

MARYLAND

COMPLETE STREETS LEADERSHIP ACADEMY



Smart Growth America
Improving lives by improving communities



National Complete
Streets Coalition

MARCH 2025



Who we are



Smart Growth America envisions a country where no matter where you live, or who you are, you can enjoy living in a place that is healthy, prosperous, and resilient. We empower communities through technical assistance, advocacy, and thought leadership to realize our vision of livable places, healthy people, and shared prosperity. Learn more at www.smartgrowthamerica.org.



The National Complete Streets Coalition, a program of Smart Growth America, is a non-profit, non-partisan alliance of public interest organizations and transportation professionals committed to the development and implementation of Complete Streets policies and practices. A nationwide movement launched by the Coalition in 2004, Complete Streets is the integration of people and place in the planning, design, construction, operation, and maintenance of transportation networks. Learn more at www.completestreets.org.

Project Team

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Introduction

Across the United States, the roads most dangerous to people walking and biking are those controlled by states. In 2023, 66% of pedestrian fatalities in the 101 largest metro areas occurred on state-owned roads. This disproportionate harm means that change within just 50 institutions is needed to significantly reduce the risk of roads to people outside of cars: state departments of transportation (DOTs). State DOTs need to work quickly and creatively to find solutions beyond the status quo and bring communities the safety improvements they so urgently need. One way they can do so is through quick-build demonstration projects, implementing short-term strategies to advance Complete Streets, with safety, access, and mobility for all.

Quick-build demonstration projects: are temporary installations that test new strategies to improve safety and access for people traveling, particularly people walking, biking, and rolling. They can also be used to pilot Complete Streets strategies. These projects allow people who use these routes to try new ways of getting around and offer feedback on the temporary design, and provide an opportunity to collect data to support the impact of such improvements. Quick builds also offer an immediate benefit for places that are not currently designed with safety for all users in mind, such as dangerous crossings or roads with lots of speeding, without needing to wait for long design and construction processes to see improvement.

Complete Streets: an approach to planning, designing, building, operating, and maintaining streets that enables safe access for all people who need to use them, including pedestrians, bicyclists, motorists and transit riders of all ages and abilities.



Aerial view of the Howard County quick-build demonstration project

Safe Streets and Roads for All (SS4A): is a federal grant program from USDOT that funds projects to reduce roadway injuries and fatalities. Planning and demonstration grants can support the development of comprehensive safety action plans and related demonstration projects, while implementation awards fund the construction of interventions identified by an action plan. This program has funded over 1,600 communities with \$2.9 billion since 2022.

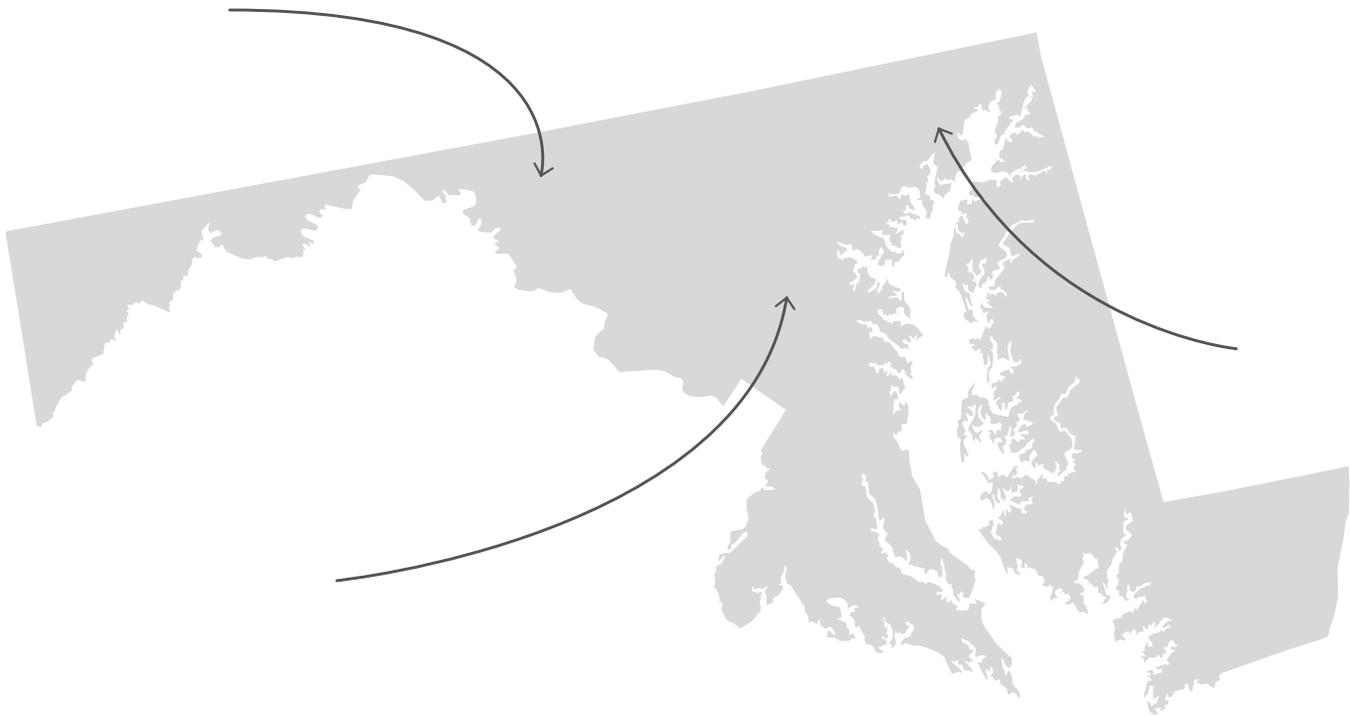
Pedestrian Safety Action Plans (PSAPs): are strategy documents used by governments of all levels to improve safety outcomes for people walking. In Maryland, the SHA implements the PSAP on state-owned routes by identifying priority corridors and working with local jurisdictions to make recommendations for specific safety improvements for people walking and biking.

Recognizing this safety crisis and the need for a new approach, Maryland Department of Transportation (MDOT) announced a statewide Complete Streets policy in June 2024 and kicked off a Model Complete Streets Initiative to coordinate across its modal offices and work with stakeholders around the state on implementation. As part of this effort, Smart Growth America (SGA) partnered with MDOT to conduct a Complete Streets Leadership Academy (CSLA), a program for local jurisdictions and state DOTs to work together to install quick-build demonstration projects on state-owned routes. SGA has led [previous Leadership Academies](#) in other states, and this partnership with MDOT stemmed from interest and support from the MDOT Secretary's Office. With states across the U.S. owning the most deadly roadways, this program is meant to test new strategies and build partnerships where they are needed the most.

Through a series of in-person workshops, virtual check-ins, and ongoing collaboration, three local jurisdictions in partnership with their regional State Highway Administration (SHA) district offices designed and installed demonstration projects. The **Town of Bel Air**, the **City of Hagerstown**, and **Howard County** each participated in this Leadership Academy, along with SHA Districts 4, 6, and 7. These local jurisdictions were chosen by MDOT in part to work across different districts and in part due to local need—each of these jurisdictions have safety hotspots that have been the recent focus of [Safe Streets and Roads for All](#) (SS4A) projects and/or the MDOT [Pedestrian Safety Action Plan](#).

MARYLAND

Click to jump to the case studies!



This Complete Streets Leadership Academy included a series of workshops over summer 2024 and led to quick-build demonstration project installation in August, with the goal to have them implemented until October or November. The workshops covered key topics including project design, performance measures, engagement planning, data collection, and storytelling. Stantec, an engineering firm SGA partnered with for this CSLA, aided project design by providing engineering drawings and ongoing technical support throughout the projects. Funded by grants from SGA, the local jurisdictions procured the materials, which were installed by State Highway Administration maintenance shops. Each jurisdiction hosted a workshop that included a walk audit to visit the project site. The in-person workshops provided a unique opportunity for relationship building between MDOT, SHA, and local teams, cross-jurisdictional collaboration, and a focused space away from day-to-day responsibilities.

What does it take to install a quick-build demonstration project?

A typical process for designing, installing, and monitoring a project includes:



Site context: Identify a site with a problem a quick build could address and collect baseline data.



Project design: Create a design that addresses the challenge at your site and gather the necessary materials.



Installation: Build the project!

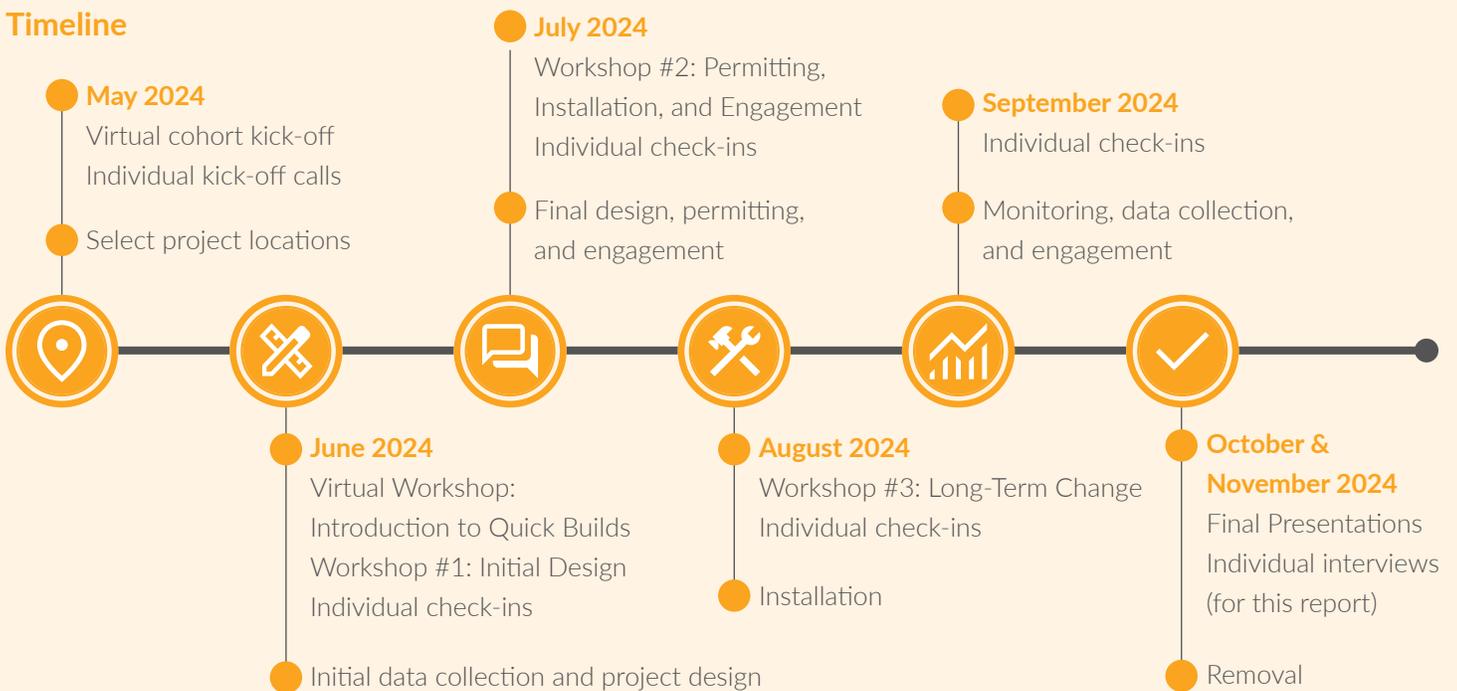


Engagement: Involve community members through all phases of the project.



Data collection: Monitor the project and compare results to baseline data.

Timeline



A core benefit of quick builds is data collection to compare metrics before and after installation, such as comparing vehicle speeds and volumes, pedestrian volumes, and perceptions of safety. Installing the projects for at least three months allowed time for people to get used to the project and for data about its impacts to be collected through a variety of means. This led to a tight timeline for the summer workshops and design processes, but all teams were able to accomplish these steps and successfully install their demonstration projects in time to collect data about its impact throughout the fall.



Temporary multi-use path in Howard County (Source: Scott Newill, SHA)

What went well

Leadership

Support for this work came from the top. The MDOT Executive Leadership team not only initiated this project, but representatives from the Secretary's Office showed up to every meeting and actively participated throughout. With leadership so clearly investing in this process, everyone involved had the motivation to go full steam ahead on this project and were motivated to see it succeed.

Leadership was also found at the participant level, with individuals showing up and taking initiative throughout the process. For example, right after the project kicked off and the Hagerstown site was confirmed, the SHA District 6 team conducted a speed study at the Dual Highway project site, collecting baseline data on vehicular speed and volumes that would be used to measure the success of the quick build. In Howard County, local team members conducted business outreach immediately, going door-to-door to discuss the project and its potential impacts with local business owners. Building partnerships helped the project move forward smoothly and allowed for adjustments to be made easily when necessary.

Finally, decision makers in the Leadership Academy were known to participants, available throughout the process, and accountable for their roles in the project. The SHA Senior Safety Officer was the point person throughout the project. He made his dedication to the project known, repeating often that he would respond to questions and concerns within 24 hours.

Multiple times, if there was uncertainty in who was responsible for what or in what approval was needed when, this individual would be contacted and would promptly sort out the issue. The most prominent example is when the Hagerstown City Council did not provide the necessary approval for procuring materials, and the Senior Safety Officer went to the council meeting in person to make the case for quick-build projects. Having an influential point person, as well as strong initiative across participants, and the Secretary Office's clear commitment, all made project installation possible.

Key Finding

Supporting the quick build process can take many forms. Demonstrate leadership throughout the process, champion participants who take initiative in the work, and make sure decision makers are available and responsive.



Commitment and collaboration

Quick-build demonstration projects are “quick” in comparison to full engineering design and construction, but that doesn’t mean they’re easy or even straightforward. Participating in Leadership Academy workshops, designing and installing these projects, and conducting data collection and outreach required a lot of time and effort on top of participants’ regular ongoing work. Everyone involved in this project showed up and made time for the development, installation, and monitoring of these installations, their commitment building on the leadership shown by the Secretary’s office and individual participants’ personal dedication to advancing safety.

These shared goals of safety improvement and piloting a new approach kept everyone focused on working together and moving in the same direction, particularly when deep collaboration was necessary. When a potential roadblock was identified, participants worked across jurisdictions and districts to come up with solutions. For example, when each district was unable to secure the use of paint trucks for installation, the teams quickly pivoted to using tape and other materials. At one point, discussion of potential launch events included a “bike rodeo,” which received some opposition from SHA around liability, but an MDOT representative quickly asked what the state could put in place to enable an event like this to occur. These real-time brainstorming helped participants to push boundaries and make the most of this opportunity.



Planning exercise at the workshop in Hagerstown



CSLA participants travel to the project site in Howard County

Key Finding

Make time for this project among many competing priorities and work together to overcome inevitable roadblocks in the path. This work takes focused and coordinated effort.



Existing relationships, building relationships

Installing these demonstration projects within the expedited timeframe was in large part possible because of the shared goal of building relationships, and for some teams, due to the trust already in place. The Howard County team and District 7 in particular benefited from an existing close working relationship, which enabled them to complete a project much larger in scope than originally expected. At the same time, many participants went into the Leadership Academy with the goal of getting to know others across the state, both peers in similar roles and individuals across MDOT. MDOT, like many state DOTs, is sprawling and often difficult to get a response from, but with this program, local government staff were able to get to know MDOT staff in their district, building relationships for future partnerships and providing direct connections to troubleshoot not just this process but others. The Leadership Academy also strengthened relationships between local government, MDOT, and the public. For example, business owners along the project in Howard County said this was the first time someone had contacted them in person about roadwork. In Bel Air, MDOT is leading outreach to the local school administration, which could open the door to a Safe Routes to School program or a similar ongoing initiative. The project helped build relationships that will be essential to further improving pedestrian safety, through SS4A planning, PSAPs, and beyond.



CSLA participants visit the multi-use path during the walk audit in Howard County



CSLA participants on a walk audit of the temporary multi-use path in Howard County

Key Finding

Take this opportunity to build trust between individuals across jurisdictions and departments, as stronger relationships more easily achieve better safety outcomes.



Learning

Quick-build demonstration projects are a way to try something new, a way for DOTs to pilot new designs, processes, and materials for immediate safety and access improvements. This Leadership Academy fostered significant institutional learning in a variety of ways. At a very high level, can MDOT install quick builds on their roads? This academy demonstrated that it is absolutely possible. At a more granular level, MDOT used this process to add speed cushions to the Maryland Product Evaluation List as a temporary material, to learn to install these new materials, and to pilot more efficient processes to limit review in temporary projects. Though the designs of the projects were well within MDOT's comfort zone—even the speed cushion trial was proposed from within SHA—the processes were where MDOT showed the most flexibility and creativity. Expediting review and using temporary installations to measure the impacts of new materials are forms of institutional creativity that are not as obvious as a colorful new installation or a unique traffic calming technique, but should be applauded nonetheless.

Many participants started this program with curiosity, wanting to learn more about Complete Streets in Maryland and the process of quick-build demonstration projects. For some, this was their first introduction to Complete Streets. These new champions of Complete Streets and quick-build demonstration projects are a resounding success of this project, and their continued pursuit of this work should be encouraged and supported.

"This created a healthy medium, not just to go deploy [quick-build solutions], but to create a learning opportunity where our department and our local agency partners that we're working with to test, to learn, and to grow."

— Joe McAndrew, Assistant Secretary for Project Development and Delivery, MDOT

Key Finding

Come to this work with a growth mindset and get your curiosity ready: there is a lot of learning that has to be done to try a new approach.



CSLA participants learn storytelling techniques at the workshop in Howard County



CSLA participants work on initial project design at the workshop in Bel Air

Shared success

During individual interviews with participants, everyone gave lots of credit to others for completing these projects. Local jurisdictions pointed to MDOT’s and SHA’s dedication, and the state pointed right back to the local commitment and efforts. This showed not only how collaborative and positive the working relationships were, but how everyone viewed these partnerships as keys to joint success. Additionally, the three communities working together challenged and encouraged one another, learning how to advance individual community objectives while addressing state-wide concerns. More than getting all three projects in the ground, the success of this project was these relationships that were built along the way.



Key Finding

Everyone sharing the credit in success is a sign that you’ve built successful partnerships in this work. Camaraderie is key!

“Five, ten years down the road, maybe this is how projects are being pushed out now and then. I think it’ll be something special to feel like we are part of the inauguration of that taking place in Maryland. It’s a good alternative to have, knowing that we can get some product or projects out there quickly, and in the different means and methods than we’re used to.”

— Jared Kline, Traffic Engineer, SHA District 6

Key Finding

One quick-build demonstration project can lead to so much more: new partnerships, processes, and designs can result in much greater road improvements beyond a single project.



Eager for more

There is great interest in seeing these improvements continue, from local residents to the Secretary’s office. Everyone interviewed for this report was interested in doing another quick-build project, trying a similar approach in another location, keeping these projects in place longer, working to make the improvements permanent, or other ways to continue this work. There were discussions about how to make some of these temporary installations last longer or opportunities to reinstall come spring. Beyond these initial locations, there are opportunities for the local jurisdictions to reuse the materials they purchased, particularly the flex posts and speed cushions. Now that speed cushions have been tested on Maryland state roads, MDOT is eager to find other places that could benefit from this strategy. The measured results of the projects can be used in SS4A plans and PSAP work in the near future. More broadly, there is excitement around how this quick-build approach could fundamentally change the way safety and access are advanced.

PROJECT RESPONSIBILITIES		
	Primary	Support
Permits	SHA Districts	Stantec (design, quantities)
Procurement	Local jurisdictions	SHA
Installation	SHA	Local jurisdictions
Engagement	Local jurisdictions	SHA District CRMs & MDOT
Data Collection	Local jurisdictions	MDOT

Barriers and challenges

Timing, staffing, and funding

The most immediate challenge in this project was the fast pace everyone adhered to in order to get from initial design to installation in only eight weeks. The short timeline was to get the projects in the ground for sufficient data collection within the timeframe of the technical assistance. All three teams cited the expedited pace as a challenge, even though it was a challenge they were able to meet. There were a few specific parts of the process that would have benefited from a longer timeline: data collection, engagement, and financing.

- **Data collection:** If the projects could have been in place longer, there would have been more time available for data collection and public feedback on the project, and the measurements used in comparing the safety outcomes would be even more robust.
- **Engagement:** If the planning process had been extended, there could have been more opportunity for outreach and engagement. For example, public input on this project design could have been gathered, in addition to the SS4A and bike/ped feedback. Further engagement with stakeholders could have prevented some issues that arose while the projects were in place, such as Howard County working with the U.S. Postal Service on continuing delivery. There could even have been time for a launch event, to galvanize public attention around the project and provide a new point of contact between people and their government agencies.
- **Budget logistics:** A longer timeline with more advanced notice to local communities could have helped mitigate challenges related to the sub-grants and financing. Receiving the grant funds would have been easier if the project had been included in a prior budget cycle, so as to hold a place to receive the funds. Earlier notice could have let the teams designate part of their budget for hiring an intern to support the project, with their salary reimbursed through the subgrant.

Related to timing, staffing and partnerships constrained the extents of the project and the engagement. Howard County's project had more people on the team to support it, which enabled the project to happen at a larger scale and made directly engaging adjacent businesses feasible. Due to office size and existing resources, Bel Air and Hagerstown had fewer staff on the project, which impacted the local capacity to conduct outreach before and during the project. Partners who should have been involved earlier in the process were the SHA maintenance teams, whose participation from the start could have helped with buy-in when it came time for installation, and the SHA Community Relations Managers, who can lead outreach from MDOT. Future demonstration projects will benefit from including these teams from the beginning.

As with any project, funding constrained the scope of these projects and will be a large factor in any future iterations. The Howard County project was designed to stretch as much of the corridor as possible, to connect from one natural starting point to another without dropping off partway through the roadway. In order to do so, the spacing of the flex posts was determined by the grant size—the greater the spacing between the posts, the longer the distance the project could cover. The procurement processes were designed to minimize the timeline—having the local jurisdictions procure materials avoided the much lengthier process of MDOT procurement, but that format somewhat increased confusion around responsibilities and led to other challenges like council approval and identifying receiving funds. Local jurisdictions and MDOT have a lot of interest in repeating this process in the future, but many participants identify funding as a barrier to do so.

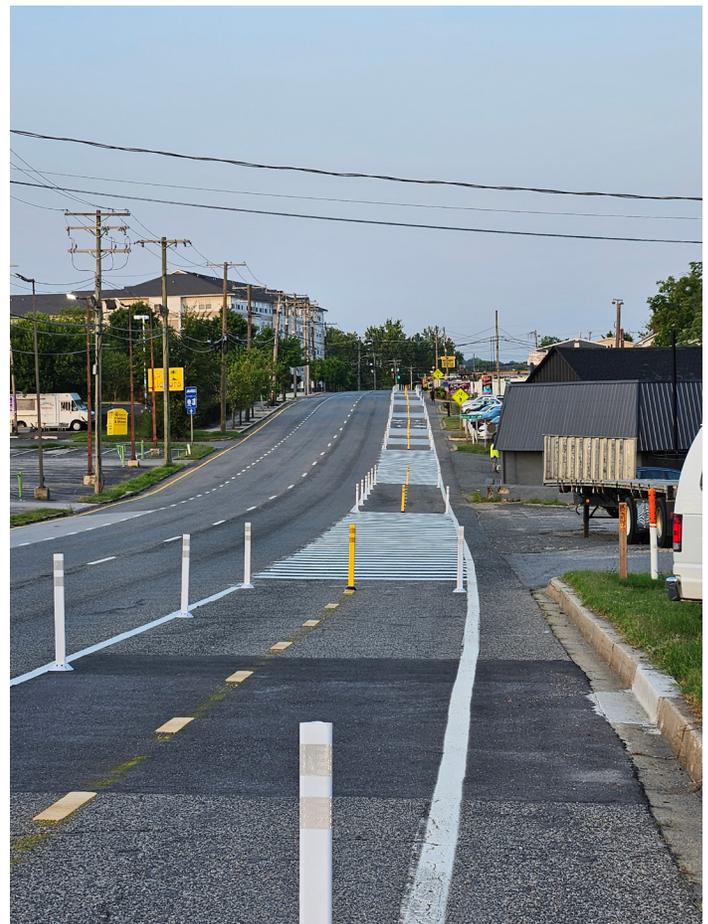
Public involvement

A limitation of this project, related to the timing, staffing, and funding constraints already described, was the lack of direct public involvement in the process. The voices in the room during workshops and walk audits were all government staff, with no members of the public, community organizations, or other groups represented—clearly missing perspectives on who is impacted by this work. Though public input from other projects, such as SS4A planning work, bike/ped planning meetings, and PSAP projects, all informed the site selection and safety needs addressed, this was all built on engagement completed prior to the Leadership Academy. No community members were in the room as design, implementation, or other process decisions were made. In all three projects the public was not directly involved until the project was installed and the public was asked for feedback on the temporary installation.

Quick-build demonstration projects can be opportunities for the public to become more directly involved in the design and installation processes of transportation projects. In this CSLA, even the public engagement solely focused on feedback displayed the project benefits: Howard County received kudos from adjacent businesses for working with them in person and the intercept surveys highlighted the impact the project had on residents. In Bel Air, the team's fears of online blowback did not come to pass, but rather, they heard of support for further safety interventions. People used Hagerstown's SS4A project input site to voice their responses to the quick-build project. Through participation in initial design, volunteer support for installing materials like planters, or turning traffic-calming asphalt art into a public event, there are a variety of creative ways for the community to be more involved throughout this process. However, the constraints of working on state-owned routes meant there were limitations on the materials available for use in the projects, all of which involved professional installation, and the possible configurations of these materials in the roadway. A longer timeline or more resources could have enabled more public engagement, but so could have more creative partnerships with local organizations or a different distribution of responsibilities among the teams.



CSLA participants share their initial project design at the workshop in Bel Air



Temporary multi-use path on US 1 in Howard County (Source: Scott Newill, SHA)

Overall guardrails

MDOT's leadership was essential to successfully implementing all three of these projects, and one form of this leadership was a centralized approach throughout the program. For a successful pilot, SHA put guardrails around the types of projects that could be done, which limited the types of challenges that could be addressed. This resulted in SHA starting the process with a seemingly fully-fledged design proposal for most sites, with minimal input from local jurisdictions on project design. Though this outcome was successful, the tradeoffs made in this approach should be understood.

SHA's initial site selection did not always match the local need. In Howard County, SHA originally selected MD 108 to increase connectivity near a local school. However, streets in this area had recently been improved and there were other sites in the county with much higher need, only those sites fit outside SHA's guardrails. The first few meetings with Howard County, SHA, and SGA included the county persuading SHA to agree to move the project to Hwy 1 in North Laurel. This site was a larger size project than SHA was initially comfortable with, but it was a site that Howard County had been asking for improvements on for years, and with the upcoming PSAP it was a perfect opportunity to demonstrate MDOT's commitment to safety in this area. SHA was clearly open to the location changing, but it was also obvious the county had not been a part of initial conversations to select a location.

In Hagerstown, SHA's initial project proposal did not address the full safety concerns at the site of Dual Highway and Cannon Rd. Though pedestrian visibility and turning radii at the Cannon Rd intersections are important issues, the main concern is about 600 feet down the road, where lots of people cross the highway between intersections. The first workshop included a lot of brainstorming on how to shift the project scope and make crossing the street at that mid-block location safer while remaining inside SHA's guardrails.

Adding a temporary signal was outside the materials allowed for this project. The idea of adding a temporary crosswalk was immediately rejected by SHA because it opened the door to liability—by indicating that people could safely cross here, MDOT would be at legal risk if someone then got hurt (whereas doing nothing does not lead to liability, in this system). The strategy that was agreed on was to focus on slowing speeds at this spot on Dual Highway, to make mid-block crossing safer without explicitly condoning that crossing. These examples of Howard County and Hagerstown projects adjusting to fit local needs better than the original proposals from SHA are success stories, but these changes were necessary only because SHA had started with such a centralized process.

SHA's guardrails and influence on the process overall inhibited the potential of a quick-build demonstration project to entirely rethink the status quo. The projects did not fully meet the concerns of the communities, particularly Hagerstown's shifted project scope. The existing practices that might need to be updated to allow for organic quick-build demonstrations were not challenged, such as how the materials and designs available for the project were narrowly constrained to a few pre-approved configurations. Most importantly, this maintained the premise of traffic safety as a top-down issue where the local jurisdictions reacted to the state's proposal, rather than the DOT responding to local community needs. In order to realize the full potential of quick-build demonstrations, both for the safety improvements they promise as well as the community engagement opportunities they provide, a more collaborative and open process should be considered.

Recommendations

Develop guidance and processes

To install more quick-build demonstration projects outside of a Complete Streets Leadership Academy, MDOT should plan to develop standards for reference throughout the process. Examine the guardrails in place for this pilot, determine which to carry forward, and use them to inform standards guiding:

- Types of locations or safety challenges that are eligible for quick-build demonstration projects
- Lists of acceptable materials for expedited review and how/where they might be used
- Delineations of responsibilities across different parties, including local jurisdiction staff, SHA district teams, SHA headquarters, and other MDOT teams

Toolkits and guidance can further support these projects by providing examples (in addition to these case studies) and recommendations for key steps in the process. MDOT can develop these documents internally or reference resources from others. Some examples that would be helpful for future quick-build projects include:

- Procedural flowcharts and timelines, including any necessary review, from project ideation to removal
- Permit or application process for local jurisdiction-initiated installations
- Engagement tools, such as standard intercept surveys, digital tools, and launch event materials
- Sample designs for some of the common eligible locations or safety challenges
- Regularly updated best practices through case studies, peer-learning opportunities, and sharing data on successful implementation



CSLA participants at the walk audit in Hagerstown



Presentations introducing communities and project sites at the workshop in Bel Air

Community involvement

Quick-build demonstration projects offer opportunities to involve communities throughout the process. Though this Leadership Academy contained limited community engagement, there are a lot of ways future quick-build projects on Maryland's state-owned routes could be an avenue for including community members who most benefit from these projects but may not otherwise be engaged. Leaning into this potential for community involvement can help MDOT implement the new statewide Complete Streets policy. Ripple effects of education, empowerment, and action can shift culture and expectations for what safety and access benefits a transportation network should deliver.

ENGAGEMENT OPPORTUNITIES	
Stage in the process	Engagement opportunity
Site selection	In addition to using feedback from ongoing engagement around SS4A plans, bike/ped plans, and PSAPs, specifically involve community members in identifying a project site that will benefit most from a quick build.
Walk audit	Invite community members with a variety of backgrounds to share their experiences during walk audits to better learn how people currently navigate unsafe conditions and to hear from them what they need.
Project design	Get creative input from the community on the form these improvements could take during initial project design, and get people thinking about how it could build towards other benefits of Complete Streets in addition to safety, like public health and economic development.
Installation	Design the project to have a component of community involvement during installation, such as asphalt art in the shoulder or a launch event celebration nearby.
Data collection	Engagement during data collection can include both gathering feedback from people and organizing volunteers to do this work, perhaps people whose interest had been sparked by the launch event!
Project results	Create opportunities for the public to hear and respond to what was learned from the project and how it will inform long-term planning. Did the results of the project confirm the public's expectations? Is there existing lived experience to contradict what was learned through surveys and data collection?

Additional training

Doing is one of the best ways of learning, but if MDOT wants quick-build demonstration projects to proliferate beyond the scope of Leadership Academies, hosting separate, ongoing trainings will be essential. With so many participants coming into this project eager to learn about quick builds, Complete Streets and related topics, it is likely that this interest in learning can be found across the state. A series of trainings for local jurisdictions, SHA districts, and MDOT teams can help bridge this gap. Future trainings can cover topics such as Complete Streets, quick-build demonstration projects, creative project design, and best practices in traffic calming. Trainings can also be interactive, offering room to practice skills such as community engagement techniques, qualitative data collection, and conducting walk audits. As more teams work on quick-build projects, the more opportunity there will be for peer learning across Maryland to support these trainings.



CSLA participants present engagement activity proposals at the workshop in Hagerstown

Future Leadership Academies

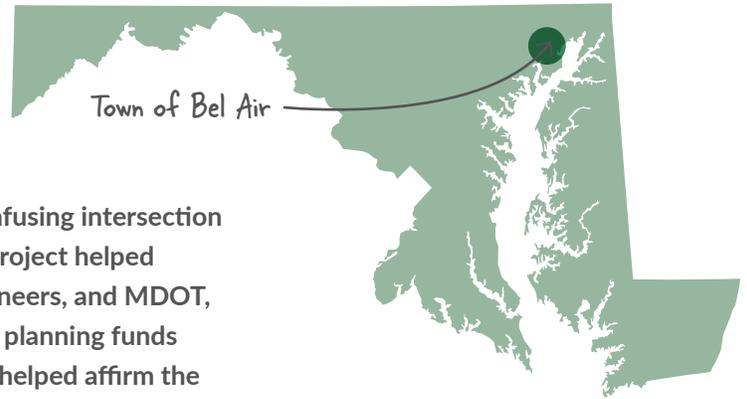
If Maryland uses this Leadership Academy model to further quick-build demonstration projects, a few ideas to improve the program include:

- Start earlier in the calendar year or allow for the academies to take place over multiple years. With the fast timeline being the main constraint in this program, an earlier start time would allow for a longer design and procurement process and more time for the project to be in the ground.
- Get local jurisdictions involved earlier for work planning and procurement logistics. Some of the timeline constraints led to challenges around local jurisdictions identifying receiving funds, getting approval for procuring materials, and budgeting for additional staff. Combining an earlier start to the process with having conversations about these logistics earlier would put local jurisdictions in a stronger starting place.
- Expand the teams to include community members, advocates, and other state agencies such as the Department of Health.
- Include SHA Maintenance & Operations staff and SHA Community Relations Managers from the beginning. These teams can provide insight into design, installation, and engagement and should be involved throughout the project.
- Build in time and resources for public engagement. Not doing so would miss out on an enormous benefit of quick-build demonstration projects: building relationships between MDOT, local government, and the community.

CASE STUDY

Bel Air

Bel Air used a quick-build demonstration project to make a confusing intersection easier for people walking, biking, and driving to navigate. This project helped strengthen relationships between town staff, SHA district engineers, and MDOT, which will help to implement future improvements. With more planning funds on the way, the community's positive feedback on this project helped affirm the town's commitment to improving safety through design.



Initial concept design



Site context

The intersection of Gordon St, N Main St, and N Bond St (MD 924) in Bel Air is confusing and dangerous for people driving, walking, and biking. This five-way intersection is the entry point to the town center from adjacent residential areas, as MD 924 is truly the town's main street, but the sense of place and charm is impacted by people driving who speed on their way into town or make wrong turns due to the confusing intersection. People driving easily turn the wrong way around medians that would never be designed in such a confusing layout today. Even during the brief walk audit of the site, the team observed someone making a wrong turn around one of the medians. This confusing design for people driving makes the intersection particularly unsafe for people walking. Bel Air Elementary School is nearby, and this dangerous intersection separates many students' homes from the school, so they are often driven to school. Also nearby are attractions like the ShopRite, the Liriodendron Mansion, and the Historical Society of Harford County, which could be easier to visit without a car if the intersection encouraged it.

The town has previously used cones for temporary installations to pilot new traffic patterns, but only on local roads and never with the materials available for this Leadership Academy. Bel Air is currently implementing a USDOT Safe Streets and Roads for All 2022 grant award of \$140,000 to develop an Action Plan and is updating the Town Bicycle and Pedestrian Plan. Public engagement through both of these planning processes identified this intersection of Gordon, Main, and Bond as the biggest safety challenge for the town.



CSLA participants conduct a walk audit of the project site during the workshop

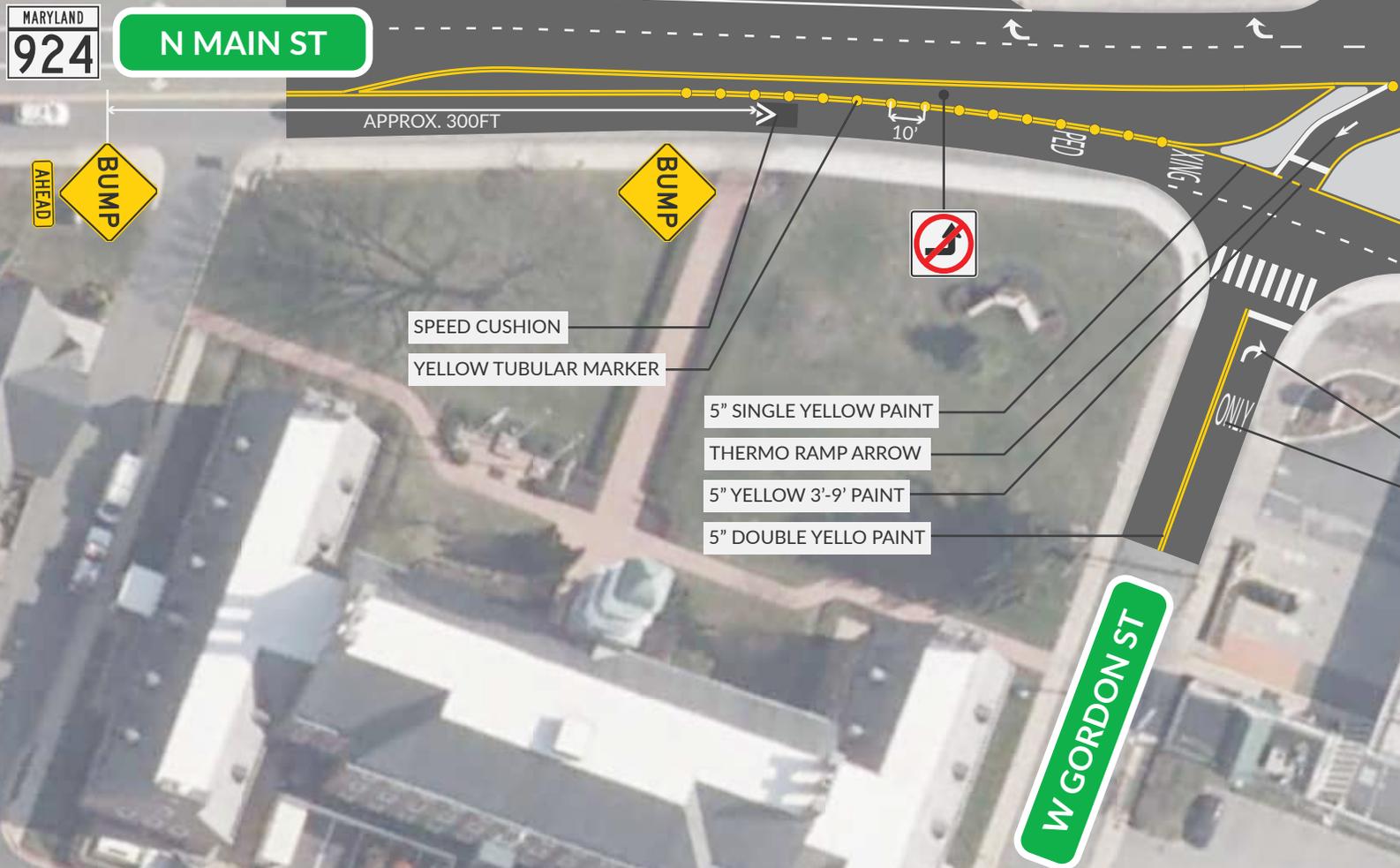


CSLA participants develop the initial project design at the workshop in Bel Air



Project design

This quick-build demonstration project included speed cushions on N Main St to slow vehicles down as they approached the intersection and flex posts to close both the left turn onto E Gordon St and an on-street parking space in front of the Historical Society. Removing one of the many turning movements possible simplified the intersection. Closing a parking space improved drivers' ability to see people waiting to cross the street. Some permanent improvements already planned for the site were included in this project: continental-style crosswalks, signage on the road to show which lanes are turning lanes, and yield signs at crosswalks. After the initial design process, the modifications made to the plans were minor. The original plans for paint were switched to tape when a paint truck could not be secured.





E GORDON ST

- 15" WHITE PAINT
- 10" WHITE PAINT
- 5" WHITE PAINT
- WHITE TUBULAR MARKER
- SPEED CUSHION
- THERMO CHARACTERS

BUMP

BUMP AHEAD

APPROX. 300FT

N MAIN ST

MARYLAND
924

BUMP AHEAD

- 5" WHITE 3'-9' PAINT
- 24" WHITE THERMO
- 10" WHITE PAINT

- 5" WHITE PAINT
- THERMO RIGHT ARROW
- THERMO CHARACTERS

MARYLAND
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N BOND ST





Installation

SHA District 4 maintenance shops installed the materials. Installation occurred across a week and a half, with Labor Day weekend in the middle. The installation occurred in phases as materials were received. This process took longer than expected, likely due to communication around procurement and different expectations between the town and SHA. The town expected SHA to be able to install materials in phases as they arrived, whereas SHA expected all of the materials to be available before installation began. With the town procuring materials and SHA installing them, any hiccup in the process would delay the timeline more, which was especially challenging in the face of trying to get the project installed before the first day of school.



Engagement

The town sent letters and emails to nearby businesses and residents and posted a sandwichboard with project details at the intersection before the installation. After installation, a town staff member conducted intercept surveys of students and parents walking to school in September and conducted additional interviews in November. Bel Air had limited staff time for further engagement, and feedback received through these methods was limited.

The team had high hopes for how Bel Air Elementary would benefit from this quick build, and would like to see this project lead to deeper partnership with the local schools. They had planned to involve the Parent Teacher Association (PTA) in engagement and feedback, but with summer vacation and the PTA president turning over before the next school year, there was little response. The school principal would have been another potential partner, but building the relationship would have had to begin earlier to pitch this as a priority to school leadership. The intercept conversations targeting students walking to school found that only a handful of students typically walk to Bel Air Elementary, and about a third of the students walking were on their way to Saint Margaret's Catholic School, further down the street. Intercept surveys were conducted in September, when the project was partially installed, and November, when the project had been in the ground for a few months.

MDOT supported this engagement by providing language that could be used in outreach materials and hosting a website to receive digital feedback from residents. MDOT also reached out to the Bel Air Elementary principal about organizing an assembly about traffic safety. With the additional time and resources available, as well as the benefit of being a fresh face in the room, MDOT's role in engagement was appreciated by the town. Additionally, if Bel Air hopes to pursue Safe Routes to School or similar programs, MDOT has expressed excitement to support.



*Speed cushions slow drivers down as they approach the crosswalk
 (Source: Laura Bianca-Pruett, Town of Bel Air)*



Data collection

The Bel Air Police Department conducted speed studies at the project site in June and July to measure a baseline before the project was installed. The department conducted studies at the same location in November to measure the impact of the project, particularly the speed cushions. These speed measurements found a 7 MPH reduction on Main St (from 28 MPH to 21 MPH) and a 2 MPH reduction on Bond St (from 26 MPH to 24 MPH). The speed cushions brought the 85th percentile speed to within the 25 MPH speed limit.

The town conducted intercept surveys near the intersection before and after project installation, aimed at parents walking their children to school. The surveys before the installation revealed what people thought about the conditions of the intersection and what improvements

they'd like to see. There was a feeling of the intersection being unsafe "no matter what," but everyone interviewed wanted to see Main St reduced to one lane. The surveys while the project was in place asked if people felt safer at the intersection, if cars were slower or more respectful, and what else they'd like to see done to improve the intersection. Everyone felt at least a little safer and liked the closed turn at Gordon St, and the town staff observed some youth crossing the intersection on bikes. However, respondents shared that people drive around the speed cushion or accelerate immediately after them and are concerned how improvements to driver behavior will be undone when the project is removed. The limited number of children walking to school meant there were only seven participants in these intercept surveys.



CSLA participants conduct a walk audit of the project site during the workshop

Lessons learned

Successes

- 01 Positive response:** The local team did not receive nearly as many complaints as they were bracing for, which is especially good news given the popularity of SS4A planning proposals for improving this intersection. The town also observed that people regularly driving and walking through the intersection quickly adapted to the reconfiguration.
- 02 Building relationships:** Town staff had previously faced challenges working with SHA, or even getting in touch with the right teams. Now that this project has fostered relationships between Bel Air, SHA District 4, and other MDOT teams, there is more trust between individuals, which will help future collaboration.
- 03 Safety outcomes:** The left-turn closure made the intersection less confusing and speed cushions help make the intersections safer for everyone. The slight reduction in vehicular speed and the improved perception of safety from people surveyed indicate this project did work. However, based on the intercept surveys held at the quick-build project site, residents are looking for bigger solutions long-term, such as turning Main St into a one-lane road or converting the intersection into a roundabout.

Challenges

- 01 Limited engagement:** Outreach efforts were limited by the local staff time available, the fast timeline, and the summer timeframe. The Bel Air Planning Department typically hires a summer intern, but when putting the budget together this year, the Leadership Academy was not on the town's radar. If this project had started earlier or if Bel Air had been able to adjust the town budget or hiring processes, an intern could have supported this outreach.
- 02 Unclear responsibilities:** At a few points in the process, there was uncertainty between Bel Air and SHA District 4 about who was responsible for what and by when, particularly around procurement. Though the SHA Senior Safety Officer clarified the issue, it seemed like the team was waiting for this individual to resolve it, rather than figuring it out internally. In this way, having a point person to make these decisions was essential in keeping the project moving forward, but that is offset by participants maybe having less confidence in their own decision-making.
- 03 Installation hurdles:** The installation process took about a week and a half, which was longer than the installation for the other two projects, even factoring in the long weekend. There was a bit of finger-pointing at this point of friction: the Town felt the maintenance team could have installed whatever materials were there as they arrived and SHA described the issue as Bel Air not ordering the materials all at once. Regardless of the challenges, the project was installed and able to be in place for most of the fall.



Flex posts are used to close the left turn onto E Gordon St, which simplifies the intersection (Source: Laura Bianca-Pruett, Town of Bel Air)



A speed cushion slows down cars and flex posts close the left turn onto E Gordon St (Source: Laura Bianca-Pruett, Town of Bel Air)

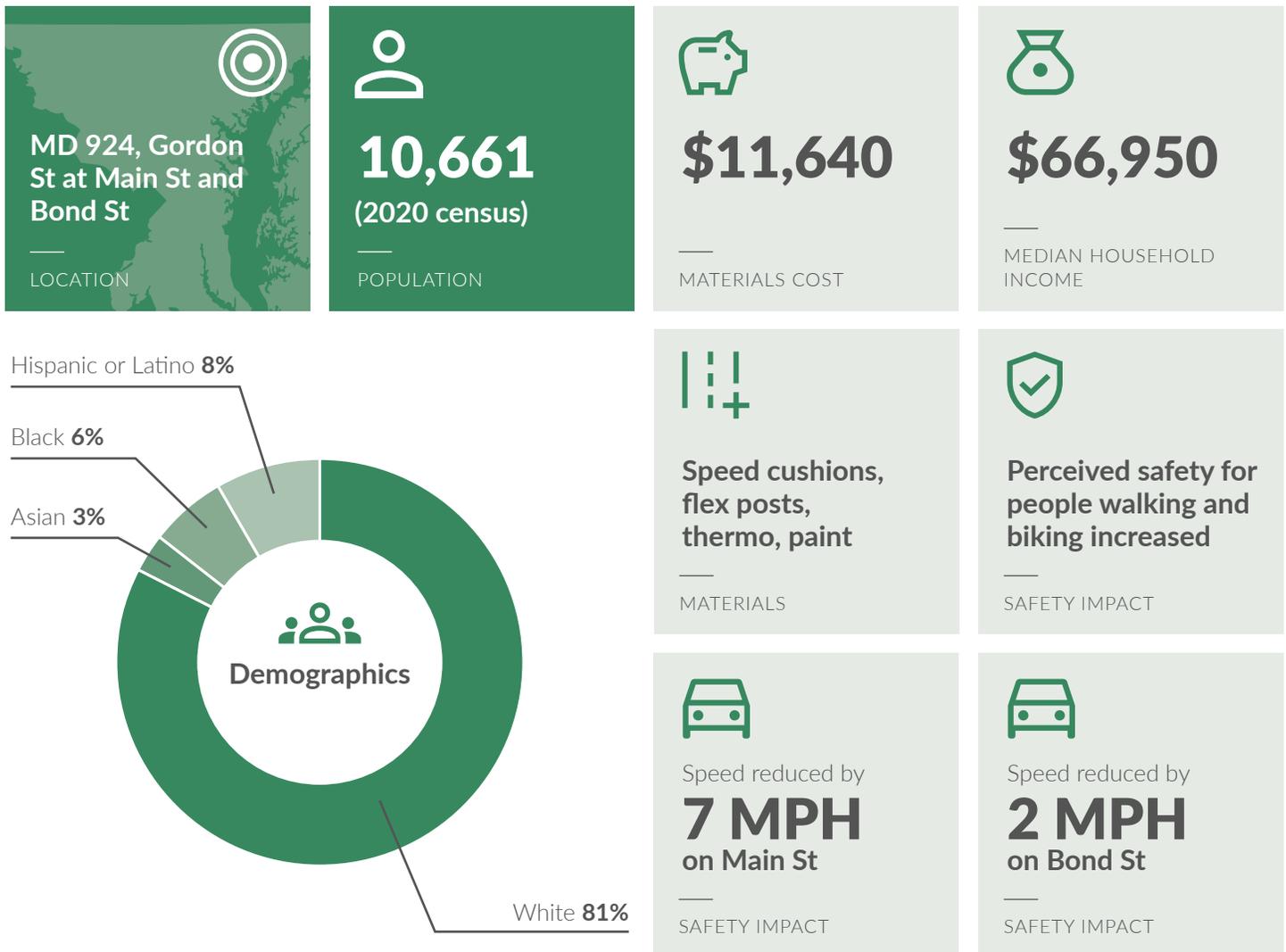


A school bus drives over the speed cushion next to the closed turn lane and new signage draws attention to the intersection (Source: Laura Bianca-Pruett, Town of Bel Air)

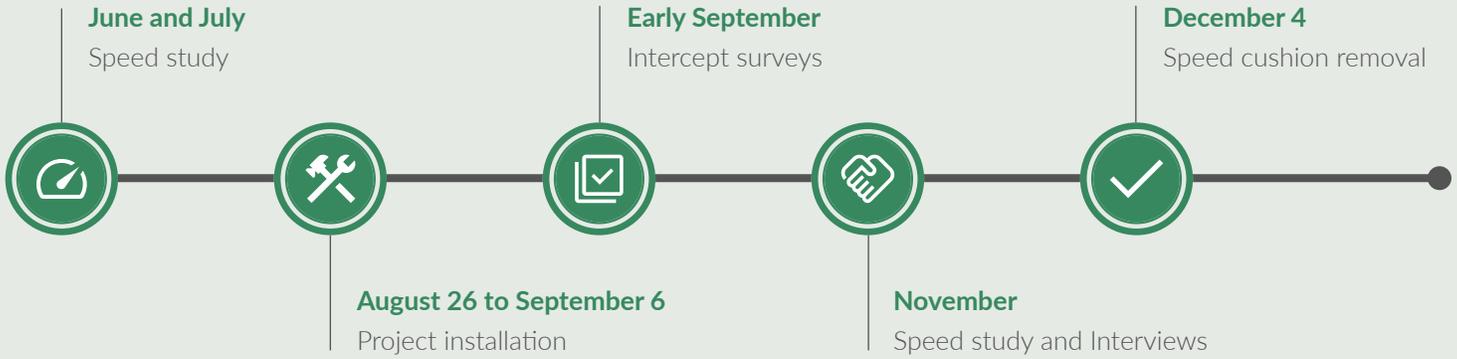
What's next?

Bel Air will continue to improve safety and access through the ongoing Bicycle and Pedestrian Plan and SS4A Action Plan, incorporating lessons learned from this quick-build demonstration project. Per the town's request, SHA District 4 kept the left turn onto Gordon St closed through the end of 2024 and will evaluate options to keep that turn permanently closed in 2025. The town has also requested the speed cushions be reinstalled near a different intersection on Main St in the spring, for improved safety at crosswalks. This shows how the town and SHA see the benefits to these installations and are eager for more.

Project snapshot



Milestones



What's next: Bel Air will incorporate lessons from this project into their Bicycle and Pedestrian Plan and SS4A Action Plan, install the speed cushions at nearby locations in Spring 2025, and evaluate permanently closing the left turn onto Gordon St.

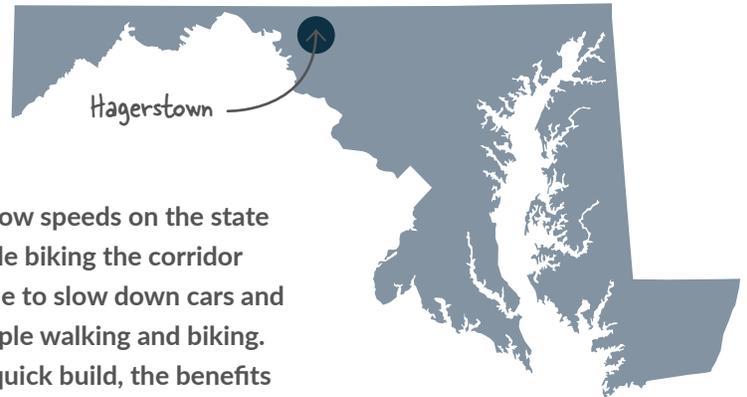


Public art in Bel Air

CASE STUDY

Hagerstown

Hagerstown installed a quick-build demonstration project to slow speeds on the state highway as it enters the historic downtown. With a lot of people biking the corridor and crossing the highway mid-block, the city and SHA were able to slow down cars and improve the existing crosswalks to make the area safer for people walking and biking. Though not all safety issues were able to be addressed by the quick build, the benefits were clear to people who live near the highway. The project helped broaden the conversation of how to improve pedestrian safety in the area and the team is eager to continue this work.



Quick-build demonstration project on US 40 in Hagerstown (Source: Eric Hastings, City of Hagerstown)



Site context

US 40 enters the City of Hagerstown as Dual Highway, where the highway branches to split into Franklin St and Washington St, one-way pairs running through the historic downtown. There is a lot of speeding from drivers entering downtown—where the posted speed is 25 mph, many drivers are in excess of 40 mph. The first intersection in the downtown area, Dual Highway and Cannon Ave, inadequately protects people walking with poor crosswalk markings, low visibility, and evidence of trucks running over the sidewalk while turning. Businesses at this site include fast food, a liquor store, a gas station and auto parts store, and an empty storefront, which results in places that generate foot traffic right next to car-oriented land uses, creating a space not designed for people outside of cars. A big safety issue in this area is mid-block crossings where Dual Highway branches. With traffic signals creating a platooning effect of long stretches of empty road between groups of vehicles and over 1,400 feet between the existing crosswalks, people walk to the other side of the highway via the most convenient way available, which is outside the designated crossings.

Hagerstown has experience with both Complete Streets and temporary installations. Hagerstown and the Eastern Panhandle Metropolitan Planning Organization has a joint Complete Streets resolution from 2018 (though as just a resolution, it scored only 4 out of 100 in The Best Complete Streets Policies of 2018 Report). In 2022, Hagerstown received an SS4A Action Plan Grant award of \$160,000 and that planning work is ongoing. The SS4A online feedback form was actually utilized by residents looking to give feedback on this quick-build demonstration project. Adjacent to the project site, on eastbound US 40, are flex posts delineating a sidewalk extension from where the sidewalk ends near the auto parts store to almost 500 feet down the road to where the sidewalk picks up again. These temporary materials on the state route show that there is precedent to a quick-build project like this, especially for improving safety and access for people walking in Hagerstown.



Public art in Hagerstown



CSLA participants at the intersection of US 40 and Cannon Ave during the walk audit



Project design

This quick-build demonstration project included speed cushions on Westbound US 40 going into the city, flex posts removing shoulders and shortening turn lanes to visually narrow the road, and hardened centerlines at Cannon Ave. This project included some permanent improvements to the site: continental-style crosswalks and arrows in the lanes to indicate turning movements. These measures were not slated for installation before the CSLA program began, so SHA took the opportunity of working in this area to implement these permanent improvements much sooner than otherwise would have occurred. The overall goal of this installation was to slow down drivers, especially as they enter the city and turn onto Cannon Ave, for the safety of people outside of cars.



24" WHITE THERMO
WHITE TUBULAR
5" WHITE PAINT
THERMO LEFT ARROW

E FRANKLIN ST

N CANNON AVE

HARDENED CENTERLINE
BAG SIGN MOUNTED OVERHEAD ON MAST ARM
BAG GROUND MOUNTED SIGN
DO NOT BAG

NO BAG
TURN LEFT
MUST
LEFT LANE ONLY

YELLOW QWICK KURB
YELLOW TUBULAR MARKER
5" WHITE PAINT
15" WHITE PAINT

MO
R MARKER

RROW

DUAL HIGHWAY

E WASHINGTON ST

TIE TO EXISTING
5" WHITE 3'-5' PAINT
5" YELLOW PAINT



TIE TO EXISTING
SPEED CUSHION
24" TRIANGLE PAINT

5" WHITE PAINT
WHITE TUBULAR MARKER
YELLOW TUBULAR MARKER
5" YELLOW PAINT
24" WHITE THERMO



APPROX. 230'

APPROX. 230'

10'

10'

40' 0' 80'



MDOT's original proposal for this project focused on the intersections at Canon Ave. The city knew the more pressing safety issue was the nearby mid-block crossing, which has led to at least one recorded serious injury to someone walking, per the 2024 Regional Safety Action Plan. At the first in-person workshop, which focused on initial project design, the team discussed the extent to which improving safety for mid-block crossings could be addressed in this quick-build demonstration project. Adding a temporary signal was outside MDOT's scope for this quick build. MDOT was wary of adding a crosswalk in this demonstration project due to liability concerns and materials that would be available to use, so the team focused their efforts on slowing speeds at this section of highway, making it safer for people to cross without explicitly sanctioning the mid-block crossing.



SHA District 6 installs the flex posts on US 40
 (Source: Matt Mullenax, Hagerstown/Eastern Panhandle MPO)



Installation

SHA District 6 installed the materials, with support from Hagerstown Public Works and the city's pavement marking contractor. The contractor installed the permanent crosswalks and lane signage on the roadway. Installation occurred in two phases: first pavement markings, hardened centerlines, and flex posts in late August, then speed cushions in early September. The city was impressed by how quickly the District 6 crew was able to get this project in the ground. Some of the installation happened on the first day of school, so there were a few complaints about slowing traffic, but the disruption was minor.



SHA District 6 installs hardened centerlines at Cannon Ave
 (Source: Eric Hastings, City of Hagerstown)



SHA District 6 installs speed cushions on US 40 (Source: Eric Hastings, City of Hagerstown)



Engagement

The city conducted some outreach to adjacent local businesses to let them know this project was coming and to ask for input. The city used social media posts and local media outreach to get the word out about this project to the general public. The city did not have the capacity to do intercept surveys and would have liked for the SHA or MDOT teams to support that aspect of the project, but the CSLA was designed for the local teams to cover engagement. The existing SS4A engagement platform was a venue through which community members provided input on this quick-build project. The response on social media was negative and the city received a few negative emails, but an MPO representative noticed that a lot of the positive comments were from people who live and walk in the area, who were glad the city and MDOT had done something to improve safety conditions, so the benefits of the project were reaching the intended people. SHA heard from residents that they would have liked the speed cushions to have been made more visible with pavement markings or different signage, which the district will incorporate in future uses of these devices.



Data collection

SHA District 6 conducted an initial speed study at the project site to capture baseline data before the project was installed. District 6 described this effort as part of routine operations, just choosing the project site for the regular monthly speed study, but Hagerstown and MPO staff were impressed by the initiative this showed in kick-starting the process. SHA and Hagerstown conducted two speed studies after project installation to measure the effectiveness of the speed cushions and other materials. The second post-installation speed study was conducted closer to the speed cushions than the first study, to make sure the full speed reduction was captured. Hagerstown measured volumes, as well, using tube counters to see if the project had an impact on how many people were driving through the corridor.

SHA used their existing contract to count bicyclist and pedestrian movement with Miovision, a camera technology used to measure multimodal activity. Other than the SS4A online survey and email addresses available for feedback, there were limited efforts to capture public response and qualitative data.

The speed data collected found mixed success in the project outcomes. Where the speed cushions were in place on the westbound side, the 85th percentile speed reduced from 42 MPH to 34 MPH. The eastbound side, which just had flex posts shortening the turn lane and marking the shoulders to add visual cues to drivers to slow down, did not see a change in 85th percentile speed: 38 MPH before installation remained 38 MPH after installation. This speaks to the success of the speed cushion in controlling speeds in this area and indicates a strong need for different strategies to control eastbound traffic speeds, especially when considering the mid-block crossings at this location. Also note that the posted speed is 25 MPH, so even with the project in place, speeds are well over the posted limit. The bicycle and pedestrian study counted up to 26 people crossing mid-block in the morning peak hour with the project in place, but since the existing baseline study did not count mid-block pedestrian crossings it is not known how this compares to pre-installation volumes.



*Flex posts close the shoulder of eastbound US 40 before Cannon Ave
 (Source: Matt Mullenax, Hagerstown/Eastern Panhandle MPO)*



A school bus approaches the speed cushion on westbound US 40, flex posts and paint remove the shoulders to further slow drivers (Source: Matt Mullenax, Hagerstown/Eastern Panhandle MPO)



Flex posts and continental-style crosswalks improve visibility at the intersection of US 40 and Cannon Ave (Source: Matt Mullenax, Hagerstown/Eastern Panhandle MPO)



Flex posts visually narrowing the lanes and speed cushions slow drivers down as they approach Hagerstown on US 40 (Source: Matt Mullenax, Hagerstown/Eastern Panhandle MPO)

Lessons learned



Successes

01

Safer speeds: This quick-build demonstration project led to slower speeds of vehicles going into the city on Westbound US 40, an 8 MPH decrease. The speed cushions were measured to be effective at reducing speeds, which is evidence that MDOT will use to support the use of these materials across Maryland. This project also revealed caveats to the use of speed cushions: when traffic was light, some cars drove between the cushions in each lane to avoid slowing down. A permanent installation at this location should look to prevent that behavior and it is likely that drivers would do the same at other speed cushions installed in parallel.

02

Local priorities: The team reworked the original project to better meet local needs while fitting within MDOT's constraints for a quick build. Though speeds did not decrease on the eastbound part of the road where people cross mid-block, the speeds were reduced on the westbound side. In terms of process, this was a success in identifying how MDOT can potentially make conditions safer for people who are crossing the street where they want. This was also an example of the benefits and limits to addressing local concerns within MDOT's constraints: this project was to slow vehicular speeds for the safety of mid-block crossings, but MDOT's constraints meant the strategies used were not as effective as other measures might be.

03

Future champions: Most team members in this project were new to quick-build demonstration projects and had limited experience in Complete Streets. Over the course of this Leadership Academy, some participants became champions of the process, eager to see how this approach can be implemented across Maryland. To go from no background in this process to jump-starting data collection to eagerly championing quick builds is a sign of shifting culture and the change to come as this approach grows.



Challenges

01

Persuading council: The most surprising roadblock in this project was the City Council. The City Engineer presented this project to council for approval in August and received a lot more pushback than expected. Though this is in the “Challenges” section, it’s a story of success: the SHA Senior Safety Officer attended the Council meeting the following week and successfully convinced them that this project is worthwhile, a clear sign of SHA’s dedication to this project. With council approval, Hagerstown’s quick build was able to proceed. This roadblock sparked some brainstorming for how MDOT can support education efforts outside of engineers and planners, and how the public-facing education component of this work will need to reach local leaders as well.

02

Unmet safety need: This project did not directly address the area’s biggest safety concern of mid-block crossings. Though the project shifted to try to address this need within MDOT’s guardrails by lowering speeds, the results were mixed with only one direction of traffic slowing down. By staying within the predetermined bounds of what a quick-build project could entail, the ability for the project to meet local needs was constrained.

03

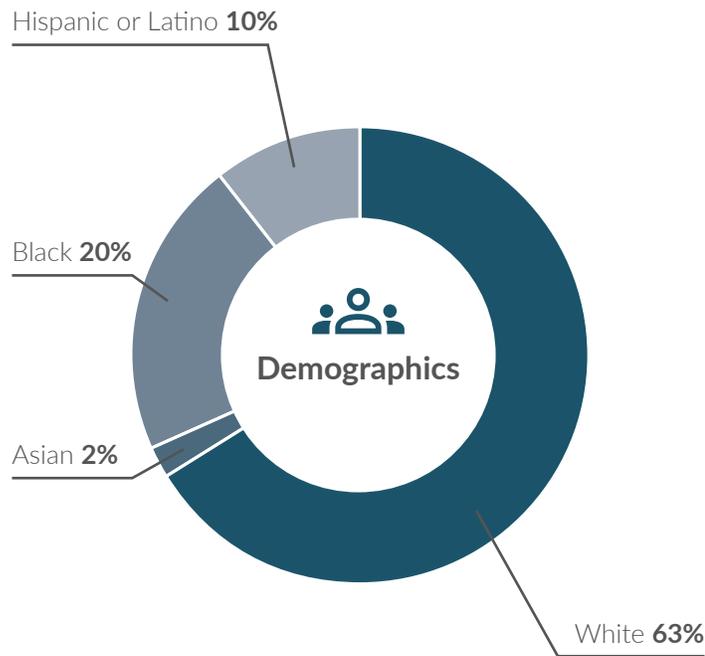
Limited resources: The biggest challenge overall for this project was time and staffing. The procurement timeline in particular stretched the local process to the limit, moving much quicker than normally allowed, enabled by some skirting of the regular processes. In the spirit of moving with urgency, this might be an opportunity to consider where moving at this pace is beneficial for the city to meet safety needs, even if the pace is uncomfortable. The staffing resources had a more tangible impact on the project: limits on staff time prevented substantial public engagement beyond the ongoing SS4A outreach and limited the qualitative feedback to online. An intercept survey or other in-person method of gathering people’s experiences of walking through the site, or even crossing mid-block, would have significantly improved assessment of this project’s impact on the people who may benefit from it the most.

What's next?

The Pedestrian Safety Action Plan preliminary design efforts at this site began Fall 2024, and can build off of the lessons learned from this project. The city is hoping that this process can include conversations with MDOT that will eventually lead to building protected crossings near this mid-block location where people want to cross the street. In the meantime, the temporary lane closure will stay in place until at least spring 2025.

Project snapshot

 <p>US 40, Dual Highway at Cannon Ave</p> <p>LOCATION</p>	 <p>43,527 (2020 census)</p> <p>POPULATION</p>	 <p>\$21,454</p> <p>MATERIALS COST</p>	 <p>\$48,481</p> <p>MEDIAN HOUSEHOLD INCOME</p>
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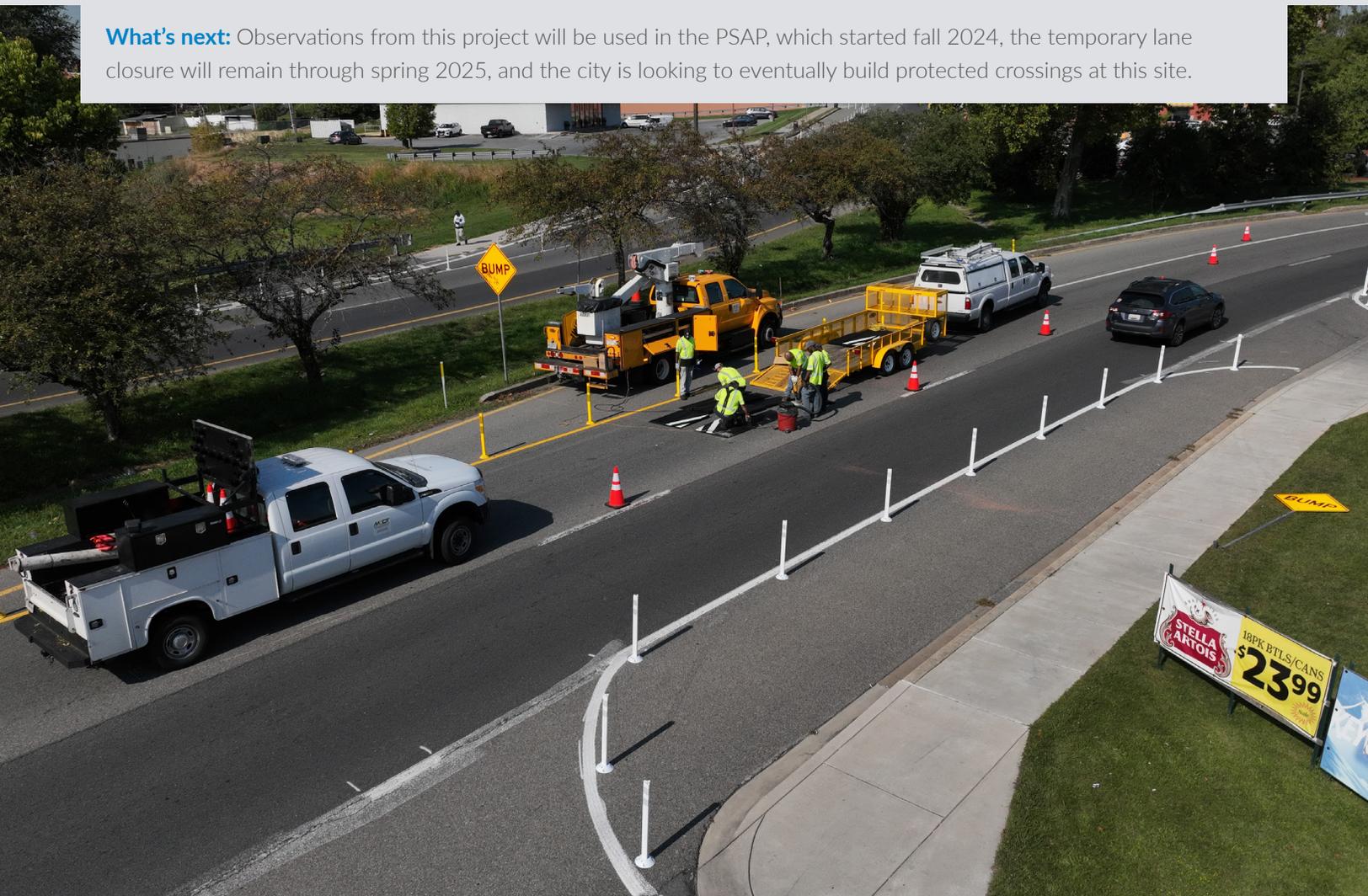


 <p>Speed cushions, flex posts, hardened centerlines, thermo, paint</p> <p>MATERIALS</p>	 <p>Speed reduced by 8 MPH on Westbound traffic</p> <p>SAFETY IMPACT</p>
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Milestones



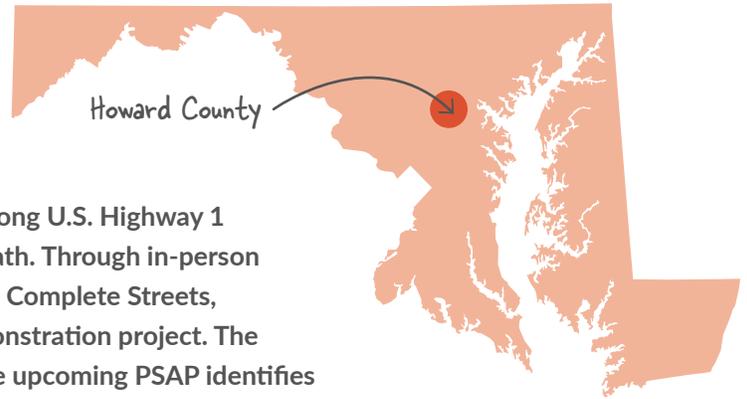
What's next: Observations from this project will be used in the PSAP, which started fall 2024, the temporary lane closure will remain through spring 2025, and the city is looking to eventually build protected crossings at this site.



SHA District 6 installs speed cushions on US 40 (Source: Eric Hastings, City of Hagerstown)

CASE STUDY

Howard County



Howard County met a need for a safe place to walk and bike along U.S. Highway 1 by repurposing the outermost lane as a temporary multi-use path. Through in-person outreach, fast-paced collaboration, and a strong background in Complete Streets, the team was able to implement a large-scale quick-build demonstration project. The successes and lessons learned in this project will be used as the upcoming PSAP identifies future permanent improvements to the site.



Howard County quick-build demonstration project (Source: Scott Newill, SHA)

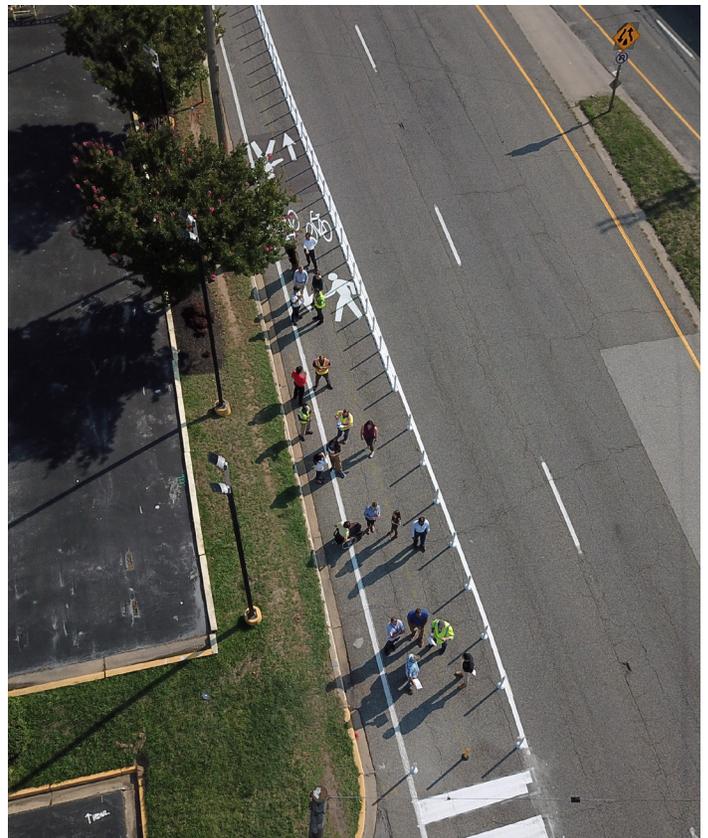


Site context

Lots of people walk along the southbound shoulder of U.S. Route 1 in North Laurel, Howard County, where there is no sidewalk next to four lanes of traffic. Many homes, businesses, services, and other destinations in the area mean people walk or bike along this busy road, verified by a pedestrian count earlier in 2024. In some places the grass next to the curb has been worn down from people walking, demonstrating the unmet need for safer infrastructure. Howard County has long requested MDOT improve the safety conditions on this route, but property lines are close to the street, so a lot of land would have to be purchased if MDOT were to build a sidewalk. US 1 splits into a one-way pair in North Laurel, with Washington Blvd going south and Second St going north. The Washington Blvd side of the road was chosen for this project due to the recorded activity of people walking and the available auxiliary lane. The project starts where the highway splits and continues until the crosswalk at N Laurel Rd, a distance of about 2,000 feet.

This site is also the focus of other ongoing projects. Howard County received a 2023 SS4A Planning & Demonstration grant award of \$488,133 to conduct demonstration projects at multiple locations along US 1 to test improvements for pedestrian safety. Through MDOT, there is an ongoing Pedestrian Safety Action Plan corridor project on this route, currently in the design phase to create a shared use path in this location and beyond. This quick-build demonstration project is supplemental to these corridor projects.

The Howard County team has a strong background in Complete Streets: their 2019 resolution received a perfect score of 100 from SGA's [Best Complete Streets Policies 2023 Report](#). However, implementation has not been seamless. For example, the original requirements for requesting a neighborhood speed bump were cumbersome, with too high of a bar to demonstrate need. When concerns were raised, the county was able to update the process to make requests easier. Hopefully this improvement is just one way to continue evolving the policy. Learn more at smartgrowthamerica.org/howard-county-md-a-collaborative-effort-to-create-complete-streets/



CSLA participants visit the multi-use path during the walk audit in Howard County



YELLOW 3'-5' PAINT

WHITE PAINT

10'

MADISON AVE

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YELLOW TUBULAR MARKER

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100' 50' 0' 100' 200'



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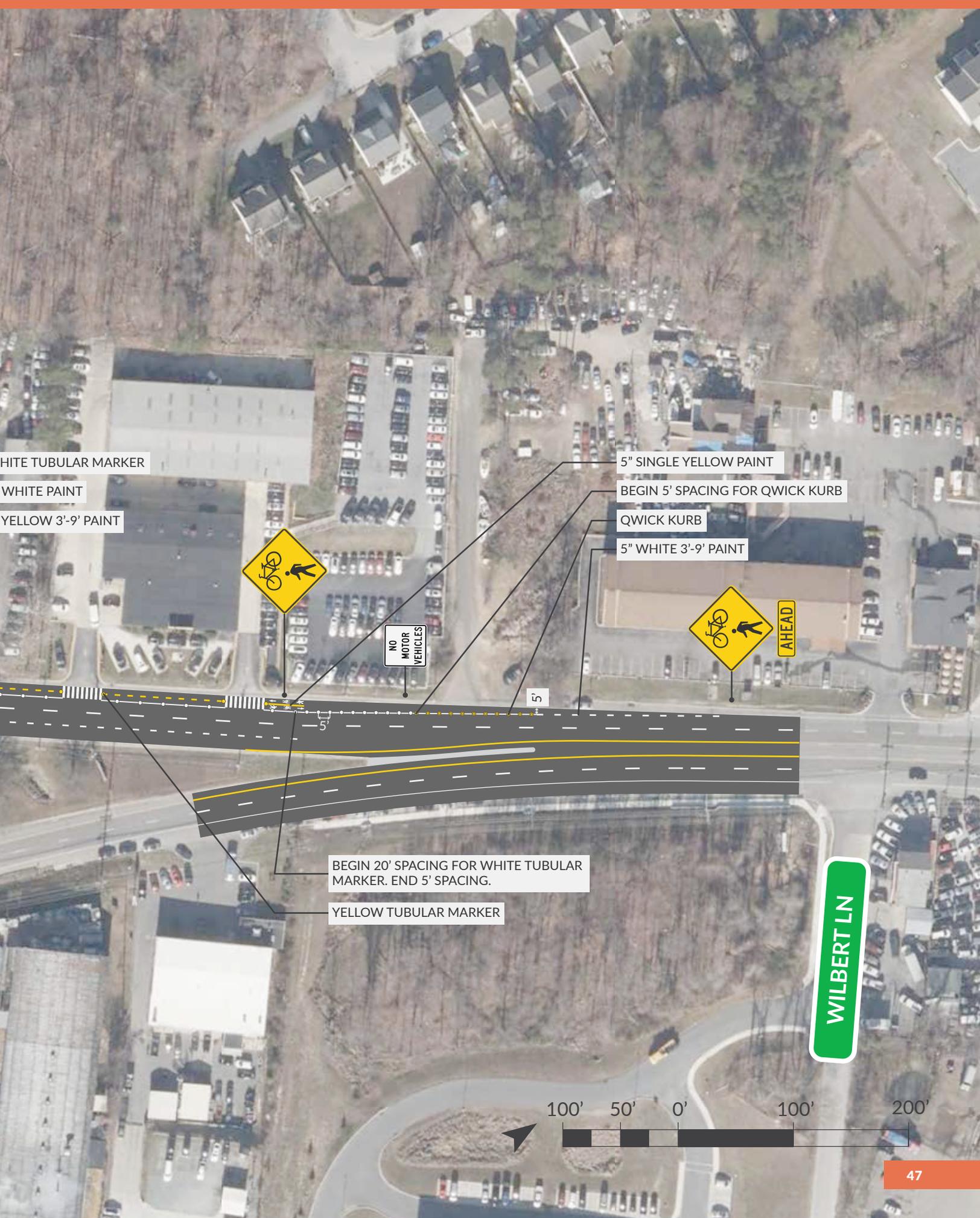
WASHINGTON BLVD N

DAVIS AVE



N 2ND ST

W
5"
5"



WHITE TUBULAR MARKER

WHITE PAINT

YELLOW 3'-9" PAINT

5" SINGLE YELLOW PAINT

BEGIN 5' SPACING FOR QWICK KURB

QWICK KURB

5" WHITE 3'-9" PAINT

NO MOTOR VEHICLES

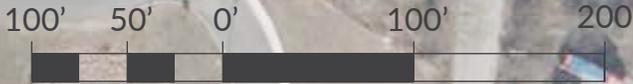
5'

5'

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YELLOW TUBULAR MARKER

WILBERT LN



After project installation, flex posts at two driveways were moved slightly to provide a larger turning radius for car carriers and delivery vehicles. The multi-use path prevented postal workers from delivering mail directly from their vehicles, so USPS was supposed to install a cluster mailbox, but that did not occur.

The biggest change in project design was the selected location. MDOT had originally proposed MD 108 at Phelps Luck Rd for the Howard County project, but that area had recently been improved. The county identified US 1 as a highway with much greater need for safety improvements, particularly at the North Laurel area and the railroad underpass in Elkridge, and MDOT was open to a new location. The Howard County team and SHA District 7 finalized the North Laurel site for this Leadership Academy, in part due to the flexibility afforded by the available road width, in which there is more opportunity to do a temporary project on an auxiliary lane in a short planning timeline, and existing data from a recent planning study. The Elkridge site, in contrast, was more constrained with narrow lanes and no shoulder under the railroad tracks.



The rightmost lane of US 1 turned into a multi-use path for the Howard County project (Source: Scott Newill, SHA)



A pedestrian walks on the temporary multi-use path (Source: Chris Eatough, Howard County)



Installation

Installation occurred over the course of two days in early August, and the project was in place in time for Workshop 3, which was hosted by Howard County and included a site visit. Before installation, the county and District 7 had worked together closely to make sure the materials were ready to go for the crews to install, so there was no delay. SHA District 7 led the installation, with the Dayton shop maintenance crew as the primary team and supplemental staff from other shops supporting the work. In addition to installing the materials, the crews performed general maintenance like mowing and trash pick-up before the site visit.



SHA District 7 installs flex posts to delineate the multi-use path (Source: Scott Newill, SHA)



SHA District 7 installs the quick-build demonstration project (Source: Scott Newill, SHA)



Engagement

The Howard County team conducted outreach to the businesses adjacent to the project site very early in the process. Two county staff members walked the corridor to talk to business owners to let them know about the project, see if they would be able to close or reduce the width of their driveways, and answer any questions about the quick build. Though only one driveway was removed, this outreach was received positively—one business owner said this was the first time someone had come to talk to them in person about a project on the road. The team conducted follow-up outreach after the project was installed to hear how businesses were impacted by the project. A few turning radii were adjusted to accommodate large delivery vehicles, due to these conversations. Business owners also raised the issue of mail delivery to the county: with the multi-use path installed, USPS was not able to deliver mail along that route.

The county gathered feedback about the project from community members in a variety of ways. County staff conducted intercept surveys the last week of September, when the project had been in place for almost two months. This survey included short questions on destinations people have traveled to, their perception of safety, thoughts on further safety improvements, and their mode of transportation. A more detailed online survey was available through the website, with the link also posted at the nearby MultiService Center. Open feedback channels included an online testimonial form and general user feedback and comment form on the county's [project website](#). County staff had a longer conversation with someone walking on the multi-use path soon after it was installed, who allowed his story to be shared by the team.



Complete Streets Leadership Academies
Quick-Build Demonstration Project on US 1

This is John's experience...



...in his own words.



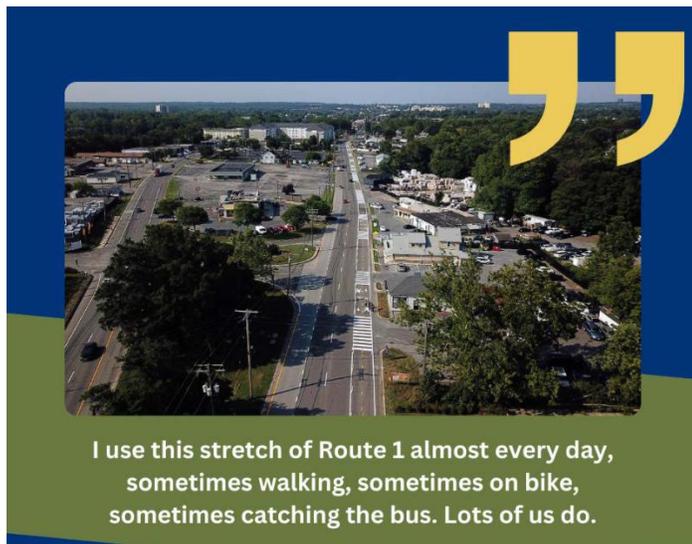
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Sometimes I am going to work, sometimes going home, sometimes going to eat.

It is so much safer for us now that there is a dedicated space to walk.



Testimonial, graphics by Howard County



Howard County

Smart Growth America

MOT

I was just at the McDonald's and the employees were talking about how much safer they feel walking to work. I hope this can be permanent and it would be great to have it more places too.



Howard County

Smart Growth America

MOT



Data collection

Baseline data at this site was from bicycle and pedestrian volume counts in 2017 and 2024, a vehicular speed and volume study conducted earlier in 2024, and existing crash data. Baltimore Metropolitan Council partnered with the team for post-installation bicycle and pedestrian counts, and their contractor performed two 7-day counts in early and late October, as well as pedestrian counts in mid-September. Comparing the September pedestrian counts to baseline data shows a dramatic increase in the number of people walking at the project site, nearly double the number observed in April 2024. The SHA District 7 traffic department conducted a speed study in November to compare to the baseline data. The speed studies found an 85th percentile speed reduced from 50 MPH at the baseline to 45 MPH in November. Even though speed reduction was not a specific goal of the project, it was a safety benefit achieved by the installation. Howard County published their analysis of the data on the [project website](#).

The county collected qualitative data via an online survey, an intercept survey, and written feedback. The intercept survey had 15 respondents, mostly people walking, and they overwhelmingly felt safer with the project in place. The online survey had three respondents as of October 21 as was completed by people who had driven past or both driven past and walked or biked on the multi-use path. Written feedback (four responses as of October 21) included three people supporting the pilot and wanting to see it on more roads (including some detailed ideas on including a path on the other side of the road for continuity with existing traffic patterns), and one disapproving of the project as too dangerous for people walking and driving.

Lessons learned



Successes

01

Safety improvements: This project delivered safety improvements for vulnerable road users in a high-need area that Howard County had been asking MDOT to improve for a long time. This demonstration project fits into upcoming PSAP work in this corridor, and this installation can be seen as a preview for the improvements that work should lead to. The intercept survey responses and testimonial from John speak to how substantially this temporary installation improved the safety conditions for people walking along US 1.

02

Effective outreach and feedback: The Howard County team conducted thorough outreach from the beginning of the process. The in-person conversations with business owners and successful intercept survey in particular were examples of how the team gathered anecdotal feedback to inform the project design and share its success. Telling the story of how this project benefits community members who walk or bike this route can build empathy and boost support for a permanent installation. The in-person outreach to business owners helped build relationships with people who work on this corridor and had not previously been invited to weigh in on road projects in this way.

03

Supercharged teamwork: This team had a very strong working relationship before the Leadership Academy began. The county and SHA District 7 had worked closely together many times before and the existing trust was obvious. In order to complete such a large project in so short a timeframe, they held weekly meetings to keep up with the fast pace. A project this large required that intensity and was made possible by that existing trust.



Challenges

01

Location selection: The site MDOT originally selected for the Howard County project was not a high-priority area for the county. The first few meetings involved the county persuading MDOT to select a different location for the project, where there was greater need for safety improvement. MDOT was open to changing the location, but the centralized structure of this program meant time had to be spent reworking the project site at the beginning of an already tight timeline, rather than starting the process as a dialogue between partners about where the project site could be. Though this project was successful and brought benefit to this location that needed it, the tradeoffs in this centralized process should be clear for designing future iterations of quick-build demonstration projects.

02

Receiving funds: A challenge unique to the Howard County team, but one that could affect other jurisdictions in future projects, was identifying a receiving fund for the grant. Since the Leadership Academy started after the county's budget process, there was no straightforward place the grant from this program could go. County staff were able to identify a placeholder fund in Active Transportation, but without that option the team would have had to go through council to modify the approved budget, delaying the project procurement and installation.

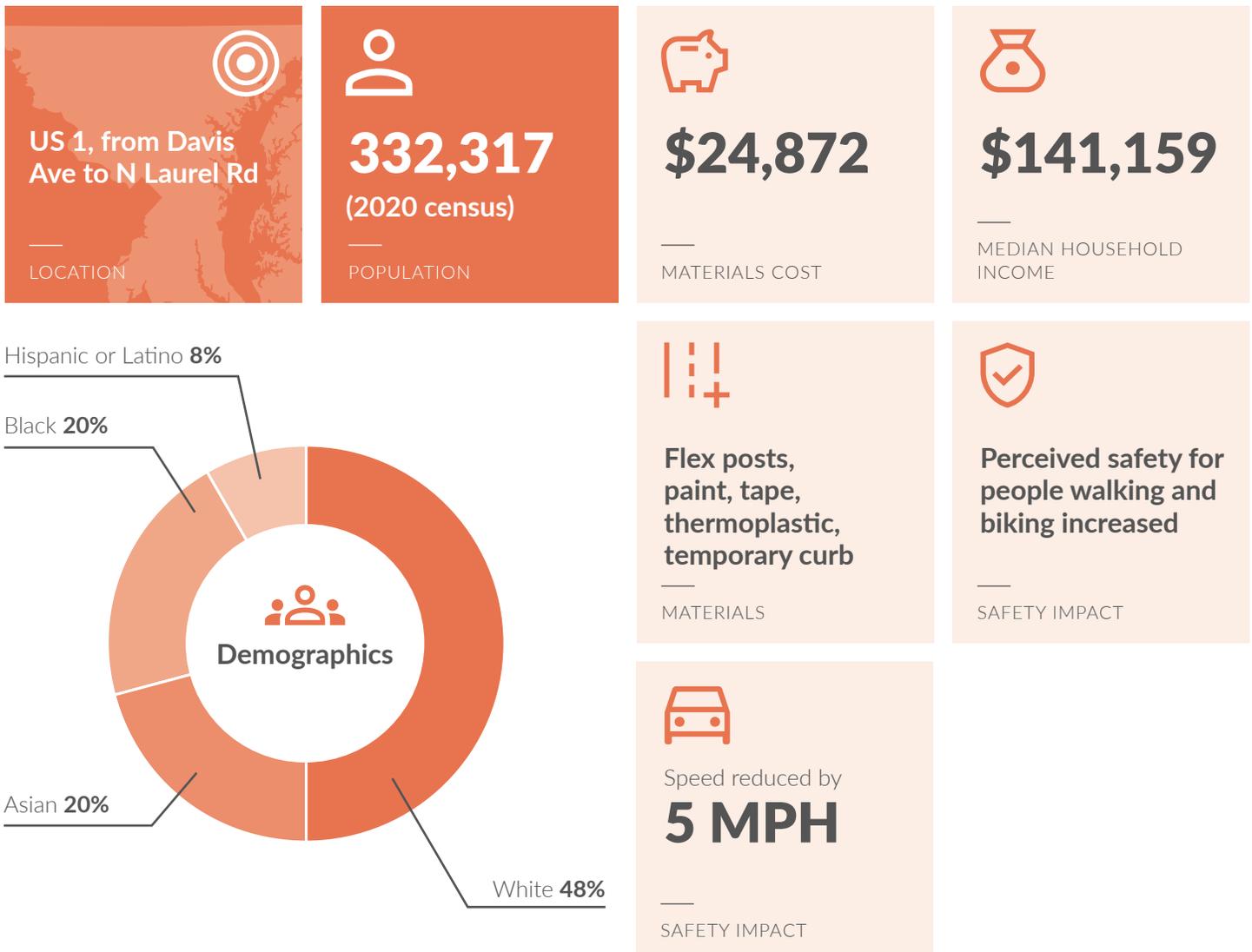
03

Mail delivery: U.S. Postal Service did not deliver mail directly from their vehicles to businesses along the route with the temporary multi-use path in place. The county learned about this when conducting follow-up outreach with business owners. Discussion with USPS revealed the postal workers' union contract prevents delivery workers on this route from getting out of the truck to deliver mail. A cluster mailbox was proposed, but not installed. This challenge was partially an issue of timing and partnership—the county may have preemptively identified mail delivery as an issue and reached out to USPS if the project moved at a slower pace. MDOT now knows that USPS may need to be a part of early conversations in future quick-build projects.

What's next?

The upcoming Pedestrian Safety Action Plan will factor in lessons learned from this project into the design for permanent improvements. This project was removed in late November, but the Howard County and SHA District 7 teams had a conversation about how the temporary multi-use path could be reinstalled in the spring or modified to last through the winter, depending on how flex posts could be attached to the pavement without getting in the way of snow plows. Until the PSAP project is constructed, Howard County and MDOT could provide safety benefits along this corridor through a continuation of this temporary installation.

Project snapshot



Milestones



What's next: Lessons learned from this project will be used in the PSAP, which started fall 2024, to inform permanent safety and access improvements for people walking on US 1.



A person with a scooter uses the temporary multi-use path (Source: Chris Eatough, Howard County)



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