Montgomery County Blue Ribbon Panel On Pedestrian and Traffic Safety

FINAL REPORT

Setting Safety in Motion:
Recommendations for Creating Walkable Communities
in Montgomery County, Maryland

Delegate William A. Bronrott, *Chair*

January 2002

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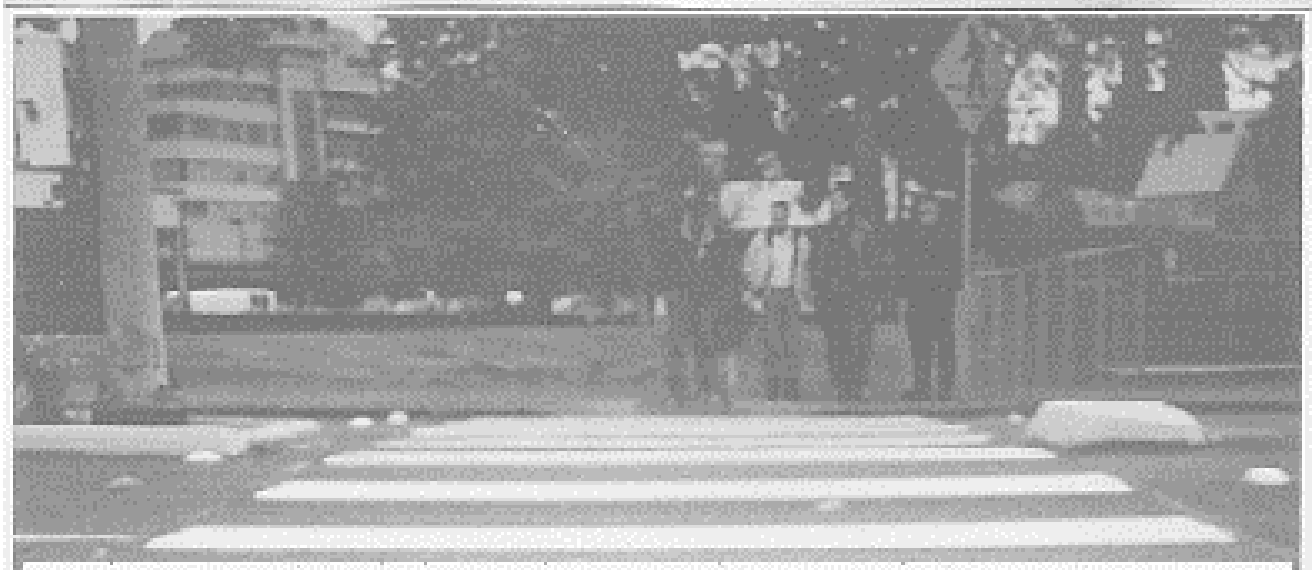

"For the past five years, pedestrian fatalities in the County have exceeded the number of homicides during the same time period. These tragedies can and must be prevented. We must take even more aggressive measures to make our streets safer."

-Douglas M. Duncan, Montgomery County Executive

TABLE OF CONTENTS

Letter to County Executive from Delegate Bill Bronrott, Chair……..4

Executive Summary……5

Vision Statement and Overview……18

Mission Statement and Objectives……20

Panel Information……21

Findings
Education Findings……24

Enforcement Findings……25

Engineering Findings……..26

Recommendations
Education Recommendations……..27

Enforcement Recommendations……28

Engineering Recommendations……..30

Legislative Recommendations……33

Data……..34

Pedestrian Safety Tool box……40

Appendix A - Blue Ribbon Panel and Staff……49

Appendix B - Summary of Community Input……51

Appendix C - Presentation Speakers……52

Appendix D - Public Education Activities……53

Appendix E - Panel's Interim Report Letter and Recommendations……54

Appendix F - Panel's Capital Budget Recommendations……58

Appendix G - Panel's Letter to County Council……..60

Appendix H - Panel's Letter with FY02 budget recommendation amendments…..……62

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MONTGOMERY COUNTY BLUE RIBBON PANEL
ON PEDESTRIAN AND TRAFFIC SAFETY

Delegate William Bronrott, *Chair*

January 28, 2002

The Honorable Douglas M. Duncan
Montgomery County Executive
101 Monroe Street
Rockville, MD 20850

Dear ~~Mr. Duncan~~: DOUG

On behalf of the members of the Montgomery County Blue Ribbon Panel on Pedestrian and Traffic Safety, I am very pleased to transmit our Final Report to you. This series of action-oriented recommendations focuses on the Three E's of pedestrian-traffic safety: education, enforcement and engineering, as well as legislative remedies, that together are aimed at meeting our mission of dramatically improving pedestrian safety and accessibility for everyone in our county.

It is time for a renaissance when it comes to pedestrian safety and making Montgomery County a truly walkable community. The work of our Panel over the past 18 months and the recommendations in this Final Report are dedicated to sparking that change. Our recommendations reflect the fact that pedestrian safety is not only a life or death issue, it is a quality of life concern that will affect many generations to come.

The heavy mix of motor vehicles and people on foot need not be a lethal combination, and crossing the street should not be a death-defying act. The more we invest in educating motorists and pedestrians, keeping enforcement efforts visible and high, and aggressively applying the most innovative and pedestrian-friendly road engineering design, the better able we will be to prevent pedestrian injury and to make Montgomery County the safe and livable community we all want.

While we submit this Final Report to you and the Montgomery County Government, we also call on concerned citizens, civic and neighborhood associations, the business community and all sectors of our growing and diverse county to join together in this effort to make Montgomery County a leader in our state and region on pedestrian safety and accessibility.

On behalf of the Panel, I thank you for your leadership in bringing the Panel together to tackle this major public safety challenge. I also want to thank the many devoted members of our Panel for their time, talent and hard work in creating this blueprint for action. We look forward to our continuing partnership with you, the Council and the community-at-large to implement these recommendations.

Sincerely,

Bill

Delegate William A. Bronrott, Chair

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FINAL REPORT OF THE MONTGOMERY COUNTY
BLUE RIBBON PANEL ON PEDESTRIAN AND TRAFFIC SAFETY
JANUARY 2002

EXECUTIVE SUMMARY

THE PROBLEM:

From 1997 to 1999, motor vehicle crashes resulting in pedestrian injury jumped from 369 to 416 in Montgomery County. During this time period, more people in the County were killed trying to cross the street than in homicides, with the number of pedestrian fatalities rising from 11 to 18. Nearly one quarter of these deaths occurred at intersections, leaving the overwhelming majority taking place along stretches of roads between intersections.

Contributing factors to these fatalities included blatant violations of traffic safety laws, drivers reacting too slowly when a pedestrian appeared without warning where no crosswalk or traffic signal exists, the mistaken belief by jaywalkers that a pedestrian always has the right-of-way, and a transportation infrastructure that often does not provide for a pedestrian-friendly environment.

Consequently, pedestrian fatalities as a percentage of all traffic fatalities placed the County above State figures for the last four out of five years. This, plus a growing desire and need for walkable communities that efficiently link pedestrians to transit, schools, and commercial and recreational areas, signaled the call for decisive remedial action by the County.

THE PANEL:

In response, Montgomery County Executive Douglas M. Duncan appointed the 40-member Blue Ribbon Panel on Pedestrian and Traffic Safety in June of 2000. The Panel, representing a wide variety of disciplines ranging from advocacy to County and State government, was given the mission to develop an action-oriented set of recommendations to significantly reduce pedestrian deaths and injuries and their associated economic costs, while addressing ways to create pedestrian-friendly walkable communities.

Blue Ribbon Panel meetings took place regularly from June 2000 to October 2001, and were open to the public. The Panel adopted the Three E's approach to focusing on pedestrian-traffic safety—Education, Enforcement, and Engineering. Panel committees were formed and met frequently to examine problems and solutions within each of the Three E's.

The Panel heard presentations from key local pedestrian safety advocates and several nationally recognized experts in the field, including representatives of Walkable Communities, Inc., the Surface Transportation Policy Project, and other pedestrian safety and access professionals.

OBJECTIVES:

In order to accomplish the mission of the Panel, broad objectives were identified:

- To reduce the number of pedestrian/vehicle collisions and their associated deaths and injuries by at least 50% by January 1, 2005.
- To ensure that every Montgomery County resident has a safe and viable alternative to using cars for local trips.
- To ensure that children living within walking distance of their neighborhood school have a safe walking route to school.

- To significantly increase the proportion of pedestrians who are aware of the behaviors most often involved in pedestrian collisions and take recommended actions to reduce their risks.
- To significantly increase the proportion of drivers who are aware of the behaviors most often involved in pedestrian collisions and take recommended actions to reduce the likelihood of hitting a pedestrian.
- To ensure that pedestrian safety and accessibility are integrated in all public projects implemented by County and State agencies, and in all future growth and development in Montgomery County.

PANEL ACTIONS:

- Web site --- The Panel launched a Pedestrian Safety Web link on the Montgomery County Government home page to provide the public with information on meetings, links to resources, as well as offering a link to contact the Panel that resulted in nearly 200 letters voicing complaints, concerns and suggestions.
- Community Forums --- The Panel held two community forums in different areas of the County to hear directly from the public. In order to involve the broadest public representation, flyers announcing the forums were printed in English and Spanish, and interpreters for Spanish-language and hearing-impaired residents were available at both meetings. Nearly 100 people attended both forums.

- Education-Enforcement Campaigns --- Since June 2000, Montgomery County Government and the Blue Ribbon Panel collaborated on several English-Spanish language education-enforcement media campaigns to reach motorists and pedestrians with “Drive Smart” and “Walk Smart” safety tips. The theme of the campaign was “Drive With Care, Walk With Caution.” These events included “Safe Summer,” “Walk Your Child to School Day,” and “Safe Neighborhood Day.”

- Site Visits --- With site visits being essential to gaining insight into innovative and viable solutions, the Panel toured the nearby City of Alexandria and Arlington County to observe pedestrian improvements. Two Panel members traveled to Oakland, California to participate in a national conference on pedestrian safety. Another small group visited the Seattle, Washington area to attend the "Footprints and Bike Tracks" conference and to spend several days touring surrounding jurisdictions to view modern pedestrian-friendly engineering safety designs.

- Interim Report --- In January 2001, the Panel issued an Interim Report with preliminary recommendations urging additional funding in the County's FY02 Operating Budget to enhance pedestrian safety. Among the Panel recommendations adopted were: an expanded photo red light enforcement program including 15 additional cameras rotated among 20 additional camera sites; a new pedestrian/bicycle safety coordinator in the Department of Public Works and Transportation; two new traffic and crash data analysis staff members within the Montgomery County Police Department to assess critical pedestrian and traffic crash statistics; and the allocation of $50,000 for a comprehensive public education campaign to reduce pedestrian injuries and deaths. The Panel also backed County grant applications submitted to the Maryland State Highway Administration for additional funds to support the countywide public education and enforcement campaign. In August 2001, the State granted the County a combined $90,000 to conduct public awareness and enforcement activities for greater pedestrian safety.

FINDINGS AND RECOMMENDATIONS:

The Panel has organized its findings and recommendations to be consistent with the Three E's approach to pedestrian safety (Education, Enforcement and Engineering). An additional set of recommendations regarding legislative initiatives also has been included.

The Panel views this report as an Action Plan for the County's efforts to improve pedestrian safety and enhance the walkability of our community. ***To this end, two overall recommendations are key to achieving the Panel's mission:***

1. **Designate a senior level position within the Executive Branch of the County government to coordinate and implement ongoing pedestrian and traffic safety activities.** A senior level position—possibly reporting to the County Executive and/or the Chief Administrative Officer—is essential to elevate the importance, visibility, and accountability of these efforts and to ensure the cooperation of all agencies. Additionally, this individual should be accountable to lead the County's efforts in implementing the recommendations of this report.

2. **Establish a formal County Executive-appointed advisory board confirmed by the County Council, to oversee the implementation of the Panel's final report and to provide advice to elected officials and department directors regarding priorities and needs in the area of pedestrian and bicycle safety and access.**

EDUCATION: FINDINGS AND RECOMMENDATIONS

Education Findings:

- **No sustained public education campaign exists to reach motorists and pedestrians to make them aware of their responsibilities.** As a result, motorists and pedestrians do not realize how their behavior can put them and others at risk.

- **Education efforts on pedestrian and traffic safety are found to be more effective when combined with enforcement efforts.** The Insurance Institute for Highway Safety reports that the most demonstrable improvements in driver behavior come from the enforcement of traffic safety laws. The key to an effective program is combining education with law enforcement efforts.[1]

- **The amount of pedestrian safety information provided to drivers and students is minimal.**

  - Currently there is one pedestrian safety related question on the Maryland State written driver's Licensing Exam. This question is included on a random basis and therefore such a question does not appear on every licensing exam.

  - Montgomery County Public Schools have no required unit on pedestrian safety education.

[1] Insurance Institute for Highway Safety, Status Report, 36 (5), May 19, 2001

- The curriculum in traffic safety schools does not address pedestrian safety as an issue.

- Currently there is no section in the Driver's Handbook that deals exclusively with pedestrian/bicycle safety, nor are these handbooks available in other languages.

- Pedestrian safety education is not addressed in classes for newly arrived residents (e.g., ESOL classes).

- The Maryland State Motor Vehicle Accident Report currently does not collect data on ethnicity when pedestrian crash information is collected. The data on pedestrian fatalities and their country of origin can only be obtained from the State Medical Examiner's Office, where the ethnicity information is recorded on the death certificate.

Education Recommendations:

1. **Montgomery County must take the lead in undertaking a comprehensive, ongoing public awareness/social-marketing campaign.** To ensure the greatest positive impact on both drivers and pedestrians, the campaign should integrate:

   - A cooperative partnership with ongoing law enforcement activities, as well as with public and private sector stakeholders. This should include health and safety advocacy organizations, local media, schools, civic and neighborhood associations, state and municipal governments, the business community, and those with special needs such as senior citizens, persons with disabilities and for those for whom English is a second language.

   - Partnering and/or sponsorships with outside entities to maximize the overall success of the educational efforts.

   - Attitudinal surveys to track public opinion on pedestrian and traffic issues.

2. **Pedestrian safety curriculum should be included as a mandatory unit in school health programs/classes in grades K through 8.** Currently, the material is available but left up to the teachers' discretion to include it in the classroom. Appropriate student measurement should determine the effectiveness of this addition to the safety curriculum.

3. **Pedestrian safety segments should be included in all ESOL classes** with appropriate student measurement.

4. **The State should expand pedestrian safety material in the MVA handbook and private driver training schools course curriculum.**

5. **The MVA driver's exam should include mandatory questions about pedestrian safety.**

6. **A pedestrian safety segment should be included in driver improvement classes.**

ENFORCEMENT: FINDINGS AND RECOMMENDATIONS

Enforcement Findings:

- **While County police have put much more emphasis on pedestrian safety over the past eighteen months, there is not an ongoing and highly visible countywide pedestrian safety enforcement campaign in Montgomery County.** The Montgomery County Police reported that in 2000, 131 citations for violations related to pedestrian safety laws were handed out to drivers, out of 80,000 total citations given overall.

- **Police are given little support for conducting pedestrian crossing compliance checks[2].**

  - For all pedestrian fatalities, 69% were not crossing in crosswalk.

  - Alcohol as a pedestrian condition was a factor in nearly one-fifth of all pedestrian fatalities.

  - For over half (56%) of those pedestrians killed, there was no pedestrian signal where the crash occurred.

- **Red light running is a pervasive problem in Montgomery County[3].**

  - Between 1996-2000, 26 fatalities and 3,550 injuries occurred due to red light running.

  - Costs for these red light running crashes from 1996-2000 totaled $333 million.

- **No overall review has been conducted on the existing Maryland State pedestrian safety laws or their associated fines for the past ten years.** Legislative action will be necessary if any changes are warranted.

- **There is currently no additional penalty (fine or points) for drivers who violate two traffic laws at one time.** Only the infraction carrying the highest penalty is applied.

- **Regardless of age, pedestrians involved in crashes are more likely to be killed as vehicle speeds increase. The fatality rate for a pedestrian hit by a car at 20 mph is 5 percent. This fatality rate jumps to 80 percent when the speed is increased to 40 mph.[4]**

- **Drivers rarely completely stop while turning on red, increasing the likelihood of driver crashes with pedestrians crossing at an intersection.**

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[2] Statistics listed are courtesy of Maryland State Highway Administration, Office of Traffic and Safety, Traffic Safety Analysis Division

[3] Statistics listed are courtesy of Maryland State Highway Administration, Office of Traffic and Safety, Traffic Safety Analysis Division

[4] Insurance Institute for Highway Safety, Status Report 35 (5), May 13, 2000

Enforcement Recommendations:

1. **Law enforcement agencies must step-up and maintain an ongoing and visible pedestrian and traffic safety enforcement effort to combat dangerous driver and pedestrian behavior, such as aggressive driving, drunk driving, red light running, excessive speeding and jaywalking.**

   - Police chiefs and district commanders must repeatedly reinforce the importance of pedestrian safety to their officers as part of their day-to-day duties and responsibilities.

   - Montgomery County police officers must routinely make enforcement of pedestrian-traffic safety laws a top priority.

   - Frequent, targeted and visible pedestrian-traffic safety enforcement initiatives should be undertaken in cooperation with a comprehensive educational and media outreach program.

   - Appropriate measures should be developed by County and local police to gauge their enforcement efforts.

2. **Dramatically reduce excessive speeding through increased enforcement.** The results of these efforts should be used as one of the major performance measures of law enforcement agencies in Montgomery County and the Department of Public Works and Transportation. The desired outcome should be an increase in the percentage of roads whose top operating speed (85th percentile) is at or below the posted speed limit.

3. **Increase enforcement of pedestrian right-of-way in crosswalks:**

   - Special emphasis should be placed on "cluster areas" such as Central Business Districts (CBDs) and high collision "hot spot" locations by targeting them for increased pedestrian-traffic safety enforcement.

   - Primary focus should be on achieving substantial motorist compliance with pedestrian-traffic safety laws, particularly pedestrian right-of-way in crosswalks.

   - Enforcement efforts should also focus on pedestrian compliance.

   - All Montgomery County police officers should be provided a "law card" as a reference that lists all pedestrian-related traffic safety laws.

   - Effectiveness shall be measured by monitoring the number of pedestrian crashes in crosswalks.

4. **Increase resources and revenues to support Montgomery County's traffic safety enforcement.**

5. **Pedestrian traffic safety law violations must be aggressively adjudicated by the court system.** In cooperation with representatives of the County's judicial, legal, law enforcement and executive branches of the government, the Criminal Justice Coordinating Committee should present to the County Executive and Advisory Board an annual report on pedestrian traffic safety violations and their outcomes.

6. **Improve the collection and publication of data concerning traffic safety law enforcement.**

   - Each year, Montgomery County should publish a comprehensive list of ticketed violations for each traffic offense in the County.
   - The total fines paid for these offenses in Montgomery County should be computed and compared with the funds the County receives from the State of Maryland for traffic enforcement efforts.

7. **Law enforcement agencies in Montgomery County should analyze the location of pedestrian deaths and injuries in cooperation with DPWT.**

   - These should be compared to the number of tickets issued for traffic safety law violations in that same area to determine whether lax compliance is a contributing factor, and/or targeted enforcement is needed at certain "hot spots."

   - Better data is needed to determine areas and intersections in the County where pedestrians, bicyclists and drivers are at greater risk because of dangerous driving behavior, insufficient enforcement efforts, or underlying facility design deficiencies.

8. **Expand the human and technological resources available to the County Police Department to enforce traffic safety laws.** School crossing guards, bus drivers, County Transportation and Ride-On staff should be encouraged to report traffic violations of offending drivers by phone call or letter. Law enforcement technology should be routinely used throughout the County to step up traffic enforcement efforts, including red light cameras and speed monitoring devices.

9. **Involve the public in traffic safety enforcement efforts.** A central phone number should be posted on all County vehicles (police, Ride-On, DPWT, Park and Planning, school buses, etc.) for citizens to call to report unsafe driving by noting the vehicle's license plate number. There should be zero tolerance for County employees who do not scrupulously obey traffic laws and the public should be encouraged to report County employees that commit violations.

10. **Continue an aggressive recruitment campaign to fill all County Police vacancies.** These vacancies are currently significant and continue to grow in numbers, impacting resources normally devoted to pedestrian traffic safety enforcement efforts.

ENGINEERING: FINDINGS AND RECOMMENDATIONS

Engineering Findings:

- **The majority of Montgomery County's transportation system is inordinately inadequate and outdated when it comes to pedestrian-friendly engineering design.** Over the past half-century, roadways have been designed and constructed primarily to accommodate vehicular traffic rather than pedestrians. Outdated design standards still reflect this emphasis. A result is that the transportation infrastructure leaves pedestrians at great risk, which in turn discourages walking and encourages people to overly rely on single-occupancy vehicles.

- **The more innovative engineering options have been minimally used to maximize pedestrian safety and access. The County lacks engineering options that:**

  - Make it easy for pedestrians to safely cross the street.

  - Provide convenient and safe access parallel to roadways.

  - Offer connectivity between neighborhoods, commercial, transit and recreational centers and educational facilities.

- **Many pedestrians believe they do not have adequate time to safely cross the street, and that there are not enough traffic-signal controlled crosswalks along many stretches of roadways.** This is especially a problem among senior citizens and others who have special needs.

- **Crosswalks and stop bars along major roadways in the County are generally in an unacceptable state of repair, making it difficult for drivers and pedestrians to see them clearly.**

- **Lighting along major County roadways is generally much lower than nationally accepted standards, making it difficult for drivers to see pedestrians crossing the roadway.** Most of the pedestrian fatalities from vehicular crashes have occurred along major highways which serve as transit routes, but which have low lighting levels and long distances between marked crosswalks and/or signalized crossings.

- **County staffing and budgeting for needed pedestrian traffic safety engineering changes are inadequate to meet the current challenges.**

- **Montgomery County has been slow with processing crash data that is needed to identify "hot spots" safety problems and to develop engineering solutions.**

Engineering Recommendations:

1. **Montgomery County and the State of Maryland should embrace and proactively implement a Pedestrian Safety Engineering Tool Box that contains many of the most effective and innovative engineering options available to make our County a safe and walkable community.** These tools include countdown pedestrian signals, in-pavement crosswalk lights, traffic channelization, road diet devices and other traffic calming techniques. (SEE PAGES 39-47 FOR THE COMPLETE ENGINEERING TOOL BOX).

2. **The Pedestrian Safety Engineering Tool Box solutions should address three primary needs of pedestrians:** adequate pedestrian access parallel to roadways, the ability of all pedestrians to safely cross roadways, and safe walking routes that connect communities to schools, transit, recreational facilities, commercial and retail areas, and other communities.

3. **Montgomery County's roadway, intersection, sidewalk, and streetscape design standards should be brought into full conformity with the most innovative, pedestrian-friendly national design guidelines. The State of Maryland should also embrace engineering options to maximize pedestrian safety and access.**

4. **M-NCPPC should include a section addressing pedestrian access and safety in all Master Plans and Sector Plans.**

5. **The County should require that all public and private construction projects include a "Pedestrian Impact Statement," including a process for review by the County to maximize pedestrian safety and access.**

6. **The County should continue enhancements of its collection and use of pedestrian and vehicular crash data.** Success will be indicated when crash locations are mapped on a regular basis, by type for each year and groups of years, backed up by supporting analysis and detail, and are used to identify, design and prioritize solutions ranging from transportation facility reconstruction to enforcement actions. In addition, it is recommended that citizen complaints about troublesome pedestrian and traffic safety conditions be tracked and analyzed for potential problems.

7. **Montgomery County should carry out a countywide "Safe Routes to Schools" program to maximize safety and access for students at all schools for limits set for bus service (i.e., two miles for high schools).** A safe route to school should also be ensured for students walking to their school bus stops. The effectiveness will be measured by tracking pedestrian crashes and choice of walk access (as compared to driving, being dropped off, etc.) by students and their parents.

8. **Reassess adequacy of all pedestrian signal timings.** Where insufficient time exists to cross the street, additional time should be provided, or sufficient pedestrian refuge islands, additional pedestrian signals, and reliable, pedestrian-activated push buttons should be provided in the median to make a safe crossing. Pedestrians should be given priority at all traffic signals within business districts, school zones, recreation, and high-density residential areas. To reduce collisions, intersections with high pedestrian and motor vehicle volumes should have a dedicated signal phase. The effectiveness would be measured by tracking crashes at these locations.

9. **Relocate inconveniently placed and mid-block bus stops closer to intersections to encourage transit-using pedestrians to use crosswalks.** Ideally, all bus stops should be immediately adjacent to safe crosswalks. The effectiveness of this action will be measured by tracking collisions and use of crosswalks by bus patrons.

10. **Provide safe ADA-compatible crossings at all bus stops.** Where existing bus stops do not meet this criterion, an ADA-compatible crossing should be constructed, the bus stop should be moved or, as a last resort, the bus stop should be eliminated. An assessment of all existing bus stops should be completed in six months and necessary changes made in the following six months. The effectiveness will be measured by tracking crashes and use of crosswalks at these locations.

11. **Public and major private building entrances, especially for schools and other facilities serving the youth and aged, should similarly be located with reference to safe ADA-compatible street crossings.** Design review should guard against sitting major entrances where crossings are unsafe. Existing problem areas, evidenced by pedestrian crashes or unsafe behavior, should be corrected with building retrofits, crosswalk additions or modifications, or the erection of pedestrian barriers (least desirable unless temporary).

12. **Install additional traffic signals in Central Business Districts (CBD's) and other high activity locations to give pedestrians more locations to cross streets safely by controlling traffic flow and speed.**

13. **Reduce the number of right-turns-on-red, or limit them to off-peak hours, at intersections within Central Business Districts, other high-density areas, and frequent crash "hot spot" locations. The effectiveness of this change will be measured by tracking collisions at these locations.**

14. **Undertake a review of the speed limits on County and State roads to ensure that speed limits are realistic and reflect operating conditions and adjacent development patterns.** Where the average speed is in excess of the posted speed limit, remedial engineering measures should be undertaken to reduce speeds. Conditions that would require full-time enforcement of the speed limit should be eliminated.

15. **Include public compliance with the posted speed limits as part of the performance measures of both the Police Department and the Department of Public Works and Transportation.** The desired outcome measure should be an increase in the percentage of roads whose 85th percentile operating speed is at or below the posted speed.

16. **Road widening projects should anticipate potential speeding problems that often develop during non-peak hours, and include a plan to control speeds as part of their design.** Developers should design their on-site roads in such a way that future speeding problems are avoided.

17. **Replace all pedestrian crossing signs with the new florescent yellow/green signs in all school zones by the end of calendar year 2002.** Funding was eliminated from the FY02 budget at the point when only 40 percent of the old signs had been replaced. The effectiveness of these signs will be measured by tracking crashes at these locations.

18. **"Stop for Pedestrians" paddle signs should be placed at the roadway centerline at all unsignalized crosswalks in CBD's and other areas of high pedestrian activity to reinforce pedestrians' right-of-way.** Signs should be posted at the gateways to CBD's and other commercial areas noting the maximum fine for failure to yield to pedestrians ($500), similar to what is done for littering, which has a maximum $1000 fine.

19. **Fully fund the County's crosswalk re-striping program, shorten the current five-year re-striping cycle to every two years along major highways and arterials, and annually in school and transit zones.** Agencies receiving permits for work in the roadway should be required to post a bond and replace pavement markings within three days of completing repaving operations. Failure to replace the pavement markings should result in loss of the bond and a freeze on any future permits until the work is done.

20. **The lighting policy for State roads should be revised to reflect the recommendations of the Illuminating Engineering Society of North America (IESNA), which is the policy being adopted by DPWT.** An assessment of the existing lighting levels of all State roads should be done and remedial measures taken where needed, giving priority to transit routes and commercial and high-density pedestrian and residential areas.

21. **Once DPWT's lighting policy revision has been finalized, an assessment of the existing lighting levels of all major highways and arterials should be done and remedial measures taken where needed, giving priority to transit routes and commercial and high-density residential areas.**

22. **Adopt American Association of State Highway and Transportation Officials (AASHTO) recommendations for barriers to protect pedestrians on bridges and along roadways. Where a guardrail is located behind the sidewalk, it should be relocated to the curb line.**

23. **Locate ADA-compliant handicap ramps to provide the safest and shortest crossing for pedestrians.** Each corner of an intersection should have two ramps.

24. **Designate the pedestrian safety coordinator as the staff person responsible for disseminating ADA information within DPWT.**

25. **Provide adequate funding to DPWT for necessary pedestrian traffic safety engineering changes to meet the current challenges.**

Legislative Recommendations:

1. **Establish a "Homicide by Aggressive Driving" statute.**

2. **Establish a "Felony hit-and-run" statute.** Currently, fleeing a scene of a fatal or serious-injury crash is only a misdemeanor.

3. **Enact legislation to allow the use of photo enforcement cameras to ticket vehicles exceeding the posted speed limit.**

4. **Support legislation (HB 130) that would increase the State's share of building sidewalks and bicycle paths along State roads to 80%.** Currently, the State has a 50/50 share with the counties and municipalities.

5. **Double the fines against traffic law violators in school zones.**

6. **Remove the "must appear" in court provision in Maryland law [TR § 21-502, Pedestrians' right-of-way in crosswalks, (2) and (c)].** This significantly reduces the amount of time police officers must spend in court, and will encourage more active enforcement of this failure-to-yield-to-pedestrian law.

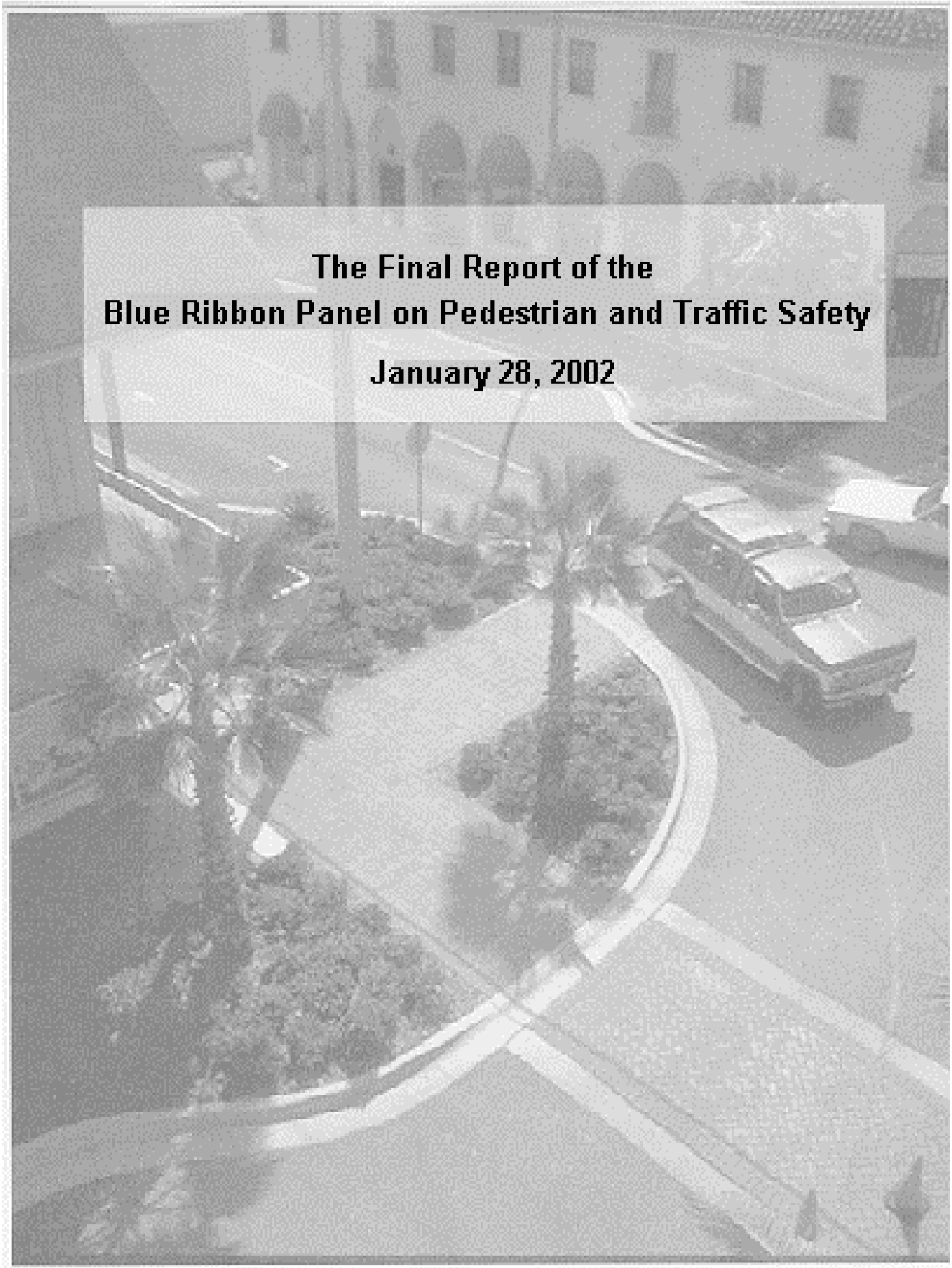
7. **Increase penalties against repeat offenders of traffic safety laws.**

8. **Increase penalties against repeat offender drunk drivers, drunk drivers who test more than twice the .08 BAC legal limit, and suspected drunk drivers who refuse to take the BAC test.**

9. **Institute new penalty targeted at drivers blocking crosswalks and intersections (Don't Block the Box).** While the offense (at intersections) is technically the same as red-light-running, the new fine should be set without points on the license to encourage substantial police enforcement.

10. **State and County should enact budgets that increase funding for traffic safety enforcement, education and engineering.**

11. **The County should conduct a thorough review of Maryland State pedestrian traffic safety law violations to determine if the severity of the penalty/punishment is commensurate with the offense to ensure it serves as an effective deterrent.**



The Final Report of the Blue Ribbon Panel on Pedestrian and Traffic Safety

January 28, 2002

Vision Statement and Overview

VISION
Montgomery County will be a community where people of all ages and abilities can walk, bike, use transit, and/or travel by motor vehicle safely and comfortably in a pedestrian-friendly environment.

Montgomery County has grown to be the most populous jurisdiction (873, 341 residents) in the State of Maryland and is the second largest jurisdiction in the Washington Metropolitan region. Forty percent of the County's population are minorities. A large majority (72.5%) of commuters in the County drive alone, 9% carpool, and 13% use mass transit.[1] About 560,000 passenger vehicles are registered in the County and almost 7,000 motorcycles. There are 657,994 licensed drivers in the County[2]; almost one-quarter of the County is not licensed to drive.

There are about 12,000 reportable collisions each year in Montgomery County. During the years 1997-1999, the number of pedestrian collisions increased from 369 to 416. During this period, the number of pedestrians killed increased from 11 to 18.[3] Pedestrian fatalities as a percentage of all traffic fatalities in Montgomery County have exceeded State figures for the last four out of five years.

Approximately a quarter of these fatalities have occurred at intersections. Analysts have attributed this to higher vehicle speeds along roadways and midways between intersections, drivers reacting too slowly when a pedestrian appears unexpectedly where there is no crosswalk or traffic signal, and the mistaken belief by jaywalkers that a pedestrian always has the right-of-way.

In 1999, pedestrians involved in police-reported motor vehicle crashes had the following characteristics:[4]

- 51 percent were male
- 18 percent were under the age of 16
- 18 percent were over the age of 55
- The pedestrian was determined to be at fault 41percent of the time
- 25 percent of the pedestrians were struck while crossing at an intersection
- Other trends over the three-year period from 1997 to 1999 indicated that more pedestrians were struck between the months of October and January, and more than 50 percent of the pedestrians were struck between 1 p.m. and 8 p.m.[3]

The 2000 U.S. Census figures show the County has a substantial population of minority residents (40 percent), with relatively recent arrivals in this country. The fact that they are unfamiliar with U.S. traffic laws and driving practices, coupled with difficulty in reading road signs in English may explain why they are disproportionately involved in pedestrian crashes (see graph 12 in Data section).

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[1] Montgomery County Department of Park and Planning, Research and Technology Center, 1997 Census Update Survey (latest figures available).
[2] Maryland Motor Vehicle Administration
[3] Montgomery County Police Department
4 University of Maryland Study Center for Trauma and EMS. Maryland Crash Outcome Data Evaluation System. Funded by the National Highway Traffic Safety Administration DTNH22-00-H-07012.

In addition to the obvious concern over the increasing number of injuries and deaths, there continues to be a growing awareness of the public health benefits of walking. Heart and cardiovascular disease, obesity and diabetes are all leading causes of death in the United States. Walking can reduce the risk of all of these. A recent study by the National Institutes of Health showed that two simple lifestyle changes, walking 30 minutes a day and eating less fat, could significantly reduce the incidence of diabetes by over 60%.[5] Other statistics show that since 1960 there has been a steady increase in (1) the number of miles spent behind the wheel of an automobile, (2) the number of hours spent watching television, and (3) the number of sedentary jobs in the workforce.[6] A recent report by the U.S. Surgeon General on obesity asserts that dealing with overweight and obesity issues is the responsibility of not just the individual, but also that of the community. "When there are no safe, accessible places for children to play or adults to walk, jog, or ride a bike, that is a community responsibility."[7]

There is also a growing public awareness of pedestrian safety issues in general. In a 2001, National Louis Harris Poll conducted by Advocates for Highway and Auto Safety, a survey of 1,001 adults found that 67 percent feel that more attention should be addressed to making it safer to cross the street. In the related matter of traffic congestion, the County is also facing numerous transportation challenges as a result of rapid growth in travel and development, according to a study conducted by the Federal Highway Administration. Population increases as predicted by the Metropolitan Washington Council of Governments will bring the Metro area population from 4 million to 5.4 million by the year 2025. This population growth translates into increases in the number of daily trips, higher amounts of total miles driven, greater traffic congestion, and longer traffic delays.

On any given day, most people in Montgomery County are both a motorist and a pedestrian. Some choose to rely solely on walking for recreational and commuting purposes. For many others, they must walk because they are not old enough to have a driver's license, or they are unable to drive due to physical medical restrictions or socio-economic constraints.

Regardless of age or ability, innovatively designed pedestrian-friendly communities give people safe and convenient access to schools and recreational facilities, transit, commercial and retail centers, and government buildings and services. Further, studies show that an enjoyable walking environment in retail and commercial areas enhances the economic vitality of the area.

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[5] National Institute of Diabetes and Digestive and Kidney Diseases, National Institute of Health, 2001

[6] Centers for Disease Control and Prevention, National Center for Chronic Disease Prevention and Health Promotion, Division of Physical Activity

[7] U.S. Department of Health and Human Services. The Surgeon General's call to action to prevent and decrease overweight and obesity. [Rockville, MD]: U.S. Department of Health and Human Services, Public Health Office, Office of the Surgeon General; [2001].

Mission Statement and Objectives

MISSION:
To develop a comprehensive plan (including roles, responsibilities, and funding) to reduce traffic-related crashes, injuries, fatalities, and associated economic costs in a pedestrian-friendly environment.

In June 2000, Montgomery County Executive Douglas M. Duncan appointed the Blue Ribbon Panel on Pedestrian and Traffic Safety. The County Executive charged the Panel with formulating a coordinated plan to improve pedestrian and traffic safety in the County. The Panel was asked to address the interrelated problems of pedestrian safety and access, road design, intersection safety, and traffic management.

OBJECTIVES

In order to accomplish the mission of the Panel, the following broad objectives were identified:

- To reduce the number of pedestrian/vehicle collisions and their associated deaths and injuries by at least 50% by January 1, 2005.
- To ensure that every Montgomery County resident has a safe and viable alternative to using cars for local trips.
- To ensure that children living within walking distance of their neighborhood school have a safe walking route to school.
- To significantly increase the proportion of pedestrians who are aware of the behaviors most often involved in pedestrian collisions (dashing across an intersection, crossing behind a backing car, etc.) and take recommended actions to reduce their risks.
- To significantly increase the proportion of drivers who are aware of the behaviors most often involved in pedestrian collisions (running red lights, failure to yield to pedestrians in crosswalks, etc.) and take recommended actions to reduce the likelihood of hitting a pedestrian.
- To ensure that all public and private construction projects maximize pedestrian safety and access.
- To ensure that pedestrian safety and accessibility are integrated in all public projects implemented by County and State agencies, and in all future growth and development in Montgomery County.

MEASURING RESULTS

In order to determine the County's progress in achieving the vision of making Montgomery County a better place to walk, the Panel has recommended the following key measures:

- The number of deaths and injuries from pedestrian/vehicle collisions.
- Percentage of survey respondents who believe that the community where they reside and work is a safe place to walk.
- Percentage of streets within walking distance of a school that has sidewalks. Some categorizations of urban/suburban/rural would make this measure more meaningful.

- Percentage of development projects that include state-of-the-art engineering designs that maximize pedestrian safety and access.
- A survey/audit of existing roadways throughout the County that assesses the level of walkability and needed improvements.

The Panel believes that it is important to develop a limited number of key measures that can be used to track the overall success of the program, such as construction of more sidewalks, a decrease in excessive speeding and an increase in funding for education, enforcement and engineering. This approach will serve to keep decision-makers and the public focused on the main objectives.

County managers may wish to develop additional measures to assess how well the parts of the program they are managing are succeeding. Additional potential measures could include change in average speeds due to traffic calming projects, photo red-light violations per intersection monitored, the number of aggressive driving citations, and level of pedestrian activity.

THE PANEL

The Panel is comprised of 40 members to whom the issue of pedestrian and traffic safety is of special concern. From community advocates to State and County officials, these members represent a wide array of agencies and organizations, in both the public and private sectors, in Montgomery County, the State of Maryland, and nationally as well. (For a complete listing of the Blue Ribbon Panel members, see Appendix A).

The Panel met regularly from June 2000 to October 2001. Panel meetings were open to the public. Panel committees—Engineering, Enforcement, and Education—also met frequently, hearing from speakers and key stakeholders in the County and State.

One of the first steps taken by the Panel was to establish a Pedestrian Safety Web link on the Montgomery County home page (www.co.mo.md.us). The site contained information of Panel meetings, community forums, links to additional resources, and a link (pedestrian.safety@co.mo.md.us) for the public to contact the Panel directly with concerns, complaints, and suggestions. From August 2000 through October 2001, the Panel received nearly 200 letters of correspondence.

The Panel held two community forums, one in the down County region and one in the up County region, in order to hear directly from the community about their concerns and issues. Nearly 100 people total attended both forums. A summary of the community input can be found in Appendix B. In order to involve the broadest public representation, flyers announcing the forums were printed in Spanish as well as English and interpreters were available at both meetings.

The Panel heard presentations from key local pedestrian safety advocates and several nationally recognized experts in the field (see Appendix C). In addition, the Panel traveled to Northern Virginia to view first hand pedestrian safety enhancements in Arlington County and the City of Alexandria.

Representatives of the Panel traveled to Oakland, California to attend and participate in a national conference on pedestrian safety. In addition, several Panel members traveled to the

Seattle area to attend the "Footprints and Bike Tracks" Conference and spent several days visiting surrounding jurisdictions to view modern engineering safety designs. The State of Washington is nationally recognized as being in the forefront of creating innovative programs and facilities to improve pedestrian and traffic safety.

Since June 2000, Montgomery County and the Blue Ribbon Panel have collaborated on several educational and media campaigns to raise the profile of pedestrian and traffic safety with the public. A list of the education activities can be found in Appendix D.

In January 2001, the Panel issued an Interim Report containing preliminary recommendations that primarily focus on assuring additional funding in the County's FY02 Operating Budget to enhance pedestrian safety. Specifically, the budget expanded pedestrian safety efforts by increasing the photo red light enforcement program–adding an additional 15 cameras, rotated among 20 additional camera sites; adding a new pedestrian/bicycle safety coordinator in the Department of Public Works and Transportation; adding traffic and crash data analysis staff within the Montgomery County Police Department to assess critical pedestrian and traffic crash statistics; and allocating $50,000 for a comprehensive public education campaign to reduce pedestrian injuries and deaths. For the Interim Report, please refer to Appendix E.

In addition, the Panel endorsed a County grant application submitted to the Maryland State Highway Administration for additional funds to support the countywide public education and enforcement campaign. In August 2001, the County Executive and the County Police Chief received notification of the award of a combined $90,000 in State funds to conduct public awareness and enforcement activities for greater pedestrian safety.

INTERIM REPORT TO ENHANCE PEDESTRIAN SAFETY

In January 2001, the Panel submitted preliminary recommendations to the County Executive that were urgently needed to reduce preventable deaths. Of those recommendations, the following actions have been taken:

- **“Assure additional funding in FY02 budget to enhance pedestrian safety.”**
  - Two crash data analysts have been hired by County police.
  - A pedestrian-bicycle safety and access professional has been hired by DPWT.
  - The County has approved $50,000 for an ongoing comprehensive social marketing program.
- **“Identify and remediate road and traffic hazards.”**
  - Crosswalk repair/restripe
  - Additional traffic signage
  - Improved lighting
- **“Increase awareness and enforcement of laws against unsafe driving and pedestrian behaviors.”**
  - Funding for additional red light cameras has been doubled.
  - Increased citations and warnings to drivers who fail to yield to pedestrians at crosswalks and intersections.
  - Increased citations and warnings to pedestrians who cross against the light or outside of available crosswalks.

- **Safety Legislation Supported in the 2001 General Assembly included the establishment of a Maryland Pedestrian Safety Program, and anti-drunk and aggressive driving legislation.**

CAPITAL IMPROVEMENTS PROGRAM

Pedestrian safety and access has become a primary concern for residents throughout Montgomery County. In response, the County must make substantial investments in the traffic-engineering arena in order to reduce pedestrian deaths and injuries and increase the walkability of our communities.

To this end, the Panel took the opportunity to offer advice and recommendations to the County Executive in July 2001, as the County was beginning the budget planning and preparation for the Capital Improvements Program (CIP) for FY03 (See Appendix F).

Satisfied that various intersections could be improved through relatively minor adjustments, such as a change in traffic signal patterns or permanent markings, while others would require more complex engineering, the Panel recommended that the next capital budget contain sufficient funding to carry out a series of highly visible pedestrian enhancements.

These safety and access improvements should feature innovative, state-of-the-art engineering design, such as elements of the Engineers Tool box developed by the Panel, including crosswalks with flashing embedded lights, countdown pedestrian crossing signals, and more.

A second element of the CIP funding should target "hot spot" locations identified as having the highest concentration of pedestrian crash incidents or the potential for such incidents, such as in high density pedestrian areas like Central Business Districts or near schools, transit stops or commercial areas. A large number of these locations involve State highways, therefore coordination with the State Highway Administration (SHA) will be important.

FINDINGS

Efforts to make Montgomery County a pedestrian-friendly, walkable community must focus on the "Three E's": education, by way of programs designed to reach motorists and pedestrians; enforcement, which applies laws related to enhanced pedestrian safety, and engineering, through innovative technology that creates safe, accessible routes for pedestrians.

By making pedestrian travel safer, easier and more convenient, other important objectives are achieved, including improving health and fitness, decreasing local vehicular congestion and pollution, and making the community more appealing to businesses, permanent residents and tourists.

Following the Panel's formation in June 2000, a great amount of research and data on pedestrian and traffic safety at County, State, and national levels has been collected and analyzed. In addition, citizen comments and observations provided anecdotal information.

EDUCATION FINDINGS

- **No sustained public education campaign exists to reach motorists and pedestrians to make them aware of their responsibilities.** As a result, motorists and pedestrians do not realize how their behavior can put them and others at risk.

- **Education efforts on pedestrian and traffic safety are found to be more effective when combined with enforcement efforts.** The Insurance Institute for Highway Safety reports that the most demonstrable improvements in driver behavior come from the enforcement of traffic safety laws. The key to an effective program is combining education with law enforcement efforts.[8]

- **The amount of pedestrian safety information provided to drivers and students is minimal.**

  - Currently there is one pedestrian safety related question on the Maryland State written driver's Licensing Exam. This question is included on a random basis and therefore such a question does not appear on every licensing exam.

  - Montgomery County Public Schools have no required unit on pedestrian safety education.

  - The curriculum in traffic safety schools does not address pedestrian safety as an issue.

  - Currently there is no section in the Driver's Handbook that deals exclusively with pedestrian/bicycle safety, nor are these handbooks available in other languages.

  - Pedestrian safety education is not addressed in classes for newly arrived residents (e.g., ESOL classes).

  - The Maryland State Motor Vehicle Accident Report currently does not collect data on ethnicity when pedestrian crash information is collected. The data on pedestrian fatalities and their country of origin can only be obtained from the State Medical Examiner's Office, where the ethnicity information is recorded on the death certificate.

[8] Insurance Institute for Highway Safety, Status Report, 36 (5), May 19, 2001

ENFORCEMENT FINDINGS

- **While County police have put much more emphasis on pedestrian safety over the past eighteen months, there is not an ongoing and highly visible countywide pedestrian safety enforcement campaign in Montgomery County.** The Montgomery County Police reported that in 2000, 131 citations for violations related to pedestrian safety laws were handed out to drivers out of 80,000 total citations given overall.

- **Police are given little support for conducting pedestrian crossing compliance checks[9].**

  - For all pedestrian fatalities, 69% were not crossing in crosswalk.

  - Alcohol as a pedestrian condition was a factor in nearly one-fifth of all pedestrian fatalities.

  - For over half (56%) of those pedestrians killed, there was no pedestrian signal where the crash occurred.

- **Red light running is a pervasive problem in Montgomery County[10].**
  - Between 1996-2000, 26 fatalities and 3,550 injuries occurred due to red light running.

  - Costs for these red light running crashes from 1996-2000 totaled $333 million.

- **No overall review has been conducted on the existing Maryland State pedestrian safety laws or their associated fines for the past ten years.** Legislative action will be necessary if any changes are warranted.

- **There is currently no additional penalty (fine or points) for drivers who violate two traffic laws at one time.** Only the infraction carrying the highest penalty is applied.

- **Regardless of age, pedestrians involved in crashes are more likely to be killed as vehicle speeds increase. The fatality rate for a pedestrian hit by a car at 20 mph is 5 percent. This fatality rate jumps to 80 percent when the speed is increased to 40 mph.**[11]

- **Drivers rarely completely stop while turning on red, increasing the likelihood of driver crashes with pedestrians crossing at an intersection.**

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[9] Statistics listed are courtesy of Maryland State Highway Administration, Office of Traffic and Safety, Traffic Safety Analysis Division

[10] Statistics listed are courtesy of Maryland State Highway Administration, Office of Traffic and Safety, Traffic Safety Analysis Division

[11] Insurance Institute for Highway Safety, Status Report 35 (5), May 13, 2000

ENGINEERING FINDINGS

- **The majority of Montgomery County's transportation system is inordinately inadequate and outdated when it comes to pedestrian-friendly engineering design.** Over the past half-century, roadways have been designed and constructed primarily to accommodate vehicular traffic rather than pedestrians. Outdated design standards still reflect this emphasis. A result is that the transportation infrastructure leaves pedestrians at great risk, which in turn discourages walking and encourages people to overly rely on single-occupancy vehicles.

- **The more innovative engineering options have been minimally used to maximize pedestrian safety and access. The County lacks engineering options that:**

    - Make it easy for pedestrians to safely cross the street.

    - Provide convenient and safe access parallel to roadways.

    - Offer connectivity between neighborhoods, commercial, transit and recreational centers and educational facilities.

- **Many pedestrians believe they do not have adequate time to safely cross the street, and that there are not enough traffic-signal controlled crosswalks along many stretches of roadways.** This is especially a problem among senior citizens and others who have special needs.

- **Crosswalks and stop bars along major roadways in the County are generally in an unacceptable state of repair, making it difficult for drivers and pedestrians to see them clearly.**

- **Lighting along major County roadways is generally much lower than nationally accepted standards, making it difficult for drivers to see pedestrians crossing the roadway.** Most of the pedestrian fatalities from vehicular crashes have occurred along major highways which serve as transit routes, but which have low lighting levels and long distances between marked crosswalks and/or signalized crossings.

- **County staffing and budgeting for needed pedestrian traffic safety engineering changes are inadequate to meet the current challenges.**

- **Montgomery County has been slow with processing crash data that is needed to identify "hot spots" safety problems and to develop engineering solutions.**

PANEL RECOMMENDATIONS

The Panel has organized its recommendations to be consistent with the Three E's approach (Education, Enforcement and Engineering) to pedestrian safety. An additional set of recommendations regarding legislative initiatives also has been included.

The Panel views this report as an Action Plan for the County's efforts to improve pedestrian safety and enhance the walkability of our community. ***To this end, two overall recommendations are key to achieving the Panel's mission:***

1. **Designate a senior level position within the Executive Branch of the County government to coordinate and implement ongoing pedestrian and traffic safety activities.** A senior level position—possibly reporting to the County Executive and/or the Chief Administrative Officer—is essential to elevate the importance, visibility, and accountability of these efforts and to ensure the cooperation of all agencies. Additionally, this individual should be accountable to lead the County's efforts in implementing the recommendations of this report.

2. **Establish a formal County Executive-appointed advisory board confirmed by the County Council, to oversee the implementation of the Panel's final report and to provide advice to elected officials and department directors regarding priorities and needs in the area of pedestrian and bicycle safety and access.**

EDUCATION RECOMMENDATIONS

1. **Montgomery County must take the lead in undertaking a comprehensive, ongoing public awareness/social-marketing campaign.** To ensure the greatest positive impact on both drivers and pedestrians, the campaigns should integrate:

   - A cooperative partnership with ongoing law enforcement activities, as well as with public and private sector stakeholders. This should include health and safety advocacy organizations, local media, schools, civic and neighborhood associations, state and municipal governments, the business community, and those with special needs such as senior citizens, persons with disabilities and for those for whom English is a second language.

   - Partnering and/or sponsorships with outside entities to maximize the overall success of the educational efforts.

   - Attitudinal surveys to track public opinion on pedestrian and traffic issues.

2. **Pedestrian safety curriculum should be included as a mandatory unit in school health programs/classes in grades K through 8.** Currently, the material is available but left up to the teachers' discretion to include it in the classroom. Appropriate student measurement should determine the effectiveness of this addition to the safety curriculum.

3. **Pedestrian safety segments should be included in all ESOL classes** with appropriate student measurement.

4. **The State should expand pedestrian safety material in the MVA handbook and private driver training schools course curriculum.**

5. **The MVA driver's exam should include mandatory questions about pedestrian safety.**

6. **A pedestrian safety segment should be included in driver improvement classes.**

ENFORCEMENT RECOMMENDATIONS

1. **Law enforcement agencies must step-up and maintain an ongoing and visible pedestrian and traffic safety enforcement effort to combat dangerous driver and pedestrian behavior, such as aggressive driving, drunk driving, red light running, excessive speeding and jaywalking.**

   - Police chiefs and district commanders must repeatedly reinforce the importance of pedestrian safety to their officers as part of their day-to-day duties and responsibilities.

   - Montgomery County police officers must routinely make enforcement of pedestrian-traffic safety laws a top priority.

   - Frequent, targeted and visible pedestrian-traffic safety enforcement initiatives should be undertaken in cooperation with a comprehensive educational and media outreach program.

   - Appropriate measures should be developed by County and local police to gauge their enforcement efforts.

2. **Dramatically reduce excessive speeding through increased enforcement.** The results of these efforts should be used as one of the major performance measures of law enforcement agencies in Montgomery County and the Department of Public Works and Transportation. The desired outcome should be an increase in the percentage of roads whose top operating speed (85th percentile) is at or below the posted speed limit.

3. **Increase enforcement of pedestrian right-of-way in crosswalks:**

   - Special emphasis should be placed on “cluster areas” such as Central Business Districts (CBDs) and high collision “hot spot” locations by targeting them for increased pedestrian-traffic safety enforcement.

   - Primary focus should be on achieving substantial motorist compliance with pedestrian-traffic safety laws, particularly pedestrian right-of-way in crosswalks.

   - Enforcement efforts should also focus on pedestrian compliance.

   - All Montgomery County police officers should be provided a “law card” as a reference that lists all pedestrian-related traffic safety laws.

   - Effectiveness shall be measured by monitoring the number of pedestrian crashes in crosswalks.

4. **Increase resources and revenues to support Montgomery County's traffic safety enforcement.**

5. **Pedestrian traffic safety law violations must be aggressively adjudicated by the court system.** In cooperation with representatives of the County's judicial, legal, law enforcement and executive branches of the government, the Criminal Justice Coordinating Committee should present to the County Executive and Advisory Board an annual report on pedestrian traffic safety violations and their outcomes.

6. **Improve the collection and publication of data concerning traffic safety law enforcement.**

   - Each year, Montgomery County should publish a comprehensive list of ticketed violations for each traffic offense in the County.

   - The total fines paid for these offenses in Montgomery County should be computed and compared with the funds the County receives from the State of Maryland for traffic enforcement efforts.

7. **Law enforcement agencies in Montgomery County should analyze the location of pedestrian deaths and injuries in cooperation with DPWT.**

   - These should be compared to the number of tickets issued for traffic safety law violations in that same area to determine whether lax compliance is a contributing factor, and/or targeted enforcement is needed at certain "hot spots."

   - Better data is needed to determine areas and intersections in the County where pedestrians, bicyclists and drivers are at greater risk because of dangerous driving behavior, insufficient enforcement efforts, or underlying facility design deficiencies.

8. **Expand the human and technological resources available to the County Police Department to enforce traffic safety laws.** School crossing guards, bus drivers, County Transportation and Ride-On staff should be encouraged to report traffic violations of offending drivers by phone call or letter. Law enforcement technology should be routinely used throughout the County to step up traffic enforcement efforts, including red light cameras and speed monitoring devices.

9. **Involve the public in traffic safety enforcement efforts.** A central phone number should be posted on all County vehicles (police, Ride-On, DPWT, Park and Planning, school buses, etc.) for citizens to call to report unsafe driving by noting the vehicle's license plate number. There should be zero tolerance for County employees who do not scrupulously obey traffic laws and the public should be encouraged to report County employees that commit violations.

10. **Continue an aggressive recruitment campaign to fill all County Police vacancies.** These vacancies are currently significant and continue to grow in numbers, impacting resources normally devoted to pedestrian traffic safety enforcement efforts.

ENGINEERING RECOMMENDATIONS

1. **Montgomery County and the State of Maryland should embrace and proactively implement a Pedestrian Safety Engineering Tool Box that contains many of the most effective and innovative engineering options available to make our County a safe and walkable community.** These tools include countdown pedestrian signals, in-pavement crosswalk lights, traffic channelization, road diet devices and other traffic calming techniques. (SEE PAGES 39-47 FOR THE COMPLETE ENGINEERING TOOL BOX).

2. **The Pedestrian Safety Engineering Tool Box solutions should address three primary needs of pedestrians:** adequate pedestrian access parallel to roadways, the ability of all pedestrians to safely cross roadways, and safe walking routes that connect communities to schools, transit, recreational facilities, commercial and retail areas, and other communities.

3. **Montgomery County's roadway, intersection, sidewalk, and streetscape design standards should be brought into full conformity with the most innovative, pedestrian-friendly national design guidelines. The State of Maryland should also embrace engineering options to maximize pedestrian safety and access.**

4. **M-NCPPC should include a section addressing pedestrian access and safety in all Master Plans and Sector Plans.**

5. **The County should require that all public and private construction projects include a "Pedestrian Impact Statement," including a process for review by the County to maximize pedestrian safety and access.**

6. **The County should continue enhancements of its collection and use of pedestrian and vehicular crash data.** Success will be indicated when crash locations are mapped on a regular basis, by type for each year and groups of years, backed up by supporting analysis and detail, and are used to identify, design and prioritize solutions ranging from transportation facility reconstruction to enforcement actions. In addition, it is recommended that citizen complaints about troublesome pedestrian and traffic safety conditions be tracked and analyzed for potential problems.

7. **Montgomery County should carry out a countywide "Safe Routes to Schools" program to maximize safety and access for students at all schools for limits set for bus service (i.e., two miles for high schools).** A safe route to school should also be ensured for students walking to their school bus stops. The effectiveness will be measured by tracking pedestrian crashes and choice of walk access (as compared to driving, being dropped off, etc.) by students and their parents.

8. **Reassess adequacy of all pedestrian signal timings.** Where insufficient time exists to cross the street, additional time should be provided, or sufficient pedestrian refuge islands, additional pedestrian signals, and reliable, pedestrian-activated push buttons should be provided in the median to make a safe crossing. Pedestrians should be given priority at all traffic signals within business districts, school zones, recreation, and high-density residential areas. To reduce collisions, intersections with high pedestrian and motor vehicle volumes should have a dedicated signal phase. The effectiveness would be measured by tracking crashes at these locations.

9. **Relocate inconveniently placed and mid-block bus stops closer to intersections to encourage transit-using pedestrians to use crosswalks.** Ideally, all bus stops should be immediately adjacent to safe crosswalks. The effectiveness of this action will be measured by tracking collisions and use of crosswalks by bus patrons.

10. **Provide safe ADA-compatible crossings at all bus stops.** Where existing bus stops do not meet this criterion, an ADA-compatible crossing should be constructed, the bus stop should be moved or, as a last resort, the bus stop should be eliminated. An assessment of all existing bus stops should be completed in six months and necessary changes made in the following six months. The effectiveness will be measured by tracking crashes and use of crosswalks at these locations.

11. **Public and major private building entrances, especially for schools and other facilities serving the youth and aged, should similarly be located with reference to safe ADA-compatible street crossings.** Design review should guard against sitting major entrances where crossings are unsafe. Existing problem areas, evidenced by pedestrian crashes or unsafe behavior, should be corrected with building retrofits, crosswalk additions or modifications, or erection of pedestrian barriers (least desirable unless temporary).

12. **Install additional traffic signals in Central Business Districts (CBD's) and other high activity locations to give pedestrians more locations to cross streets safely by controlling traffic flow and speed.**

13. **Reduce the number of right-turns-on-red, or limit them to off-peak hours, at intersections within Central Business Districts, other high-density areas, and frequent crash "hot spot" locations. The effectiveness of this change will be measured by tracking collisions at these locations.**

14. **Undertake a review of the speed limits on County and State roads to ensure that speed limits are realistic and reflect operating conditions and adjacent development patterns.** Where the average speed is in excess of the posted speed limit, remedial engineering measures should be undertaken to reduce speeds. Conditions that would require full-time enforcement of the speed limit should be eliminated.

15. **Include public compliance with the posted speed limits as part of the performance measures of both the Police Department and the Department of Public Works and Transportation.** The desired outcome measure should be an increase in the percentage of roads whose 85th percentile operating speed is at or below the posted speed.

16. **Road widening projects should anticipate potential speeding problems that often develop during non-peak hours, and include a plan to control speeds as part of their design.** Developers should design their on-site roads in such a way that future speeding problems are avoided.

17. **Replace all pedestrian crossing signs with the new florescent yellow/green signs in all school zones by the end of calendar year 2002.** Funding was eliminated from the FY02 budget at the point when only 40 percent of the old signs had been replaced. The effectiveness of these signs will be measured by tracking crashes at these locations.

18. **"Stop for Pedestrians" paddle signs should be placed at the roadway centerline at all unsignalized crosswalks in CBD's and other areas of high pedestrian activity to reinforce pedestrians' right-of-way.** Signs should be posted at the gateways to CBD's and other commercial areas noting the maximum fine for failure to yield to pedestrians ($500), similar to what is done for littering, which has a maximum $1000 fine.

19. **Fully fund the County's crosswalk re-striping program, shorten the current five-year re-striping cycle to every two years along major highways and arterials, and annually in school and transit zones.** Agencies receiving permits for work in the roadway should be required to post a bond and replace pavement markings within three days of completing repaving operations. Failure to replace the pavement markings should result in loss of the bond and a freeze on any future permits until the work is done.

20. **The lighting policy for State roads should be revised to reflect the recommendations of the Illuminating Engineering Society of North America (IESNA), which is the policy being adopted by DPWT.** An assessment of the existing lighting levels of all State roads should be done and remedial measures taken where needed, giving priority to transit routes and commercial and high-density pedestrian and residential areas.

21. **Once DPWT's lighting policy revision has been finalized, an assessment of the existing lighting levels of all major highways and arterials should be done and remedial measures taken where needed, giving priority to transit routes and commercial and high-density residential areas.**

22. **Adopt American Association of State Highway and Transportation Officials (AASHTO) recommendations for barriers to protect pedestrians on bridges and along roadways. Where a guardrail is located behind the sidewalk, it should be relocated to the curb line.**

23. **Locate ADA-compliant handicap ramps to provide the safest and shortest crossing for pedestrians.** Each corner of an intersection should have two ramps.

24. **Designate the pedestrian safety coordinator as the staff person responsible for disseminating ADA information within DPWT.**

25. **Provide adequate funding to DPWT for necessary pedestrian traffic safety engineering changes to meet the current challenges.**

LEGISLATIVE RECOMMENDATIONS

1. **Establish a "Homicide by Aggressive Driving" statute.**

2. **Establish a "Felony hit-and-run" statute.** Currently, fleeing a scene of a fatal or serious-injury crash is only a misdemeanor.

3. **Enact legislation to allow the use of photo enforcement cameras to ticket vehicles exceeding the posted speed limit.**

4. **Support legislation (HB 130) that would increase the State's share of building sidewalks and bicycle pathways along State roads to 80%.** Currently, the State has a 50/50 share with the counties and municipalities.

5. **Double the fines against traffic law violators in school zones.**

6. **Remove the "must appear" in court provision in Maryland law [TR § 21-502, Pedestrians' right-of-way in crosswalks, (2) and (c)].** This significantly reduces the amount of time police officers must spend in court, and will encourage more active enforcement of this failure-to-yield-to-pedestrian law.

7. **Increase penalties against repeat offenders of traffic safety laws.**

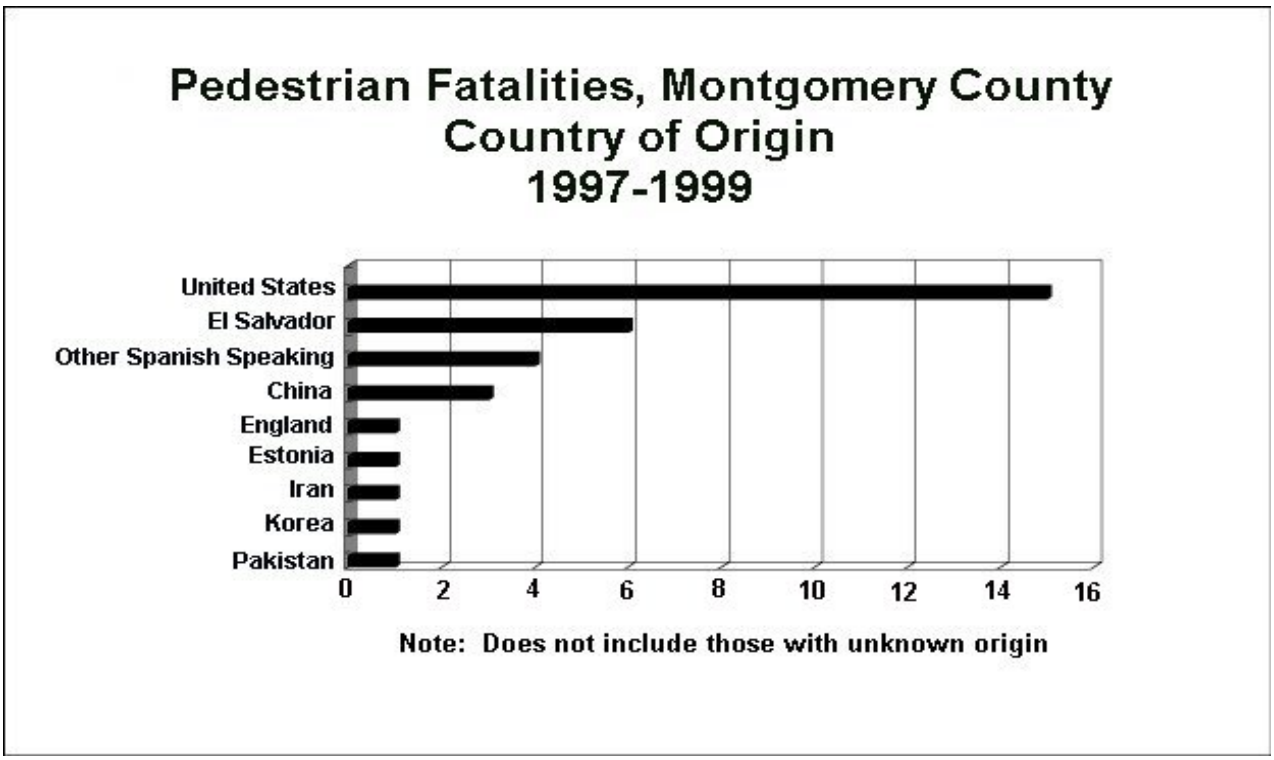
8. **Increase penalties against repeat offender drunk drivers, drunk drivers who test more than twice the .08 BAC legal limit, and suspected drunk drivers who refuse to take the BAC test.**

9. **Institute new penalty targeted at drivers blocking crosswalks and intersections (Don't Block the Box).** While the offense (at intersections) is technically the same as red-light-running, the new fine should be set without points on the license to encourage substantial police enforcement.

10. **State and County should enact budgets that increase funding for traffic safety enforcement, education and engineering.**

11. **The County should conduct a thorough review of Maryland State pedestrian traffic safety law violations to determine if the severity of the penalty/punishment is commensurate with the offense to ensure it serves as an effective deterrent.**

DATA



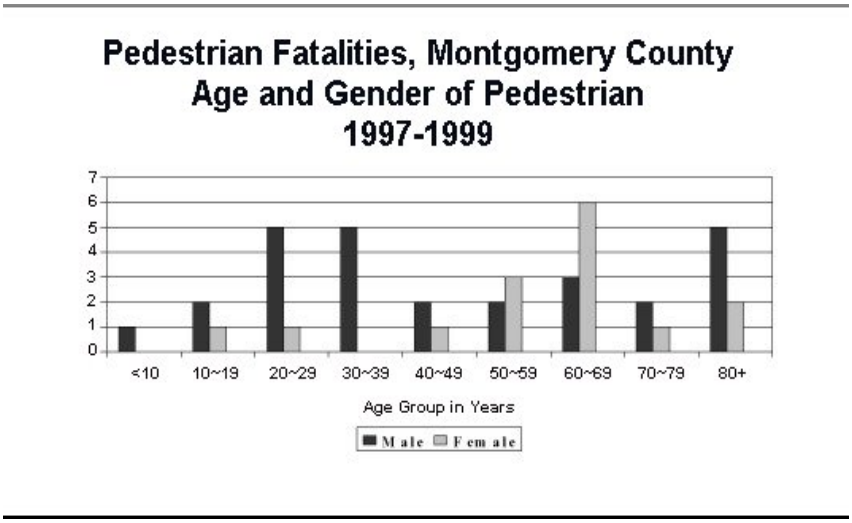
[12]

From 1997-1999, there were 41 pedestrian fatalities in Montgomery County. More than half of these deaths involved persons born outside of the U.S.

Locations with an above-average number of pedestrian collisions [13]

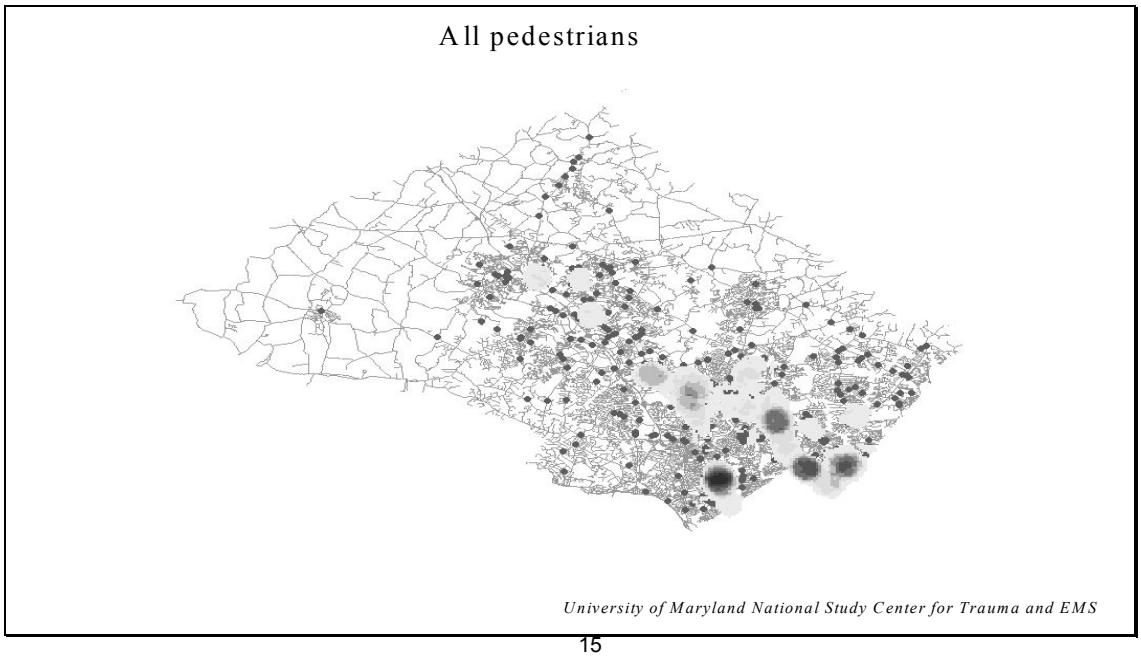
# of pedestrians struck 1997-1999	Location	Community
11	Wisconsin Circle/Wisconsin Ave.	Friendship Heights
9	Carroll Ave./Piney Branch Rd.	Takoma Park
8	Viers Mill Rd./Atlantic Ave.	Rockville
5	Georgia Ave./Colesville Rd.	Silver Spring
5	University Blvd./Amherst Ave.	Wheaton
5	East-West Hwy./Colesville Rd.	Silver Spring
4	Layhill Rd./Georgia Ave.	Glenmont
4	Twinbrook Pkwy. /Viers Mill Rd.	Rockville
4	Piney Branch Rd./Garland Ave.	Silver Spring
4	Piney Branch Rd./Barron St.	Takoma Park

[12] Montgomery County Police Department, 1997-1999
[13] Maryland Department of Transportation, State Highway Administration, Office of Traffic and Safety, Traffic Safety Analysis Division



14

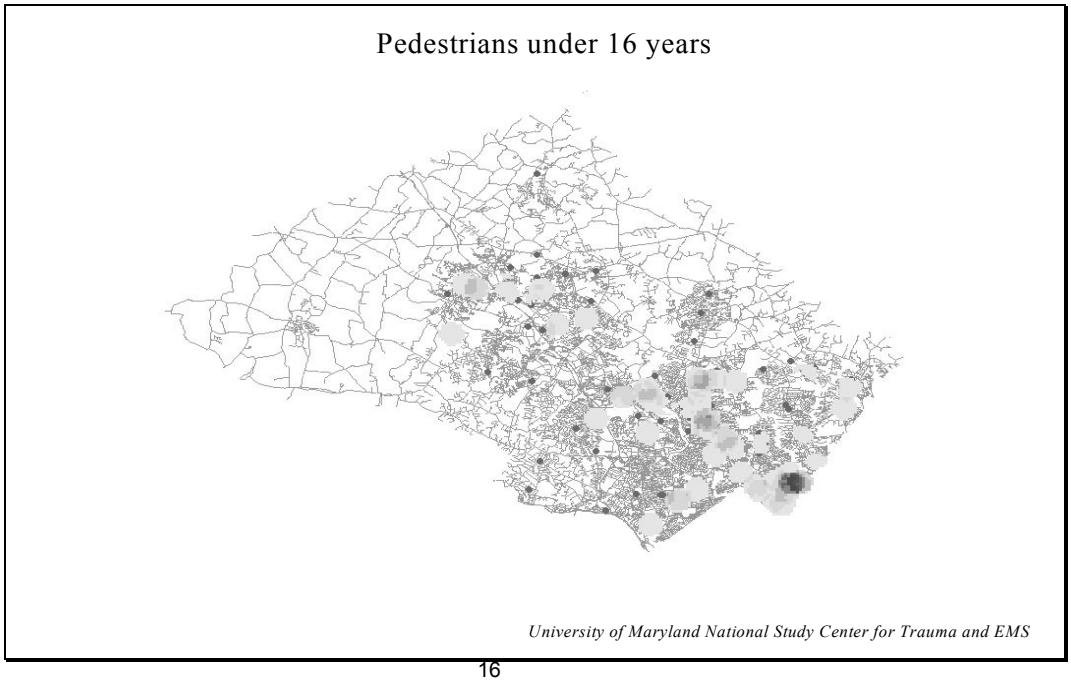
The following maps indicate the approximate locations in Montgomery County where large numbers (clusters) of pedestrian crashes occurred in 1999. Darker colored clusters represent a higher density of crashes. Data representing all pedestrian crashes, pedestrians under 16 years of age, and pedestrians over 55 years of age is provided in the following graphs.



15

[14] Montgomery County Police Department

[15] Map courtesy of University of Maryland National Study Center for Trauma and EMS. 1999. Maryland Crash Outcome Data Evaluation System. Funded by the National Highway Traffic Safety Administration DTNH22-00-H-07012



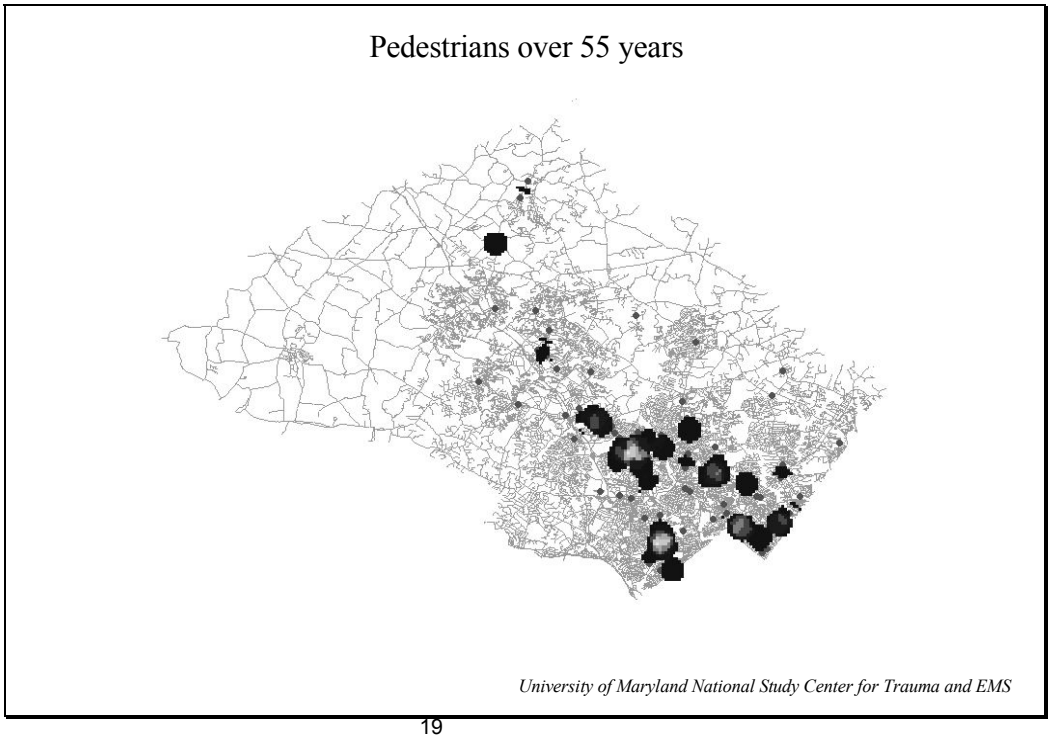
[16]

- On average, from 1996-2000, 25% of Montgomery County pedestrians involved in a crash (injuries and fatalities) were under the age of 16.[17]

- According to U.S. Census data (2000), persons under 16 years of age represented 25% of the County's total population.

Research demonstrates that while there are more children involved in traffic crashes (as motor vehicle passengers) than are hit by cars, childhood pedestrian injuries are more likely to be serious. Studies have shown that children under the age of ten years old are not yet capable of crossing a roadway alone. Young children have not fully developed an awareness of the direction of sound (e.g., an approaching car), peripheral vision, focus and concentration levels, or a proper judgment of a car's speed and distance until after the age of ten.[18]

[16] Map data courtesy of University of Maryland National Study Center for Trauma and EMS. 1999. Maryland Crash Outcome Data Evaluation System. Funded by the National Highway Traffic Safety Administration DTNH22-00-H-07012
[17] Maryland State Highway Administration, Office of Traffic and Safety, Traffic Safety Analysis Division
[18] National Highway Traffic Safety Administration



19

- 62% of Montgomery County pedestrians involved in a crash (injuries and fatalities) were 55 years old or older.[20]

- According to U.S. Census data (2000), persons over 65 years of age represented 11% of the County's total population.

The Insurance Institute for Highway Safety reports that individuals 80 years and older have the highest pedestrian death rates per 100,000 people. [21] Overall, pedestrians age 65 and older are more than 5 times as likely to die in crashes than pedestrians aged 14 or less. This population is at particular risk for pedestrian injury due to their reliance on walking as a primary means of transportation, as well as cognitive and physical processes that become slower as age increases.

[19] Map data and statistics courtesy of University of Maryland National Study Center for Trauma and EMS. 1999. Maryland Crash Outcome Data Evaluation System. Funded by the National Highway Traffic Safety Administration DTNH22-00-H-07012

[20] Maryland State Highway Administration, Office of Traffic and Safety, Traffic Safety Analysis Division

[21] Insurance Institute for Highway Safety, Highway Loss Data Institute

Montgomery County Fatalities & Pedestrian Fatalities

	1995	1996	1997	1998	1999	2000
All Fatalities [22]	69	49	53	47	49	56
Pedestrian Fatalities [23]	18	15	11	12	18	16
Percent Pedestrian Fatalities	26%	31%	21%	26%	37%	28%

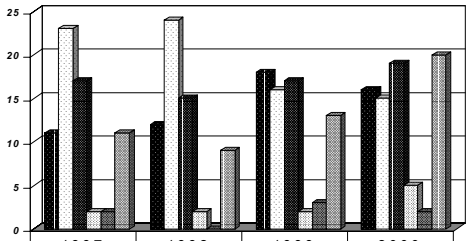
Statewide Fatalities & Pedestrian Fatalities [22]

	1995	1996	1997	1998	1999
All Fatalities	684	614	610	606	598
Pedestrian Fatalities	128	123	105	101	119
Percent Pedestrian Fatalities	19%	20%	17%	17%	20%

The above charts reflect the comparison between County and State pedestrian fatalities, and the percentage of all traffic fatalities that pedestrian deaths represent. As noted earlier, pedestrian fatalities as a percentage of all traffic fatalities in Montgomery County have exceeded State figures since 1995.

Charts 24 and 25 demonstrate where Montgomery County ranks in the number of pedestrian injuries and fatalities among the surrounding jurisdictions of Prince George's County, District of Columbia, Arlington and Fairfax Counties, and the City of Alexandria.

PEDESTRIAN FATALITIES

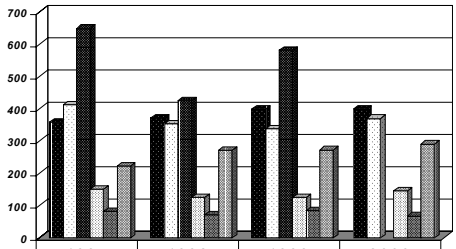


	1997	1998	1999	2000
Montgomery County	11	12	18	16
Prince George's County	23	24	16	15
DC	17	15	17	19
Arlington County	2	2	2	5
City of Alexandria	2	0	3	2
Fairfax County	11	9	13	20

24

[22] Maryland State Highway Administration, Highway Safety Office
[23] Montgomery County Police, Collision Reconstruction Unit
[24] MD State data courtesy of MD State Highway Administration; D.C. data courtesy of D.C. Police Department, Major Crash Unit, and the District Division of Transportation; VA State data courtesy of Virginia Department of Transportation

PEDESTRIAN INJURIES



	1997	1998	1999	2000
Montgomery County	358	370	398	398
Prince George's County	411	352	338	369
DC	648	424	581	N/A
Arlington County	151	124	124	145
City of Alexandria	82	71	83	67
Fairfax County	223	270	272	290

25

[25] MD State data courtesy of MD State Highway Administration; D.C. data courtesy of District Division of Transportation; VA State data courtesy of VA Department of Transportation

PEDESTRIAN SAFETY ENGINEERING TOOL BOX

The tools exist for revolutionizing pedestrian-traffic safety and creating walkable communities. Providing engineers with these proven innovations would not only enhance the quality of life, but also put Montgomery County among pioneering jurisdictions around the nation who are at the forefront of walkability engineering. The Panel recognizes that rarely will a single tool box item solve a problem on its own, and a combination of these engineering solutions should be tailored to the specific problem.

The following items are a listing of engineering and design options that positively impact pedestrian safety:

1. **Additional/Modified Signage**

2. **Barriers** can direct pedestrians to the desired crossing location while preventing the pedestrian from crossing at an undesired or less safe location.
    - Fences
    - Shrubbery
    - Uncomfortable median surfaces

3. **Buffer Zones** are provided to separate pedestrians from the street:
    - Grass strips
    - Bicycle lanes

A buffer zone of grass and trees provides pedestrians additional separation from traffic. (Photo by Cara Seiderman)

4. **Chokers** are curb extensions that narrow a street by widening the sidewalks or planting strips, effectively creating a pinch-point along the street.
   - Reduces cut-through traffic.
   - Narrows overly wide intersections, and mid-block areas of streets.

A choker on a two-way roadway narrows the street and serves as a traffic calming device.
(Photo courtesy of Dan Burden, Walkable Communities, Inc.)

5. **Curb ramps** provide access between the sidewalk and roadway for people using wheelchairs, strollers, bicycles, etc.
   - Must be installed at all intersections and mid-block locations where pedestrian crossing exists (mandated by Federal legislation)

A curb ramp with a single apron incorporates landscaping into the design.
(Photo by Peter Lagerwey)

6. **Diverters and Road Closures.** A diverter is an island built diagonally across a residential street intersection that prevents certain through and/or turning movements from vehicles. A road closure can be full or partial and is accomplished by installing a physical barrier that blocks a street to vehicular traffic.

A partial street closure in Phoenix, AZ. (Photo by Cara Seiderman)

7. **Commercial Driveway Improvements.** When driveways intersect sidewalks, it is preferable to maintain the sidewalk level, and introduce visual elements and surface textures. This provides more comfortable access for pedestrians, and signals motorists to watch for pedestrians.

A commercial sidewalk should maintain a continuous, level walkway for pedestrians.

8. **Maintenance of adequate sight distances**
   - Removal of newspaper boxes
   - Maintenance of overgrown landscape obstacles such as foliage

9. **Marked Crosswalks** indicate locations for pedestrians to cross and alert motorists to yield to them. They can be raised, or installed in conjunction with other enhancements (*i.e.* embedded crosswalk lights or enhanced signage) that physically reinforce crosswalks and reduce vehicle speed. The crosswalk material should not be slippery or create trip hazards to the pedestrian.

The “ladder” pattern is more visible to motorists and requires less maintenance if painted to allow the tires of motor vehicles to track between the paint lines.
(Photo by Peter Lagerwey)

Pedestrians cross at a crosswalk equipped with flashing lights embedded in the road pavement. Some can be activated when a pedestrian enters the crosswalk, while others require the pedestrian to push a button which immediately activates the flashing lights. Most designs also include flashing pedestrian crossing signs that also help alert oncoming traffic that pedestrians are in the crosswalk.

10. Median/Refuge Islands

- Raised barriers in the center portion of the street or roadway can offer a safe point for pedestrians who cross a street mid-block or at intersections.
- Provide space for street landscaping which can help reduce speeds by changing the character of a street.
- Provide separation of traffic flow for motorists

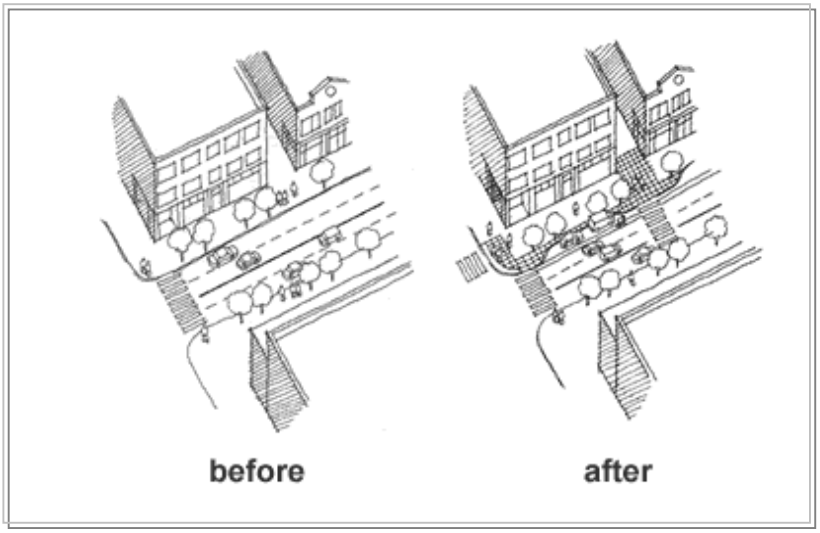
Crossing islands allow pedestrians to watch for traffic coming from one direction at a time. (Photo by Cara Seiderman)

A wide refuge island was installed on the median of a four-lane highway with fencing to channelize pedestrians diagonally across the island so that they see on-coming traffic. Pedestrians have push button traffic control device at their fingertips at both ends of the crosswalk and on the refuge island.

11. Parking Enhancements (On-street parking)

- Provide a barrier between moving vehicles and pedestrians along a sidewalk
- Aid in reducing vehicular speed along the street

12. Road Diets reduce the number of lanes for vehicular traffic:



13. Right-turn Lane Channelization

Well-designed slip lanes at a busy, wide intersection. The crosswalks are located to allow the greatest visibility between the drivers and pedestrians.

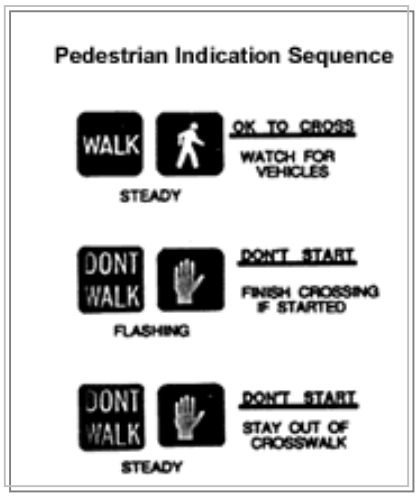
14. Sidewalks and Walkways separate pedestrians from the roadway and improves mobility and safety for pedestrians.

15. Overpasses and Underpasses provide complete separation of pedestrians from vehicular traffic, and offers crossings where no other pedestrian facility is available.

16. Pedestrian Signals

- Should be used at all signals where a pedestrian is allowed to cross unless pedestrian traffic is extremely low.
- Pedestrian signals can also provide pedestrian-only phasing in a traffic light cycle.
- It is important to ensure that the pedestrian signal is visible to the pedestrian and that any pushbutton features are accessible to all. Signals may be supplemented with audible messages for visually impaired pedestrians.
- Countdown signals indicate to the pedestrian the amount of time that is available to cross the road.

A pedestrian “walk / don’t walk” signal with a countdown timer to let pedestrians see numerically much time they have to cross the street.



The cycle of a “standard” pedestrian signal.

A traffic control button at a crosswalk allows pedestrians to speed up the traffic light cycle so they can cross safely with a signal.

A crosswalk equipped with bright red flags that pedestrians can carry while crossing the street to alert motorists to their presence.

17. Street Furniture

- Pedestrian walking areas should be kept clear of poles, signposts, newspaper racks and other obstacles such as shrubbery.
- Benches, water fountains, bicycle racks and other street furniture should be carefully placed out of the pedestrian walking area.

An example of smart street furniture placement in Portland, OR.
(Photo by Cara Seiderman)

18. Street Lighting

- Street lighting should be adequate, not excessive.
- It is best placed along both sides of the street so to provide a consistent level of lighting along a roadway.
- In commercial or downtown areas, specialty pedestrian level lighting may be placed over the sidewalks to improve pedestrian comfort, security and safety.

19. Stop lines

- Improve visibility of a pedestrian to the motorist.
- Gives a motorist who initially fails to see the crosswalk more time to stop.

Effective use of stop lines enhances safety.
(Photo by Peter Lagerwey)

20. Traffic Calming

- Street designs that create visual and physical cues that encourage drivers to travel at appropriate speeds.
- Traffic calming is self-enforcing, which makes it more likely that motorists will obey yields, stop signs, speed limits, etc.
- Examples of traffic calming devices include speed humps, roundabouts, gateways and reduction of roadway width.

A serpentine street is a curving roadway that encourages slower speeds through the use of curbs and landscaping (Photo by Cara Seiderman)

A small traffic circle in the middle of a neighborhood Intersection is used as a traffic-calming device.

A bulb-out at an intersection reduces the time it takes pedestrians to cross the street, preserves the curb lane for parking, and serves as a traffic-calming device. (Courtesy of Dan Burden, Walkable Communities, Inc.)

21. Transit Stops

- Should be located at intervals that are convenient for passengers.
- Should be a safe and comfortable place for passengers to wait.
- For safety, transit stops should be located at or near convenient crossings.

Appendix A

Blue Ribbon Panel Members and Staff

Adams, Harold
Montgomery County Office of Budget and Management
Anderson, Brandy
Director, Public Policy, Mothers Against Drunk Driving, Washington, D.C.
Anderson, Lon
Director, Public and Government Relations, Potomac Chapter, AAA
Aoyagi, Gordon
Montgomery County Fire Administrator
Barclay, Donald
Bethesda Civic Activist
Brady, Anita
Resident of Mid-County Area
Bronrott, William A. (Chair)
Member of House of Delegates, District 16
Buddington, Cindy
Montgomery County Commission on People with Disabilities
Cole, Larry
Maryland National Capital Park and Planning Commission
Delaney, William
Montgomery County Fire Rescue Services
Dunckel, Jeff
Montgomery County Department of Public Works and Transportation
Downey, Leslie
Silver Spring Area Resident
Former Chair of Transportation Committee of Blair High School PTSA
Franchot, Peter
Member of House of Delegates-District 20
Chair of House Appropriations Committee on Transportation and Environment
Gansler, Douglas
State's Attorney for Montgomery County
Garvey, M.D., Carol
Montgomery County Health Officer Representing Chuck Short, Director, Montgomery County Department of Health and Human Services
Genetti, Al
Director, Montgomery County Department of Public Works and Transportation
Gillan, Jacqueline
Vice President of Advocates for Highway and Auto Safety
Helm, Alice
Montgomery County Commission on Aging
Kamat, M.D., Miguel
Bethesda Activist
Lanham, William
Lieutenant; Deputy Director, Special Operations Division, Montgomery County Police
Loehr, Charles
Park and Planning Director, Maryland National Capital Park and Planning Commission

Loughery, David
Montgomery County Department of Public Works and Transportation
Mandel, Adrienne
Member of House of Delegates-District 19
Matthews, John
Department of Transportation, Montgomery County Public Schools
McGuire, Kim
Resident of UpCounty Area
Student, Damascus High School
McMillan, Linda
Montgomery County Council Staff
Miller, Pam
Advertising Executive; Executive Director, Safe Neighborhood Day, Inc.
Moose, Ph.D., Charles
Montgomery County Police Chief
Morella, Christine
Montgomery County Pedestrian Safety Assistant
Moulden, John
President, National Commission Against Drunk Driving; President, Transportation Safety Associates
Nachman, Gail
Chief Policy Officer, Montgomery County Department of Health and Human Services
Navid, Sarah
Montgomery County Department of Permitting Services
Praisner, Marilyn
Montgomery County Council-District 4
Pratt, Richard
Transportation Planning Consultant and Traffic Engineer
Smith, Walter
Vice President of Communications, GEICO
Sprague, Sheila
Montgomery County Office of Intergovernmental Relations
Stanton, Margo
Montgomery County Traffic Safety Coordinator
Vaughey, Cornelius
District Court Judge; Vice Chair of Montgomery County Criminal Justice Coordinating Commission
Watkins, Charlie
District Engineer, Maryland Department of Transportation, State Highway Administration
Watts, Robyn
Resident of East Montgomery County
Wetmore, John
Producer, "Perils for Pedestrians" Show
Wilkinson, Bill
Executive Director, National Center for Bicycling and Walking
Wroe, Tracy
Montgomery County Department of Public Works and Transportation

Appendix B

Summary of Community Input

Much of the input from community members involved concerns over crosswalks and sidewalks, specifically the repairing and installing of each. Citizens also raised issues of street lighting improvements, bus stops and bus shelters, pedestrian access and safety for persons with disabilities, and more particular matters dealing with a specific roadway or intersection. Enforcement of aggressive driving, red light running, and failing to yield to a pedestrian were also points of great concern to the community.

"All new shopping centers and development must be built with safe pedestrian access… "
-Citizen comment from June 6, 2001 Pedestrian Safety Forum

"Pedestrian crosswalks placed mid-block are often awkwardly placed and not completely understood by drivers–more education is needed to teach drivers that they must yield to pedestrians in all crosswalks…"
-Citizen comment from May 10, 2001 Pedestrian Safety Forum

"Please consider engineering that accommodates bicycles as a means of transportation, not just recreation".
-Citizen comment in letter to the Blue Ribbon Panel 6/13/01

"Your recommendation about providing modern data bases to provide factual information to use in improving road and pedestrian safety is right on target!"
-Citizen comment to Interim Report 2/9/01

"…by walking, pedestrians are helping to reduce pollution and traffic, thereby contributing to improve the quality of life in our area".
-Citizen comment in letter to Panel 12/15/00

Appendix C

Presentation Speakers

- Patricia Barnhart, Project Manager, Maryland Department of Transportation
- Richard Baier, Director, Transportation and Environmental Services, Alexandria, VA
- Marie Birnbaum, Board Member of Walk, D.C.
- Dan Burden, Director, Walkable Communities, Inc.
- Michelle Garland, Surface Transportation Policy Project; Mean Streets Report
- Russ Henke, Montgomery County Public Schools, Health Education Coordinator
- Kristie Herbert, Senior Research Associate, Old Dominion University; Co-author for VA DMV study "Best Practices in Pedestrian Safety: Overview of Crash Data Programs and Knowledge of Pedestrian Rights and Responsibilities."
- Tim Kerns, National Study for Trauma and Emergency Medical Services, University of Maryland Medical Center
- John Moffat, Director, Washington State Traffic Safety Commission
- Ritch Viola, Pedestrian and Bicycle Coordinator, Department of Public Works, Arlington, VA

Appendix D

Public Education Pedestrian Safety Campaign Activities

- Video public service announcement (PSA) donated to County, airing on local cable television
- County-produced radio PSA
- County-produced print ads
- County-produced Ride-On bus cards in both English and Spanish
- County-produced reflective wrist bands (slap bracelets) distributed to Ride On bus passengers for increased visibility during early morning and late evening commutes
- County-produced bookmarks, reviewing the Do's and Don't for safe walking. Provided in both English and Spanish, and distributed to local libraries, apartment managers, and all Blue Ribbon Panel events.
- Montgomery County Police distributed flyers to jaywalkers in targeted areas where pedestrian safety has been of particular concern. The flyers offer tips for safe walking.
- Creation of a Pedestrian Safety link on the County's website
- Production by the County's cable television station of two shows on pedestrian safety
- Translation of the "Walk Smart, Drive Smart" ad slick into multiple languages and distributed to all school families in the County (over 100,000 distributed)
- Safe Neighborhood Day event–a grassroots effort by local mothers to remind drivers to slow down and watch for children and other pedestrians
- School Safety kick-off event for the start of summer. Event reminds citizens that children are out of school for the summer and to drive with care.
- Blue Ribbon Panel on Pedestrian and Traffic Safety hosted booths at County events such as Taste of Wheaton and the Latin American Heritage Festival

Appendix E

MONTGOMERY COUNTY BLUE RIBBON PANEL
ON PEDESTRIAN AND TRAFFIC SAFETY

Delegate William Bronrott, *Chair*

Monday, January 15, 2001

The Honorable Douglas M. Duncan
Montgomery County Executive
101 Monroe Street
Rockville, Maryland 20850

Dear ~~Mr.~~ Duncan: Doug

When you established the Montgomery County Blue Ribbon Panel on Pedestrian and Traffic Safety last year, you charged the Panel with submitting a comprehensive countywide set of inter-related recommendations to significantly reduce pedestrian deaths and injuries. While the Panel's final report is not due until December, you encouraged the Panel to issue interim recommendations for the County's current FY 2002 budget cycle and the 2001 General Assembly session.

The Panel has been meeting regularly, and we have had several presentations from local and national pedestrian-traffic safety specialists. We have also heard from County department and agency heads who are stakeholders in the County's pedestrian safety activities. Future Panel meetings will include public forums where experts and citizens will have an opportunity to testify.

We all agree that crossing the street in Montgomery County should not feel like a death-defying act. Yet from 1997 through 1999, more people were killed trying to cross the street than in homicides in Montgomery County. The Panel members share your commitment to taking meaningful steps to prevent these needless tragedies in the future.

I am pleased to present you with the attached set of preliminary recommendations that have emerged thus far from Panel discussions, presentations and research for your consideration and inclusion in the FY02 Operating Budget. Keeping in mind the "Three E's" approach (Education / Enforcement / Engineering), we have also included interim recommendations in other related pedestrian-traffic safety areas that deserve immediate attention.

We share your goal of making our streets and communities safe and walkable, and we applaud your leadership on this vitally important public health and safety concern. Again, thank you for this timely opportunity to submit this interim set of recommendations to encourage greater pedestrian safety within the context of the County's FY02 budget.

Sincerely,

Bill Bronrott

Delegate William A. Bronrott
Chair, Montgomery County Blue Ribbon Panel on Pedestrian and Traffic Safety

Bethesda-Chevy Chase Services Center

4805 Edgemoor Lane • Bethesda, Maryland 20814-5305
301/986-4325, TDD/TTY 301/986-4327, FAX 301/657-0607
email: pedestrian.safety@co.mo.md.us

PRELIMINARY RECOMMENDATIONS FOR ACTION DURING FY2002

An Interim Report to Enhance Pedestrian Safety in Montgomery County
January 15, 2001

ASSURE SUFFICIENT FUNDS IN FY02 BUDGET TO ENHANCE PEDESTRIAN SAFETY:

1. Additional data entry resources for the Police Department. Instruct the Police Department and the Department of Public Works and Transportation (DPWT) to work in cooperation with each other and with the Department of Human Health and Services, and with the appropriate State of Maryland agencies, to establish a state-of-the-art traffic crash data system that readily provides for geographical, statistical and engineering analysis of pedestrian and vehicle crash records for the enhanced use of crash data in injury prevention through engineering design, maintenance, enforcement and education.
2. Designate a pedestrian-bicycle safety and access professional in DPWT to responsible for reviewing development plans, new construction projects, bus stop locations, and sidewalks to make sure they pass pedestrian safety/access muster.
3. Appoint a senior manager within the Executive Branch to coordinate and oversee ongoing inter-agency committee reviews of pedestrian-traffic safety policy and programs countywide, including planning, engineering, education and enforcement.
4. Provide funding for additional red light cameras at key intersections.
5. Assure adequate funding to carry out a continuing and targeted public communications campaign based on the "Three E's" approach that will be coupled with highly visible enforcement efforts to focus the attention of motorists and pedestrians on the health, safety and legal consequences of unsafe driving and walking.
6. Provide the resources needed to develop a longer-term comprehensive social marketing program to raise awareness and change public attitudes and behaviors regarding pedestrian-traffic safety.
7. Take the necessary steps to ensure that Montgomery County is accessing all available State and Federal funding programs for pedestrian safety activities.

In addition to the recommendations seeking additional dollars in the County's FY02 Operating Budget, the Panel recommends that you direct the appropriate County departments to take the following actions as part of their ongoing programs. We believe these activities will result in improved pedestrian safety throughout the County.

IDENTIFY AND REMEDIATE ROAD AND TRAFFIC HAZARDS:

1. Survey all crosswalks and expedite efforts to re-stripe those that are faded and/or deteriorating with new markings that maximize visibility and durability.
2. Instruct the DPWT and County Police to work in cooperation with the Maryland Department of Transportation to identify "hot spot" intersections and roadways to make design changes and additional crosswalks to maximize pedestrian access and safety, especially adjacent to schools, transit centers, community and commercial centers, and central business districts.
3. Survey all street lighting on County roads and replace/repair those lights that are not functioning and provide additional lighting where necessary.

4. Work with the State to replace/repair/add crosswalks and lighting along State roads in Montgomery County.
5. Identify those intersections that currently allow "Right Turn on Red" where there is a high volume of pedestrian traffic to determine if prohibiting the right turn would offer more protection to the pedestrians.
6. Identify streets in high density or high pedestrian traffic areas where "right turn on yields" should be changed to "stop" signs in order to maximize pedestrian safety.
7. Coordinate snow removal with State government to avoid the unintended practice of road plowing that blocks safe pedestrian access along roadways. Reach out to businesses and homeowners to impress the importance of snow removal for pedestrian access and safety.
8. Identify which existing sidewalks directly behind the curb need to be widened or relocated to ensure that they are passable at all times.
9. Develop a design waiver policy to ensure that all sidewalks are built per the applicable County standard as to width and offset from the roadway unless approved by DPWT senior management on a project-by-project basis.

INCREASE PUBLIC COMMUNICATION AND EDUCATION ON PEDESTRIAN AND TRAFFIC SAFETY:

1. Seek funding currently available from the state and federal governments for pedestrian safety programs and activities.
2. Set up and promote a central County "hotline" where the public can call the County with a pedestrian safety concerns, questions, requests or recommendations.
3. Promote the County's website and Blue Ribbon Panel's email address to encourage citizens to follow the work of the Panel and to contact the Panel with questions and suggestions.
4. Promote the County's website so that citizens can contact the County regarding pedestrian and traffic safety concerns and complaints.
5. Publicize the DPWT "Citizen's Guide to Services" telephone numbers so that citizens and business owners will know how to report street light and traffic signal outages.
6. Provide for sufficient trained staff resources to follow through on citizen contacts with the website and "hotline."
7. Bring together business representatives including the County's major employers and representatives of civic and neighborhood associations to recruit their active involvement in getting the message out through their employee publications, newsletters, etc.
8. Meet with major broadcast networks in the Washington media market to recruit their active involvement in publicizing the County's "Drive Smart, Walk Smart" pedestrian safety education and enforcement campaign.

INCREASE AWARENESS AND ENFORCEMENT OF LAWS AGAINST UNSAFE DRIVING AND PEDESTRIAN BEHAVIORS:

1. Increase the number of intersections with red light cameras, and more visibly publicize the red lighting running cameras program to deter red light running.
2. Increase warnings and citations to drivers who fail to yield to pedestrians at crosswalks and intersections.
3. Increase warnings and citations to pedestrians who cross against the light or outside of available crosswalks.
4. Publicize these stepped-up law enforcement efforts to create a widely felt perception that breaking the law will have swift and sure legal, health and safety consequences.

SUPPORT SAFETY LEGISLATION IN THE 2001 GENERAL ASSEMBLY:

1. Support legislation to allow a driver's refusal to take a blood-alcohol or sobriety test to be admissible evidence in court.
2. Support legislation to establish 0.08 percent blood alcohol concentration (BAC) as per se evidence of driving while intoxicated.
3. Support the establishment of a Maryland Pedestrian Safety Fund so that counties, municipalities and appropriate community-based advocacy groups could apply for state grants or matching grants to assist them in enhancing their pedestrian-traffic safety activities, such as "Three E's" campaigns (education, enforcement and engineering).
4. Support legislation to toughen laws related to greater pedestrian safety, such as red light running, yielding to pedestrians, aggressive driving and drunk driving.
5. Urge the Maryland General Assembly to thoroughly examine the potential effectiveness of a law that would ban or restrict (i.e., hands-free only) the use of cell phones in motor vehicles.

###

Appendix F

Appendix F

MONTGOMERY COUNTY BLUE RIBBON PANEL
ON PEDESTRIAN AND TRAFFIC SAFETY

Delegate William Bronrott, *Chair*

July 19, 2001

The Honorable Douglas M. Duncan
Montgomery County Executive
101 Monroe Street, 2nd Floor
Rockville, Maryland 20850

Dear Mr. Duncan:

While the final report of the Blue Ribbon Panel on Pedestrian and Traffic Safety is not due until December, we have taken the opportunity on several previous occasions to communicate recommendations to you and other elected officials on a variety of topics: the FY02 Operating Budget, the need for crosswalk re-striping in school zones, State and County legislation and so forth.

We would now like to offer our advice and recommendations to you as the County begins the budget planning and preparation for the next Capital Improvements Program.

The Panel has held two public meetings that gave us an opportunity to hear from experts and citizens about pedestrian and traffic safety issues. The Panel as a whole and its various committees have met numerous times over the past year to explore the status of pedestrian safety in Montgomery County, and to examine where there is room for improvements with respect to the Three E's (Education, Enforcement and Engineering).

This fall we will visit two jurisdictions in the Washington region and some model communities on the West Coast to observe firsthand the innovative pedestrian safety steps they have taken. We are also engaged in the process of benchmarking in order to benefit from the best practices of other communities in addressing these problems.

If Montgomery County is to succeed in reducing pedestrian injuries and deaths and in making our community safe and livable, investments in each of the Three E's approach will be essential. As the County prepares the next CIP, it is particularly important that we take this timely opportunity now to invest in some sorely needed traffic engineering enhancements.

We agree with the County's engineering professionals and law enforcement personnel that some intersections can be improved through relatively minor adjustments such as a change in the traffic signal patterns, enhanced visibility of signals, signage and pavement markings. Other intersections will require more complex engineering fixes.

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It is our strong recommendation that the next capital budget contain sufficient funding to carry out a highly visible set of pedestrian enhancements in a concentrated area of the County -- perhaps in an area of one of the central business districts or other highly dense areas. These enhancements might include more sidewalks, additional streetlights, pedestrian refuge islands, intersection bump-outs, innovative electronic technology, etc. This approach would succeed in encouraging more walking and the use of public transit in a more pedestrian friendly environment.

A second element of CIP funding would target several "hot spot" locations identified as having a significant number of crashes and injuries or having the potential for such incidents. Again, a variety of traffic engineering tools could be utilized depending upon the specific circumstances. A large number of these locations involve State highways, therefore coordination with SHA will be important.

We appreciate your leadership and the priority you have placed on pedestrian and traffic safety. We look forward to transmitting our final recommendations to you in December. In the meantime, we respectfully request that the County take full advantage of the next CIP to begin the long-term investment in making our community the most safe, walkable and livable jurisdiction in the state and region.

Sincerely,

Bill

William A. Bronrott
Chair

Appendix G

MONTGOMERY COUNTY BLUE RIBBON PANEL
ON PEDESTRIAN AND TRAFFIC SAFETY

Delegate William Bronrott, *Chair*

February 13, 2001

The Honorable Blair G. Ewing
President
Montgomery County Council
100 Maryland Avenue
Rockville, Maryland 20850

Dear President Ewing and Members of the County Council:

On behalf of the members of the Montgomery County Blue Ribbon Panel on Pedestrian and Traffic Safety, I am writing to convey the Panel's support for the goal and intent of Council Bill 1-01 Streets and Roads – Snow Removal. Passage of such legislation would enhance pedestrian access and safety in our residential neighborhoods. Among those that would benefit most from this legislation are elderly citizens, citizens with disabilities and school children who walk to school – three segments of our population most in need of protection.

Panel members have expressed concern about the enforcement and implementation of this legislation. Some have commented that this is an issue of civic responsibility that may be difficult to legislate. While we recognize the clear benefits to public safety, some Panel members want to raise their concerns with the legislation and to urge the Council to carefully consider these issues, as well as those raised by others, during the Committee worksessions.

- Provisions for snow removal on County maintained sidewalks that are not adjacent to homes. Since these sidewalks are currently not cleared, a continuous clear path may not be achievable.

- The sequence of events when the property owner does not comply (notification that there is non compliance, warning, citation, notify DPWT to clear, DPWT clears) may take 3 – 5 days in which case access to the sidewalks would be delayed.

- Waivers for those property owners who are physically unable to remove snow from their sidewalks.

- A hotline or some other mechanism for such individuals to obtain assistance with snow removal so they can comply with the legislation.

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- Other issues such as when does the 24-hour period actually begin, enforcement which will be by complaint not systematic monitoring must also be addressed.

Again the Panel supports the intent of this legislation and commends the bill sponsor and Council members for taking steps to introduce this bill. We ask that you carefully consider the above-mentioned concerns when the bill comes up for consideration. Thank you for this opportunity to share our views.

Sincerely,

Bill Bronrott

Delegate William A. Bronrott
Chair

MONTGOMERY COUNTY BLUE RIBBON PANEL
ON PEDESTRIAN AND TRAFFIC SAFETY

Delegate William Bronrott, *Chair*

January 24, 2001

The Honorable Douglas M. Duncan
Montgomery County Executive
101 Monroe Street, 2nd Floor
Rockville, Maryland 20850

Dear ~~Mr.~~ Duncan: Doug

I was pleased to see your recent public statement in support of the Blue Ribbon Panel on Pedestrian and Traffic Safety's preliminary recommendations. The Panel members were delighted to receive recognition for their hard work thus far.

At the January 22 meeting of the Blue Ribbon Panel, we further discussed the need to move forward quickly with the recommendations that can be acted on now. We hope that the key County department directors have received copies of the recommendations with a directive to move forward promptly.

The Panel members asked that I transmit to you several amendments and refinements to our FY02 budget recommendations to clarify our intent on several key issues.

It is crucial that the pedestrian-bicycle safety and access professional within the Department of Public Works and Transportation is a "new hire." Simply assigning these duties to an existing staff person as an add on to existing duties will not ensure the specialized focus that these duties require.

With regard to public education, it is important that additional funding be made available this year to carry out a public communications campaign that includes resources for both education AND enforcement. The stepped up enforcement has proven to be an essential component in successful programs in other jurisdictions. We ask the County to consider using revenue from the red light camera fines as a funding source for enforcement activities such as police overtime.

Additional funds for sidewalk construction should be included in the FY02 budget and County and State highway officials should be instructed to identify locations where constructing a sidewalk would enhance pedestrian safety and access.

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We hope these comments will help to further clarify our recommendations. If there are any questions or a need for additional information, please have the appropriate staff contact me or our staff director Gail Nachman.

Thank you again for your leadership in this important issue. I look forward to continuing our work to make our community a safer place to live and work.

Best regards,

Bill Bronrott

William A. Bronrott
Chair