

BOROUGH OF DORMONT 2022 SAFE MOBILITY PLAN

1444 Hillside Ave
Pittsburgh, PA 15216
(412)561-8900



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Safe Mobility Team

Joseph Acevedo, MID, University of Pittsburgh GSPIA

Shrinath Suresh, MPA, University of Pittsburgh GSPIA

Executive Summary

The 2022 Safe Mobility Plan is a guide for the Borough of Dormont's municipal management and Council on what programs, policies, and projects should be pursued to improve safety, accessibility, and mobility within Dormont. This can be achieved by improving Dormont's walkability. The plan will begin with a background of past Safe Mobility endeavors conducted within Dormont, then provide an overview of the research conducted by the Safe Mobility Team to learn about safety and accessibility within Dormont, articulate the elements of Safe Mobility, and end with a series of recommendations on how Dormont can improve walkability and safe mobility.

Background

Context

The Borough of Dormont's **2013-2023 Comprehensive Plan ("Dream Dormont")** highlighted the importance of mobility for residents. The plan established ideas and projects for the Borough to pursue in its "Move About" section. After its publication, the Borough has launched a safety campaign, created greener streets, and introduced flexible parking opportunities around West Liberty and Potomac.

These incremental changes have guided Dormont towards becoming a more pedestrian friendly community. However, there are still complaints from residents about sidewalk conditions and the safety of West Liberty Ave. Certain ideas were proposed to make West Liberty Ave safer, such as removing its crosswalks. These ideas would improve driving conditions but do little to support pedestrian movement through the Borough. The **2021-2026 Strategic Plan** prioritized balancing the needs of pedestrians and drivers by articulating walkability as a shared goal.

What makes a place **Walkable**? According to Jeff Speck, a leading urban designer, a walkable space is safe, comfortable, useful, and interesting for pedestrians. Walkable spaces are where pedestrians can interact with their communities safely. They are instrumental for economic growth, sustainability, health, and happiness. Properties located in walkable neighborhoods sell at more than 100% premium over those located in auto-centric areas. Younger, and higher-educated generations are specifically looking for areas with high walkability and prioritize it when deciding where to move, with many preferring to live in a place where a car is not needed.

Safety is an important component of walkability. For residents to choose walking or biking to get to a destination, they need to be able to trust the system of infrastructures, institutions, and individuals which participate in creating a safe environment. That system is **Safe Mobility**. The 2022 Safe Mobility Plan will help guide the Borough Management and Council in determining what features should be invested in to develop safe mobility.

Research & Findings

Analysis of Mobility Audit

Before drafting the 2022 Safe Mobility Plan began, residents of Dormont volunteered their time and conducted an audit of the pedestrian infrastructure within the Borough. This audit was conducted by residents who volunteered their time to walk around their community and collect qualitative data about the accessibility of certain sites. They would rate a site as “Somewhat Easy to Access”, “Very Easy to Access”, “Somewhat Difficult to Access”, “Very Difficult to Access”, or “Not Sure or No Opinion.”

Travels within various sites were recorded into a spreadsheet. Travels in difficult sites were ranked based on the total number of complaints which identified a site as either “Somewhat Difficult” or “Very Difficult” to move around. The results of this ranking are organized in the table below:

Difficult Sites				
Rank	Site	Somewhat Difficult	Very Difficult	Totals
1	Destination in West Liberty business district	12	5	17
2	Banksville Plaza	9	4	13
3	Locations within the business district	8	4	12
4	A destination in an adjacent neighborhood	6	4	10
5	Station on West Liberty Ave	7	3	10
6	Dormont Junction Station	5	4	9
7	Keystone Oaks MS/HS campus	6	2	8
8	Hillsdale Park	8	0	8

The Safe Mobility Plan team revisited these “Difficult Sites” to determine the validity of the claims made about their accessibility. Most of the difficult sites recorded in the audit by residents were located along or in West Liberty Ave (SR 3069). This realization led to further investigation into the number of pedestrian incidents along West Liberty Ave.

Analysis of Crash Data

Moving safely along West Liberty Avenue was a major concern for the residents of Dormont. However, an understanding of how vehicles and pedestrian interacted on the road was still incomplete. To address this, Crash Incident Reports for West Liberty Avenue from the years of 2018-2022 (provided by Dormont's Police Department) were reviewed along with a crosswalk removal study conducted in 2018. These reports imparted the number of reportable and non-reportable incidents which occurred along West Liberty Ave during the last 4 years. Reportable incidents were events where either a driver or pedestrian was injured. Based on the content of these kind of reports, there were two major problems: pedestrian safety and crashes due to confusion over parking times. Below are the top three sites along West Liberty Ave. where the most number reportable incidents occurred.

Site on West Liberty Ave	Number of Reportable Incidents
2900 BLK West Liberty Ave	24
2800 BLK West Liberty Ave	22
3100 BLK West Liberty Ave	9

Interviews with Stakeholders

There are multiple stakeholders who are involved with the maintenance and pursuit of safe mobility and walkability within the Borough of Dormont. The Safe Mobility Plan team interviewed stakeholders and experts who will be involved with the programs, polices and projects recommended in the 2022 Safe Mobility Plan. A stakeholder is an individual or group that can affect or be affected by the implementation of Dormont's Safe Mobility Plan. The interviews conducted by the Safe Mobility Team provided them with perspective about the needs and goals of certain stakeholders. The Safe Mobility team were able to interview:

Borough of Dormont Management

Benjamin Estell - Borough Manager

Krista Watt - Assistant Borough Manager

Wayne McVicar - Engineer

Monica Dahlkemper - Building Code Official/ Building Inspector

Borough Council

Jennifer Mazzocco - Council Vice President

Brandon Ledford - Chair of Business District Relations and Development Committee

Ilene Dubin - Chair of Planning, Sustainability, and Inclusion Committee

Pennsylvania Department of Transportation

William Lesterick - Safety Section Supervisor/District Bike-Ped Coordinator

Residents of the Borough of Dormont

Marc Ford - Zoning Hearing Board

Theory

To design a Safe Mobility Plan with micro-mobility (bikes, scooters, etc.) and pedestrian safety in mind, we turned to the literature of some of the leading urbanists advocating for walkable spaces. The primary sources of theory and principles for Dormont's Safe Mobility Plan were Jeff Speck: Walkable Cities and 101 Walkable City rules. Additionally, we also read "High Cost of Free Parking", "Curbing Traffic", and "Retrofitting Suburbia" for additional insight into urban affairs and planning. Each work has provided significant insight into the best way to create more walkable spaces for a happier, safer, more mobile Dormont.

"a walk has to satisfy four main conditions: it must be useful, safe, comfortable, and interesting. Each of these qualities is essential and none alone is sufficient. Useful means that most aspects of daily life are located close at hand and organized in a way that walking serves them well. Safe means that the street has been designed to give pedestrians a fighting chance against being hit by automobiles; they must not only be safe but feel safe, which is even tougher to satisfy. Comfortable means that buildings and landscape shape urban streets into 'outdoor living rooms,' in contrast to wide-open spaces, which usually fail to attract pedestrians. Interesting means that sidewalks are lined by unique buildings with friendly faces and that signs of humanity abound." -Jeff Speck, Walkable Cities Rules

Both theory and empirical data suggest that for a dense, sustainable, economically strong, and happy community to develop, a shift away from auto-centric infrastructure and development is necessary. However, cars are likely to remain with us for a very long time. These truths have forced us to develop a plan whose key elements are birthed from compromise. For this reason, several

sections of the Safe Mobility Plan accommodate features such as parking and creating barriers along streets. But we have also made recommendations that encourage the use of micro-mobility options, as well as emphasizing the usefulness of transit. Through their research, the Safe Mobility Plan has developed under the guidance of these theories and principles. Through this work, the Safe Mobility Team makes its recommendation in the hopes that the residents of Dormont will have a happier and safer future.

Elements of Safe Mobility

Vision Zero

Traditional approaches to traffic safety involve focusing on the behavior of drivers and ignore the interconnected nature of safe mobility. Dormont should aim to change the built environment which drivers and pedestrians share to develop a system of safety. In hoping to achieve this goal, communities throughout the world have adopted a “Vision Zero” approach¹ to safe mobility.

“Vision Zero is a strategy to eliminate all traffic fatalities and severe injuries, while increasing safe, healthy, equitable mobility for all.” - Vision Zero Network Website

To achieve the ambitious goals of Vision Zero, the Borough of Dormont should collaborate with multiple organizations and stakeholders, use data-driven analysis of traffic and pedestrian incidents to craft preventative traffic safety measures, focus on equitable development and community feedback, establish a timeline to insure zero traffic deaths and serious injuries, and being transparent in all decision making to ensure accountability.

ADA Compliance

The Americans with Disabilities Act (ADA) of 1990 was enacted to prohibit discrimination based on disabilities. The Borough of Dormont is already committed to follow guidelines set by the ADA. For example, in Article III Specific Use Regulations of Dormont Development Code establishes “uses by special exception” which require that specific land use should comply with ADA requirements:

“For all uses that are subject to the requirements of the Americans with Disabilities Act (ADA), the applicant shall certify that all applicable ADA requirements have been met in the design”- Dormont Development Code, Article III Specific Use Regulations

Borough management or Council, when enacting any program, project, or policy by which aims at improving safe mobility and walkability within Dormont, should keep in mind residents with disabilities.

Environmentally Friendly

The built environment must coexist with the natural environment. Adding more “Greens Spaces” to the Borough of Dormont can increase walkability by improving the character of neighborhoods and commercial districts. These Green Spaces can come in many different forms, such as rain gardens and trees along walkways. They also can serve multiple functions such as draining stormwater and creating a cover for residents during hotter days. People are naturally drawn to Green Spaces. However, the way in which roadways and walkways are designed keep them apart. Bringing Green Spaces closer to residents can inspire them to choose other modes of transportation to travel through Dormont.

Multimodal Support

Streets are primarily built to manage car traffic. This is an important role and is served well by the civil servants, traffic engineers, and urban designers who have dedicated themselves to developing safer conditions for drivers and pedestrians. For pedestrians, streets can sometimes appear as barriers for free movement through their community. The 2022 Safe Mobility Plan draws inspiration from a growing movement of urbanists who are interested in reforming the way in which streets are designed to make room for other forms of mobility.

Programs, Policies, and Projects

Pedestrian Safety Committee

There are four phases to the recommended program, policies, and projects. Dormont should first establish a Pedestrian Safety Committee. Then hire an urban design firm to consult on the reform of West Liberty Ave. Followed by the development and implementation of a Complete Streets Policy. The reform of West Liberty Ave and the development of a Complete Streets policy can be engaged simultaneously or sequentially. The decision on how to engage will have to depend on the recommendations and preparedness of the Pedestrian Safety Committee, Borough management, and Council. If issues arise within specific sites in Dormont during any of the phases, the Pedestrian Safety Committee, Borough management, and Council can review the considerations in the “Moving Forward” section and the resource list in the 2022 Safe Mobility Plan.

Pedestrian Safety Committee

Residents and their local government work together to make their community more accessible. A Pedestrian Safety Committee should be established by the Council of Dormont to represent the residents and their mobility needs, aid council in determining which sites within Dormont need attention and help guide the direction of Dormont’s urban planning to becoming more pedestrian centric.

Members of the Pedestrian Safety Committee should be dedicated to improving the walkability within the Borough of Dormont. Members should focus on promoting pedestrian centric practices in urban planning projects conducted by Borough management and the Council of Dormont. Potential members of this committee can be those individuals who took part in the Walkability Audit prior to the 2022 Safe Mobility Plan’s drafting. Potential candidates can also be recommended by Borough management and Council of Dormont.

After joining the Pedestrian Safety Committee, members should be required to review the 2022 Safe Mobility Plan (or any future Safe Mobility Plans) and the list of resources provided in the 2022 Safe Mobility Plan. The Pedestrian Safety Committee should establish a method to obtain information from residents about mobility concerns. The pursuit of safe mobility requires a degree of curiosity and

creativity from its members to determine what programs and projects the Borough of Dormont should pursue. For that reason, members should establish a reading/discussion group to develop insights into how Dormont can become more pedestrian-friendly.

Reform of West Liberty Ave

Streets

- Streets should be resized to a narrower width of 10-lanes². After traffic analysis and a review of traffic incident reports along West Liberty Avenue, the main arterial road that bisects the Borough of Dormont—a reduction of both the number of lanes and the width of lanes along West Liberty Avenue should be implemented. 12-ft Lanes have been associated with higher speeds and higher crash frequencies than 10-ft lanes³. The speed at which traffic flows along the West Liberty Avenue is a factor to the occurrence of crashes which is further compounded by the confusion surrounding the shifting times for on-street parking.
- West Liberty Avenue is currently a 4-lane arterial road with two lanes for traffic in each direction, carrying approximately 20,000 vehicles per day. A road diet is being proposed to convert this road from a 4-lane to a 3-lane road, with one lane for southbound traffic, one for northbound traffic, and one non-contiguous center-turning lane. One study concluded that a road diet does not significantly the capacity of those roads in any adverse way⁴.

Sidewalks

- The sidewalks along West Liberty Avenue are currently plagued by poles, signs, and cracks. This not only degrades the appeal of walking along the business corridor, but also impedes foot traffic. Relocating the utility poles, removing the signs, and repairing the sidewalk will make walking along West Liberty Avenue safer, more pleasant, and equitable for all.
- Where possible, sidewalks should be adorned with street art by local artists and poets to accentuate the uniqueness of Dormont.
- Crosswalks should be eye-catching to make drivers aware of pedestrians. Along West Liberty Avenue, a simple, two-phased cycle; Concurrent signalization should be utilized. Under concurrent signalization, pedestrians get the walk sign. The safest concurrent signalization should employ Lead - -Pedestrian Intervals, a head start for pedestrians that allows them to start

crossing before cars are given the green light. LPIs are proven to both significantly reduce turning accidents and the severity in the severity⁵. At intersections with pedestrian crossing signs, the pedestrians should be able to cross the road every 30-60 seconds. Although longer green lights are more efficient for cars, they are not conducive for walkability⁶.

Bike Lanes

- West Liberty Avenue (SR 3069) bisects the Borough of Dormont and carries approximately 20,000/day. Residents of the borough have complained that walking alongside the road is unpleasant, and it is difficult to cross. Currently, West Liberty Avenue (SR 3069) is under the ownership of PennDOT, meaning the Borough cannot implement any changes on the roads, however if PennDOT transfers ownership of the road to the Borough of Dormont or allows a road diet to be implemented, it is recommended that the burrow install bike lanes to improve and increase bike mobility.
- If possible, the Borough of Dormont could seek a partnership with a Bike-Share program to provide access to micro-mobility means in the community.
- Bike lanes have a multitude of benefits. They increase pedestrian safety with Bike sharing present, driving trips trend downward while bicycling trends up⁷.

Green Streets

- To create a more walkable environment, the Borough of Dormont should consider adopting a tree installation plan. Trees are an excellent investment and provide many benefits. Trees protect sidewalks and reduce crashes by forming a barrier between vehicles and pedestrians, not only reducing injurious crashes, but fatal accidents as well⁸.
- Street trees could also provide the Borough of Dormont with many environmental benefits. Lining West Liberty Avenue with trees would help with future runoff as mature trees typically absorb the first half inch of rainfall⁸. Street trees absorb Ultraviolet light, pollutants, and a significant amount of carbon dioxide, improving the air quality within the borough⁹. They also reduce the urban heat island effect and can reduce ambient temperatures by as much as 15 degrees, enabling greater walkability along the business corridor¹⁰.

- Besides the environmental and safety gains, trees also provide economic advantages. Neighborhoods with street trees can see an improvement in property value and see prices of home increase by up to 9% on average¹¹. For businesses, shops one streets with adequate tree cover earn 12% more income than those without¹².

Parking

- If a road diet is successful, the recaptured space can be repurposed for dedicated on-street parking spots. These spots should be metered and be charged an unsubsidized rate. This incentivizes rapid parking changeover and increase flow and turnover in the business district. Parking can be a significant asset to the business corridor as each on-street parking space can contribute about \$10,000 in retail sales to nearby businesses¹³
- Parking spaces should not have a width exceeding 7.5 ft. Although seemingly little space, the average vehicle width is 5.8 ft, leaving nearly 2 ft to maneuver the vehicle.

Complete Streets Policy

“Complete Streets” is an approach to urban planning and design which promotes a variety of mobility options through pedestrian-centric road design. Many communities throughout the United States have adopted a similar policy. The components of a “complete street” are safe sidewalks, clearly marked crosswalks, multimodal roadways, and dedicated green spaces. Together, these components can revitalize public spaces and make communities more accessible for its residents and visitors.

Borough management already in the process of adopting a Complete Streets Policy and plans to begin implementation in 2025. Based on the 2018 Report, “The Elements of a Complete Street”, published by Smart Growth America Dormont management should have these elements in place when devising a Complete Streets Policy:

- Commitment and Vision
- A Plan to Accommodate Diverse Users
- Apply Complete Street principles to all Projects and Phases
- Allows only for Clear Exceptions

- Require Coordination among Stakeholders
- Adopt Design Guidance from Successful Complete Street Projects
- Requires Protective Land-Use Planning
- Set up Specific Measures to Track Progress
- Establish Specific Criteria for Choosing Projects
- Create a Plan for Implementation

Borough management, Council, and the Pedestrian Safety Committee should use the West Liberty Ave reform project as an opportunity to develop a Complete Streets Policy which uses the elements above, but also to develop a policy which reflect Dormont's unique characteristics.

Please use the following resources when planning for, and implementing Dormont's Complete Streets Policy:

The Elements of A Complete Streets Policy, Effective 2018:

<https://smartgrowthamerica.org/wp-content/uploads/2018/02/CS-Policy-Elements.pdf>

Complete Streets Local Policy Workbook: <https://smartgrowthamerica.org/wp-content/uploads/2016/08/cs-policyworkbook.pdf>

Changing Complete Streets Policy: A Brief Guidebook:

https://smartgrowthamerica.org/wp-content/uploads/2016/09/Changing-Complete-Streets-Policy_Brief-Guidebook.pdf

Complete Streets Implementation: A Brief Guidebook:

https://smartgrowthamerica.org/wp-content/uploads/2016/09/Implementing-Complete-Streets-Policy_Brief-Guidebook.pdf

Moving Forward

After Council adopts a Complete Streets Policy, there will be a need to reform other areas of the Borough of Dormont. These reformations will occur outside the scope of the 2022 Safe Mobility Plan. Below are some considerations for the Pedestrian Safety Committee, Borough management, and Council on how to think, plan, and reform particular components of Dormont's built environment. These considerations are taken from Jeff Speck's 101 Walkable City Rules.

Sidewalks¹⁴

- Plant trees
- Make sidewalks the right size
- Do not allow curb cuts

Trees

Studies show that streets and roads with sufficient tree coverage reduce the number of crashes. Fully mature street trees create a natural barrier for sidewalks, protecting those who walk on them from both cars and the elements.

Sidewalk design

The most appropriate width for a suburban sidewalk is 5-6 feet. Sidewalks are divided into three zones, with each zone performing an important role:

Tree Zone

Located against the street and usually between 5 and 8 feet wide, this zone housed light poles, trash cans, and street furniture such as benches. Rain gardens and trees should be featured here to reduce stormwater runoff.

Clear Zone

Ideally 6 feet wide; this is the zone pedestrians inhabit when walking. This zone should be clear of fixed objects and obstacles. When designing the built environment, the needs of the differently abled should be considered. For this reason, shopkeepers and businesses should be mindful of where and how signs and advertisements are displayed.

Frontage Zones

About 1-3 feet deep, this area is where storefronts and the sidewalk meet, allowing for decorations and public art. It has the potential to create ambiance and character within a location and can encourage walkability by making a more pleasant environment.

Curb Cuts

A curb cut is essentially a driveway that interrupts a sidewalk—and by extension, interrupts the pedestrians' ability to walk safely. Typically, 24 feet in length, curb cuts increase the interaction between non-motorists and vehicles, raise the probability of a collision, and decrease the quantity of available on-street parking.

*Bike Lanes*¹⁵

- Install bike lanes where their benefits are maximized
- Identify low-volume streets and encourage cycling
- Build buffer zones between bike lanes and traffic

Biking networks and Placement

Studies show that topography and weather do not significantly impede cycling. Typically, it is the lack of infrastructure that causes many would-be cyclists to opt for other modes of transportation. Opponents of bike lanes often cite the lack of visible cyclists or cycling culture against appropriating funds for constructing biking networks. One popular urbanist puts it best he writes: "Observing that few people bike in a place without a good bike network is like saying that you don't need a bridge because nobody is swimming the river." However, it should be noted that many streets in Dormont are already conducive to cycling due to low-speed limits and low traffic.

Cycling and health

Those who cycle to place of business have a 40% lower risk of dying prematurely, a 46% lower risk of developing heart disease, and a nearly 50% lower risk of developing cancer. (Pg 124)

Cycling and economic growth

Younger generations prioritize biking infrastructure when considering where to live. Homes and properties near bike lanes (under 1,000 ft) have a higher value on average. Combined with Pittsburgh Regional Transit, bike lanes would allow for last-mile service and allow professionals to more easily commute not only with the South Hills Village but between Dormont and Pittsburgh as well.

Streets¹⁶

- Identify types of streets
- Set traffic policies accordingly
- Install crosswalks and signals for pedestrians, not cars

Slow Flow

These streets are smaller, typically about 8 feet in width, with little room to maneuver. They do not require a bike lane—the tight space slows vehicles down enough to make speeds safe for cyclists.

Yield Flow

These streets are usually thoroughfares spanning about 12 feet wide. These streets are named so because while the yield flow streets are wider than slow flow, the street is not wide enough for two cars to pass simultaneously; one car must pull over to allow the other to pass—yielding.

Pedestrian Safety

Crosswalks should be eye-catching to draw the motorist's attention and make them aware of the possibility of encountering a pedestrian. Crosswalks should work in tandem with crossing signals. The signals should be set to an interval that would be conducive to walkability—meaning that pedestrians should not have to wait longer than 60 seconds to cross the road. Ideally, the signal would give pedestrians a head start to cross before cars on the adjacent street are given the green light. This decreases the chance of collision and makes walking a more convenient, pleasant experience.

Green Streets

- Invest in Street Trees
- Build Rain gardens

Green Streets Goals

Incorporate elements of green infrastructure to improve air quality, decrease the urban heat island effect, and manage natural resources in urban environments, particularly water. Green street elements, such as trees and rain gardens, capture stormwater, filter it, and slowly release it—naturally replenishing the groundwater.

Parking^{A7}

- Design Parking spaces right
- Do not allow further construction of Front Parking in Dormont
- Keep drop-off zone placement in mind
- Maintain Curb Parking in the Business Corridor

Not only does parking form a barrier between traffic and pedestrians, but it is also a highly beneficial tool for increasing foot traffic and revenue for local businesses (Pg 150). According to the National Trust's Main Street program, each on-street parking space contributes about \$10,000 in retail sales to nearby businesses. Increasing the supply of on-street parking reduces the need for off-street parking. Reducing off-street parking is vital because it limits the land available for business development and housing.

Front Parking inhibits walkability in several ways:

1. Push buildings further back, which destroys the spatial definition and character of the neighborhood
2. Promote curb cut installation and detract from pedestrian safety
3. Provide "free parking," which is never truly free because the price of the parking is either subsidized by the municipality or bundled with the costs of goods and services.
4. Create an environment conducive to motorist mentality and auto-centric practices.

Other Ideas

Many of the recommendations in this plan may require years to implement, take effect, or reap the rewards. There are however, steps that the committees, Council members, and residents can take now to help expedite the process. These are initiatives that rely on public participation from the residents of Dormont and will increase visibility, demand, and awareness for what this plan is proposing.

Transit

Dormont has an incredible asset—three PRT trolley stops. PRT and Dormont can collaborate to increase ridership by intersecting micro-mobility and the Trolley by providing “Last-mile service” to the residents of Dormont. Partnering with bike share programs is another possibility that can achieve this goal

Public Art

Beautification is instrumental to improving walkability and the character of the neighborhood. The Borough can partner with Dormont Arts, local artists, and public schools in Dormont for art submissions and activities.

Fostering a Culture Safe Mobility

Often, those opposed to installing cycling infrastructure will claim that there is not enough demand or need for it in their communities. Even though research shows installation of biking infrastructure often increases its use dramatically, those with a pessimistic outlook on bike lanes find a larger audience. To counteract this, the residents of Dormont can make the conversation easier by establishing a culture of cycling. Dormont already has an Open Streets program which can easily be modified to include bikes and launch a safety campaign throughout the borough for children on bikes. The Dormont Newsletter and website would be useful tools to spread awareness for cyclists and events.

Trees, Trees, and Trees

At the time of formulating the Safe Mobility Plan, there is a Dormont Community Garden, which is an initiative of Dormont Arts. The Shade Tree Commission and the Council can coordinate with these entities to gain input from residents, engender a sense of agency in the community with tree planting, and help spread mindfulness of green initiatives and sustainability which this plan proposes.

Performance Measures

Vision Zero

Reducing the number of pedestrian fatalities and injuries is a major goal of the Vision Zero approach mentioned earlier in the 2022 Safe Mobility Plan. The Borough of Dormont should pursue this goal to support the implementation of their Complete Streets Policy, pedestrian-centric urban design, and safer streets for residents and drivers.

+Target: Zero Fatal Incidents and serious injuries involving pedestrians and drivers.

Community and Pedestrian Outcomes

Streets

Monitoring the number of vehicular accidents assists in confirming that Dormont is progress is advancing towards its Mobility goals.

+Target: Reduce crash incidents with pedestrians and other vehicles

Sidewalks

Observing and recording the number of pedestrians is essential in verifying that the recommendations for increasing walkability are having a positive effect. This can be done in tandem with observing whether retail is increasing in areas with high walkability.

+Target: Increase Pedestrian foot traffic

Bike lanes

Keeping track of cyclists and collisions with vehicles can provide metrics on bike lane usage and effectiveness.

+Target: Provide and maintain biking infrastructure that is safe and often used by the residents of Dormont and neighboring Municipalities

Green Streets

Recording temperature, stormwater runoff, levels of air pollution, and increased pedestrian traffic can help the borough ascertain if progress towards sustainability and walkability is occurring.

+Target: Increase air quality, water management, and improving neighborhood character within the Borough of Dormont

Parking

Through form-based code and installation of dedicated parking spaces, the stores and restaurants within the business corridors should see increased customer traffic while residents have an easier and safer time finding a parking space. Monitoring the parking meters can help the borough understand the usage throughout the borough.

+ Target: Reduce number of vehicular accidents due to confusion over parking. Increase customer base for local businesses.

Conclusion

As towns and cities grow, they must consider how to solve their current problem and address their immediate needs. They should plan for whatever the future may bring. The 2022 Safe Mobility Plan is another step towards strengthening the economy, environment, health, safety, and character of the Borough of Dormont. Each recommendation was based on research, interviews, and discussion. The Safe Mobility Team was not able to reach every stakeholder during the drafting of the Safe Mobility Plan. For that reason, readers of the Safe Mobility Plan should engage its resources materials and recommendations critically and aim to develop a holistic view of urban planning. Overall, a walkable Dormont is a benefit to all its residents. Walkability is built upon safety standards and public works projects which improve pedestrian infrastructure. Moving forward, the Borough of Dormont should commit itself to developing safe mobility to become a more walkable community.

Appendix

Diagram 1: Image on the left is the current design of West Liberty Ave. Image on the right is the reformed design of West Liberty Ave with all its components implemented.

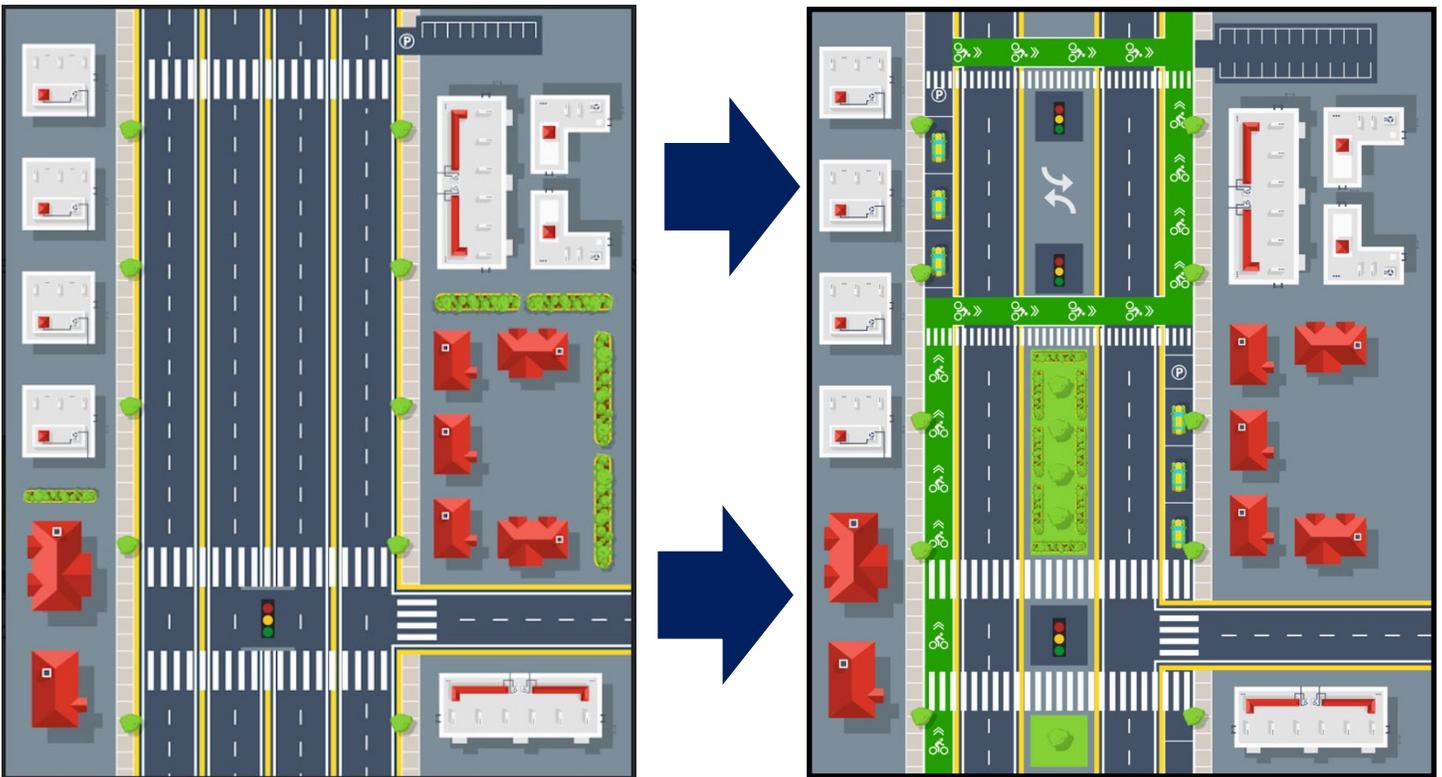


Image designed by: musabbir_1681: https://www.fiverr.com/musabbir_1681

Acknowledgements

We are not residents of the Borough of Dormont. During our time working on the Safe Mobility Plan, we learned to love and appreciate what a truly special place Dormont is. Whether it was going for lunch at Mike and Tony's, savoring sweets from Potomac Bakery, or perusing the shelves of Beyond Bedtime Books, we enjoyed every minute of our time here. The Safe Mobility Plan was designed with care, and the best intentions. It is our hope that Dormont retains its charm while moving towards becoming a safer, greener, and more walkable community. We would like to acknowledge Benjamin Estell, Krista Watt, the Borough Management Staff, Council, Police Department, Fire Department, and the residents of Dormont for providing an openhearted and stimulating environment for us. We hope our paths cross again in the future.

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Citations

1. “What Is Vision Zero?” *Vision Zero Network*, 17 Aug. 2022, <https://visionzeronet.org/about/what-is-vision-zero/>.
2. The average width of a vehicle in the US is 5.8 ft with some cars being as large as 6.8 ft. Buses are 8.6 ft on average. The administrators of Dart, in Des Moines, advocate for 10-foot lanes, reminding us that “every transit ride begins and ends with walking and without walkable streets we are undermining the opportunities for public transit in the community (Elizabeth Presutti, personal communications, Des Moines Area Regional Transit Authority.)
3. “These studies published by the National Cooperative Highway Research Program and others, demonstrate that urban and suburban 12-foot lanes are clearly associated with higher speeds and higher crash frequencies than 10-foot lanes: (Project 3-72, Relationship of Lane Width to Sagy for Urban and Suburban Arterials, NCHRP 330, Effective Utilization of Street Width on Urban Arterials
4. What many do find surprising, however—and are unwilling to believe—is that a road diet does not reduce a street’s capacity (Jeff Speck, 101 Walkable City Rules, Road-Diet Your Four-Laners)
5. A study of fourteen LPIs in New York found that they reduced the number of turning crashes by 28%, while reducing crash severity by 64% (Donna Sauerburger, with input from Michael King, “Leading Pedestrian Interval—A solution We’ve been Waiting For!” *Metropolitan Washington Orientation and Mobility Association (WOMA)*, Newsletter (March 1999)
6. Speck, Jeff. “Keep Signals Simple.” *Walkable City Rules: 101 Steps to Making Better Places*, Island Press, Washington, DC, 2018.
7. In areas with Bike Sharing present, driving trips decreased while bike trips increased by 41% (Bobby Magill, “Is Bike Sharing Really Climate Friendly?,” *Scientific Journal* (August 19, 2014)
8. Street trees reduce crashes. A study along Orlando’s Colonial Drive compared a segment of roadway with street trees and other vertical objects along it to a segment without. It found that the segment with no trees experienced 45% more injurious crashes and many more fatal crashes: 6 to 0. (Eric Dumbaugh and J.L. Gattis, “Safe Streets, Livable Streets,” *Journal of the American Planning Association*, vol. 72 (2005), 285-90)
9. Street trees absorb stormwater, and a typical mature tree absorbs about the first half inch of each rainfall that hit it. (Rainfall Interception of Trees,” in *Benefits of Trees in Urban Areas*,” coloradotrees.org) and (Dan Burden, “Urban Street Trees: 22 Benefits, Specific Application” (Summer 2006), http://www.walkable.org/22_benefits.pdf
10. Street trees absorb UV and pollutants by absorbing a tremendous amount of airborne carbon dioxide—ten times more than trees located farther away from roadways: Henry F. Arnold, *Trees in Urban Design*, 2nd ed., (Hoboken: John Wiley and Sons, 1992), 149
11. Street trees reduce urban heat islands: Trees have been shown to create local temperature reductions as great as 15 degrees Fahrenheit and the federal government reports that a single mature tree has the same cooling impact as ten room size air conditioners operating 24 hours a day (US Department of Agriculture, Forest Service Pamphlet #FS-363)
12. Street trees improve property value and home prices by 9%: “Greening Up Fertilizes Home Prices, Study Says.” *Philadelphia Inquirer* (January 20, 2005)

13. Street trees improve retail viability. One study found that shops on streets with good tree cover earn 12% more income: Don Burden, "Urban Street Trees." Henry F Arnold, Trees in Urban Design, 149
14. According to the National Trust's Main Street Program, each on-street parking space contributes about \$10,000 in retail sales to nearby businesses: (Jeff Speck, 101 Walkable City Rules, Put Curb Parking Almost Everywhere)
15. Speck, Jeff. "Make Sidewalks Right." Walkable City Rules: 101 Steps to Making Better Places, Island Press, Washington, DC, 2018.
16. Speck, Jeff. "Build Your Bike Network." Walkable City Rules: 101 Steps to Making Better Places, Island Press, Washington, DC, 2018.
17. Speck, Jeff. "Park on Street." Walkable City Rules: 101 Steps to Making Better Places, Island Press, Washington, DC, 2018.