

Pedestrian and Bicycle Initiatives

Traffic and Transportation Division

1. New Technologies/Innovations for Traffic Control Devices

The Traffic and Transportation staff has been in the forefront when using new devices to alert drivers to pedestrian activities. The City has installed in-roadway warning lights (illuminated crosswalk), paddle signs, and warning signs requesting drivers to stop for pedestrians in crosswalks.

Staff is currently starting a pilot project to install a new traffic control device to alert drivers to pedestrians crossing roads. The device is the rapid flashing crosswalk beacon (the Enhancer), and was recently installed - as a pilot project - in the District of Columbia. After a pedestrian pushes the button, the signal flashes rapidly, similar to a strobe light. It would continue to flash for the set time needed for a pedestrian to cross. At all other times, the signal would be dark. Staff is currently working with the vendor on details for this project and has sent an official request to the Federal Highway Administration to grant the City an approval to try this device as a pilot project.

Another device staff is considering to use near schools is the High-intensity Activated crosswalk (HAWK) signal, which is expected to be included in the new version of the Manual on Uniform Traffic Control Devices (MUTCD). This signal is similar to the pedestrian crossing signal but has a different signal operation. In conjunction with a media campaign, it is widely used in Tucson, Arizona, and has generated a high driver yield rate. The signal is dark until a pedestrian arrives at the crosswalk and pushes the button. It would then go to flashing yellow, followed by a solid yellow, and flashing red. The drivers would know to slow down during the yellow and stop during red. The pedestrian would be able to start crossing when the signal is flashing red. If the City were to install one, permission from the State will also be required until this device is officially adopted through the new MUTCD.

2. Pedestrian Safety at Intersections (Inventory)

The Traffic and Transportation staff works with Traffic and Transportation Commission to identify the 10 worst intersections for pedestrians. This program outlines the worst signalized intersections using accident reports and evaluating the existing conditions. The City makes recommendations on elements that need improvements such as signal timing, signs, crosswalks, countdown signal heads, and other amenities such as ramps and streetlights. The City implements improvements at City-owned intersections and sends letters to the State Highway Administration (SHA) and the County to implement the improvements at their intersections. The SHA and County completed improvements that were requested by the City in 2006. The City continues to evaluate all intersections every two years and makes new recommendations. Recommendations include painted

crosswalks, pedestrian countdown signals, detectable warning surfaces to ADA curb ramps, streetlights, and increased pedestrian crossing timing. A recent list was generated in April 2008, and the top ten intersections include:

- 1) MD 355 & Halpine Road
- 2) Veirs Mill Road (MD 586) & Atlantic Avenue
- 3) East Jefferson Street (MD 28) & Monroe Street
- 4) Jefferson Street (MD 28) & South Washington Street
- 5) First Street (MD 28) & Baltimore Road
- 6) MD 355 & Edmonston Drive
- 7) MD 355 & First Street (MD 28)/Wootton Parkway
- 8) MD 355 & East Middle Lane
- 9) MD 355 & Redland Road
- 10) Shady Grove Road & Falls Grove Boulevard

During FY 2009, in response to the Mayor and Council's 2008-2010 Vision Priorities, which stress the importance of pedestrian safety, staff is expanding this initiative by conducting an inventory at all 115 signalized intersections within the City limits, regardless of ownership. The inventory will also include several uncontrolled crosswalks near schools, metro stations, and shopping centers. The objective is to identify sub-standard intersections and to improve pedestrian safety at those locations.

3. Pedestrian Signal Countdown

The Traffic and Transportation Division has received a grant, which will be used to purchase and install countdown pedestrian signal heads at all 45 signalized intersections owned by the City. Those signal heads indicate how much time is available for pedestrians to cross an intersection. They also provide a signal to motorists that they should anticipate and yield to pedestrians in the intersection during the time indicated on the signal. The device provides more predictability for everyone in the intersection and a safer environment. The City has installed the countdown signals at twelve intersections and scheduled the installation at 37 more intersections during FY 2009. The intersections that currently have the countdown signals include:

1. S. Washington/Courthouse Square
2. S. Washington/Middle
3. S. Washington/Beall
4. Maryland/Middle
5. Park/N. Stonestreet
6. Fleet/Richard Montgomery
7. Baltimore/Rockville High School
8. MD28/Monroe
9. MD28/Maryland
10. MD28/S. Washington
11. MD28/Great Falls
12. MD28/Laird

4. Accessible Pedestrian Signals (APS)

Accessible Pedestrian Signals (APS) communicate information about pedestrian signal intervals in non-visual formats such as audible tones and vibrating surfaces. For the visually impaired, the devices offer an audible tone designating when it is safe to cross the street. For the hearing impaired, the devices also vibrate to indicate when it is safe to enter the crosswalk. The devices include raised arrow pushbuttons indicating the direction of travel.

The Traffic and Transportation Division has included APS in the traffic signal specifications for new signals built in Rockville. APS has been installed at two new signals at Tower Oaks/West of Lake and Fleet St./Richard Montgomery Drive. SHA upgraded its signal at MD28/S. Washington Street and added APS in June 2008. Staff will request funds in FY 2010 to retrofit more than 40 city-owned traffic signals with the new APS system. The cost of this device is approximately \$30,000 for a full intersection. Speed-camera funds could be used for this project.

5. Sidewalk Installation

In 2007, the Traffic and Transportation Division created a “Sidewalk Prioritization Policy” with help from Traffic and Transportation Commission. The policy ranks the missing sidewalks A (highest score) through E (lowest score) based on a utility score and traffic conditions. Higher utility scores are given for missing sidewalks located near a school, public recreation facility, or transit stop. The traffic conditions score is based on the size of the road. Additional considerations are given if the sidewalk needs an easement or support from residents. Through this scoring, the City has set up a map that helps determine in the order the City should construct sidewalks. Prior to the Sidewalk Prioritization Policy, the City constructed many sidewalks, including sidewalks on Beall Avenue (Phase 1 and 3), Argyle Street, Calvin Lane, Lynch Street and Ridgway Avenue. City staff is currently designing Phase 2 of Beall Avenue sidewalk. Several other sidewalks were included in the fiscal year 2009 CIP budget, and are currently under design.

In addition to Capital Improvement Program projects, the City requires developers to construct sidewalks adjacent to their frontage and contribute to or build sidewalks in the Planning Area of the development in order to mitigate impacts of the development. Also, the Comprehensive Transportation Review (CTR) may require the developer to build an off-site sidewalk within the Planning Area.

6. Bus Shelters

The Traffic and Transportation Division has initiated a program to install more bus shelters in the City. The City currently has 55 bus shelters and generally installs an average of six shelters annually. The new bus shelter locations are determined by the

amount of riders at the stop, available right-of-way, neighborhood interest and development conditions. In addition to the bus shelters, this program includes the installation of concrete pads, benches, and landscaping. The City's objective is to make transit use more appealing and to encourage more riders. This program is funded entirely by developer contributions. The City is installing an additional 15 bus shelters in the fall of 2008.

7. Bicycle Facilities

During the development review process, the City requires commercial developments to install bicycle facilities on their sites to encourage bicycling as an alternate mode of transportation. These facilities include bicycle storage, bike racks, shower facilities, on-street bicycle lanes, and shared use paths. Bicycle lanes and shared use paths locations are determined by the Bicycle Master Plan, which was adopted in 2004. Through the proposed Zoning Ordinance, commercial and multi-family developments are required to provide bicycle storage and showers. The City also has been looking for opportunities - when roads are being repaved - to add bicycle lanes, if feasible. Recently, the City has installed bicycle lanes on E. Middle Lane and on the south side of Beall Avenue between S. Washington Street and MD 355 and along Gibbs Street. In partnership with Montgomery County, the bicycle path along Baltimore Road between Rockville High School and Rock Creek Trail was upgraded.

The City has created a bicycle map showing the existing routes in the City and immediately adjacent routes in the County. This map was recently updated in May 2008. The City also participates in Bike to Work Day, which occurs every year on the third Friday in May and has two "pitstops" - one in Town Center and the other in Fallsgrove. City staff also attends Bike to Work Day meetings at Metropolitan Washington Council of Governments (MWCOG) and exchanges information with other pitstop managers.

8. Streetlights

The Traffic and Transportation Division has initiated a streetlight program which funds improvements to existing lighting systems where problems or safety issues have been identified. This program also funds additional streetlights in the City. There are two streetlight owners in the City. Underground-fed lights are owned by the City (3,000 lights) and overhead streetlights on wooden poles are owned by Pepco (3,221 poles primarily located in the older areas of the City).

In the past several years, the Traffic and Transportation Division staff has completed several major projects to improve streetlights in the City. The largest project has been on the east side of the City, where staff assessed the existing streetlights and determined where lighting could be improved. New streetlights were installed along west side of MD 28 between Fallsgrove Drive and Darnestown Road, and on Park Road under the railroad bridge. Staff replaced 40 streetlights with new ones along Tower Oaks

Boulevard, installed 50 new streetlight fixtures and painted light poles in the North Farm community. Conduits and cables have been installed for 16 streetlights on Wootton Parkway between MD 355 and Edmonston Drive. Lastly, in the spring of 2008, the Traffic and Transportation Division has installed new photocells and fixtures, cleaned, painted and/or straightened poles as needed for 80 streetlights in the College Gardens Neighborhood. The City continues to evaluate the streetlights in the City on an annual basis and works with PEPCO to ensure pedestrian safety. In fiscal year 2009, the City will install more than 70 new streetlights in the east side of Rockville, and will upgrade streetlights at the Fallsbend Neighborhood. PEPCO also has a plan to replace all Mercury Vapor lamps in Rockville in 2009.

9. Baltimore Road Intermodal Access CIP

The Traffic and Transportation Division received a federal grant for the 2 1/3 mile long Baltimore Road project. This project is an intermodal access project that seeks to improve accessibility and connectivity between the City limits and Town Center. Upgrades are planned to allow people to drive, walk, bike, or take transit between several existing and planned landmarks, transportation facilities, community facilities, religious centers, shopping centers, and residential areas. The project will improve roadway, pedestrian and bike facilities. It will involve extending the shared-use path for pedestrians and bikes, adding and replacing streetlights, providing pedestrian accessibility to bus stops, and widening the existing pedestrian/bike bridge superstructure. The project will also include implementing a new sidewalk along Broadwood Drive between Fletcher Place and Baltimore Road. The project is planned in two consecutive stages and construction is scheduled for FY 2010.

10. Town Center Shuttle

The idea of a Town Center shuttle was developed during the planning process for the new Town Center development. The purpose of the shuttle is to establish transit service that provides frequent and convenient access to Town Center via busses. The shuttle service connects Town Center to Twinbrook Metro Station and Fallsgrove Transit Center. The City received a federal grant to purchase six busses. The City transferred the funds to Montgomery County who will operate the busses through Ride-On. The busses will be “branded” as the Town Center shuttle. The County is currently implementing the branding initiative created by the City and the new busses are scheduled to start operating in February 2009.

11. Safe Routes to School Grant

The City of Rockville Public Works Department, along with the Police and Recreation and Parks Departments, is participating in the Safe Routes To School grant program. The program allows for improving safety around schools through sidewalk installation, speed

reduction devices and education and encouragement programs. The Traffic and Transportation Division has applied for three grants and has received funds for the Beall Avenue sidewalk and the Great Falls/Monument pedestrian refuge island among other projects.

12. School Safety

The Traffic and Transportation Division has initiated a program to address safety around schools located within the City limits. The program includes the installation of new crossing signs, upgrading existing traffic control devices, and replacing faded crosswalks in order to ensure safety of pedestrians around the schools. Between 2005 and 2006 the City installed 100 school crossing signs and 20 new crosswalks around schools. The City continues this annual program every summer before schools open for the new school year.

In December 2007, the City has made several improvements to the roads around Richard Montgomery High School. A new traffic signal, including countdown pedestrian heads, was installed at the Fleet Street and Richard Montgomery Drive intersection. Sidewalks, medians, road narrowing, and other traffic control devices were installed on Fleet Street between Jefferson Plaza and Park Road.

13. Traffic Calming/Traffic Diversion

The Traffic and Transportation staff created a Traffic Calming/Traffic Diversion policy in October 2002. The purpose of this policy is to reduce the excessive speed and vehicular cut-through traffic on residential streets. This policy lays out the requirements for the City to provide traffic calming or diversion devices on City streets, which is initiated by residents filing a petition with the City. Once the policy requirements are met, if a street qualifies for either traffic calming or traffic diversion, staff will look into calming options such as speed humps, medians, lane-width reduction or traffic circles. Traffic diversion plans may include restricting turning movements, making a street one-way, or not allowing cars to enter the road during certain hours.

The Traffic and Transportation Division staff has completed several traffic calming/diversion plans in the City with three projects completed in the past year: (1) Medians at the Darnestown Road at the Glenora Road intersection; (2) Speed feedback signs and local traffic signs during non-peak hours along Grandin Avenue; and (3) Pedestrian refuge island, new crosswalks and sidewalks at the Great Falls/Monument intersection.

Staff also implements traffic calming projects using developer contributions. The Twinbrook Commons development is required to install traffic-calming devices in the Twinbrook neighborhood, including a device on Twinbrook Parkway. The KSI development located at 255 North Washington Street is required to make improvements in the West End neighborhood. Some improvements have been completed such as

installing two gateway signs (completed in Spring 2008). KSI will also construct a gateway on Beall Avenue at N. Washington Street, add speed feedback signs on Maryland Avenue, and install crosswalks at the Henderson Circle. Other planned improvements to be funded by developers include the sidewalk in front of Beall's Grant project to reduce the pedestrian crossing distance.

The Traffic and Transportation Division also works with the Police Department to provide speed data and to recommend locations for speed-camera installation. Staff compiles traffic speed data to identify the 50 worst speeding locations in Rockville.

14. Install and Upgrade Traffic Signals

The Traffic and Transportation Division has a traffic signal program that funds the installation and maintenance of signals. This program allows for construction of new signals and upgrading existing signals. Staff has completed a number of projects in the previous years including, activating a signal at Maryland Avenue and E. Middle Lane, adding new traffic signals at Veirs Mill Road and Broadwood Drive (completed by SHA), at Richard Montgomery High School and Fleet Street, and at Tower Oaks and West Lake. In addition, staff added pedestrian countdown signals at MD 28 and Great Falls Road, N. Stonestreet Avenue and Park Road, and MD 28 and Laird Street. New pedestrian countdown signals are scheduled for installation in late September 2008 at MD 28/Maryland and MD 28/Monroe. In recent years, traffic signals - such as the one at Gude/Taft - were upgraded, and in FY 2009, several signals on N. Washington Street and on Wootton Parkway are scheduled for upgrades.

15. Concrete Repair Program

The Public Works Department has a program that annually repairs and replaces concrete street components such as curbs and gutters, sidewalks, and driveway aprons. Deterioration of concrete components is a continual process that requires timely repair or reconstruction of damaged areas. The work is typically concentrated in specific districts and in summer 2008, staff has been working in the Twinbrook neighborhood. The concrete repair program is a vital tool for maintaining the best pedestrian infrastructure.

16. Pedestrian/Bicycle Safety Program

The Traffic and Transportation staff participates in the Street Smart campaign. This program, which began in 2002, is an annual public education, awareness and behavioral change campaign in the Washington, DC, suburban Maryland and northern Virginia area. The campaign emphasizes education of motorists and pedestrians through mass media. The program is coordinated by the National Capital Region Transportation Planning Board (TPB), and is supported by federal funds made available through state governments, and funding from some TPB member jurisdictions.

In addition, staff is planning a City of Rockville weekend walking and bicycling encouragement event for the fall of 2009. This will be a family-friendly event that everyone can participate in whether it is by bicycling, running or walking through different neighborhoods. Streets will be closed for the 5.7-mile route, and it will run through City activity centers.

17. Staff Training

The Traffic and Transportation staff attends multiple training sessions. Staff has previously attended Emerging Trends in Pedestrian and Bicycle Planning held by the Association of Pedestrian and Bicycle Professionals, Traffic Calming administered by the American Society of Civil Engineers, and the Pedestrian Safety Workshop administered by MWCOCG. This fall, staff will be attending Bicycle Design and Planning, and Pedestrian and Bicycle Accommodation courses provided by the University of Maryland. Also, the Chief of the Traffic and Transportation Division attends quarterly meeting with the Maryland Traffic Engineers Council where traffic engineers from SHA and all jurisdictions in the State of Maryland share experiences and exchange information about safety, rules, and new initiatives.

On-site training includes sharing lessons learned and experiences with other Traffic and Transportation staff during the weekly staff meeting. Staff also started to subscribe to seminars presented over the internet (webinars). The classes are cost-effective and convenient. They also allow City staff from different divisions and departments to learn about best practices in transportation.