



MULTIMODAL TRANSPORTATION BOARD

May 22, 2018

7:00 p.m.

George Howard Building, Columbia-Ellicott Room
3430 Court House Drive, Ellicott City, MD 21043

AGENDA

1. Approval of the April 23, 2018 Minutes
2. Public Comment
3. Announcements/Updates
 - i. Transit Development Plan
 - ii. Office of Transportation Advisory Groups
 - iii. US 1 Safety Evaluation
 - iv. RTA Fares Policy
 - v. Patuxent Branch Trail – Storage Facility
 - vi. Land Development Process
 - vii. Downtown Columbia Transportation Demand Management Plan
4. Old Business

Multimodal Transportation Board Role
5. New Business

Bus Rapid Transit ridership analysis
6. Adjournment

Future MTB Meetings Dates
June 28, 2018 – Downtown Columbia Transportation Demand Management Plan
July 24, 2018



**MULTIMODAL TRANSPORTATION BOARD
MINUTES**

April 23, 2018 at 7:00 p.m.

Members Present: Ron Hartman, Chair
Jason Quan
Astamay Curtis
Brian Dillard
Larry Schoen

Staff: Clive Graham, Executive Secretary
John Ainsley, Recording Secretary
David Cookson, Office of Transportation
Rashidi Jackson, Office of Transportation
Phil Nichols, County Administration

Members Excused: Alice Giles
David Zinner
Rick Wilson

1. **Approval of the March 27, 2018 Minutes** (minute 01¹)

Jason Quan moved to approve the minutes of the March 27, 2018 meeting and Astamay Curtis seconded the motion. The minutes were approved by a vote of 5-0.

2. **Public Comments** (minute :02)

There were no public comments.

3. **Announcements/Updates** (minute :02)

Clive Graham, Office of Transportation (OoT) Administrator made the following announcements:

i. Transit Development Plan (TDP) (minute :02)

Clive attended a work session at the County Council this evening prior to the MTB meeting but the TDP topic was tabled and would be heard at a subsequent work session.

The County Executive released his proposed operating budget on April 20 which includes funding to begin to implement phase 1 of the TDP. Clive added that the State has awarded a \$140,000 grant to assist in the planning, preparation and public hearings. The hope is to start implementation of phase 1, including routes reconfiguration around April 1st of 2019.

Clive also informed the board that Anne Arundel County proposes to remove two routes from the RTA service and run those routes internally. They also intend to run shuttle service from Arundel Mills Mall to BWI Airport.

¹ Minute references are to the meeting audio recording; see link on the Multimodal Transportation Board webpage.

ii. Office of Transportation Advisory Groups (minute :03)

The Advisory groups met on April 17, 2018. The two groups met independently and also held a joint meeting. The Transit and Pedestrian Advisory Group (TPAG) meeting included presentations regarding the OoT's Bus Stop Improvement Program and the US 1 Safety evaluation. Ms. Kelli Shimabukuro of Howard County Striders attended the TPAG meeting and advised she was very interested in safety coordination on sidewalks and trails.

At the Bicycle Advisory Group (BAG) meeting there was a lot of discussion regarding the Patuxent Branch Trail issue. Larry Schoen shared that he had heard an announcement that Howard County and Columbia Association (CA) were in conversation to build a fully separate off-road trail. Phil Nichols of the County Administration commented that the County and CA were working together on this issue.

iii. US 1 Safety Evaluation (minute :05)

Clive advised OoT is currently waiting on the consultant's (Sabra Wang) safety evaluation draft that should be available for next month meeting for MTB review.

iv. June Meeting Dates (minute :07)

Clive stated that the MTB June meeting has a conflict with the primary election on June 26. It was agreed the June meeting would be moved to Thursday June 28.

v. RTA Fare Policy (minute :12)

Clive advised the RTA Commission is holding a public hearing on Tuesday April 24, 2018 which will be addressing a change in the fare structure in the RTA region

4. **Old Business** (minute :17)

i. Patuxent Branch Trail- Storage facility (minute :05)

This topic was already covered in the above under Office of Transportation Advisory.

5. **New Business** (minute :17)

i. Land Development Plan Process Review (minute :18)

David Cookson, OoT Planning Manger gave a presentation of the lengthy and complicated land development plan process (see attachment) which included the following:

- Development and approval process
- Plan types and sequence
- How to review site plans
- Roles of reviewing agencies
- OoT's role, including examples of OoT site plan comments

MTB Role- OoT will provide MTB members a notice of major plans submitted since the last MTB meeting.

ii. Multimodal Transportation Board Role (minute :83)

This topic discussed above as part of Land Development Plan Process Review. Clive added that land development will be a topic at future MTB meetings.

iii. Bus Rapid Transit Update (minute :95)


David Cookson gave an update on the Bus Rapid Transit (BRT). Under Phase 1 the OoT will develop ridership estimates considering Montgomery County's US 29 proposed BRT and Howard County's previous BRT studies. Depending on the Phase 1 results Phase 2 would focus on implementation considerations such as:

- Field review of routes
- Environmental Inventory
- Shoulder analysis and right of way
- Operations and maintenance costs and fleet costs
- Service Plan
- Ridership Forecasting

Status of commuter bus service on US 29 and approach to integration with Montgomery County BRT service was also discussed.

6. Adjournment (minute :110)


Ron adjourned the meeting at 8:50 pm. The next MTB meeting is scheduled for **May 22, 2018 at 7:00 pm.**



Clive Graham
Executive Secretary

4/24/18

Date



John Ainsley
Recording Secretary

4/24/18

Date

Plan Review Updates for the MTB

5/22/2018

Plan Name	Plan Number	Description	Office of Transportation Comments	Plan Status / Next Steps
Hidden Ridge	F-18-081	This proposed development is located along Owen Brown Road (North of Cedar Lane & Owen Brown Intersection) and is in the R-SC (Residential Single Cluster) Zoning District. The developer is proposing 12 town homes and one open space lot in a forest conservation easement. The 12 town homes will be served by a 24'-26' Private Access Driveway with a T-Turnaround for emergency vehicles. The developer is providing sidewalks throughout the development with curb ramps and a marked crosswalk at the entrance. This location is currently served by the 404 and there are 2 bus stops to the north of the site along Sunny Spring.	Bike Howard calls for Bike Lanes along Owen Brown Road, however since the developers are not adding additional pavement to the existing road the Office of Transportation will explore the idea of a fee in lieu to substitute the bike improvements along Owen Brown Road. The Office of Transportation is recommending approval for this development.	Comments submitted by 4/24/18,. OOT recommended approval. If approved by DPZ, signature set will be submitted.
Rockburn Meadows	F-18-093	This proposed development is located along Bellanca Drive in Elkrige, and is in the R-20 zone. (Residential, with 20,000 square feet minimum). The developer is proposing six new single family homes, and one existing single family home that will be served by a Private Use In Common Driveway. The developer is providing sidewalks along the entire frontage on Bellanca Drive, and worked with the county to provide additional sidewalk to Montgomery Road. This will now provide a safe walk access for students attending Rockburn Elementary School. Bellanca Drive is not on the Bicycle Master Plan, and doesn't not receive bus service.	The Office of Transportation is recommending approval for this development.	Comments submitted 5/18/18. OOT recommended approval. If approved by DPZ, signature set will be submitted.
Oxford Square - Parcel HH - Bristol Court	SDP-18-055	Oxford Square is 90 acre mixed use project, located near the intersection Coca Cola Drive and MD 100, with a final build out of just under 1,500 residential units and ~190,000 square feet of commercial/retail space, and a public school, partially funded by the applicant. Typical of many large projects, the project is being delivered in phases via separate site plans for specific sections of the projects. These two site plans, Bristol Court and The Yards, when constructed, will include 409 apartment and 56 town houses. This project is designated as transit oriented development and is a County Green Neighborhood. As part of the project's original approval, the applicant will need to provide a pedestrian connection to the Dorsey MARC station and a shuttle.	As of submission of these site plans, the pedestrian connection to the MARC station and information on the shuttle service has not been delivered. The Office of Transportation is requesting resubmission with information on how these items will be delivered.	Comments submitted 4/19/18. Requesting resubmission
Oxford Square - The Yards	SDP-18-019			
Blue Stream	SDP-18-058	Blue Stream is a 76 acre project composed of multiple parcel. Blue Stream is located north of the intersection of US1 and Port Capital Drive and extends west to I95. Blue Stream has been in development since 1999, under sketch plan S-99-008, and is primarily residential with some commercial sites along the US 1 portion of the site. The plan proposes two apartment buildings, one wrapped around a parking structure, the other, standalone, totaling 156 units. There are also two commercial pad sites, a Starbucks and a two-story building with 24,000 square feet of commercial space. The Office of Transportation, in conjunction with DPZ Comprehensive and Community Planning, will seek improved pedestrian connections as well as transit-related improvements.	The Office of Transportation, in conjunction with DPZ Comprehensive and Community Planning, seeks improved pedestrian connections as well as transit-related improvements.	Comments submitted 5/21/18. Requesting resubmission

BUS RAPID TRANSIT

Multimodal Transportation Board

Howard Building

May 22, 2018

David Cookson



Howard County Office of Transportation

PURPOSE

- What is BRT
- Previous Planning efforts
- Update on Planning Efforts



BRT FUNDAMENTALS
DEDICATED RIGHTS OF WAY



BRT FUNDAMENTALS

OFF BOARD FARE COLLECTION



BRT FUNDAMENTALS

INTERSECTIONS



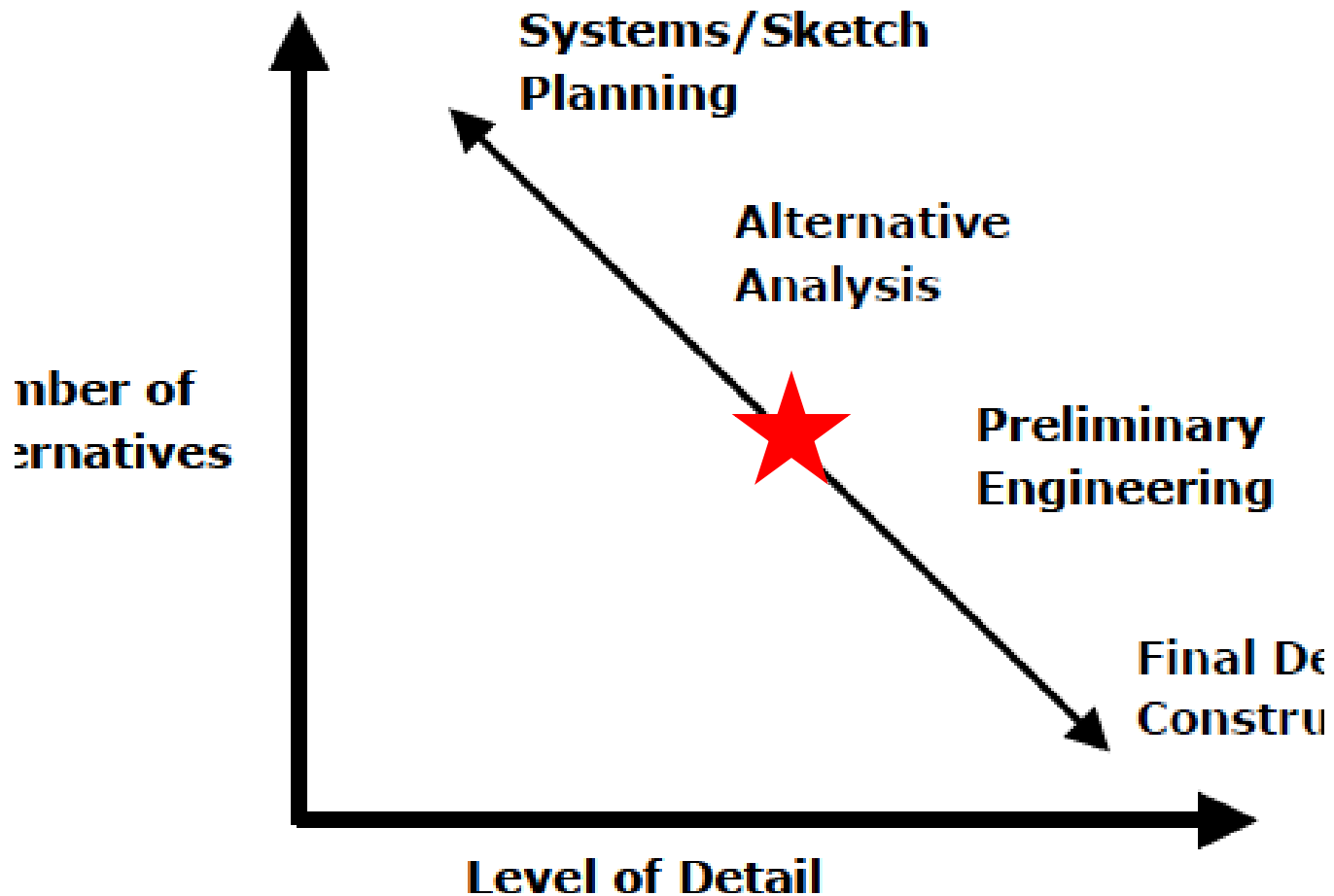
BRT FUNDAMENTALS

PLATFORM LEVEL BOARDING

BRT FUNDAMENTALS

- Routes and Service
 - Direct and more widely spaced stations
 - High frequency, turn up and go
 - Anchored by major activity centers
 - Major corridors-Where people are!
 - Feeder routes by local bus service, pedestrian and bike access

**BRT PLANNING
IN HOWARD
COUNTY**



BRT PLANNING IN HOWARD COUNTY

Concept Study

Phase I System Planning

Phase II A and B
System Planning/Alternatives

US 29 Corridor-Phase I and II

Regional Stakeholder Engagement

Environmental Studies

Engineering

ROW Acquisition

Construction-operations

Prepared By:



Howard County Department of
Planning & Zoning

The Traffic Group has designed Howard County's Phase I Rapid Transit Vehicle System (B.R.T.) with the following goals and attributes.

- Rapid
- Efficient
- Cost-effective – different cross section typicals
- Quickly constructed
- Little or no environmental impact if bridges are not built for the transit way
- Creative and Innovative (Example: Uses railroad right of way)
- Rapid Transit Technology – for vehicle and stations
- Traffic Engineering Problem Solving Techniques
- Little or No R.O.W. required
- Limited utility pole relocations

BRT PLANNING IN HOWARD COUNTY CONCEPT STUDY

Developed conceptual stations and alignments

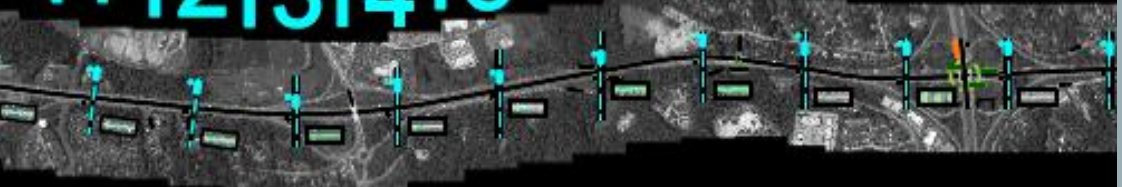
Guideway recommendations

Conceptual station locations

Developed opinion of probable cost-very unknown

No Ridership

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BRT PLANNING IN HOWARD
COUNTY
CONCEPT STUDY

MD29

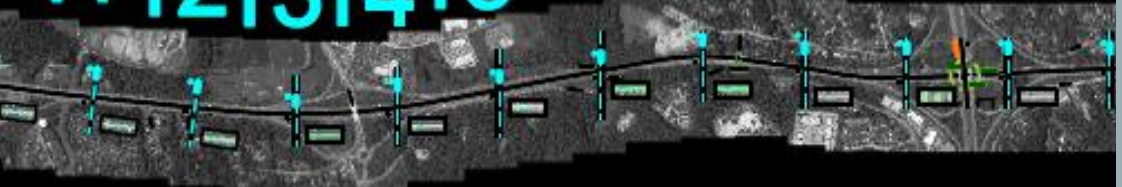
MD32

MD216

Broken Land Parkway

CSX ROW

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US 29 Columbia Pike
Burtonsville Park & Ride to Gales Lane
HOWARD COUNTY, MARYLAND

SCALE 200 FEET



**BRT PLANNING IN HOWARD COUNTY
CONCEPT STUDY**

BRT PLANNING IN HOWARD COUNTY COUNTY PHASE I STUDY

- Travel Forecasting Study
- BRT route evaluation
- Most viable networks
- Assumed: all day service, high frequency service, dedicated ROW

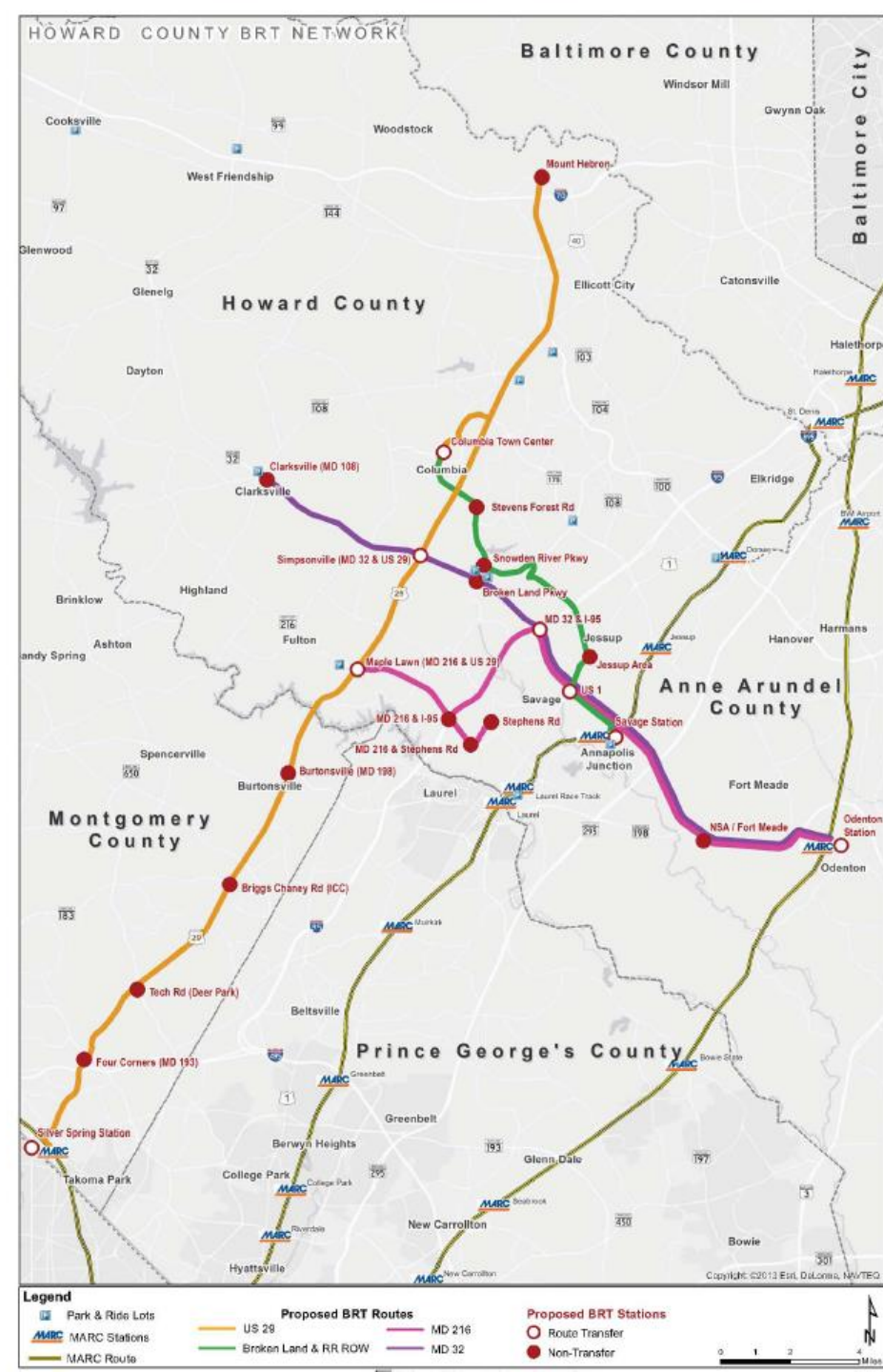


Countywide Bus Rapid Transit System
Travel Forecasting Study
October 2013



BRT PLANNING IN HOWARD COUNTY PHASE I STUDY

- US 29 between Mount Hebron and Silver Spring
- Broken Land Parkway between Columbia Town Center and Savage MARC Station
- MD 32 between Clarksville and Odenton Town Center
- MD 216 between Scaggsville and Odenton Town Center



BRT PLANNING IN HOWARD COUNTY PHASE I STUDY

- Average AADT reduction of 4.5% in Howard County and 3% in Montgomery County when compared to No Build year 2035 conditions.
- 2.5% more person-throughput in Montgomery County.
- Up to 23% faster travel time advantages between Burtonsville and Silver Spring
- A 500% increase in transit ridership when compared to current commuter bus ridership to and from Washington, DC.

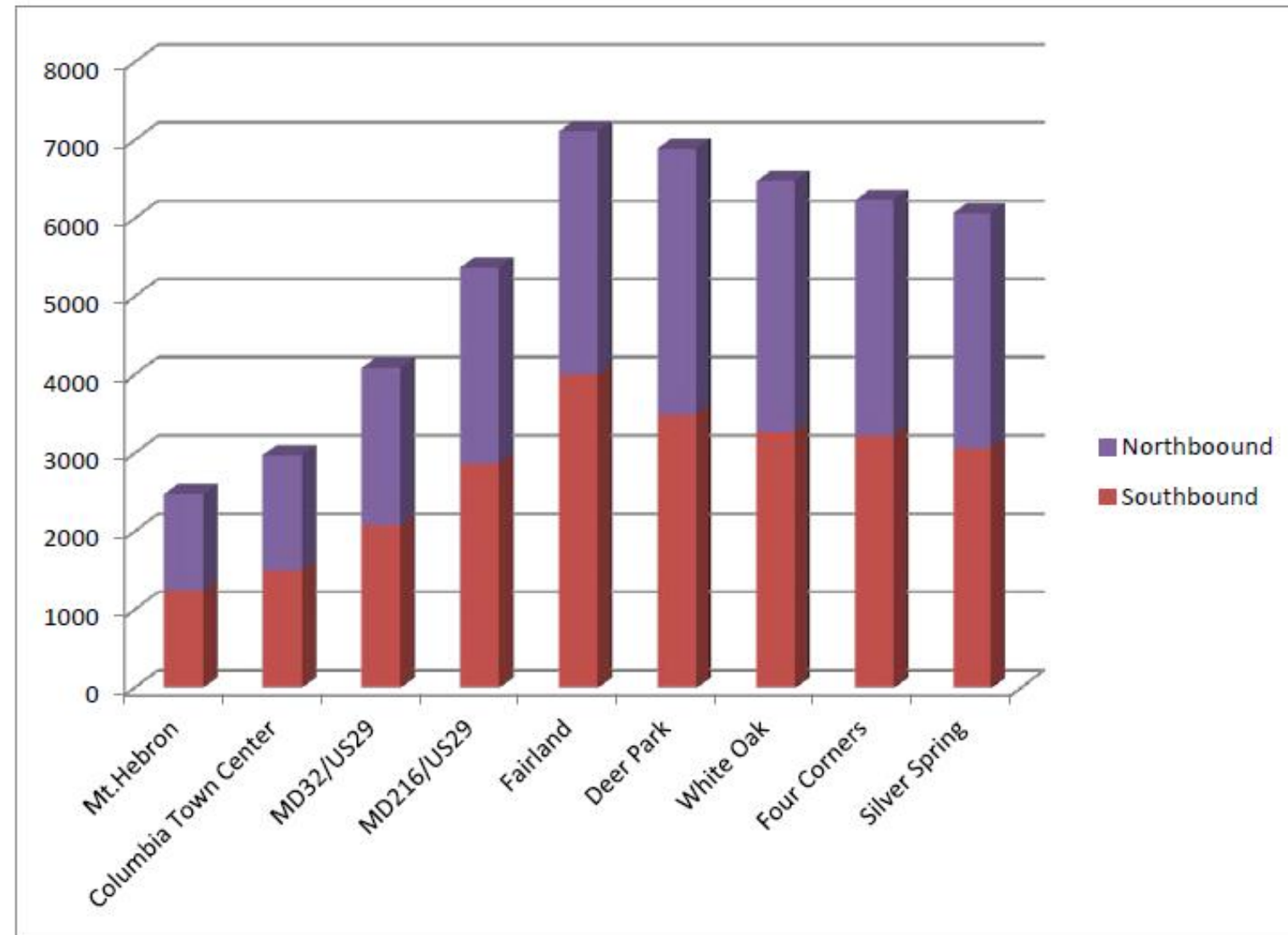


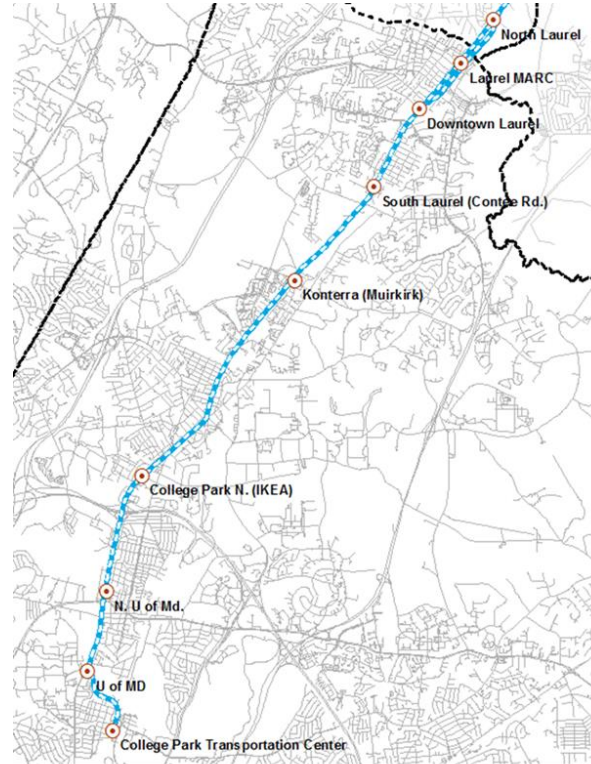
Figure 8. US 29 BRT Route Average Station Daily Boarding Forecasts.

BRT PLANNING IN HOWARD COUNTY

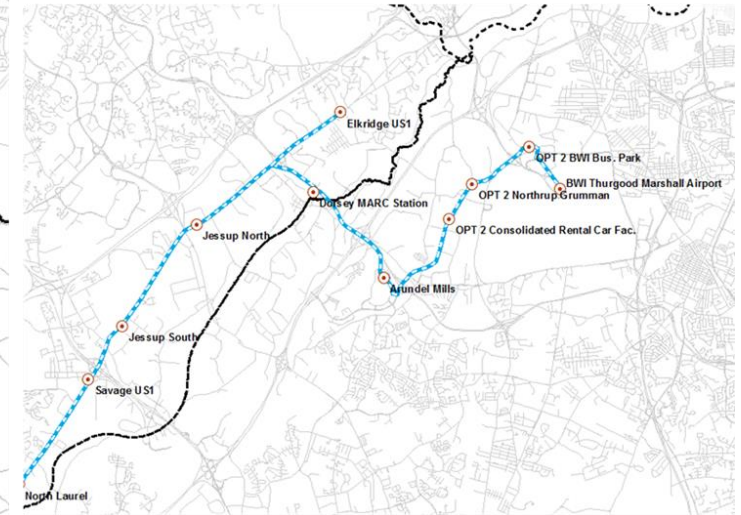
PHASE II STUDY

- Refine BRT corridors to include local feeder networks, potential park-and-rides, and increased pedestrian accessibility
- Congestion reduction impacts on future transportation networks
- Develop alternative land use scenario
- Select alignments to test
- Develop Final recommendations and next steps
- Add Route I
- Enhanced Regional Coordination

BRT PLANNING IN HOWARD COUNTY PHASE II STUDY-US 1



South (Prince George's Co.)

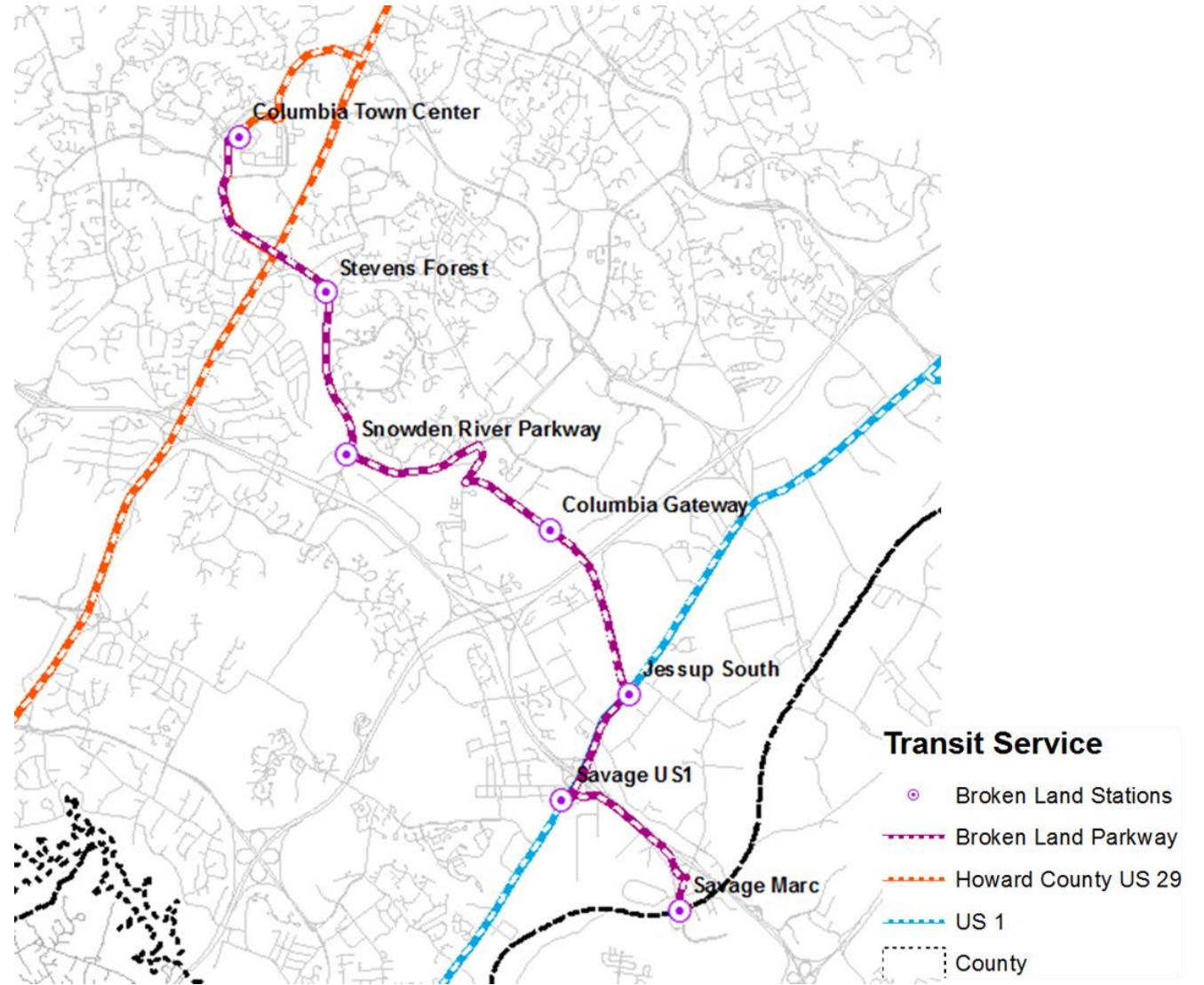


Transit Service

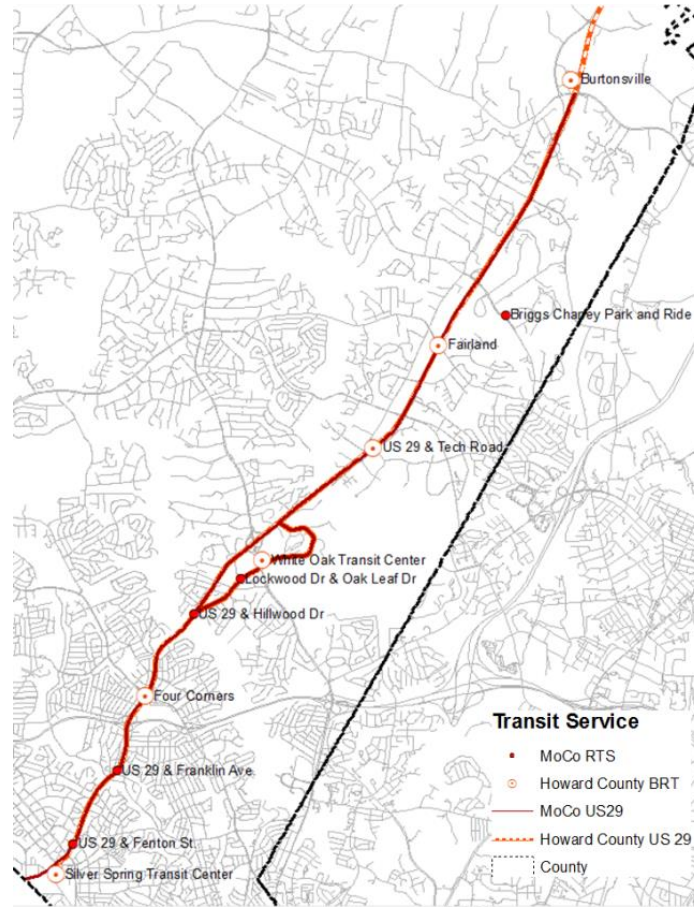
- US 1 Stations
- US 1
- County

North (Howard and Anne Arundel Co.)

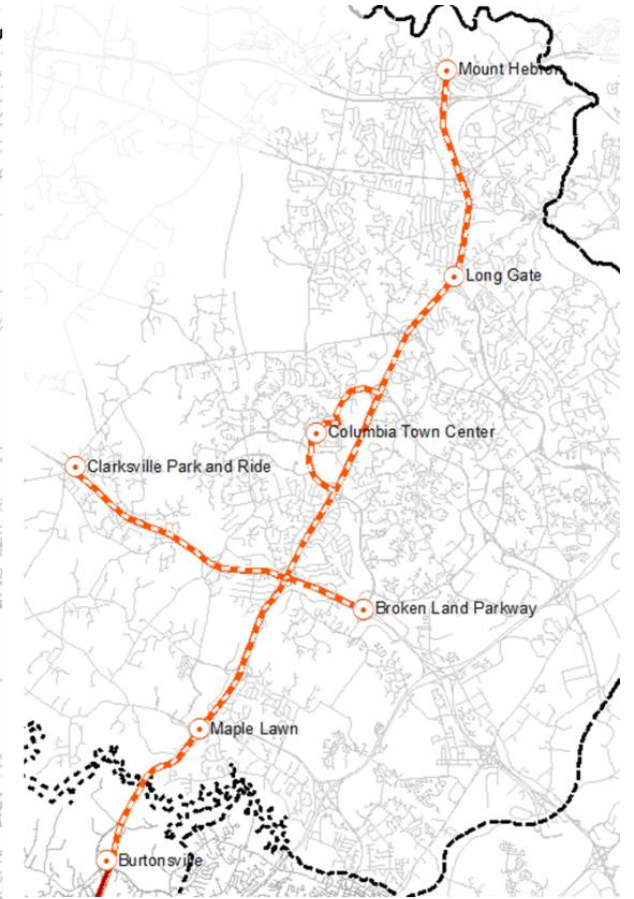
BRT PLANNING IN
HOWARD COUNTY
PHASE II STUDY-
BROKEN LAND
PARKWAY



BRT PLANNING IN HOWARD COUNTY PHASE II STUDY-US 29



Montgomery County RTS



Howard County BRT Phase II

BRT PLANNING IN HOWARD COUNTY PHASE II STUDY

- 2035 BRT Summary Statistics (Trips to/from BMC Region)

Average Weekday	US 29	US1	Broken Land Parkway	Total
Boardings	18222	20266	18213	56701
Passenger Miles	221404	186401	122466	530271
Passenger Hours	4510	4004	3357	11871
Average Trip Length (miles)	12.2	9.2	6.7	9.4
Average Trip Length (minutes)	14.9	11.9	11.1	12.6

For comparison: Baltimore Redline BRT Boardings = 18,915

Boardings for trips made within the Washington Region not included (within Montgomery County, Prince George's County)

BRT PLANNING IN HOWARD COUNTY

US 29 CORRIDOR- PHASE I AND II

Phase I

Service plan and ridership estimates based on Montgomery County's US 29 proposed project

Phase II

- Field review of routes
- Refine the ridership analysis
- Desktop Level Natural Environmental Inventory and Environmental Base Mapping
- Public workshops
- Shoulder analysis and ROW
- Conceptual Designs
- Operations and Maintenance Costs and Fleet Costs
- Development of an implementation plan

**BRT PLANNING IN
HOWARD COUNTY**

**US 29 CORRIDOR-
PHASE I AND II**

15 Minute Headways

Shoulder running in HC

Shoulder in MC until Tech Road

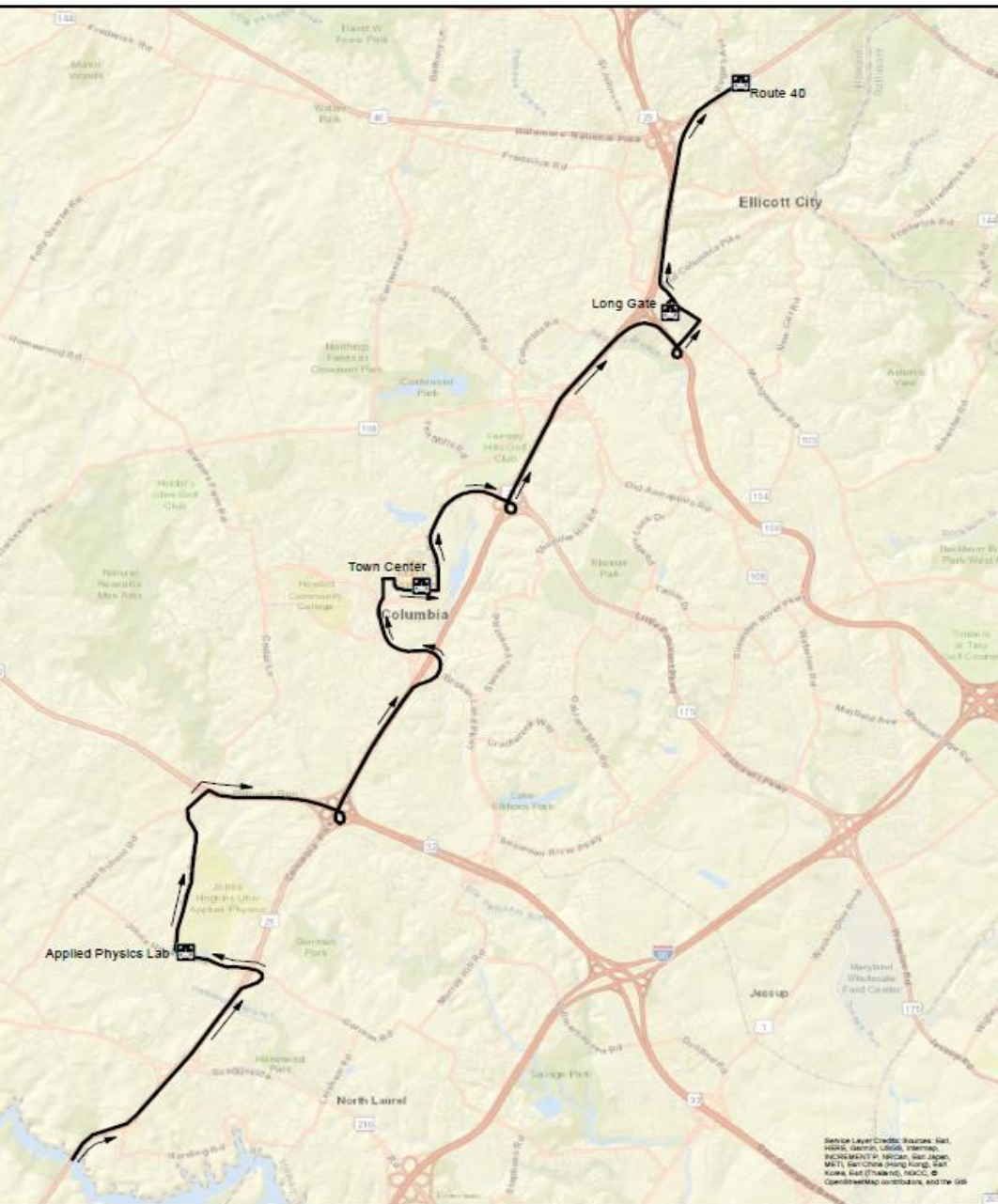
Also includes a new route connecting DTC to Gateway


3 Scenarios: No removal of MTA commuter Routes

Remove the 315 MTA commuter Route

Removal of all MTA Routes

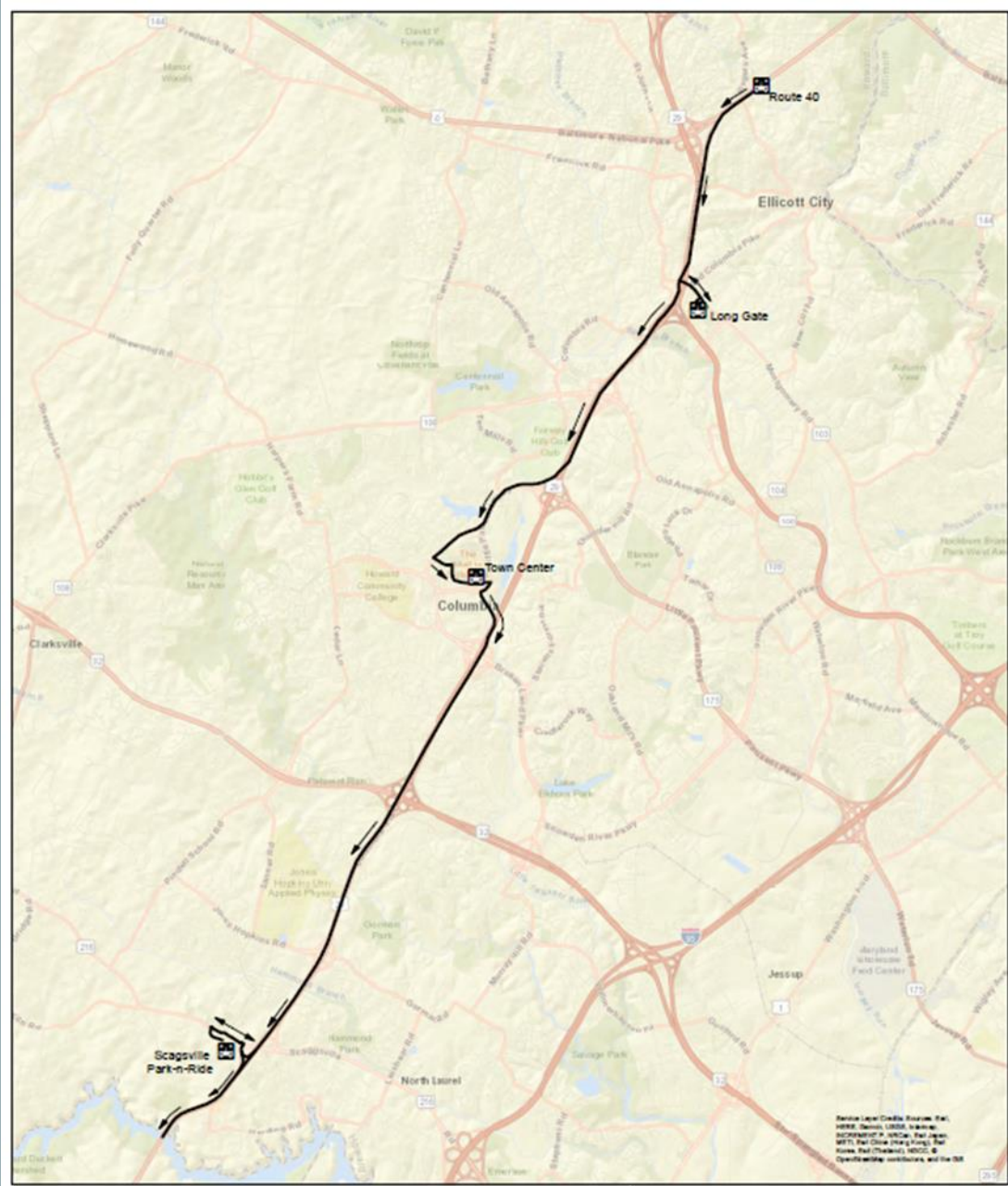
- **Alignment specifics are not final-tweaks were done in the model**
- **RESULTS ARE PRELIMINARY-THEY WILL CHANGE**




— AM NB Route
 BRT Stops

US 29 BRT Study

0 0.625 1.25
 Miles

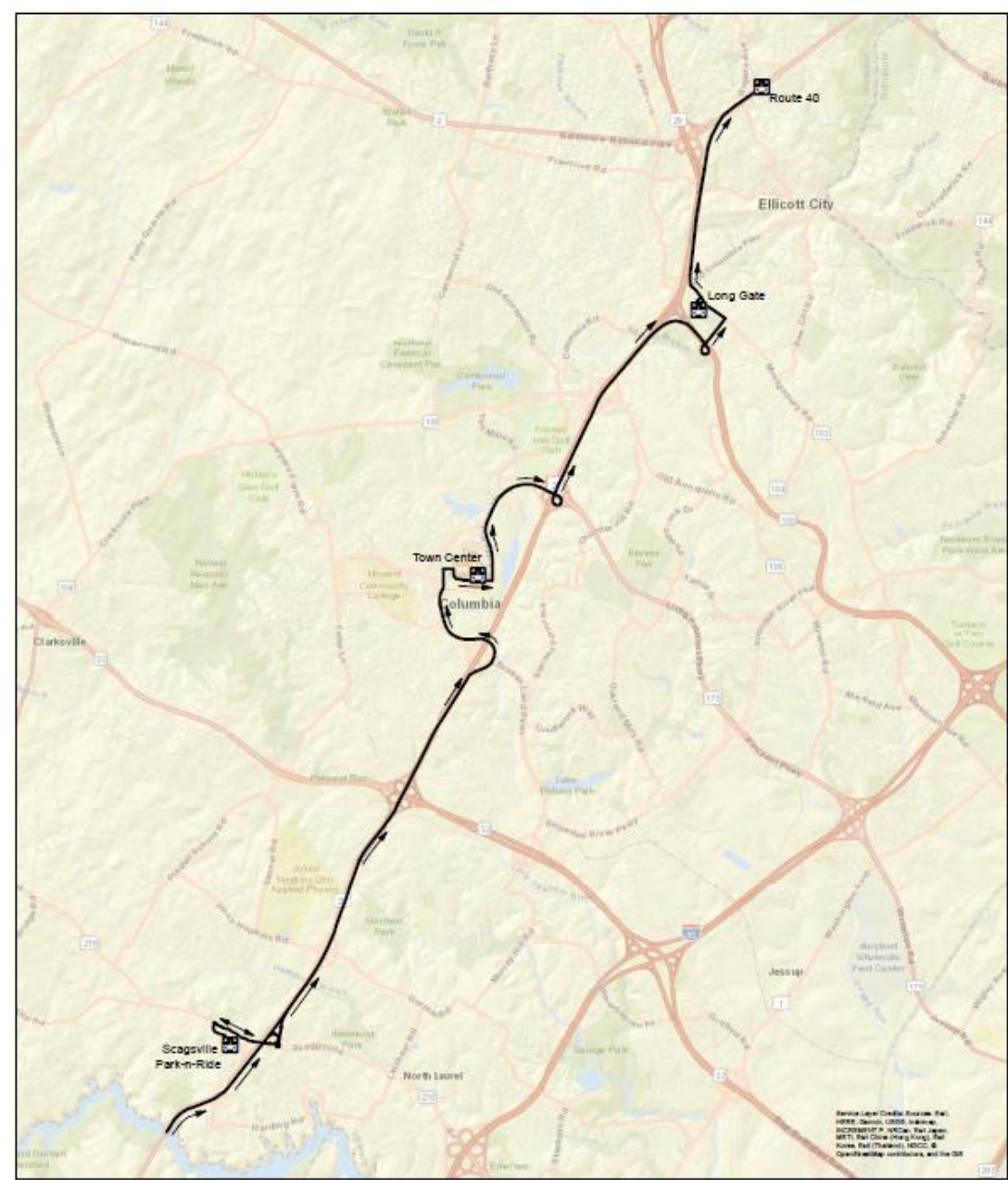



— AM SB Routes
 BRT Stops

US 29 BRT Study

0 0.625 1.25
 Miles

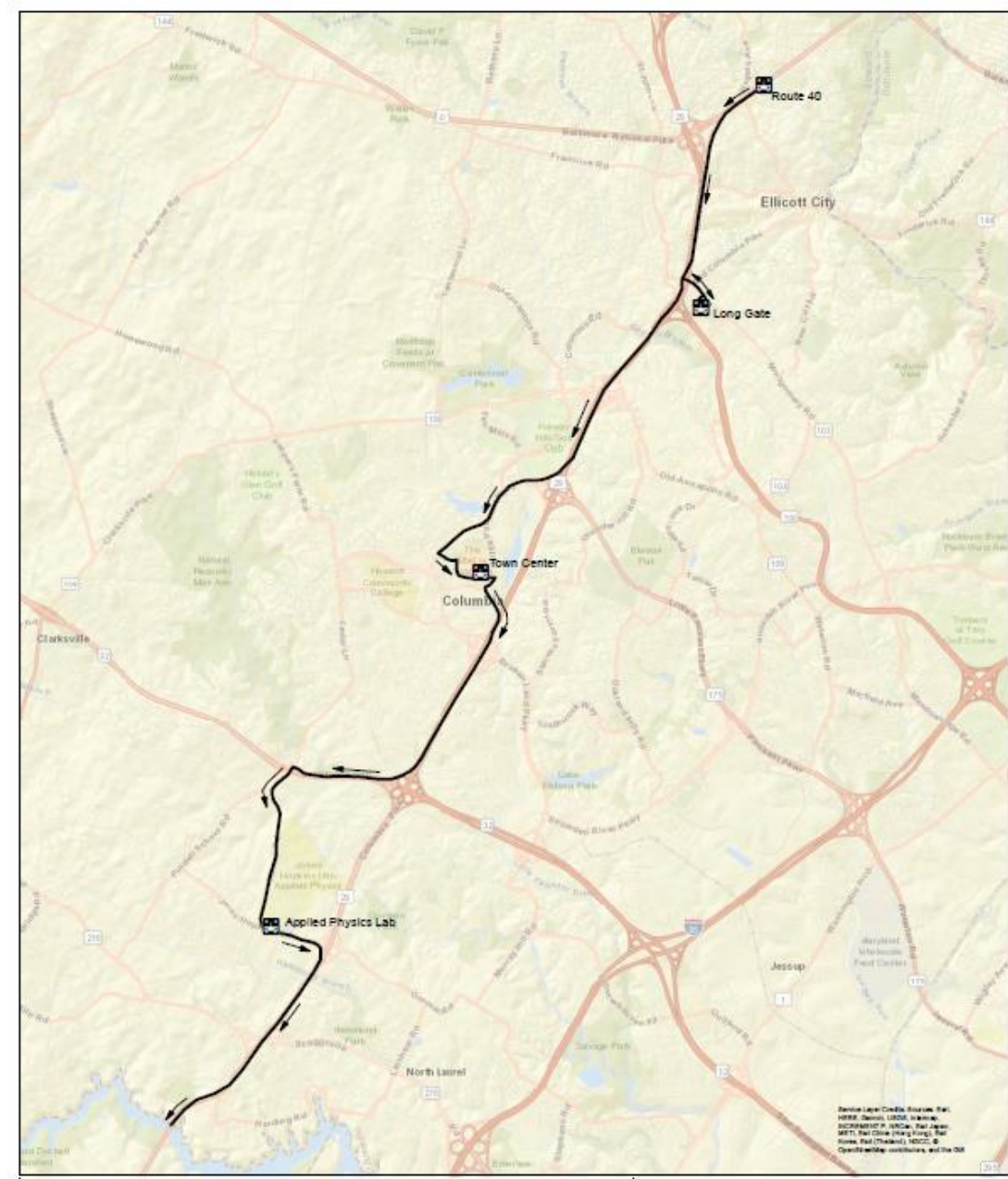





— PM NB Route
 BRT Stops

US 29 BRT Study

0 0.625 1.25
 Miles



— PM SB Route
 BRT Stops

US 29 BRT Study

0 0.625 1.25
 Miles



BRT PLANNING IN HOWARD COUNTY

US 29 CORRIDOR- PHASE I AND II

PRELIMINARY RESULTS

	Stops	2040 BRT+ALL MTA	2040 BRT + NO MTA	2040 - MTA315	Headway 10 min
Boardings	Ellicott City	1,150	1,209	1,151	1,250
	Long Gate	797	867	799	963
	Town Center	1,568	2,465	1,609	2,159
	Scaggsville	144	582	144	603
	Physics Lab	118	158	119	160
	Burtonsville	414	543	418	583
	Briggs Chaney	113	150	114	150
	Tech Road	517	702	523	702
	Burnt Mills Ave	73	98	73	102
	Four Corners	67	87	67	89
	Silver Spring	1,280	1,620	1,291	1,714
Ridership	Total BRT	6,241	8,481	6,308	8,475
	MTA325	1,120	0	1,112	734
	MTA305	1,493	0	2,345	1,580
	MTA315	1,684	0	0	0
	Total	10,538	8,481	9,765	10,789

AM Peak Period Stop Level Ons and Offs, by Direction

Stop	2040 BRT+ALL MTA						2040 BRT + NO MTA						2040 - MTA315						Headway 10 min					
	Peak Direction			Off Peak Direction			Peak Direction			Off Peak Direction			Peak Direction			Off Peak Direction			Peak Direction			Off Peak Direction		
	On	Off	Ride	On	Off	Ride	On	Off	Ride	On	Off	Ride	On	Off	Ride	On	Off	Ride	On	Off	Ride	On	Off	Ride
Ellicott City	575	0	575	0	6	0	605	0	605	0	8	0	576	0	576	0	6	1	625	0	625	0	9	0
Long Gate	398	1	972	1	18	6	433	1	1,037	1	23	8	399	1	974	1	18	7	481	1	1,105	1	25	9
Town Center	780	29	1,723	4	237	23	1,229	29	2,237	4	307	30	801	28	1,747	4	239	24	1,075	35	2,145	5	272	33
Scaggsville	72	0	1,795	0	0	256	291	0	2,528	0	0	333	72	0	1,819	0	0	259	302	0	2,447	0	0	300
Physics Lab	0	0	1,795	59	15	256	0	0	2,528	79	19	333	0	0	1,819	60	15	259	0	0	2,447	80	19	300
Burtonsville	185	140	1,840	22	0	212	244	237	2,535	28	0	273	187	141	1,865	22	0	214	271	176	2,542	21	0	239
Briggs Chaney	0	0	1,840	57	0	190	0	0	2,535	75	0	245	0	0	1,865	57	0	192	0	0	2,542	75	0	218
Tech Road	0	47	1,793	259	825	133	0	47	2,488	351	1,068	170	0	47	1,818	262	832	135	0	54	2,488	351	1,130	143
Burnt Mills Ave	0	0	1,793	37	0	699	0	0	2,488	49	0	887	0	0	1,818	37	0	705	0	0	2,488	51	12	922
Four Corners	0	0	1,793	34	12	662	0	0	2,488	44	16	838	0	0	1,818	34	12	668	0	0	2,488	45	19	883
Silver Spring	0	1,792	0	640	0	640	0	2,487	0	810	0	810	0	1,817	0	646	0	646	0	2,487	0	857	0	857

PM Peak Period Stop Level Ons and Offs, by Direction

Stop	2040 BRT+ALL MTA						2040 BRT + NO MTA						2040 - MTA315						Headway 10 min					
	Peak Direction			Off Peak Direction			Peak Direction			Off Peak Direction			Peak Direction			Off Peak Direction			Peak Direction			Off Peak Direction		
	On	Off	Ride	On	Off	Ride	On	Off	Ride	On	Off	Ride	On	Off	Ride	On	Off	Ride	On	Off	Ride	On	Off	Ride
Ellicott City	0	575	0	6	0	6	0	605	0	8	0	8	0	576	0	6	0	6	0	625	0	9	0	9
Long Gate	1	398	574	18	1	23	1	433	604	23	1	30	1	399	575	18	1	23	1	481	624	25	1	33
Town Center	29	780	971	237	4	256	29	1,229	1,036	307	4	333	28	801	973	239	4	258	35	1,075	1,104	272	5	300
Scaggsville	0	72	1,722	0	0	256	0	291	2,236	0	0	333	0	72	1,746	0	0	258	0	302	2,144	0	0	300
Physics Lab	0	0	1,794	15	59	212	0	0	2,527	19	79	273	0	0	1,818	15	60	213	0	0	2,446	19	80	239
Burtonsville	140	185	1,794	0	22	190	237	244	2,527	0	28	245	141	187	1,818	0	22	191	176	271	2,446	0	21	218
Briggs Chaney	0	0	1,839	0	57	133	0	0	2,534	0	75	170	0	0	1,864	0	57	134	0	0	2,541	0	75	143
Tech Road	47	0	1,839	825	259	699	47	0	2,534	1,068	351	887	47	0	1,864	832	262	704	54	0	2,541	1,130	351	922
Burnt Mills Ave	0	0	1,792	0	37	662	0	0	2,487	0	49	838	0	0	1,817	0	37	667	0	0	2,487	12	51	883
Four Corners	0	0	1,792	12	34	640	0	0	2,487	16	44	810	0	0	1,817	12	34	645	0	0	2,487	19	45	857
Silver Spring	1,792	0	1,792	0	640	0	2,487	0	2,487	0	810	0	1,817	0	1,817	0	646	-1	2,487	0	2,487	0	857	0

BRT PLANNING IN
HOWARD COUNTY

US 29 CORRIDOR-PHASE I
AND II

NEXT STEPS

1. MC Service
2. Service Model Refinement
3. Technical Report
3. Decision to move forward
4. Advance to Phase II

QUESTIONS AND COMMENTS?

David Cookson

Planning Manager

Howard County Office of
Transportation

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Chris Bell

AECOM

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