



MEMORANDUM

August 30, 2011

TO: Eric Randall, MWCOG TPB Staff
Sarah Crawford, MWCOG TPB Staff

FROM: Emad Elshafei, PhD, PE, PTOE, Chief, Traffic and Transportation Division

SUBJECT: TIGER III Grant Cost Benefit Analysis

Introduction

Twinbrook Metrorail station is located on the southeastern edge of the City of Rockville. While this facility located within City limits, it is owned and operated by the Washington Metropolitan Area Transit Authority (WMATA), and surrounded by roads owned and maintained by the City of Rockville, Montgomery County Department of Transportation (MCDOT), and The Maryland State Highway Administration (SHA). Successful pedestrian safety and accessibility enhancements require a holistic approach without jurisdictional constraints. For this reason, the City of Rockville is seeking TIGER funds to assist in the cross-jurisdictional implementation of these improvements. Completion of this project will serve as a model for implementation at suburban transit stations around the region.

All improvements associated with this project are located within ½ mile of the Twinbrook Metrorail station. Implementation of this project will improve pedestrian safety and accessibility to WMATA Metrorail. This project will require City staff to collaborate with Montgomery County Department of Transportation (MCDOT), Maryland State Highway Administration (SHA), and WMATA. Representatives from these agencies participated in a workshop during the concept design phase to discuss the proposed study recommendations. Each of these representatives has received a copy of the final report and recommendations.

Private-sector redevelopment around the Twinbrook Metrorail station, a State-designated Transit Oriented Design (TOD) area, is adding more residential, retail, and office units. One such development, Twinbrook Station, is an award-winning, project that will include 1,595 residential units, 220,000 square feet of ground-floor retail, and 325,000 square feet of Class-A commercial space. Twinbrook Station has been designated a Smart Growth project by the Washington Smart Growth Alliance, received the International Charter Award for Excellence from the Congress for the New Urbanism, and was the first project in the Washington, DC, area to be awarded Stage 2

LEED for Neighborhood Development Gold-level certification for its plan. The City is able to match federal TIGER funds via Development Impact taxes collected as part of the Twinbrook Station development.

Project Improvements

Improvements associated with this project are in five specific corridors within the ½ mile radius of the Twinbrook Metrorail station. These five corridors were identified based on their importance to pedestrian accessibility and potential for improvement to support enhanced accessibility. These corridors are: Halpine Road, Lewis Avenue, Parklawn Dr/ Fishers Ln, Chapman Avenue, and Rockville Pike. The spot improvements identified in this area include refurbished high-visibility crosswalks, median extensions, curb extensions, and other related enhancements at approximately 26 intersections within the project area.

City staff estimates that approximately 43% of the projects identified for completion through this project are located within City limits while 22% are in Montgomery County, 30% on State highways, and 5% on WMATA property. TIGER Funding secured through this proposal would be used to implement specific improvements (approved by the governing agency) within the project area regardless of agency jurisdiction. Given the specific projects within each of these jurisdictions, staff estimates that \$549,240 of TIGER funds will be allocated to City projects while \$171,360 will be allocated to Montgomery County projects, \$331,560 to SHA, and \$17,040 to WMATA. The total estimate for this project is **\$1,069,200**. For more detailed information on the proposed projects, please see the attached document.

Collaboration with External Agencies

To ensure successful completion of this project, City staff plan to coordinate with staff at each appropriate agency to identify, design, and review specific transportation recommendations for implementation. City staff will lead the design phase of the project as well as implementation for City owned streets. City staff will defer management of implementation on other jurisdiction's facilities to representatives at the appropriate partner agencies. Compliance with the grant provisions and implementation of the agreed-upon improvements will be guaranteed through a memorandum of understanding with those agencies.

FY 2011 TPB TIGER Grant Application - Cost and Schedule

* All project estimates include a 20% contingency

Project	Activity	Lead Agency	Workforce	Budget
Twinbrook Station Pedestrian Improvements				
1. Construction - Improvements on/near Halpine Road				
Halpine / E. Jefferson				
Raised Intersection	Construction	Rockville	Contractor	\$36,000
High Visibility Crosswalk	Installation	Rockville	Contractor	\$6,000
Advanced Stop Bar Realignment	Installation	Rockville	Contractor	\$720
Halpine / Congressional Shopping Center Driveway				
High Visibility Crosswalk	Installation	Rockville	Contractor	\$9,240
Halpine / Rockville Pike				
Curb extension on Halpine	Construction	SHA	Contractor	\$10,800
High Visibility Crosswalk	Installation	SHA	Contractor	\$15,840
Construct Median Extensions for Pedestrian Refuge	Construction	SHA	Contractor	\$10,800
Advanced Stop Bar Realignment	Installation	SHA	Contractor	\$2,520
Halpine / Chapman				
Bump Outs	Construction	Rockville	Contractor	\$43,200
Curb Extension on Chapman	Construction	Rockville	Contractor	\$4,800
High Visibility Crosswalk	Installation	Rockville	Contractor	\$5,280
WMATA Facility				
Stripe Pedestrian Path through Parking Lot	Installation	WMATA	Contractor	\$8,640
2. Construction - Improvements on/near Lewis Avenue				
Lewis / Rockland				
High Visibility Crosswalk	Installation	Rockville	Contractor	\$5,280
Advanced Stop Bar Realignment	Installation	Rockville	Contractor	\$600
Lewis / Holland				
Formalize Pedestrian Connection	Construction	Rockville	Contractor	\$36,000
Lewis / Halpine				
High Visibility Crosswalk	Installation	Rockville	Contractor	\$3,960
Construct Sidewalk on south side of Halpine	Construction	Rockville	Contractor	\$9,600
Wayfinding Signs to Metrorail	Installation	Rockville	Contractor	\$1,200
WMATA Facility				
Widen Pedestrian Path (east side of Parking Lot)	Construction	WMATA	Contractor	\$8,400
3. Construction - Improvements in the Parklawn Drive and Fishers Lane Corridors				

<i>Parklawn / Wicomico</i>				
<i>High Visibility Crosswalk</i>	Installation	MCDOT	Contractor	\$6,600
<i>Advanced Stop Bar Realignment</i>	Installation	MCDOT	Contractor	\$240
<i>Parklawn / Twinbrook Parkway</i>				
<i>High Visibility Crosswalk</i>	Installation	MCDOT	Contractor	\$15,840
<i>Advanced Stop Bar Realignment</i>	Installation	MCDOT	Contractor	\$2,520
<i>Construct Median Extensions for Pedestrian Refuge</i>	Construction	MCDOT	Contractor	\$10,800
<i>Parklawn - mid block</i>				
<i>High Visibility Crosswalk</i>	Installation	MCDOT	Contractor	\$3,360
<i>Parklawn / Wilkins</i>				
<i>High Visibility Crosswalk</i>	Installation	MCDOT	Contractor	\$5,280
<i>Fishers / Twinbrook</i>				
<i>High Visibility Crosswalk</i>	Installation	MCDOT	Contractor	\$14,520
<i>Advanced Stop Bar Realignment</i>	Installation	MCDOT	Contractor	\$2,400
<i>Construct Median Extensions for Pedestrian Refuge</i>	Construction	MCDOT	Contractor	\$7,200
<i>Fishers - mid block</i>				
<i>High Visibility Crosswalk</i>	Installation	MCDOT	Contractor	\$2,640

4. Construction - Improvements near Rockville Pike and Chapman Avenue

<i>Chapman - mid block</i>				
<i>Construct Curb Extensions</i>	Construction	Rockville	Contractor	\$6,000
<i>High Visibility Crosswalk</i>	Installation	Rockville	Contractor	\$1,320
<i>Chapman / Bouic</i>				
<i>Bump Outs</i>	Construction	Rockville	Contractor	\$38,400
<i>High Visibility Crosswalk</i>	Installation	Rockville	Contractor	\$1,320
<i>Chapman / Thompson</i>				
<i>Bump Outs</i>	Construction	Rockville	Contractor	\$78,000
<i>High Visibility Crosswalk</i>	Installation	Rockville	Contractor	\$3,960
<i>Chapman / Twinbrook</i>				
<i>Elimination of SB Chapman "Hot Right"</i>	Construction	Rockville	Contractor	\$90,000
<i>Elimination of EB Twinbrook " Hot Right"</i>	Construction	Rockville	Contractor	\$90,000
<i>High Visibility Crosswalk</i>	Installation	Rockville	Contractor	\$12,600
<i>Advanced Stop Bar Realignment</i>	Installation	Rockville	Contractor	\$2,160
<i>Addition of New Pedestrian Crossing Signals on East side</i>	Construction	Rockville	Contractor	\$36,000
<i>Construct Median Extensions for Pedestrian Refuge</i>	Construction	Rockville	Contractor	\$7,200
<i>Chapman / Bou</i>				
<i>Elimination of WB Bou "Hot Right"</i>	Construction	MCDOT	Contractor	\$90,000

<i>High Visibility Crosswalk</i>	Installation	MCDOT	Contractor	\$9,960
Rockville Pike / Bouic				
<i>Construct Curb Extensions on Bouic</i>	Construction	Rockville	Contractor	\$12,000
Rockville Pike / Thompson				
<i>Construct Curb Extensions on Thompson</i>	Construction	Rockville	Contractor	\$8,400
Rockville Pike / Twinbrook				
<i>Construct Median Extensions for Pedestrian Refuge</i>	Construction	SHA	Contractor	\$10,800
<i>Elimination of NB Rockville Pike "Hot Right"</i>	Construction	SHA	Contractor	\$120,000
<i>High Visibility Crosswalk</i>	Installation	SHA	Contractor	\$14,520
Rockville Pike / Pike Center Driveway				
<i>Construct Median Extensions for Pedestrian Refuge</i>	Construction	SHA	Contractor	\$7,200
<i>High Visibility Crosswalk</i>	Installation	SHA	Contractor	\$13,200
Rockville Pike / Bou				
<i>Construct Median Extensions for Pedestrian Refuge</i>	Construction	SHA	Contractor	\$7,200
<i>High Visibility Crosswalk</i>	Installation	SHA	Contractor	\$14,520
5. Construction - Improvements on Rockville Pike, north of Twinbrook Station				
Rockville Pike / Congressional Lane				
<i>High Visibility Crosswalk</i>	Installation	SHA	Contractor	\$13,920
<i>Construct Median Extensions for Pedestrian Refuge</i>	Construction	SHA	Contractor	\$7,200
<i>Elimination of SB Rockville Pike "Hot Right"</i>	Construction	SHA	Contractor	\$60,000
Rockville Pike / Halpine				
<i>High Visibility Crosswalk</i>	Installation	SHA	Contractor	\$15,840
<i>Construct Median Extensions for Pedestrian Refuge</i>	Construction	SHA	Contractor	\$7,200
TOTAL Project Implementation Cost				\$1,069,200

Operations and Maintenance Costs	Activity	Lead Agency	Workforce	Budget
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