Crash Analysis Studio

Session 2: Hyattsville, Maryland
Held on March 3, 2023

Session Participants:

- **Dan Burden**, Director of Innovation and Inspiration at Blue Zones, LLC; cofounder of Walkable and Livable Communities (WALC) Institute.
- **Wanika B. Fisher Esq.**, Prince George's County Council Member.
- **Melissa Schweisguth**, Community Member & Local Expert.
- **Yohannes Bennehoff**, Transportation Planner & Local Expert.
- **Edward Erfurt**, Director of Community Action at Strong Towns.
- **Charles Marohn**, President of Strong Towns.
- **Rachel Quednau** (moderator), Program Director at Strong Towns.

Summary of Crash Event

- The crash occurred at 10:18 p.m. (ET) on August 13, 2021, on the 5600 block of Ager Road in Hyattsville, Maryland.

- A motorist struck Hellen Jorgensen as Jorgensen was crossing Ager Road at a crosswalk. There is no definitive account of which direction the driver was traveling. The collision killed Hellen Jorgensen.

- The Prince George's County police report states the following factors contributed to the crash:
    - Driver failure to give full time and attention.
    - Driver going too fast for conditions.
    - Driver inattentive.
    - Driver distraction from electronic device (navigational Palm Pilot).

- The driver was not administered an impairment test and was not suspected of being impaired.

- The County police report stated that Jorgensen had a high blood alcohol level (0.315) and disobeyed the pedestrian signal. This suggests Jorgensen did not activate the flashers at the crosswalk prior to entering the intersection.

Primary Contributing Factors

Session participants identified the following primary factors that contributed to this crash:

1. **The high automobile travel speeds experienced on Ager Road are unsafe.**
    a. Ager Road runs adjacent to a major transit stop of the DC Metro system. There were over 423,000 total entries in 2022 at the West Hyattsville Metro Station: an average of 1,700 per day.[1] These entries include a significant amount of non-motorized traffic crossing the adjacent Ager Road.
    b. Ager Roads bisects a neighborhood of residential homes and commercial businesses. There are a significant number of people walking and biking to and from these locations.
    c. Despite the high volume of non-motorized traffic, Ager Road is engineered for high automobile speeds.
        i. There are two northbound 11-foot driving lanes, a 12-foot outer southbound lane, and a 10-foot inner southbound lane. The number and size of the lanes is designed to facilitate a high volume of traffic at non-neighborhood speeds.
        ii. The slip lane from Hamilton Street onto Ager Road is redundant, installed merely to hasten the flow of traffic. The geometry of the slip lane facilitates fast acceleration to and high speeds on Ager Road.
        iii. Turning movements on Ager Road at Jamestown Road have been reduced to eliminate cross traffic and facilitate high vehicle speeds.
    d. The excessive automobile speeds suggested in the roadway design are evident on Ager Road at the crash location.
        i. A speed study was performed on Ager Road at the crash site.
        ii. The study revealed that 99.7% of drivers operated their vehicle at speeds lethal to a pedestrian (in excess of 20 mph).
        iii. The study revealed that 70% of drivers operated their vehicle at speeds exceeding the posted speed limit (30 mph).
        iv. The study revealed that 7.5% of drivers operated their vehicle at speeds 10 mph or more beyond the posted speed limit.
        v. The measured 85th percentile speed is 38 mph, which is 8 mph beyond the posted speed limit.

2. **The design of Ager Road channels pedestrians to one specific roadway crossing. Adequate care has not been taken to ensure that crossing is safe.**
    a. Ager Road has a median fence stretching approximately 500 feet between Hamilton Street and the crash site. The purpose of the fence is to frustrate people walking and biking who wish to cross Ager Road and to channel them to designated crossings at the crash site or at Queens Chapel Road. (The fence has no structural capacity for automobile collisions.)
    b. Lighting on the east side of Ager Road is placed to light the intersection for automobile movement, not for bike or pedestrian crossing. The placement of the intersection lighting approximately 40 feet south of the crash site puts the

[1] Data compiled by WMATA, available at https://www.wmata.com/initiatives/ridership-portal/Rail-Data-Portal.cfm.

designated crossing in shadow during evening hours, partially obscuring a pedestrian preparing to use the crossing.

c. There is a Rectangular Rapid Flashing Beacon (RRFB) installed at the crash site. The placement of the button to activate this beacon is not intuitive or convenient for a pedestrian.
    i. Narrow sidewalks along Ager Road, the lack of separation between sidewalks and the driving surface, and the high speed of traffic along Ager Road combine to create a stressful environment for pedestrians.
    ii. On the east side of Ager Road, after walking potentially hundreds of feet to circumvent the fence and reach a designated crossing, the RRFB activation button is on the far side of the sidewalk.
    iii. The placement of the activation button on the west side is even more inconvenient for a pedestrian, requiring someone walking from the West Hyattsville Metro Station to make extra effort to access the flasher.
    iv. The signage for the RRFB button is perpendicular to the direction of travel for someone approaching the crossing on foot or by bike. The signage will not be evident unless they make an unnatural movement to look for it. (Note: It is directly in the line of sight for someone after they have completed the crossing, which is not helpful.)
    v. Designers have placed too much reliance on the RRFB system to provide safety. Due to its design, many people who cross at the crash site may choose not to activate the RRFB at all.
d. At the crash site, pedestrians must cross 26 feet of travel lane to reach the median, then 26 feet of additional travel lane to reach the opposite side. This requires a pedestrian to judge the speed and distance of multiple lanes of traffic. This task is made significantly more difficult at the documented high traffic speeds.
e. Vegetation and redundant signage partially obscure the RRFB in the median (southbound traffic) and on the east shoulder (northbound traffic).

3. The design of Ager Road fails to communicate to motorists the high potential for pedestrians to cross in front of them.

a. By eliminating crosswalks and channeling all biking and walking crossing to two locations more than 850 feet apart, the design simplifies the driving experience and lowers driver expectations for pedestrians crossing.
b. The installation of 500 feet of median fence similarly simplifies the roadway and communicates to the driver that they need not worry about a large portion of their periphery.
c. The elimination of most cross-traffic turning movements and the installation of multiple turn lanes further reinforces the primacy of through traffic movements.
d. There is excessive signage throughout the corridor, which detracts from the instances where warning signage would be helpful.
    i. Northbound, there is a warning sign (pedestrian ahead) that suggests a crossing at the next intersection. While there is a crossing at Lancer (the

next intersection), - this sign does not expressly indicate the upcoming RRFB crossing.
    ii. Northbound, there is a yellow warning sign with the silhouette of a truck. This sign communicates nothing of value or significance, but is in close proximity to other warning signs about the pedestrian crossing.
    iii. Northbound, in the median, there is an unnecessary yellow diamond warning sign that distracts from the crossing signs.
e. Signs are placed in locations that obscure their message and diminish their usefulness.
    i. Northbound, the primary warning sign ahead of the RRFB is obscured by an electric pole and overgrown shrubs.
    ii. Southbound, the RRFB in the median is obscured by plantings and unnecessary signage regarding the upcoming unnecessary turn lane.

Related Contributing Factors

Session participants identified the following related factors that contributed to this crash:

4. **Ager Road is over-engineered for the traffic volume and its context in the regional travel network.**
    a. The neighborhood that Ager Road bisects is already surrounded by high-volume highways. Even without Ager Road, there is excellent access to this neighborhood, by automobile and by transit.
    b. From a traffic standpoint, Ager Road provides local access to residential neighborhoods, important businesses, and the West Hyattsville Metro Station. In terms of traffic flow, the roadway has no regional significance.
    c. Ager Road serves as a high-speed shortcut through the neighborhood. There is no mobility reason why high speeds are required on Ager Road.
    d. Ager Road is approximately 1.3 miles (6,900 feet) in length.
        i. At an average speed of 30 mph, it will take one minute and 18 seconds to access a residence or business halfway down the road from one of the adjacent highways.
        ii. At an average speed of 20 mph, it will take one minute and 58 seconds to access a residence or business halfway down the road from one of the adjacent highways.
    e. The design of Ager Road places too much emphasis on obtaining high travel speeds in a context where such speeds add little value in terms of overall mobility and access.

The Crash Analysis Studio is designed to identify the multiple factors that contributed to the crash. Session participants found that the above four factors contributed to the collision that killed Hellen Jorgensen. Supplemental research and study may identify additional factors that contributed to this collision.

Recommendations

There are multiple ways to address these factors and minimize the likelihood of future collisions, fatalities, and traumatic injuries. In the area that surrounds the 5600 block of Ager Road, the following practices should be considered.

Immediate:

1. To slow automobile speeds along Ager Road, utilize temporary bollards to close the slip lanes at the intersection of Hamilton Street and Ager Road. Turning movements should be directed to the signalized intersection where the tighter curb radii will slow acceleration speeds.
2. To slow automobile speeds along Ager Road, utilize temporary bollards to expand the bike lanes by two feet, narrowing the driving lanes on each side of Ager Road 500 feet from the crash site in the northbound lanes and 350 feet from the crash site in the southbound lanes.
    a. Conduct a speed study to determine that the 85th percentile speed is 20 mph or less. Iterate with the placement of bollards until this neighborhood-friendly speed is achieved.
3. Install lighting to fully illuminate the pedestrian waiting area near the RRFB on the eastern side of Ager Road.
4. Change the direction of the signage for the activation button of the RRFB so it is visible to a pedestrian approaching by foot along Ager Road.
    a. Observe pedestrian behavior to document the usage of the RRFB. Iterate on sign placement and design to increase RRFB usage rates.
5. Remove vegetation that is blocking critical signage near the crash site.
6. Remove redundant and confusing signage near the crash site.
    a. On the east side of Ager Road, remove the “pedestrian ahead” sign near the Hamilton Street intersection.
    b. On the east side of Ager Road, remove the yellow warning sign with the silhouette of a truck.
    c. Remove the yellow diamond-shaped sign in the median at the crash site.
    d. In the median, remove the two signs that provide guidance on the need to turn left if traveling in the left lane and the need to stay right to avoid the oncoming median.
7. On the east side of Ager Road, move the “State Law — Stop for Pedestrians” warning sign to the south side of the electric pole so that it will be fully visible to oncoming traffic.
8. Organize community members and local political leaders to submit requests for a walk audit of Ager Road by Prince George’s County Department of Public Works and Transportation (DPWT).

Near Term (within the next 12 months):

9. Replace temporary bollards closing the slip lanes off of Hamilton Street with more permanent obstructions, such as a concrete divider.

10. Utilize the knowledge gained from iteration with temporary bollards to redesign Ager Road near the crash site to obtain an 85th percentile speed of 20 mph or less. Implement this redesign.
11. Relocate the RRFB activation buttons to be on the inward side of the sidewalks, which is more convenient and naturally accessible for people needing to use them. Protect the refuge areas at this important crossing with permanent bollards.
12. Mobilize local leadership alongside the Prince George's County DPWT to initiate and conduct a study on how to most effectively slow speeds along the entirety of Ager Road, transforming it from a high-speed automobile corridor into a local street that provides access to residences and businesses at neighborhood-friendly speeds.

Long Term and Systematic:

13. Implement a full redesign of Ager Road to transform it from a stroad environment into a productive street. The emphasis of this redesign should be on:
    a. Reducing the number of lanes along Ager Road from 4 to 2, eliminating most turn lanes and other design features that are meant to facilitate high-speed traffic movements.
    b. Design speeds that are neighborhood friendly; an 85th percentile speed that is 20 mph or less.
    c. Ease of bike and pedestrian flow across Ager Road, especially near the West Hyattsville Metro Station. The median fence should be removed, and multiple convenient crossing points should be provided all along the corridor.
    d. As much on-street parking as possible, to increase safety and facilitate high-quality private-sector investment.
    e. Protected bike lanes, to provide for safe and efficient travel along Ager Road, particularly near the West Hyattsville Metro Station.
14. Corresponding reform of land use regulations to facilitate the incremental maturing of the entire neighborhood, particularly the under-utilized properties within immediate walking distance of the West Hyattsville Metro Station.

Concluding Statement

The series of design flaws present along Ager Road and at the crash site are tragic, but they are not atypical. This combination of misplaced design emphasis on automobile speed, lack of consideration given to the way those outside of a motor vehicle utilize the space, and the overall sloppiness and neglect of the space is common across the Washington, DC, metro region, the state of Maryland, and most of the rest of North America.

By undertaking an evaluation of the many factors that contribute to a crash, we believe that designers, decision-makers, and the public can move beyond the current approach (which seeks only to assign blame to those involved in a crash), to something that will help us change the way these spaces are designed, constructed, and ultimately cared for.