

**Section K
Transportation
Improvement Strategy**

K. Transportation Improvement Strategy

STRATEGY DESCRIPTION

The Transportation Improvement Strategy presents a set of recommendations, plans, and projects to enable growth toward the revitalized, multimodal US 1 envisioned in Howard County’s community plan for the area. The Transportation Improvement Strategy addresses the form, function, and aesthetics of US 1, its local street and path networks, and the administrative actions needed to achieve the physical goals. Recognizing that successful implementation will require many actions by State and County agencies and elected leaders, the Improvement Strategy incorporates a broad base of transportation and urban design analysis and input from a variety of conversations with multiple State and County agencies and the public. A citizen’s advisory committee helped to vet initial ideas, to review analysis, and to focus the team on specific issues. The staff oversight team worked across disciplines to identify ways to strengthen policies, programs, and processes.

The improvement strategies are presented in two parts: the Physical Improvement Plan and the Administrative Implementation Actions. The Physical Improvement Plan provides a physical transportation framework, including the transformation of US 1 and street and path connections to enhance local travel options. It identifies the need to develop pedestrian, bicycle, transit, and access systems. It addresses both US 1 and the surrounding transportation network.

Administrative Implementation Actions identify the immediate, near-term, and long-term agency activity needed to implement planned improvements. The near-term actions include policy and process measures to allow and encourage the desired urban design patterns to be built over time. They also include first steps for key break-out capital projects. The design and reconstruction of US 1 is a long-term project. The first phases will focus on those areas that will experience the most immediate land-use changes.

PHYSICAL IMPROVEMENT PLAN

Local Transportation System

An interconnected system of streets and paths in a mixed-use environment will help to:

- Expand the local travel network to reduce the reliance on US 1 for local trips;
- Allow for a network of regularly-spaced signalized intersections that progress traffic at target speeds;
- Reduce conflict points on US 1 by replacing single-use driveways with public road connections;
- Enable more direct travel between local activities and destinations; and
- Create viable walking and biking routes and reduce auto dependence.



The local transportation system is based on the following road-spacing guidelines:

- Potentially-signalized, full-movement intersections at quarter-mile intervals along US 1.
- Unsignalized, potentially full-movement intersections spaced 650-feet (roughly half-way between signals) apart along US 1 in intensely developed areas.
- Unsignalized, partial-movement (e.g., right-in/right-out) intersections spaced no closer than 350-feet apart (two to three between signals) along US 1.
- Parallel collector roadways extended where possible to meet lateral streets.

BUILD PRESCRIBED ROADWAY AND PATH CONNECTIONS

Figures 19 to 22, Potential Network Connections for Sub-Areas A through D, identify key roadway and path connections that create the framework described in Section J for the local transportation system. These maps introduce opportunities for key connecting points to guide incremental improvements toward a more inter-connected, functional system. Some of the connections serve existing development and may be built through public projects. However, many of the connections will cross through potential development or re-development sites and are intended to be built as part of private development if and when the land develops. Some existing signals could be relocated as part of the creation of new access points. One example is that Montevideo Road could be realigned (shown in Figure 21) and the signal shifted to the new intersection of Montevideo Road and Port Capital Drive. This information, as well as the objectives, anticipated barriers, and priority of each connection, is described in the project description matrices included in Section K.

The connections mapping is not intended to indicate specific alignments, but rather key connection points. The connections were reviewed by County and SHA staff and were presented and reviewed at two public meetings in June 2007.

CONNECT INTERNAL ROADWAYS

The local system should provide multimodal routes from each development to existing or planned neighborhood centers, parks, and schools without requiring users to navigate arterial streets, unless the connection is rendered otherwise infeasible. Local streets should be short interconnected streets with direct paths. Loops are preferred to culs-de-sac. Local streets can be designed and organized to keep through traffic on appropriate streets, reduce traffic impacts on local streets, and link neighborhoods with one another, community facilities, shopping, and schools.

In addition to the connections shown in Potential Network Connections for Sub-Areas 1-4, a finer-grained system of local roadways will enhance circulation and access. Minor roadways should be spaced 350-feet apart, yielding two minor connections between key connections along US 1. Block perimeters should not exceed 1,400 feet for non-motorized travel and 2,800 feet for streets. New development shall include connections to any streets that abut, are adjacent to, or terminate at the development site. Development plans shall provide for future street connections to adjacent parcels as appropriate.

A connectivity ratio quantifies the travel options available within a street network for moving between destinations. This ratio has been introduced to assess walkability from the perspective that the more connections that exist, the more likely that destinations will be linked directly and within walkable distance of one another. This ratio represents the

number of intersections divided by intersections and dead-ends, expressed on a scale from zero to 1.0 (USEPA, 2002). Path connections should be included in the calculation. As part of a traffic impact study new development could include a calculation of the project's connectivity ratio and would optimally be greater than 0.75. The ratio may be lower than 0.75 for sites limited by physical barriers such as limited-access highways and environmental areas.

PROVIDE CONTINUOUS BICYCLE AND PEDESTRIAN ROUTES

Incorporate on-road marking and path connections to introduce bicycling as a safe and viable mode of travel. Provide continuous bicycle routes and pedestrian routes linking transit stops, employment centers, residential areas, retail and civic activity centers, and recreational trails. Many potential connections have been identified and can be found on the network connections maps in the next chapter. Designated bike routes will be signed and will include roadway and path links.

Provide on-site pedestrian facilities that link streets and primary entrances of the structures on site with existing pedestrian systems on adjacent developments.

Provide convenient, direct pedestrian access to transit stops.

Designers and reviewers should understand and have available examples of best practices for creating walkable places. Some sources for these are identified in the bibliography of this document. They can also be gathered from local examples and other planning processes, like the Columbia Town Center Plan where cases studies of Bethesda and Arlington were prepared. Training workshops can also have participants assemble their own examples of walkable places.

DESIGN FOR MULTIMODAL ACTIVITY

Roadway and site design will accommodate walking, biking, and transit as well as general traffic. The new zoning categories support densities and mixed land uses that are better-suited to multimodal activity. However, zoning and density are not sufficient to create successful multimodal places. Street and site design must attend to the details that will encourage non-motorized travel by considering the convenience, comfort, and safety of each user type.

A variety of street types, expanded to consider land use and mode in their classification, will ease the process of prioritizing certain elements in street designs. Mixed-use areas may include a main street classification such as the example image to the right, with parking for cars and bicycles at the street edge and wider sidewalks to encourage community gathering and retail activity. Residential communities are more likely to prefer narrower streets, with less public space, more planted trees and on-street parking only where needed. Industrial-area collectors should be clearly identified. Those with good connectivity are



likely to be designated as bicycle routes due to typically low traffic volumes on such roads. Buildings on all streets expected to attract pedestrians should be oriented to those streets or, at a minimum, have windows facing those streets. Blank walls and service areas should not face those streets when it can be avoided.

Arterial roads facing increased development and density can expect transit use to increase, particularly as the supporting road network becomes more connected and amenable to walking. Large development and employment sites should be encouraged to coordinate with transit providers to locate and design stops that include waiting amenities as well as safe and convenient access routes.

Transportation System Improvements

US 1 IMPROVEMENTS

US 1 serves a variety of travel types and users, and is planned as a multimodal, multifunction boulevard. As an important link in the regional roadway system with access to major travel corridors, it will continue to serve regional traffic, at times providing an alternate route during incidents on I-95 or MD-295. The highway's central location within the I-95 corridor and its accessibility and convenience will continue to attract warehousing and distribution industries. US 1 will continue to serve motor-carrier traffic and related services.

Similarly, the strong market for housing and retail in Howard County will increase demand for auto and pedestrian travel on US 1. While pedestrian, bicycle, and transit demands are already clearly visible along US 1, development trends including higher residential densities, mixed-use centers, and growth in industrial, warehouse, and service commercial employment indicate that demand for these travel modes is likely to increase.

TYPICAL SECTIONS

The long-term improvement plan for US 1 includes widening to six lanes through most of Howard County. The boulevard concept proposed for this widening is key to the routes attractiveness and safe mode integration. Managed access coupled with side and parallel property access will work in tandem with the streetscape elements: a raised median, continuous bike lanes, landscaping, sidewalks, and parking design. The Reconstruction Plan for US 1 through Howard County includes:

- A one-way couplet with three lanes in each direction in North Laurel (south of Davis Road) (69-foot right-of-way in each direction)
- A 6-lane boulevard from Davis Road through Montgomery Road (134-foot right-of-way)
- A 4-lane modified boulevard north of Montgomery Road (100-foot right-of-way)

Typical Sections 1 through 7 at the end of this chapter show the cross-sections for US 1 reconstruction. The sections depict amenities for a variety of adjacent land uses, setbacks, and environmental features. The sections balance flexibility and consistency throughout the corridor.

PROPERTY ACCESS

Property access along US 1 to collector streets must be re-oriented prior to any US 1 reconstruction and in tandem with new local road connections. This includes reducing

single-use driveways on US 1 and should concentrate truck access to major, full-access intersections.

Building an efficient access system that reduces reliance on US 1 is essential to ensure the vitality of frontage properties once the raised median is constructed.

REGIONAL INTERSECTION IMPROVEMENTS

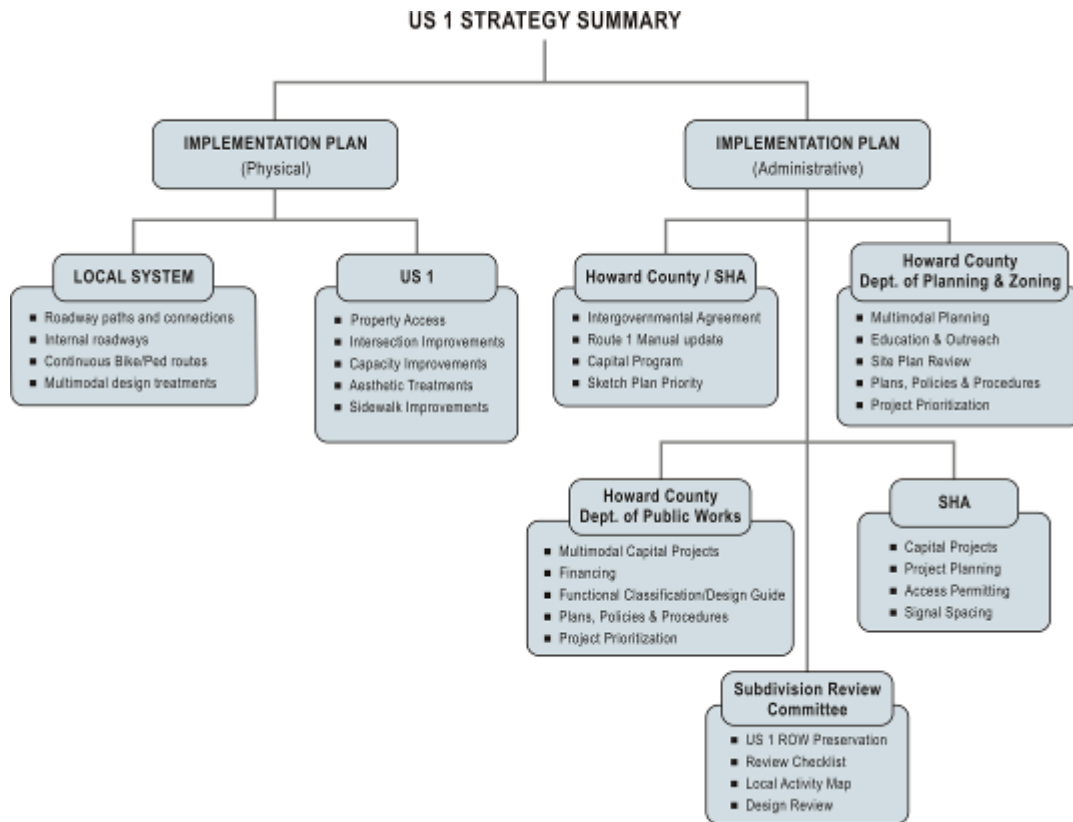
Partial or full grade-separation of the MD 175/US 1 intersection is necessary to meet the forecast travel demands.

Safety and operational improvements to the MD 32/US 1 interchange area, including the Guilford Road and Howard/Corridor Road intersections, are recommended to improve safety and operations.

Improvements to the I-895/US 1 interchange ramps may be appropriate to improve safety and operations and to accommodate multimodal travel.

ADMINISTRATIVE IMPLEMENTATION ACTIONS

Achieving the Physical Improvement Plan will require a combination of public and private projects as well as policy and procedural changes. The Phasing Matrix, Table 17, describes the near-term, ongoing, and long-term actions geared to implement the Physical Improvement Plan. It has been organized by lead agency and type of action recommended.



In Howard County, the Department of Planning and Zoning (DPZ) will implement the Improvement Strategy through the development process. DPZ's oversight of public policy and land development process decisions will advance specific concepts. Maryland SHA will provide key support for implementing improvements to State routes, establish intersection spacing on US 1, and apply proposed access management strategies. Howard County's Department of Public Works (DPW) will design projects and provide critical oversight for local street improvements and pathway connections that will be funded, designed, and built through public and private initiatives.

IMMEDIATE ACTIVITIES

All Partners

PLANS POLICIES & PROCEDURES

The immediate activities should resolve conflicting direction and offer consistent guidance toward the long-term vision. They should create staff consensus for moving forward with a set of tools for best use of developer and public resources. The recommendations are presented here and are identified with key collaborators and anticipated time frame at the end of this chapter.

Intergovernmental Agreement

DPZ and SHA Office of Planning: Howard County and SHA leadership should cooperatively adopt an agreement pursuant to recommendations identified in the “US 1 Corridor Improvement Plan” and the stated and implied actions required by both agencies to achieve the plan.

Route 1 Manual Revision

Howard County Department of Planning and Zoning (DPZ): revise the “Route 1 Manual” to be consistent with the “US 1 Corridor Improvement Plan.” Known issues requiring specific direction and consistency include:

- US 1 typical sections and right-of-way should be revised to be consistent with the recommendations of this process.
- Recommended setbacks should be consistent with the recommended typical sections
- Priority on achieving pedestrian accommodation and comfort including the provision of street trees or awnings along all pedestrian facilities.

Capital Improvement Program Additions

Howard County/SHA Office of Planning and DPW: SHA and Howard County should create multi-year capital improvement project funds for sidewalk retrofits, pathway connections, and street extensions identified in a comprehensive Access Management Plan for US 1. These approved CIP designations will permit developer contributions and public funds to be pooled for County or single-developer construction projects identified in the Physical Improvement Plan.

US 1 Right-of-Way Preservation/Acquisition: Include the reconstruction plan in future updates of the Highway Needs Inventory.

Sketch Plan Priority

Howard County Office of Planning and DPW: Review of the development approval process and discussions with members of the Subdivision Review Committee revealed that many of the tools and policies, including the Route 1 Manual, are already in place to achieve desired outcomes (sidewalks, connections, fee-in-lieu, etc.). However, it is challenging to manage the coordination and negotiation and to address competing site requirements on the short timeframe allotted for submittal review. Reestablishing the Sketch Plan application as a tool to get the basic framework right prior to accepting engineering plans can make reviews proceed more smoothly. It can also ensure that the US 1 Revitalization Plan goals are

served by the development and reduces the unintended use of the Manual's development flexibility as a means to ease the burden on the development.

FUTURE AND ONGOING ACTIVITIES

Maryland State Highway Administration (SHA) Initiatives

CAPITAL PROJECTS

US 1 maintenance and Spot improvements: Enhance multimodal environment by selecting appropriate design vehicle based on general traffic vs. designated truck route intersections, improving pedestrian facilities, and integrating speed management treatments. (District 7)

MD 175/US 1 improvements: The US 1/MD 175 intersection, currently rated its highest priority on the County's list of state highway improvements, should advance to the next phase of study to investigate design alternatives. The concepts described in Part I of this document provides a starting point for a National Environmental Policy Act (NEPA) planning study to begin the process of project development. The alternatives should be consistent with the US 1 reconstruction plan, should provide continuous facilities for pedestrians and bicyclists on US 1, and should balance the urban context with the travel demands. This study should explore opportunities to redistribute intersection demand by reorienting truck access to and from Assateague Drive. (Project Planning)

MD 32/US 1 improvements: Determine preferred improvement plan for US 1 between Guilford Road and Howard/Corridor Road. The concepts described in Part I of this document provide a starting point to direct the future analysis. The improvement plan for this area should address the safety and driver expectancy considerations described in Part I, and should be consistent with the urban arterial context. Opportunities to separate truck traffic from general traffic should be explored by expanding the study area to include the MD 32/Dorsey Road interchange and Corridor Road access. (Project Planning & District 7)

US 1 Reconstruction: Establish a NEPA process for US 1 reconstruction to locate the typical section that addresses environmental preservation, property impacts, and preliminary construction costs. Phase 1 of any reconstruction should begin where private development is most imminent: the sections north of MD 175 and South of MD 32. This study will result in a more precise alignment, stormwater management plan, and estimated costs and impacts. (Project Planning)

SYSTEM DESIGN

Speed management: Monitor speeds north of Montgomery Road and consider targeted enforcement or speed management treatments (pavement markings, visible shoulder treatments, signing, re-striping to narrow shoulders and separate opposing traffic). (District 7)

Coordinate and progress traffic signals for speeds compatible with the context and function of the roadway in conjunction with access management. Target speeds along the corridor are shown in Part I, Section C. (District 7 and OOTS)

Access Management: Work with property owners to design and construct access improvements that reduce conflicts on US 1 and reduce dependence on US 1 for local

travel. The safety and access prioritization matrices shown in Tables 10 and 15 of this document should be used to identify target areas for improvement projects. Projects that will concentrate truck access at signalized intersections should be given the highest priority. Where possible, access improvement projects should be coordinated with County roadway connections projects and/or private development to redirect property access to local roads that serve multiple properties. The combination of proposed connections and road extensions, signalized intersections and intersection spacing recommendations will be organized into a set of Access Management Plan maps for easy reference by County Staff, EAPD and RIPD. (EAPD, Regional Planning & District 7)

Establish a fund to permit acquisition of access rights in an urban arterial context similar to that currently available for designated corridors in SHA's Consolidated Transportation Program. Howard County and/or SHA should establish Access Management capital projects that include all the components of the Access Management Plan to which developers could be asked to contribute. (Regional Planning)

Howard County Department of Planning and Zoning (DPZ) Initiatives

MULTIMODAL SYSTEM PLANNING

Truck Routes: Designate truck routes, orient truck traffic to these routes, provide appropriate design and amenities, and develop industrial access requirements to concentrate truck access at major intersections.

Bicycle Circulation Network: Designate existing and planned bicycle routes (including street and trail links) that will create a continuous bicycle system.

Parking: Review parking requirements and recent design exceptions. Consider instituting maximum parking rates, revising current minimum rates, providing incentives for shared parking and park-once systems, and providing additional incentives for developments that encourage and support non-auto travel.

Transit Service: Coordinate with transit providers to review and revise transit routes, stop locations, and service hours as new development and activity in the corridor proceed. Have transit development plans identify improvements that can be funded or built by developers.

North Elkridge Circulation Study: Direct a focused study of circulation in North Elkridge. The study should focus on pedestrian and bicycle circulation and destinations, including the St. Denis MARC station in Baltimore County, the East Coast Greenway, Patapsco Valley State Park, and development near Montgomery Road. The study should recommend bicycle routes for signing and improvement; determine the need for a pedestrian underpass of the CSX rail line; and an improvement plan to accommodate multimodal travel through the I-195 and I-895 ramps.

EDUCATION & OUTREACH

Best Practice Materials: Develop educational/informational materials about the US 1 revitalization vision and the "US 1 Corridor Improvement Plan." The materials may cover the importance of an integrated, connected local transportation system and site design best practices or provide examples for creating vibrant multimodal places. These materials

could be distributed to developers at pre-submittal meetings, to local elected officials, and to local residents and businesses.

Staff Workshop: Provide a workshop series for subdivision review committee and engineering staff to raise awareness of best practices for walkable places.

PLAN REVIEW

Site Design Guidance: Augment the “Route 1 Manual” to require site design to work to provide access streets that connect through the site to adjacent parcels and existing streets and to work to limit dead end access to/from collectors or higher classified roads. Guidance should also recommend building orientation and avoidance of “dead zones” at the street edge, particularly for streets meant to convey pedestrians.

Local Activity Submittal: Develop specific requirements and forms for a Local Activity Submittal that will supplement Sketch Plan requirements for all development proposals in the US 1 corridor. The Local Activity submittal should include a map showing activity generators (including employment, civic, and retail centers and residential neighborhoods), and transit stops within one-half mile of the proposed site. Access and circulation paths should be identified to link the proposed development to these destinations for pedestrians, bicycles, and general traffic. This should demonstrate that the site design minimizes circuitous travel and integrates with the local transportation network and land uses. Where physical, environmental, or political barriers prohibit direct connections, site design and easements should preserve the potential for future connection. Contributions to a capital improvement fund for local roadway and/or path connections should be collected to fund the off-site connectivity improvements identified in the Local Activity submittal.

PLANS, POLICIES & PROCEDURES

Mapping Updates: Revise and amend the Local Connections Maps (Section K), as needed, to reflect changing opportunities and constraints.

Project Prioritization: Prioritize roadway/pathway capital improvement projects for review by the Department of Public Works.

Howard County Department of Public Works (DPW) Initiatives

CAPITAL PROJECTS

County Roadway Connections Projects: Design and construct the roadway and path connections identified as “retrofit” projects in Section K. Highest priority should be given to path connections identified in the DPZ sidewalks prioritization, to roadway connections that will enhance local circulation to existing or planned activity centers, and to roadway connections that will build a hierarchical access system for Dorsey Run Road. Design should provide facilities for all travel modes—sidewalks with street trees should be provided on both sides of all new roads, striped bike lanes should be considered on collector roads, and the width of the travelway should fit with the context of adjacent land uses and expected need to designate space within the right-of-way for associated user activity.

Bicycle Routes: Fill in the gaps in the bicycle network particularly creating more links to off-road recreational trails in Savage and Elkridge areas. Add appropriate signing and pavement markings and traffic control to bike routes.

Bicycle Routes: Fill in the gaps in the bicycle network particularly creating more links to off-road recreational trails in Savage and Elkridge areas. Add appropriate signing and pavement markings and traffic control to bike routes.

Sidewalk Connections: Provide sidewalks on both sides of every new roadway and improvement project in the corridor. Sidewalk width should be no less than 6 feet except in commercial areas where street furniture and activity space suggest a need for wider paved areas.

FINANCING

Transportation Impact Fees: Establish capital improvement projects to permit developer and public contribution to roadway and path retrofit projects in the US 1 corridor. These should include, but not be limited to, the connections identified in Section K. In addition to appropriation of public funds, private contributions should be exacted when off-site connections to nearby destinations are identified during development review.

FOLLOW-UP PLANNING

Functional Classification Overlay/Street Design Standards: Many of the County roads have seen increased traffic volumes, the main indicator of Howard County's functional designation, without being re-classified. As a first step it may be appropriate to re-classify some County roadways based on the current classification criteria to ensure that APFO and Traffic Studies adequately address potential impacts. Concurrently, the County should document a more inclusive set of indicators of functional need with an overlay classification system based on priority users and land use. This would include a reevaluation of volume thresholds, particularly for local streets that should allow higher volumes of traffic in a more connected network. Street design standards should permit flexibility based on land-use context and roadway users to better accommodate multimodal travel.

Dorsey Run Road Access: Adopt an access management plan for Dorsey Run Road and other key roadways to manage vehicular and non-auto conflicts. Direct property access to these roadways should be minimized in favor of minor roadway connections that may serve multiple properties and provide direct routes for pedestrian, bicycle, and transit circulation.

Transportation Impact Analysis: Augment APFO Roads Test and Traffic Impact Study requirements for developments in the US 1 corridor to address the following:

- Intersections of local roads with major collector or higher classified roads should not be precluded from analysis.
- Pedestrian study of roadways and intersections within one-half mile of site perimeter, including pedestrian facilities (including on-site and through parking areas) and deficiencies (including obstructions, gaps, missing ramps, etc.).
- Safety analysis of study intersections within 500 feet of site frontage including three years of historic crash data and a summary of crash type, severity, contributing factors, and rate. Crash rates on state facilities should be compared to statewide average rates for the facility type. Intersection crash rates on County facilities should be calculated per million entering vehicles. Segment crash rates on County facilities should be calculated per million vehicle miles traveled. Where high crash rates (greater than the statewide average, greater than 1.0 per million entering vehicles/per million vehicle miles traveled)

are identified, potential safety issues should be identified along with potential improvements. High crash rates along site frontage should be improved as a condition of development.

- Designated bicycle routes and trails with street access within one-half mile of the site should be identified and appropriate connections that link the site with these facilities should be identified.
- Access to and from transit stops within one-half mile.

Subdivision Review Committee Initiatives

DEVELOPMENT PROCESS

US 1 Reconstruction Right-of-Way Preservation: Right-of-way preservation consistent with the “US 1 Corridor Improvement Strategy” has already begun. Revising the “Route 1 Manual” for consistency will help formalize the desired right-of-way preservation. US 1 reconstruction will require approximately:

- 134-feet between Bonnie View Lane and Davis Road
- 69-feet in each direction of the couplet south of Davis Road
- 100-feet to 110-feet north of Bonnie View Lane

Review Checklists: Review the Pre-Submittal Transportation Checklist with developers at pre-submittal meetings. This process should highlight issues and desired outcomes related to transportation to be accommodated in the development proposal. Key issues include access, roadway connections, transit service, and pedestrian and bicycle routes.

The Pre-Submittal Transportation Checklist will be completed by the developer and included with the first submittal and all subsequent submittals. This checklist will identify how the development plan accommodates each element of the “US 1 Corridor Improvement Plan.”

Auxiliary Lanes: Auxiliary lanes should not be constructed, except at major intersections, once US 1 widening has occurred. Rather than constructing auxiliary lanes to accommodate driveway conflicts, opportunities should be sought to relocate turning movements to major intersections. (District 7)

Local Activity Submittal: Review of the Local Activity submittal for early site assessment.

CLOSING

The improvement plan and implementation strategies that make up the “US 1 Corridor Improvement Strategy” are summarized in Table 17. They will be implemented over many years through State, County, and private actions and investments. Changes to corridor zoning, local and regional transportation, economies, and development trends will affect travel demand and the implementation of this plan. The strategies and improvement plan may need to be modified to reflect such changes. For example, if the passenger rail service on the CSX rail lines is improved and expanded, development and travel demand near these stations will certainly change. It would then be appropriate to assign higher priority to connections to the TOD areas. The basic elements of the improvement plan, however, are unlikely to change. Their timing will require oversight and periodic reassessment of priorities.

Table 17 Summary of Action Strategies and Recommendations

Focus	Item	Strategy Description	Collaborators	Timeline
All Partners				
Plans, Policies & Procedures	Intergovernmental Agreement	Draft and adopt agreement to incorporate US 1 Corridor Improvement Strategy and Recommendations into applicable state and local policy and planning documents.	SHA, Howard County	6 months
	Route 1 Manual Revision	Revise Route 1 Manual for consistency with Transportation Improvement Plan.	Howard County DPZ	6 months
	Capital Improvement Program Additions	Create funding and construction mechanisms for modest capital projects identified in the Transportation Improvement Plan to permit developer contributions and construction as opportunities arise.	SHA, Howard County DPW	9 months
	Sketch Plan Priority	Reestablish Sketch Plan as a prerequisite to site engineering.	DPZ, DPW	6 months
	US 1 Right-Of-Way Preservation/Acquisition	Incorporate the recommended US 1 typical cross-sections into Spring 2008 update of the Highway Needs Inventory.	OPPE	9 months
Maryland State Highway Administration (SHA) Initiatives				
Capital Projects	US 1 Maintenance and Spot Improvements	Enhance the multimodal environment in all system preservation projects, consulting a plan of priority truck routes to limit locations for large vehicle access, and to improve pedestrian facilities.	District 7, OOTS	Ongoing
	MD 175/US 1 Improvements	Investigate design alternatives that meet travel demands and fit within the increasingly urban character of US 1.	OPPE	To be determined
	MD 32 Area/US 1 Improvements	Investigate improvement alternatives for US 1 between Guilford Road and Howard/Corridor Road to address safety and driver expectancy needs.	District 7, OOTS	To be determined
	US 1 Reconstruction	Establish a project to begin the National Environmental Policy Act (NEPA) planning process to specify location of typical sections; address environmental & property impacts and preliminary project costs.	OPPE	To be determined
Systems Design	Speed Management	Monitor speeds north of Montgomery Road and consider targeted enforcement or speed management.	District 7, OOTS, & Highway Design	9 months
	Access Management	Establish a signal spacing policy consistent with Strategy recommendations. Consolidate access points and obtain frontage access controls in coordination with private development and County roadway projects. Establish a voluntary access control acquisition program for the US1 Corridor similar to SHA's program for limited access highways on the Eastern Shore.	OPPE, EAPD RIPD, EAPD, ORE	Ongoing
Howard County Department Of Planning and Zoning (DPZ) Initiatives				
Multimodal System Planning	Truck Routes	Designate priority truck routes, orient truck traffic to these routes, and provide appropriate design and amenities.	DPZ, DPW, Motor Carriers	6 months
	Bicycle Circulation Network & Facilities	Develop a continuous bicycle circulation network, fill gaps, add signing and lane markings, require bicycle parking in new commercial, employment and civic areas and retrofit existing destinations.	DPZ, Rec & Parks, DPW, Bicycle Advocates	18 months
	Parking Management	Develop parking policy with appropriate consideration of multimodal travel opportunities and shared supply in mixed zones.	DPZ	12 months
	Transit Service	Work with transit providers to locate stops in new development, improve transit service and encourage transit use by corridor employees.	DPZ, Howard Transit, MTA	Ongoing
	North Elkridge Circulation Study	Conduct a targeted study of bicycle and pedestrian circulation north of Old Washington Road.	DPZ, DPW	12 months

Focus	Item	Strategy Description	Collaborators	Timeline
Howard County Department Of Planning and Zoning (DPZ) Initiatives - Continued				
Education & Outreach	Best Practice Materials	Develop informational/educational materials about the US 1 Revitalization Vision, the transportation improvement plan, and multimodal site design (to create successful pedestrian networks) for distribution to development professionals and elected officials.	DPZ, Legislative affairs	9 months
	Staff Workshop	Prepare and present a workshop for the Subdivision Review Committee and engineering staff working in the corridor to raise awareness of best practices for walkable places.	DPZ	9 months
Plan Review	Site Design Guidance	Augment the Route 1 Manual to require site design to advance street connections through sites with roads to adjacent parcels and existing streets; limit dead end access to/from collectors and arterials; enhance connections and facilities for transit, pedestrians and bicycles including bicycle parking in employment and commercial zones.	DPZ	9 months
	Local Activity Submittal	Develop specific requirements and forms for a Local Activity Submittal that will supplement Sketch Plan requirements for all development proposals in the US 1 Corridor.	DPZ	9 months
Plans, Policies & Procedures	Mapping Updates	Revise and amend the Local Network Connections Maps as needed to reflect evolving opportunities and constraints.	DPZ	Ongoing
	US 1 Right-of-way Preservation	Revise the Route 1 Manual to formalize the desired right-of-way preservation and ensure consistency with SHA's pending Highway Needs Inventory (HNI) update.	DPZ, SHA	6 months
	Project Prioritization	Prioritize roadway, transit and path capital improvement projects for agreement and implementation by the Department of Public Works and for State Consolidated Transportation Program inclusion.	DPZ, DPW, Communities	Annually
Howard County Department Of Public Works (DPW) Initiatives				
Capital Projects	County Roadway Connections Projects	Establish an annual capital program to design and construct retrofit roadway and path connections as identified in the Improvement Plan. Priority projects are listed in Section K.	DPW, DPZ	Annually
	Bicycle Routes & Facilities	Establish an annual capital program to fill gaps in the bicycle network; add appropriate signing, pavement markings and traffic control to routes.	DPW, DPZ, Bicycle Advocacy	Annually
	Sidewalk Connections	Construct sidewalks (shaded where possible) on both sides of all new roadways and improvement projects in the corridor. Facilitate provision of adequate ROW for appropriate sidewalk width and inclusion of street trees for all public walking paths.	DPW, DPZ	Ongoing
Finance	Transportation Impact Fees	Establish a mechanism to pool developer contributions and permit timely and orderly implementation of transportation improvements.	DPZ, DPW,	12 months
Follow-up Planning	Functional Classification Overlay/ Street Design Standards	Establish a functional classification overlay for the corridor that supports an interconnected, hierarchical network and provides roadway design guidance based on land use and/or priority users.	DPW, DPZ	12 months
	Dorsey Run Road Access	Establish an access management plan for Dorsey Run Road to manage conflicts, create a connected network and enable viable transit service.	DPW, DPZ	12 months
	Transportation Impact Analysis	Consider revising APFO Roads Test and Traffic Study requirements to include high-volume local road intersections and require pedestrian and crash analysis to encourage safety assessments and improvements.	DPW, DPZ	9 months
Subdivision Review Committee Initiatives				
Development Process	Review Checklists	Highlight issues and desired outcomes related to transportation and identify how the development plan accommodates each element of the US 1 Improvement Plan.	DPZ	6 months
	US 1 Access Design	Restrict widening beyond the planned typical section for US 1. The third outside through lane on US 1 will serve turning movements at driveways, stopping transit vehicles, and trucks.	DPZ, DPW, SHA	Ongoing
	Local Activity Submittal	Incorporate the Local Activity Submittal into the Sketch Plan review process.	DPZ, DPW	6 months