on all corridors and ensure the creation of a multi-modal street network.

The City of will use the Broward Complete Streets Guidelines as a blueprint for all future transportation corridor improvement projects. These guidelines will update existing standards and





regulations. (City will need to specify the Transportation Element of the Comp Plan and Chapter of the Land Development Code).

d. Implementation Plan

As called for in the Complete Streets policy, the City of will implement a Complete Streets plan with the guidance of a Complete Streets Interdepartmental Team and the feedback garnered through public engagement.

II. Existing Conditions

In order to plan for Complete Streets and prioritize investments, it's important to first understand City of 's existing conditions, barriers and opportunities. The following benchmarks are provided to help drive and evaluate future investments.

a. *Traffic conditions:* Depending on traffic conditions, City may want to talk about why maintaining a level of service D is not sustainable or possible, thus it is important to begin balancing all modes of transportation to try to move more people, rather than move more cars.

Resource: http://www2.dot.state.fl.us/FloridaTrafficOnline/viewer.html

b. **Commuting trends:** Currently in the City of , of residents bike or walk to work, percent of residents take transit to work, of residents walk to work, and percent of residents carpool or share a ride. This means that of residents are currently driving alone to work.

Resource:

http://factfinder2.census.gov/faces/tableservices/jsf/pages/productview.xhtml?pid=ACS 11 1Y R S0802&prodType=table

c. **ADA Compliance:** Cities should determine the number of ADA compliant infrastructure that exists utilizing the City's Transition Plan. The transition plan is an ADA requirement that lays out a plan to make all facilities accessible to persons with disabilities.

Resource: http://www.fhwa.dot.gov/civilrights/programs/ada_sect504qa.cfm#q10

d. **Existing transit service:** Cities may use Broward County Transit's ridership statistics, as they break their ridership numbers down by route in their monthly ridership reports.

Resource: http://www.broward.org/BCT/Reports/Pages/Facts.aspx





The City of 's busiest bus route is the route. Below, please find the details of Month Year Average Daily Ridership on this major corridor. Below, please find the details of the BCT Month Year "Passengers Per Hour" data for the corridor.

The following table details the South Florida Regional Transit Authority Annual Ridership for the Station.

Resource: http://www.sfrta.fl.gov/docs/planning/Existing%20System/2002-2007%20Station%20Ridership%20Data.pdf

Year	Passengers	Ridership Volume	Percentage Ridership	Ave. Daily Ridership
Jan-Jun 2011				
2010				
2009				
2008				
2007				
2006				
2005				

e. *Rates of obesity:* While data regarding citizens who are overweight or obese is collected at the County level, the City of is committed to providing accommodations to encourage physical activity within a guarter mile of residential concentrations in all of its neighborhoods.

Resource: http://www.brhpc.org/publications/health-profile/
Resource: http://www.brhpc.org/publications/health-profile/

In Broward County, 13.7% of students were overweight and 9.5% of students were obese in 2011. Additionally, 37.2% of adults were overweight and 28.0% of adults were obese in 2010.

f. *Crash data:* Over the last five years in the City of , number of pedestrians and cyclists were involved in a crash and number of fatalities occurred on the streets running through City X. Whether the fault of the motorist or the pedestrian, these are preventable deaths. Through the implementation of the Complete Streets Guidelines, it is hoped that we can calm traffic and provide greater motorist, pedestrian and cyclist awareness about the existence of other transportation modes.

Resource: http://s4.geoplan.ufl.edu/ Resource: http://s4.geoplan.ufl.edu/





g. *Older populations:* By 2030, more than 24 percent of Broward residents will be older than 60. Currently in the City of , percent of residents are 65 +. This is a/n increase/decrease from the last census. In 2013, percent of residents were 65 and older. The City of is committed to providing older adults options to driving alone and access to needed resources. By providing a balanced infrastructure and connections to their daily needs (such as health care, food and recreation), older adults have a greater likelihood of staying in their homes for as long as possible and staying engaged in the community.

Resource: http://quickfacts.census.gov/qfd/states/12/1214400.html

h. Households without cars: City of has percent of households without a car. This low percentage indicates it currently is not easy to live without a car. However, the average cost of maintaining and operating a car is nearly \$9,000 a year (Source AAA, "Your Driving Costs," 2013). This expense can be burdensome to anyone, especially lower income families, thus options to driving alone should be provided at every given opportunity. Furthermore, the City of will coordinate with the Broward Public Housing Authority in the future placement of developments so that they include or are close to public transportation facilities, services and other key resources.

Resource:

http://factfinder2.census.gov/faces/tableservices/jsf/pages/productview.xhtml?pid=ACS_11_1Y_R_S0802&prodType=table

- i. Parking facilities: City of currently has parking spaces, both on and off-street city-wide, garages, surface parking lots and a space recreational parking facility. It will encourage on-street parking and incorporate Traditional Neighborhood Development and Smart Growth principles to ensure that streets and developments are oriented toward pedestrians as well as other modes.
- j. Supportive Initiatives:
 - i. Safe Routes to Schools
 - Cite any Safe Routes to Schools efforts
 - ii. Sustainability Initiatives
 - Cite sustainability efforts here
 - iii. Health Initiatives
 - Cite City's relevant health initiatives here
 Resource: http://www.brhpc.org/publications/health-profile/
 - iv. Smart Growth

Depending how a community is designed, the connection between transportation and land use can be complementary or deleterious. Complete Streets are a critical ingredient to any Smart Growth community. They promote walking, increase connections and foster livable





environments. Conversely, the success of any Complete Street is largely dependent its surrounding land use. Communities that are well planned on a pedestrian scale often calm traffic without any special measures. When buildings are designed with limited setback they create a psychological impact that gives the driver a sense of intimacy, which causes him to slow down.

 Cite any of the City's Smart Growth Investments here Resource: http://www.smartgrowthpartnership.org/

III. Existing Assets:

The City knows that the public rights -of -way must provide access to as well as conduits through to other destinations. However with the following maps it is important to note the percentage of a major arterials in our community. Typically, those arterials will experience far greater volumes than residential streets.

a. Street classification map:

The City will want to add its own streets in the GIS map.

Resource: http://gis.broward.org/maps/webPDFs/Pcouncil/trafficways24by24.pdf

b. *ADT*:

The City can show the volumes of cars that are driving on its streets on a daily basis.

Resource: http://www2.dot.state.fl.us/FloridaTrafficOnline/viewer.html.

c. Posted speed overview:

The City may want to map the posted speeds on key corridors in their jurisdiction to educate the public on the varying speeds on different types of arterials throughout its community.

d. Traffic signal locations:

The city can identify intersections where formal crosswalks and signalized intersections are located.

This may lead to some discussion about potential mid-block crossing locations.

Resource: http://gis.broward.org/GISdata/Metadata/FGDC Plus.htm?xmlfile=xml/TrafficSignals.xml

Resource: http://www.browardmpo.org/userfiles/files/traffic_signal_map.pdf
Resource: http://www.browardmpo.org/documents-publications/data-maps

e. Red Light Cameras:

Every year, the Insurance Institute for Highway Safety compiles statistics showing the dangerous consequences of motorists running red lights—nearly 2 million intersection crashes annually. In 2007, red-light running resulted in almost 900 fatalities and 153,000 injuries nationwide. Automated red-light





cameras have been installed throughout Broward County in order to help make roadways safer for residents and visitors of our communities.

The Police Department has studied the intersections in the City of with the highest incidence of red light violations resulting in citations and accidents. They have identified several intersections in the City where they believe automated red-light cameras will help us protect drivers, passengers, cyclists and pedestrians.

red light cameras are located at the following intersections: Insert Map Here

f. Bike facilities:

This map shows the multi-purpose paths, marked bikes lanes, wide curb lanes, paved shoulders, and 3-foot undesignated lanes for .

Resource: http://bikebroward.fiu.edu/mpobike/

Resource: http://www.browardmpo.org/services/complete-streets/project-maps
Resource: http://www.browardmpo.org/documents-publications/data-maps

g. Existing greenways or Multi- use recreational trails.

Proposed greenways or trails, water trails, and bikeways.

Resource: http://www.dep.state.fl.us/gwt/FGTS_Plan/default.htm

Resource: http://www.browardmpo.org/documents-publications/data-maps

h. B-cycle locations

Cite locations of B-Cycle Stations.

Resource: http://broward.bcycle.com/

i. Pedestrian facilities:

Cite sidewalk map or crosswalk map.

Pedestrian lighting (if City collects this information).

Transit facilities and amenities:

Cite existing transit service with maps and bus shelter inventory.

Resource: http://www.browardmpo.org/documents-publications/data-maps

Resource: http://www.broward.org/BCT/Documents/SystemMap.pdf

k. Water Taxi (if relevant)

Resource: http://watertaxi.com/





I. **Tri-Rail stations** (if relevant)

Resource: http://www.tri-rail.com/stations#

m. Community Shuttle Service (if relevant)

Resource: http://www.broward.org/BCT/Riders/Pages/CommunityBuses.aspx

n. Location of Community Redevelopment Association Districts: (if relevant)

Cite location of CRAs.

Resource:

http://www.broward.org/PLANNINGANDREDEVELOPMENT/REDEVELOPMENT/Pages/CommunityRed evelopmentAreas.aspx

o. Schools/libraries:

Include map of school and library locations.

Resource:

http://www.broward.k12.fl.us/schoolboundaries/Maps/SchoolMaps1213/CountywideMap Schools121 3.pdf

 $Resource: \underline{http://www.browardschools.com/Our-Schools/Find-Your-Home-School/School-Locator}$

Resource: http://mpotransportationoutreachplanner.org/ (select a community and click on school box)

p. Parks:

Resource: http://gis.broward.org/GISdata/Metadata/FGDC Plus.htm?xmlfile=xml/ParkCity.xml

Resource: http://www.broward.org/Parks/FindAPark/Pages/Default.aspx

IV. Forecasts

While understanding the current conditions of a City's public rights of way, it's also important to understand trends and forecasts to help guiding future investments.

a. *Traffic:*

Resource: http://www.browardmpo.org/userfiles/files/lrtp2030 traffic forecast.pdf





b. **Population:**

Population Projections

2000	2005	2010	2015	2020	2025

Resource:

http://www.broward.org/PlanningAndRedevelopment/DemographicsAndEconomics/Documents/bbtn2 6.pdf

c. Transit:

Resource: http://www.broward.org/BCT/Reports/Pages/COA.aspx
Resource: http://www.sfrta.fl.gov/transit-development-plan.aspx

Resource: http://www.allaboardflorida.com/fact-sheet

d. Land Use:

http://gis.broward.org/GISdata/Metadata/FGDC Plus.htm?xmlfile=xml/FutureLandUse.xml

V. Engaging the Public

The City of values resident, employee and employer and visitor input. It will implement Complete Street projects and engage the public by employing a comprehensive strategy comprised of:

a. **Education:**

Resource: http://mpotransportationoutreachplanner.org/

Resource: http://s4.geoplan.ufl.edu/ Resource: http://s4.geoplan.ufl.edu/

b. **Engineering:** By working with local transportation engineers and planners, the City of will rethink the design of its existing right of way and balance all transportation modes in the future. Furthermore, it will pursue low-cost, efficient pedestrian and bike friendly tools. The City of will reference the Broward Complete Streets Guidelines for both long-term and short-term improvements to its walking, biking and transit environments.

Resource: http://www.browardmpo.org/projects-studies/complete-streets

c. *Encouragement:* Through its many resident programs, the City of will support the

Guidelines and encourage our residents to take advantage of safer, healthier streets.

Resource: http://icommit2bfit.org/

Resource: http://www.portlandoregon.gov/transportation/43801

Resource: http://smartrips.knoxtrans.org/index.htm

Resource: http://www.smart-trips.org

Resource: http://www.dothelocalmotiontampabay.com





d. **Enforcement:** The City of will communicate with its police department to ensure that the enforcement of traffic safety laws reinforce the Complete Streets Guidelines. Below are some examples of enforcement programs in other cities across the US.

Resource: http://www.walkinginfo.org/library/details.cfm?id=4649

Resource: http://www.fhwa.dot.gov/environment/bicycle_pedestrian/ntpp/partner_law.cfm

e. **Evaluation:** The City will establish objectives that identify indicators for measuring the results of the Complete Streets program. As stated in the Complete Streets ordinance, the Complete Streets plan will include metrics.

Resource: http://bikepeddocumentation.org Resource: http://www.walkinginfo.org/pedsafe/

Resource: http://www.pedbikesafe.org/BIKESAFE/index.cfm

VI. Setting Goals/Objectives for Complete Streets

a. **Prioritizing:** Based on its existing conditions and goals for future growth, the City of will identify key corridors to begin the implementation of Complete Streets elements. Ultimately, the goal is for all corridors to include Complete Streets elements. By employing the following criteria, it will prioritize its resources to ensure the greatest return on investment of the Complete Streets program.

Criteria:

- a) Street is experiencing a significant pedestrian and bicycle demand
- b) Street is slated for a funded transportation improvement in the next five years
- c) Street provides access to key destinations (i.e., school, park, hospital, library, grocery stores, CRA district or a major commercial business)
- d) Street plays an essential role in the creation of a vital street network
- e) Street serves as a link to a multi-modal network
- f) Street is experiencing numerous pedestrian and bicyclist crashes
- g) Street is included in Broward County Transit's Master Plan or the Broward MPO's Transit Development Plan
- h) The street would expand upon an existing Complete Street investment to another segment of the same corridor
- i) The street is near a concentration of older adults

b. Exception process:

The City of intends to realize Complete Streets in all corridors. Complete Streets principles and practices will be included in street construction, reconstruction, repaving, and rehabilitation projects, as well as other plans and manuals, except under one or more of the following conditions:





- (1) A project involves only ordinary or emergency maintenance activities designed to keep assets in serviceable condition such as mowing, cleaning, sweeping, spot repair, concrete joint repair, or pothole filling, or when interim measures are implemented on temporary detour or haul routes.
- (2) The City Council exempts a project due to excessive and disproportionate cost (20 percent as recommended by the Federal Highway Administration) of establishing a bikeway, walkway or transit enhancement as part of a project.
- (3) Unless otherwise determined by the City Council, the relevant departments will jointly determine if it is not practically feasible or cost effective to implement the provisions of this policy through public or private project design or manuals or other plans.
- (4) If the project has been planned or designed in the last 12 months or is under construction and cannot be modified for one of the reasons above it may be exempted from the Complete Streets plan.

VII. Implementing Complete Streets

The City of shall measure the implementation of Complete Streets by tracking the following performance measures:

a. Long-term:

- Total miles of on-street bikeways defined by streets with clearly marked or signed bicycle accommodation (Goal- 50 percent increase in the next 10 years.)
- Total miles of streets with pedestrian accommodation (Goal- 30 percent increase in the next 10 years.) Additional pedestrian accommodations shall include:
 - 1. of upgraded crosswalks
 - 2. of mid-block crosswalks
 - 3. of pedestrian countdown signals
 - 4. of leading pedestrian intervals at key intersections
 - 5. of "all walk" intersections
- Number of missing or non-compliant curb ramps along City streets (Goal: 50 percent reduction within 5 years)
- Percentage of tree canopy along City streets (Goal: Each city should determine a number (Consider a program that pays for these through a grant for residents)
- Percentage of new street projects that are multimodal (Goal: At least 5 public or private within the next 5 years)
- Number and severity of pedestrian-vehicle and bicycle-vehicle crashes on city streets (Goal: A 50% reduction over the next 5 years)
- Number of pedestrian-vehicle and bicycle-vehicle fatalities (Goal 0 fatalities within the next 5 years)
- Number of residents diagnosed as overweight or obese (Data collected at the County level).





- Number of residents engaging in physical activity (moderate/vigorous) three times per week (data collected at the County level.)
- Total number of people (instead of cars) on street rights of way
- Application of a Multimodal Level of Service (MMLOS) (instead of the conventional Level of Service assessment).
- ADA Compliance: Percentage of increase in ADA complaint infrastructure

b. Short-term:

- Ensure that all Capital Improvement Projects within the public right of way are reviewed for Complete Streets elements.
- Develop a Complete Streets portal on the City's Website so that residents, contractors, developers, employees and employers understand the goals and benefits of Complete Streets.
- Promote incentives that facilitate coordination among all departments to help expedite the implementation of Complete Streets.

VIII. **Evaluation** (New Performance Measures and an Evaluation Toolkit are currently being drafted. Check out the Broward MPO website for more details)

The City of will issue a public progress report on the long-term Complete Streets Goals and metrics below on an annual basis.

- Total miles of on-street bikeways defined by streets with clearly marked or signed bicycle accommodation (Goal- 50 percent increase in the next 10 years)
- Total miles of streets with pedestrian accommodation (Goal- 30 percent increase in the next 10 years)
 - 1. of upgraded crosswalks
 - 2. of mid-block crosswalks
 - 3. of pedestrian countdown signals
 - 4. of leading pedestrian intervals at key intersections
 - 5. Video enforcement of motorists' compliance with bike and pedestrian laws.
- Number of missing or non-compliant curb ramps along City streets (Goal: 50 percent reduction within 5 years)
- Percentage of tree canopy along City streets (Goal: Each city should determine a number (Consider a program that pays for these through a grant for residents)
- Percentage of new street projects that are multimodal (Goal: At least 5 public or private within the next 5 years)
- Number and severity of pedestrian-vehicle and bicycle-vehicle crashes on city streets (Goal: A 50% reduction over the next 5 years)
- Number of pedestrian-vehicle and bicycle-vehicle fatalities (Goal 0 fatalities within the next 5 years)
- Number of residents diagnosed as overweight or obese (Data collected at the County level).
- Number of residents engaging in physical activity (moderate/vigorous) three times per week (data collected at the County level.)





- Total number of people (instead of cars) on street rights of way
- The application of a multimodal Level of Service (MMLOS) (instead of the conventional Level of Service assessment).
- ADA Compliance: Percentage of increase in ADA complaint infrastructure

