



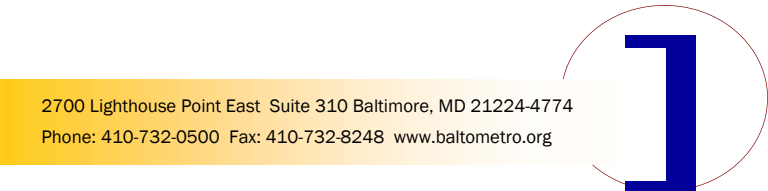
TRANSPORTATION 2030

SHAPING THE FUTURE OF TRANSPORTATION
IN THE BALTIMORE REGION

Draft Preferred Alternative

Public Review

August 24—September 22



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The Baltimore Regional Transportation Board (BRTB) has reached a key milestone in the development of the next long-range transportation plan, known as Transportation 2030. After much work: on the goals and objectives, on the policy and technical prioritization, on socioeconomic projections, on the financial forecasts, and on network building and scenario testing; the BRTB is releasing the draft Preferred Alternative for public review.

The public review period extends from Tuesday, August 24 to Wednesday, September 22. Written comments may be mailed, faxed, or emailed at any time through September 22. If you prefer to verbalize your comments, you are welcome to attend the September 7 BRTB meeting at 5:30 PM, lead by the region's elected officials.

Information on all of the steps to-date, including this material, is available online at www.baltometro.org. On the bottom left side of the homepage, there is a button for Transportation 2030 that will take you directly to the information.

Final Steps: It is anticipated that the BRTB will launch the final Transportation 2030 public review and comment period from Friday, October 8 through Monday, November 22. During this time period:

- the draft Preferred Alternative will be renamed the draft Plan
- two BRTB meetings will be held (one with the region's elected officials)
- outreach meetings in each of the jurisdictions will be offered
- a public meeting will be scheduled in mid-November
- it is expected that the BRTB will vote on Transportation 2030 at their Tuesday, December 14 meeting.

Draft Preferred Alternative – For Public Review & Comment

The focus of this public review period is the projects in the draft Preferred Alternative. However, additional information is provided, including:

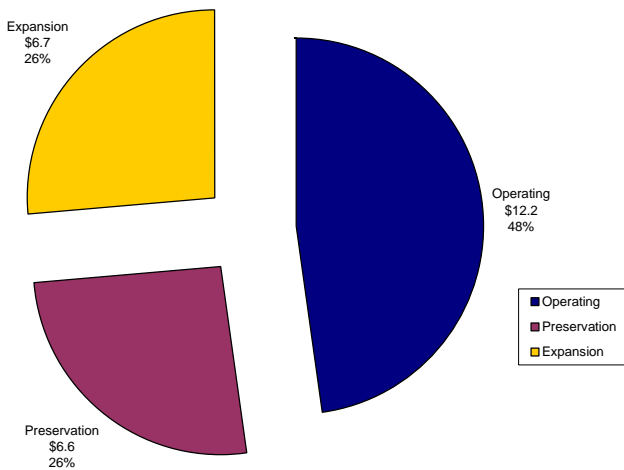
1. the amount of [money](#) available
2. [trends](#) on households and employment
3. a comparison of the draft Preferred Alternative to 2 other [scenarios](#) based on 6 basic performance measures
4. [project list](#)
5. [maps](#)

1. Available Funds

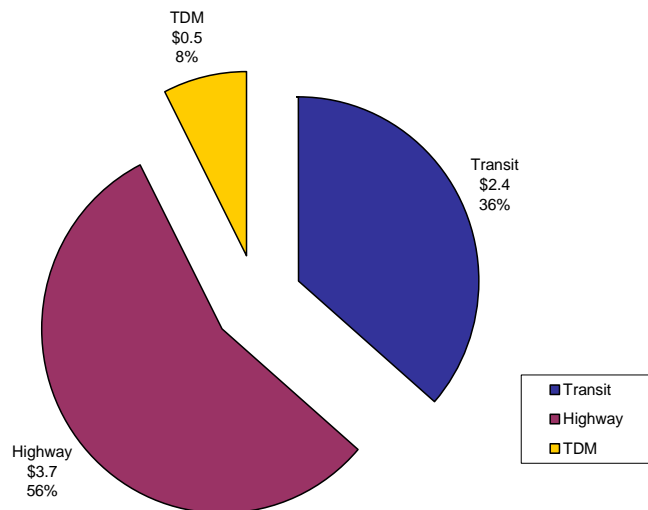
As can be seen in the charts below, it is estimated that \$25.5 billion is available through the year 2030. Seventy-four percent of the funds will be dedicated to system preservation and operating needs. That leaves \$6.7 billion available for expansion of the transportation network to be leveraged against a project list totaling \$9.98 billion.

The second chart shows how the funds available for expansion are proposed to be shared by highway, transit and transportation demand management (TDM) strategies. Listed at the end of this packet, the projects and TDM strategies total \$6.6 billion.

Distribution of Transportation Funds (in billions): 2009-2030



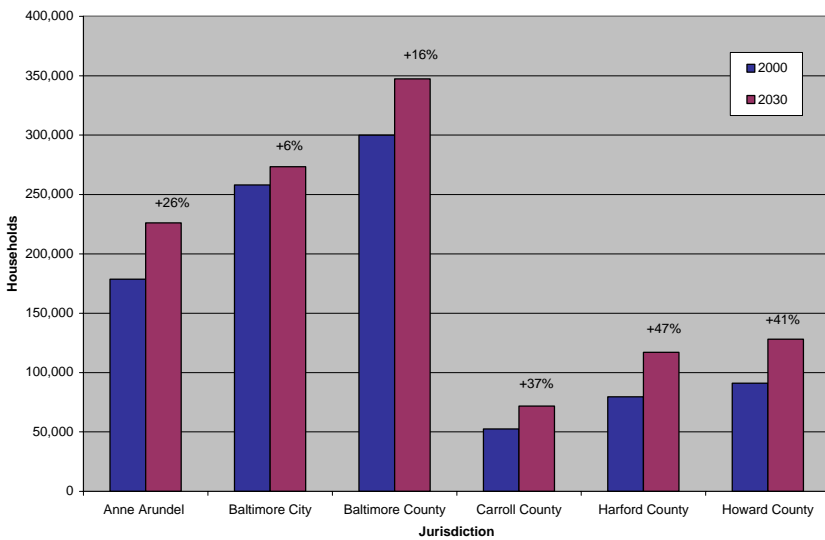
Distribution of Expansion Funds (in billions): 2009-2030



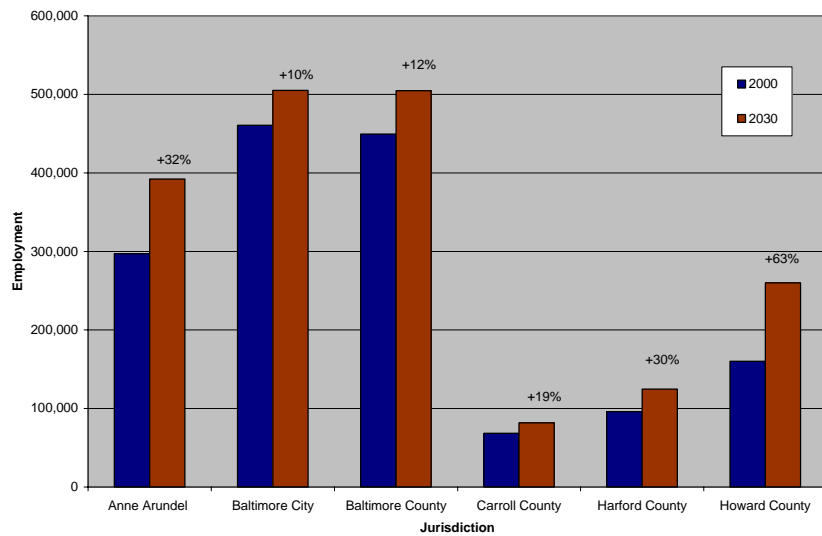
2. Household and Employment Trends

An important input to the travel demand model is socioeconomic data, or information on people, households and employment. For Transportation 2030 a new set of forecasts (Round 6-A) of these variables was developed that, for the first time, extend to the year 2030. The same socioeconomic assumptions are used regardless of the mix of highway or transit projects.

Baltimore Region Households, 2000 & 2030 Forecast



Baltimore Region Employment, 2000 & 2030 Forecast



3. Scenarios and Performance Measures

While the list of projects reflects Transportation 2030's goals, prioritization results, and available money, there is still a need to understand at a basic level how the projects collectively impact the transportation network. To do this, three scenarios have been selected.

1. A past year, 2000, is used to serve as a baseline alternative for comparison.
2. An alternative with projects that have funding for construction and a completion date of 2008. This is known as the existing and committed alternative (E&C) and utilizes Round 6-A data for 2030. (2030 E&C)
3. An alternative with the Preferred Alternative and Round 6-A data for 2030. (2030 PA)

These three scenarios are included in the travel demand model and then evaluated using 6 basic performance measures. The performance measures are described in the box below. At this time the draft Preferred Alternative shows increased VMT yet lower levels of congested segments of roadway and higher transit ridership. The comparisons are displayed below.

Performance measures were determined for the AM peak and for the 24-hour weekday.

- Measures for the AM peak only reflect travel occurring between 6 AM and 10 AM.
- Measures for the weekday are the sum of travel occurring during a 24-hour weekday.

Definition of Terms Used in the Performance Measures

Vehicle Miles of Travel (VMT) of a road segment is the product of its traffic volume and length. VMT has been refined to reflect Highway Performance Monitoring System (HPMS) VMT estimates factored to represent an average weekday.

Level-of-Service (LOS) is a grading system that expresses the severity of congestion for a road segment, based on its Volume/Capacity (V/C) ratio. LOS "A" and "F" describe the least and most congested conditions, respectively. The LOS ranges used in this analysis are from the 2000 Highway Capacity Manual (HCM).

Congested VMT is defined as VMT on a roadway that experiences congestion at LOS E & F. The analysis examines peak hour traffic volumes for each of the five time periods modeled. If the peak hour is congested, the entire VMT for the time period is accumulated in the congested VMT category.

Percentage of Congested VMT is the Congested VMT divided by the total VMT.

Linked Transit Trips sums trips that use transit for at least part of the journey from point A to point B. A transfer to another transit vehicle does not create an additional trip for this category.

AM Peak Period VMT is the VMT occurring during the 6 to 10 AM peak period.

AM Peak Period Congested VMT is calculated in a similar manner to the Congested VMT, but only for the AM peak period.

Performance Measures			
	2000	2030 E&C	2030 PA
Vehicle Miles of Travel (VMT)	62,145,000	83,045,000	84,937,000
Congested VMT	4,402,000	15,649,000	12,408,000
Percentage of Congested VMT	7.1%	18.8%	14.6%
Linked Transit Trips	237,100	257,400	281,200
AM Peak Period VMT	17,944,000	23,273,000	23,941,000
AM Peak Period Congested VMT	2,695,000	7,586,000	6,528,000

4. Project List

Transit projects	\$2,410,000,000
Highway projects	\$3,724,957,000
TDM (includes bicycle/pedestrian projects)	\$500,000,000
Total	\$6,634,957,000

Details explaining how projects scored individually during the [prioritization](#) phase is available

Projects with an asterisk (*) were included in the 2001 Long-Range Transportation Plan

Transit Projects — 5 projects, totaling \$2,410,000,000

Regionally Important Transit

Facility	Location	Description	Year	Cost	Transit Map #
LRT/BRT*	Fells Point to Security	Red Line	2015	2,000,000,000	1
MARC*	Camden and Penn lines	add bi-level coaches	2010	100,000,000	2

Other Transit

Facility	Location	Description	Year	Cost	Transit Map #
MARC	Perryville to DC	Penn Line capacity improvements	2030	130,000,000	3
MARC	Baltimore to DC	Camden Line capacity improvements	2030	130,000,000	4
MARC	East Baltimore	new station	2020	50,000,000	5

Highway Projects —54 federally-funded projects, totaling \$3,724,957,000

Regionally Important Highway

Facility	Location	Description	Year	Cost	Highway Map #
I-95 South*	Howard/Prince George's line to Baltimore/Howard line	widen from 8 to 10 lanes	2020	180,900,000	1
I-95 South*	Baltimore/Howard line to I-695	widen from 8 to 10 lanes	2020	45,000,000	2
I-97*	US 50/301 to MD 32/3	widen from 4 to 6 lanes	2010	81,212,000	3
I-695*	I-83 to I-95 N	widen from 6 to 8 lanes	2015	465,000,000	4
I-695*	I-95 S to MD 122	widen from 6 to 8 lanes	2015	335,000,000	5
I-695*	I-95 S to I-95 N	widen from 6/8 to 8/10 lanes	2020	100,000,000	6
US 50/301	Anne Arundel/Prince George's line to Bay Bridge	widen from 6 to 8 lanes	2020	239,500,000	7
MD 295*	I-695 to MD 100	widen from 4 to 6 lanes, new interchange @ Hanover Road	2010	117,400,000	8

Maryland Transportation Authority

These projects on the I-95 Corridor are also important to the region; and, they fall under the jurisdiction of the Maryland Transportation Authority. **These projects will be funded by the toll revenue collected by the Authority. The BRTB will not be responsible for including them in the list of projects to be funded.** These projects will be included in air quality analyses.

Facility	Location	Description	Year	Cost	Highway Map #
I-95*	Washington Blvd to Martin Luther King Blvd	access improvements on City streets, modified interchanges @ I-95, Washington Blvd, Russell St	2010	40,000,000	9
I-95	I-95/I-895 (N) Split to north of MD 43 (Sec 100)	widen from 8 to 12 lanes, modify interchanges @ I-895, I-695, MD 43	2009	739,000,000	10
I-95	North of MD 43 to north of MD 22 (Sec 200)	widen from 8 to 12 lanes, modify interchanges @ MD 152, MD 24, MD 543, MD 22	2012	593,000,000	11
I-95	North of MD 22 to Susquehanna River (Sec 300)	widen from 6 to 8 lanes, modify interchanges @ MD 155	2015	192,000,000	12

City of Annapolis

No projects submitted.

Anne Arundel County

Facility	Location	Description	Year	Cost	Highway Map #
MD 175*	MD 170 to MD 295, new interchange at Reece Rd	widen from 2 to 4 lanes	2010	135,200,000	13
MD 3*	Prince George's line to MD 32	widen from 4 to 6 lanes	2030	172,300,000	14
MD 607	Woods Rd to MD 173	widen from 2 to 4 lanes	2025	17,100,000	15
MD 198*	Prince George's line to MD 295 MD 295 to MD 32	widen from 4 to 6 lanes widen from 2 to 4 lanes	2025	62,400,000	16
MD 2	MD 450 to South River Bridge	widen from 4 to 6 lanes	2030	41,200,000	17

City of Baltimore

Facility	Location	Description	Year	Cost	Highway Map #
I-83	@ Northern Parkway	reconstruct interchange	2013	20,000,000	18
Greenmount Connector	North Avenue to Biddle Street	widen from 4 to 6, add ramp to connect Greenmount to I-83 & Fallsway	2013	15,000,000	19
I-83	@ Saratoga Street	new ramps and directional changes on Saratoga and Lexington	2015	15,000,000	20
I-83	@ Madison Avenue	new ramp	2015	15,000,000	21
Dundalk Ave Bypass	Keith Ave at Broening Hwy	partial to full interchange, new access to Broening from Holabird Business Park	2020	15,000,000	22
I-83*	@ Howard St	new partial interchange with ramp from MLK Blvd @ Howard St	2020	25,000,000	23

Baltimore County

Facility	Location	Description	Year	Cost	Highway Map #
MD 45*	Ridgely Rd to Caven Dr	widen from 4 to 5 lanes	2010	7,500,000	24
MD 140	St. Thomas Lane to Owings Mills Blvd	widen from 4 to 6 lanes	2010	22,000,000	25
MD 145*	MD 45 to Hunters Run Road	relocate	2015	20,000,000	26
I-795*	@ Dolfield Blvd	new interchange	2010	25,000,000	27
Perry Hall Blvd	Rossville Rd to Honeygo Blvd	widen from 2 to 4 lanes	2010	8,200,000	28
Klausmier Rd*	Gunview Rd to US 1	widen from 2 to 4 lanes	2017	1,494,000	29
Red Run Blvd	Red Run Blvd to McDonogh Rd	new 4 lane extension	2025	4,400,000	30

Carroll County

Facility	Location	Description	Year	Cost	Highway Map #
MD 26	MD 32 to Liberty Reservoir	widen from 4 to 6 lanes	2015	32,000,000	31
MD 97 North*	MD 140 to Pleasant Valley Rd	widen from 2 to 4 lanes, new interchange @ New Meadow Branch Rd	2020	43,000,000	32
MD 32*	MD 26 to Howard line	widen from 2 to 4 lanes	2020	43,000,000	33
MD 140*	Market St to MD 31	widen from 4/6 to 8 lanes, 3 new interchanges	2020	224,000,000	34

Harford County

Facility	Location	Description	Year	Cost	Highway Map #
MD 24*	MD 7 to Singer Rd	widen from 4 to 6 lanes	2010	210,000,000	35
Perryman North	US 40 to MD 22	new 4 lane road	2010	14,200,000	36
Perryman East*	MD 159 to US 40	new 4 lane road	2010	52,000,000	37
US 1*	MD 152 to MD 147	widen from 4 to 6 lanes	2020	50,000,000	38
US 1 Bel Air Bypass*	MD 147 to Hickory Bypass	widen from 2 to 4 lanes	2015	68,000,000	39
Perryman West*	US 40 to Canning House Rd	new 4 lane road	2020	2,500,000	40
Robin Hood Rd	Robin Hood Rd to Gilbert Rd	realignment and extension	2020	10,000,000	41
Bulle Rock Pkwy	Chapel Rd to MD 155	new 4 lane road	2020	4,000,000	42
US 1*	Baltimore County line to MD 152	widen from 4 to 6 lanes	2030	20,000,000	43

Howard County

Facility	Location	Description	Year	Cost	Highway Map #
US 29 N*	Middle Patuxent River to S of MD 175	widen to 3 lane freeway w/ interchange @ Rivers Edge Rd	2010	83,100,000	44
US 1	@ MD 175	intersection capacity improvement and/or grade separation	2015	30,600,000	45
MD 32*	MD 108 to I-70	widen from 2 to 4 lanes	2015	185,000,000	46
US 29*	I-70 to MD 100	widen to 8 through lanes	2030	41,355,000	47
I-70*	US 40 to US 29	widen from 4 to 6 lanes, complete interchange @ Marriottsville Rd	2030	57,771,000	48
MD 32*	Cedar Lane to Anne Arundel line	widen from 4/6 to 8 lanes	2015	224,030,000	49
MD 216*	W of US 29 to Sanner Rd	widen from 2 to 4	2020	12,793,000	50
MD 108*	Trotter Rd to MD 32	widen from 2 to 4 lanes	2025	7,500,000	51
Marriottsville Rd*	MD 99 to MD 144	widen from 2 to 4 lanes	2015	3,106,000	52
Patuxent Range Rd*	US 1 to Dorsey Run Rd	widen from 2 to 4 lanes	2015	828,000	53
Sanner Rd North*	Johns Hopkins Rd to Pindell School Rd	widen from 2 to 4 lanes	2015	4,600,000	54
Sanner Rd South*	Johns Hopkins Rd to MD 216	new 4 lane road	2015	5,807,000	55
Snowden River Pkwy*	MD 100 to Broken Land Pkwy	widen from 4 to 6 lanes	2020	55,492,000	56
Gorman Rd*	Stephens Rd to US 1	widen from 2 to 3 lanes	2025	2,485,000	57
MD 32*	I-70 to Carroll line	widen from 2 to 4 lanes	2030	51,984,000	58

Bike/Pedestrian — 37 projects, totaling \$61,341,000

All of the submitted bicycle/pedestrian projects were selected for the draft Preferred Alternative. They are budgeted for in the Transportation Demand Management category (TDM).

Baltimore City

Facility	Location	Description	Year	Cost	Bike/Ped Map #
Gwynns Falls Trail*	Middle Branch Park to City line	bike/pedestrian path	2009	1,300,000	1
Herring Run Trail*	Mt. Pleasant Park to Clifton Park	bike/pedestrian path	2009	3,000,000	2
Jones Falls Bike Trail*	Baltimore line at Robert E. Lee Park to Inner Harbor	bike/pedestrian path	2010	12,000,000	3

Baltimore County

Facility	Location	Description	Year	Cost	Bike/Ped Map #
#8 Trolley Line*	Edmondson Ave to Frederick Rd	bike/pedestrian path	2010	40,000	4
Campbell Blvd Trail*	White Marsh Mall to Philadelphia Rd	bike/pedestrian path	2010	100,000	5
Patapsco Greenway Connector*	Oella to Ilchester Road Bridge	bike/pedestrian path	2010	100,000	6
Red Run Trail*	Gwynns Falls to Soldiers Delight	bike/pedestrian path	2010	1,100,000	7
White Marsh Run Trail*	Avondale Rd to Bird River	bike/pedestrian path	2010	4,900,000	8
Caton Loudon Trail*	Loudon Cemetery to Spring Grove Hospital	bike/pedestrian path	2020	1,800,000	9
Gwynns Falls Trail North*	Owings Mills Town Center to Glyndon	bike/pedestrian path	2020	2,950,000	10
Gwynns Falls Trail South*	Owings Mills Town Center to Gwynn Oak Park	bike/pedestrian path	2020	4,500,000	11

Carroll County

Facility	Location	Description	Year	Cost	Bike/Ped Map #
Piney Run to Sykesville Trail*	trail along Piney Run Reservoir, extending south to Sykesville	bike/pedestrian path	2015	2,752,000	12
Wakefield Valley Community Trail*	trail along MD 31 between Westminster and New Windsor	bike/pedestrian path	2015	1,483,000	13
Monocacy River Scenic Greenway*	greenway along boundary between Frederick and Carroll Counties	bike/pedestrian path	2020	3,900,000	14
North & West Branch Patapsco Trail*	trail along river between Westminster and Finksburg	bike/pedestrian path	2020	4,200,000	15
Patapsco Regional Trail*	greenway along S. Branch Patapsco River	bike/pedestrian path	2020	2,830,000	16
Little Pipe Creek Trail*	trail between New Windsor and Union Bridge	bike/pedestrian path	2025	2,080,000	17

Harford County

Facility	Location	Description	Year	Cost	Bike/Ped Map #
Lower Susquehanna Heritage Greenway Trail*	Follows Susquehanna River from Havre de Grace to the Conowingo Dam	bike/pedestrian path	2009	302,000	18
Aberdeen Bikeway*	MD 132 to MD 462	bike/pedestrian path	2010	30,000	19
Havre de Grace Bikeway*	Juniata/Otsego St to Union	bike/pedestrian path	2010	27,000	20

Joppatowne Bikeway*	Towne Center Dr to Joppa Farm Rd	bike/pedestrian path	2010	12,000	21
MD 152 Corridor Bikeway*	Hess Rd to Trimble Rd	bike/pedestrian path	2010	160,000	22
MD 24 Bikeway*	US 1 to Tollgate Rd	bike/pedestrian path	2010	50,000	23
Ma & Pa Trail	PA line to Wheeler School Rd	bike/pedestrian path	2015	200,000	24
Winters Run Greenway*	South of I-95 along Winters Run to Dam, then east to Tollgate Rd	bike/pedestrian path	2015	2,400,000	25

Howard County

Facility	Location	Description	Year	Cost	Bike/Ped Map #
Broken Land Parkway Pedestrian Facility	MD 32 to Cradlerock Way	bike/pedestrian path	2009	350,000	26
Columbia 100 Parkway Pedestrian Facility	Centre Park Drive to Executive Park Drive	bike/pedestrian path	2009	250,000	27
Guilford Rd Pathways	Patuxent River and Carroll Heights Avenue	bike/pedestrian path	2009	400,000	28
MD Wholesale Food Center Pedestrian Facility*	US 1 to Oceano Ave/Dorsey Run Rd	bike/pedestrian path	2009	200,000	29
US 1 Elkrigde Pedestrian Improvements*	Hunt Club Rd to Ducketts Ln	bike/pedestrian path	2009	100,000	30
US 1 Hunt Club Rd Pedestrian Improvements*	US 1 to Bauman Dr	bike/pedestrian path	2009	350,000	31
US 1 Jessup Pedestrian Improvements*	MD 175 to Montevideo Rd	bike/pedestrian path	2009	125,000	32

MD 99 Pathway	I-70 bridge to Marriottsville Rd	bike/pedestrian path	2010	650,000	33
Patuxent Range Rd Pathways	US 1 to Dorsey Run Rd	bike/pedestrian path	2010	350,000	34
US 1 North Laurel Pedestrian Facility*	Prince George's line to Whiskey Bottom Rd	bike/pedestrian path	2010	350,000	35
MD 32 Bike Facility	MD 108 to Carroll line	bike/pedestrian path	2015	3,500,000	36
US 29 Bike/Ped Facility*	MD 108 to Montgomery line	bike/pedestrian path	2020	2,500,000	37

TDM Program — 3 Core Areas, totaling \$500,000,000

Category	Description of Types	Funding Level
Capital Improvements	<ul style="list-style-type: none"> Improve transit, including new or expanded bus service and added amenities. Provide strategically located commuter parking and auxiliary on-side enhancements. Enhance bike/ped facilities, including capital improvements, amenities, and services. 	\$300,000,000 60%
Technical Enhancements	<ul style="list-style-type: none"> Promote or fund programs to use clean fuels or clean technologies, including incentives, grants, purchases, and more. Promote programs and infrastructure improvements such as traffic signal control, multi-model systems, incident response, etc. 	\$125,000,000 25%
Commuter Assistance	<ul style="list-style-type: none"> Assistance, subsidies, incentives, services to encourage alternatives to driving alone (rideshare, commuter choice, telework, etc.) 	\$75,000,000 15%

Transportation Demand Management (TDM) - Generally, TDM is any action or set of actions designed to reduce traffic congestion or enhance mobility. Such actions can include:

- offering commuters alternative transportation modes and/or services
- providing incentives to travel on these modes or at non-congested hours
- providing opportunities to link or "chain" trips together
- incorporating growth management or traffic impact policies into local development decisions.

Projects that did not make it into the draft Preferred Alternative

Transit

Facility	Location	Description	Year	Cost
HRT/BRT*	Johns Hopkins Hospital to Morgan State University	Green Line	2020	1,000,000,000
LRT/BRT	BWI to Dorsey MARC station	Yellow Line	2025	640,000,000
LRT/BRT	Dorsey MARC station to Columbia	Yellow Line	2030	500,000,000
LRT*	I-695 @ I-83	new station	2030	30,000,000

Highway

Anne Arundel County

Facility	Location	Description	Year	Cost
MD 100*	Howard line to MD 173	widen from 4 to 6 lanes, extend to MD 173	2020	301,400,000
MD 2*	US 50/301 to MD 100	widen from 4 to 6 lanes, new interchange @ College Parkway	2020	169,300,000
MD 170*	MD 175 to MD 176	widen from 2 to 4 lanes	2015	60,900,000
MD 177*	MD 100 to South Carolina Ave	widen from 2/3 to 5 lanes	2020	23,050,000
MD 32*	Howard line to MD 295	widen from 4 to 8 lanes	2020	20,200,000
MD 10*	@ MD 100	new interchange	2020	16,071,000

Baltimore County

Facility	Location	Description	Year	Cost
I-83*	@ Thornton Mill Rd	new interchange	2020	25,000,000
I-83	@ Timonium Rd	reconstruct interchange	2015	20,000,000
I-83	@ Padonia Rd	reconstruct interchange	2020	20,000,000
US 1*	MD 43 to Joppa/Ebenezer Rd	widen from 4 to 6	2030	25,000,000
US 1*	Joppa/Ebenezer to Harford County Line	widen from 4 to 6 lanes	2030	93,000,000

Carroll County

Facility	Location	Description	Year	Cost
MD 140	@ MD 91	new interchange	2020	25,000,000
MD 26*	MD 32 to MD 97	widen from 2 to 4 lanes	2025	32,000,000
MD 97 South	Main Street to MD 32	widen from 2 to 4 lanes	2025	58,000,000
MD 30*	Brodbeck Rd to north of Lineboro (Manchester)	new 2 lane road	2030	57,000,000

Based on recent developments in highway funding, the Maryland Department of Transportation announced the construction of the Hampstead Bypass in Carroll County. Construction will begin in 2005.

MD 30*	Wolf Hill Drive to Brodbeck Rd (Hampstead)	new 2 lane road	2008
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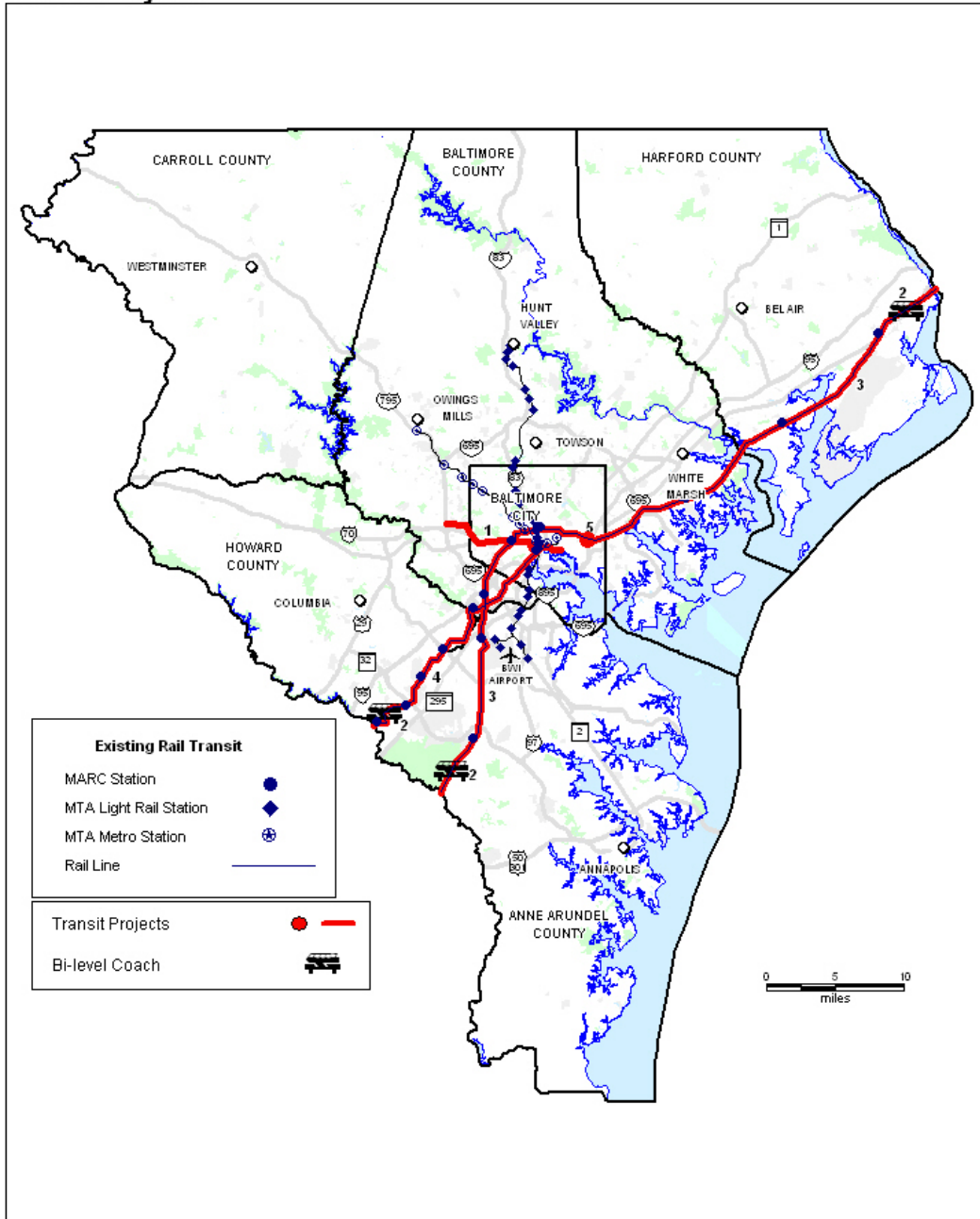
Harford County

Facility	Location	Description	Year	Cost
US 1 Business*	MD 147 to MD 24	widen from 4 to 6 lanes	2020	14,000,000
MD 24	Moore's Mill Rd to MD 23	widen from 2 to 4 lanes	2025	19,400,000
MD 147*	US 1 to MD 152	widen from 2 to 4 lanes	2030	8,500,000
MD 152*	US 40 to APG/Edgewood	widen from 2 to 4 lanes	2030	30,000,000
MD 7*	MD 543 to MD 159	widen from 2 to 4 lanes	2030	31,000,000

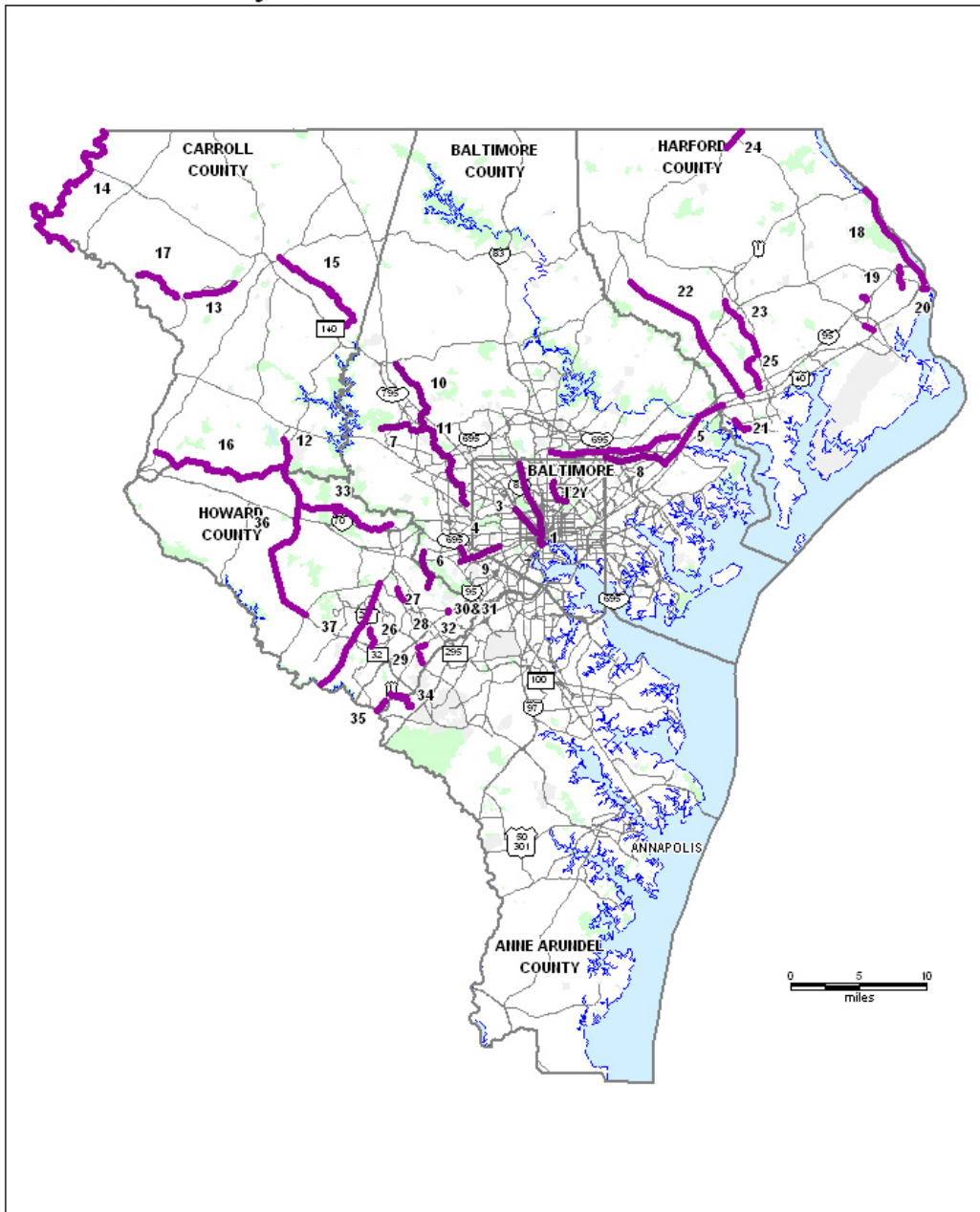
Howard County

Facility	Location	Description	Year	Cost
MD 100*	I-95 to Anne Arundel line	widen from 4/6 to 8 through lanes	2025	17,517,000
MD 108*	MD 104 to MD 175	widen from 2 to 4 lanes	2020	20,730,000
US 29*	Columbia Rd to Montgomery line	widen from 4 to 6 lanes	2020	12,857,000
I-70*	US 29 to Baltimore line	widen from 6 to 8	2030	10,839,000

Transportation 2030: 2009-2030
Draft Preferred Alternative
Transit Projects



Transportation 2030: 2009-2030
Draft Preferred Alternative
Bike/Pedestrian Projects



Baltimore Metropolitan Council

