VISION ZERO BACKGROUND

Montgomery County is one of the first counties and suburban communities to commit to Vision Zero. The County's neighborhoods and subdivision patterns are largely auto-centric, characterized by long blocks, wide travel lanes and low-densities. Coupled with a transportation system built to prioritize motor vehicle travel, these land use patterns encourage motorists to drive at high speeds and create a highly disconnected walking and bicycling network.

These suburban features present greater challenges to achieving the objectives of Vision Zero than the grid of walkable streets that define the development pattern of many North American cities that have adopted Vision Zero. Montgomery County's land use patterns and the design of its transportation network were intentional and represent the fulfillment of a vision to separate land uses and connect distant activity centers by high-speed automobile travel. Achieving Vision Zero will require re-envisioning its existing development patterns and transportation network.

While Vision Zero programs are typically led by transportation agencies, Vision Zero is a multidisciplinary effort that requires the support of all County agencies to be successful. The Montgomery County Planning Department has an important role to play in Vision Zero and can support Montgomery County's program with community engagement, data analysis and a focus on long-term visioning.

WORK PLAN OVERVIEW

To support the successful implementation of Montgomery County's Vision Zero policy, the Montgomery County Planning Department should focus on the following elements of our work program:

- Educate residents, community organizations and elected officials.
- Develop collaborative partnerships with local, regional and state agencies, as well as the community, to advance Vision Zero.
- Base recommendations for the Planning Department's work products on robust data analysis that informs changes to County policies and priorities
- Utilize the master plan process to re-envision our communities, especially our suburban transit corridors and commercial areas, as multimodal complete streets with appropriate land use densities.
- Review and approve regulatory projects with a Vision Zero focus.
- Review capital projects and identify budget priorities that best support Vision Zero.

This work plan includes a list of actions the Planning Department can initiate to support Montgomery County's Vision Zero program, identifies the resources that are needed to complete these tasks and assigns a timeline to each task. The work plan is divided into four sections:

- Building Knowledge and Collaborative Partnerships
- Problem Verification
- Develop Solutions
- Incorporate Solutions into Work Program

BUILDING KNOWLEDGE AND COLLABORATIVE PARTNERSHIPS

The Planning Department engages with the community, appointed and elected officials, and governmental agencies through master plans, regulatory applications, review of capital projects and review of budget priorities. This comprehensive participation provides an opportunity for the Planning Department to educate stakeholders and develop collaborative partnerships to advance Vision Zero. The following list of actions identifies strategies to educate participants, establish a shared understanding of Vision Zero and provide opportunities for collaboration amongst individuals and groups to advance Vision Zero in their communities and throughout Montgomery County.

Develop a Vision Zero Toolkit for Community Organizations
Action: Collaborate with Montgomery County to develop a toolkit for community organizations and community members to build a systematic understanding of Vision Zero and provide resources for advocating on behalf of Vision Zero through participation in master plan development, regulatory review and capital project review / budgeting.
Justification: To ensure that community leaders have the resources they need to develop a Vision Zero constituency and to educate other community members about Vision Zero.
Timeline: Short Term

Engaging Hard-to-Reach Communities
Action: Collaborate with Montgomery County to convene hard-to-reach groups to advance understanding of Vision Zero in their communities.
Justification: To ensure that all communities are aware of and have the opportunity to participate in Vision Zero.
Timeline: Short Term

Educate Community Members, Agency Staff and Appointed/Elected Officials
Action: Collaborate with Montgomery County to educate community organizations, community members, county agencies and appointed and elected officials about Vision Zero and opportunities for engagement.
Justification: Build a better understanding of Vision Zero.
Timeline: Short Term

Vision Zero Electronic Newsletter
Action: Develop and maintain a Vision Zero electronic newsletter.
Justification: To inform community organizations and community members of progress toward Vision Zero in Montgomery County and opportunities for involvement.
Timeline: Ongoing

PROBLEM VERIFICATION

A critical first step to successfully implement Vision Zero is to verify the causes of severe injuries and fatalities on the County's transportation network. The Planning Department maintains extensive datasets and is capable of complex data analysis. These resources can support existing crash and transportation network datasets and should be utilized to systematically identify roadway characteristics that create safety challenges. Data analysis will help Montgomery Planning to prioritize master plan and regulatory recommendations and to provide comments on the capital budget and capital projects and will help community members in advocating for safer streets.

A preliminary analysis of crashes in Montgomery County indicates that roadway safety is a reflection of land use and the County's high-speed, high-volume roads, which often lack safe facilities for pedestrians, cyclists and transit users. Countywide, approximately 70 percent of severe and fatal crashes countywide are motor vehicle occupants. In rural areas motor vehicle occupants represent over 95 percent of these crashes. In the county's major employment and activity centers (Silver Spring, Bethesda, White Flint, Wheaton, Rockville Town Center and Friendship Heights) pedestrians and bicyclists represent approximately 65 percent of these crashes. Proven strategies in cities that have adopted Vision Zero may be appropriate in our major employment and activity centers, but alternative and innovative approaches are needed in the County's rural and suburban areas.

Develop a Severe and Fatal Crash Dataset
Action: Create and maintain a dataset to conduct crash analysis based on land use and street characteristics.
Justification: This dataset will enable staff to conduct <u>reactive</u> analyses to identify the types of land use and street characteristics that contribute to severe and fatal crashes and is necessary to verify and prioritize improvements for high injury areas.
Timeline: Complete but requires regular updates

Develop Measure of Exposure for Walking and Bicycling
Action: Develop a procedure for measuring exposure for walking and bicycling that quantifies the number of potential opportunities for a crash to occur.
Justification: Measures of exposure are normalization factors (i.e., denominator) that equalize for differences in the quantity of potential crash events in different road environments and therefore help to quantify risk.
Timeline: Short Term

Develop a Transportation Network Dataset
Action: Using the Severe and Fatal Crash Dataset, create a transportation dataset that identifies all of the variables that lead to severe and fatal crashes.
Justification: This dataset will enable <u>proactive</u> analyses that applies the findings from crash analyses and identifies high-risk locations that match the characteristics of high-crash locations.
Timeline: Short Term

Develop Safety Performance Factors
Action: Using the Severe and Fatal Crash Dataset and the Transportation Network Dataset, develop Safety Performance Factors (SPF) for common crash types involving severe and fatal injuries.
Justification: Data analysis will help Montgomery Planning prioritize master plan and regulatory recommendations and to provide comments on the capital budget and capital projects.
Timeline: Short Term

Create a Pedestrian Connectivity Dataset
Action: Develop a pedestrian level of comfort analysis and code the pedestrian network countywide.
Justification: Similar to the Bicycle Level of Stress map, this effort will enable sophisticated analysis of connectivity within geographic areas and to public facilities that will support master plan recommendations and help to prioritize pedestrian improvements.
Timeline: Short Term

Develop Procedures for Data Collection and Analysis
Action: Develop procedures for Vision Zero data collection and analysis for master plans and regulatory review.
Justification: Effective data collection and analysis is needed to understand where safety problems are most severe and to help prioritize Vision Zero recommendations. Through Vision Zero, safety can be achieved by reducing travel speeds and conflicts.
Timeline: Short Term

Collect Multimodal Counts and Traffic Speed Data
Action: Collect auto, bicycle and pedestrian counts at signalized and unsignalized crossings and mid-block crossings and speed data for master plans.
Justification: This data provides an understanding of where safety challenges are most prevalent, which is primarily defined by vehicular speeds and locations where different road users interact.
Timeline: Short Term

Create a Database to Store Multimodal Counts and Traffic Speed Data
Action: Modify the existing intersection count application (mcatlas.org/intersections) to include counts at unsignalized and mid-block locations and to include speed data.
Justification: Successful Vision Zero programs make safety-related data available to the public.
Timeline: Medium Term

DEVELOP SOLUTIONS

Once the safety challenges have been systematically identified through data collection and analysis, staff will identify engineering solutions and policy changes that address the challenges present in Montgomery County's diverse land uses – challenges resulting from the segregation of land uses and prioritization of high-speed vehicular travel over several decades. These solutions will be used to incorporate Vision Zero into the department's work program, including master plan recommendations, regulatory approvals/changes and review of capital projects.

Identify Best Practices in Implementing Vision Zero in the Suburbs
Action: This investigation will look at best practices in suburban counties that have adopted Vision Zero (Macon, Georgia; Alameda, California; and Contra Costa, California) and cities that have suburban areas (New York; Alexandria, Virginia).
Justification: To understand how other jurisdictions approach transportation safety on suburban roads.
Timeline: Medium Term

Develop Policies for Street Types and Land Use Context
Action: Develop policies for different combinations of street typologies and land use context to address the safety challenges identified in the Problem Verification section to reduce severe and fatal crashes.
Justification: Bring Montgomery County's policies in line with strategies to reduce severe and fatal crashes.
Timeline: Medium Term

INCORPORATE SOLUTIONS INTO WORK PROGRAM

Using the results of the Develop Solutions section of this work plan, staff will work to incorporate solutions to the identified safety challenges into the Planning Department's work program through master plan recommendations, regulatory approvals/changes and review of capital projects.

Educate Staff on Vision Zero
Action: Educate staff about Vision Zero.
Justification: Master plan and regulatory staff must understand the principles of Vision Zero to build a culture of safety in the Planning Department.
Timeline: Short Term

Continuing Education
Action: Continue education on Vision Zero through conferences, webinars, etc. for staff to remain current on the latest data and solutions as well as the challenges and opportunities associated with the integration of Vision Zero into master plans, regulatory review and capital projects.
Justification: Continuing education allows for an evolution of Vision Zero in our work.
Timeline: Ongoing

Incorporate Corridor Master Plans into Department Work Program
Action: Based on the analysis conducted in the Problem Verification section, recommend additional master plans to the Planning Department's work program.
Justification: Master-planning provides an effective means of re-envisioning development patterns and the transportation network as multimodal, mixed-use communities.
Timeline: Long Term

Changes to State and Local Policies, Regulations and Laws
Action: Collaborate with MCDOT to identify changes to state and local regulations that support Vision Zero, including: local authority to reduce speed limits, adopt use of US Limits2 for setting speed limits, strengthen access management regulations for development approvals and provide policies that reduce lane widths, target speeds and curb radii outside of urban road code areas. Explore county ownership of state roadways.
Justification: This is an action in Montgomery County's Two-Year Action Plan.
Timeline: Short Term

Develop a Pedestrian Master Plan
Action: Complete a Pedestrian Master Plan for the County to address the unique issues faced by pedestrians and people with disabilities.
Justification: This is an action in Montgomery County's Two-Year Vision Zero Action Plan.
Timeline: Medium Term (starts July 2019)

Incorporate Vision Zero into Master Plans
Action: Based on the analysis conducted in the Problem Verification section, incorporate Vision Zero into master plans areas through these items.
Justification: Master-planning provides an effective means of re-envisioning development patterns and the transportation system to create a safe transportation network.
Timeline: Medium Term

Incorporate Vision Zero into Development Review
Action: Incorporate Vision Zero into development review.
Justification: Development projects have the ability to improve safety by reducing conflict points and reducing street design speeds.
Timeline: Short Term

Incorporate Vision Zero into the Subdivision Staging Policy
Action: Update the Subdivision Staging Policy to reflect an effective transportation safety element.
Justification: The Subdivision Staging Policy currently analyzes motor vehicle mobility but does not evaluate transportation-system safety.
Timeline: Medium Term

Capital Project Review
Action: Incorporate Vision Zero into recommendations on the capital budget and capital projects.
Justification: Designing transportation infrastructure to be safe is the primary way to achieve Vision Zero.
Timeline: Ongoing