



Customer Services, Operations, and Safety Committee

Board Information Item III-C

November 19, 2009

Bus Stop Design, Information and Placement

Washington Metropolitan Area Transit Authority
Board Action/Information Summary

<input type="radio"/> Action <input checked="" type="radio"/> Information	MEAD Number:	Resolution: <input type="radio"/> Yes <input checked="" type="radio"/> No
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TITLE:

Bus Stop Design, Information, and Placement

PURPOSE:

To provide the Board with information on the development of information, design and placement guidelines for bus stops.

DESCRIPTION:

Over the past year, the Offices of Long Range Planning and Bus Planning have been working on the development of information, design and placement guidelines for bus stops in the Metrobus system. The result of this work is a document outlining specific design, access and spacing criteria as well as a comprehensive information system designed to make Metrobus the best, most accessible, ride in the nation. The guidelines are intended to provide Metro and its jurisdictional partners with specific physical design criteria to be integrated with local comprehensive plan policies, land use ordinances, pedestrian plans, and street design guidelines.

With almost 12,000 bus stops, Metro has a comprehensive on-street bus stop information system. However, the current system has a number of challenges including problems of readability, old technology, and a lack of regional design coordination. The new information guidelines include recommendations that address current problems and provide a new consistent, reliable, and effective customer information system.

The guidelines provide a discussion of appropriate bus stop placement relative to different land uses, intersections and street designs. They also provide standards for improving accessibility to bus stops to fully comply with the Americans With Disabilities Act. Prototypes of recommended stop facilities are included.

Lastly, the guidelines recommend appropriate spacing between bus stop locations and an analysis of the current spacing between stops on Metrobus lines. Applying the recommended bus stop spacing, various bus stop consolidation scenarios were developed each with potential order of magnitude operational time and cost savings.

These reports were developed after a review of current design and information system guidelines used by the local jurisdictions in the Metro service area, discussions with Metro staff and regional partners, input received at a public open house, a literature review and review of standards and guidelines used in other metropolitan areas.

FUNDING IMPACT:

While the current action has no impact on funding, implementation of the guidelines could result in changes to the budget. For example, the spacing of bus stops could result in operational improvements and budget savings.

RECOMMENDATION:

n/a



Guidelines for Bus Stop Design, Information and Placement

Customer Service, Operations and Safety Committee

November 19, 2009



Purpose And Goals

To provide information on the development of Metro guidelines for Metrobus stop design, information, and placement

Bus Stops are the gateways to bus systems. To become the “Best Ride in the Nation” this project will:

- Identify and implement safety features
- Improve function of and access to stops
- Implement efficient processes to sustain program elements
- Enhance the customer experience
- Evaluate impact of stop placement on performance Metrobus system



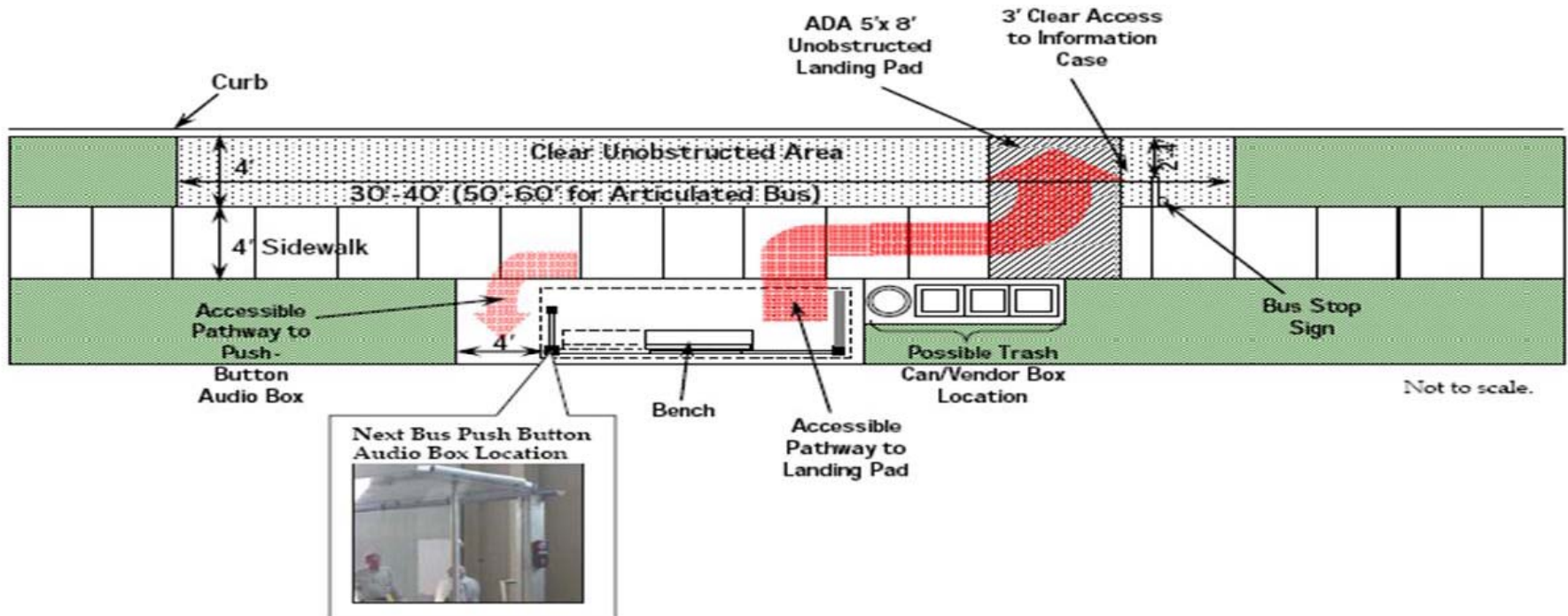
Background

Jurisdiction	Bus Stops	Shelters
District of Columbia	3,488	663
Maryland	4,566	1,035
Virginia	3,329	701
Metro	412	597
Total:	11,795	2,476

- Uniform bus stop information and design guidelines for Metrobus were developed by collaborative process
- Draft guidelines reviewed by key stakeholders including:
 - Riders Advisory Council
 - Accessibility Advisory Committee
 - Regional Bus Stop Task Force
 - Jurisdictional Coordination Committee
 - Public meeting participants

Metrobus Stop Design Elements

- Flag and pole
- Landing pad, passenger entry and exit locations
- Accessible pathways
- Information case, maps and signage
- Seating and shelter
- Lighting
- Passenger waiting area
- Trash receptacle
- Vendor boxes





Metrobus Stop Customer Information

Challenges:

- Readability
- Complex multi-system regional environment
- Schedule tables do not fit display cases
- Inconsistent application across region
- Old technology base

Study Findings to Date:

- Adopt new readability standards
- Provide new integrated stop signage
- Use stop-specific schedule information
- Establish uniform approach to stop design and information content and placement
- Improve efficiency of stop information production and distribution





New Pole, Flag And Schedule Design



LOCAL 32 34
36 37 54 A42
A46 A48 P1 P2
P6 P17 P19 W13
EXPRESS 79
 Next Bus Info: 202-637-7000 **BUS STOP #**
 MetroOpensDoors.com **1000914**



AT3 AT4 AT5 AT6
AT8
 Service Info: 301-123-4567



42 87
 Service Info: 301-123-4567



metrobus

LOCAL 32 34
36 37 54 A42
A46 A48 P1 P2
P6 P17 P19 W13
EXPRESS 79

Next Bus Info: 202-637-7000 **BUS STOP #**
 MetroOpensDoors.com **1000914**

metrobus BUS STOP SCHEDULE

S9 Westbound

Weekday AM Departures
 6:00 6:44 6:57 7:44 7:50 7:56 7:58 8:00 8:28
 8:31 8:37 8:47 10:17 10:47 11:17 11:47

Weekday PM Departures
 10:10 10:44 11:14 11:44 11:48 11:54 11:56 11:58 12:00 12:28
 12:31 12:37 12:47 10:17 10:47 11:17 11:47

Weekend AM Departures
 6:00 6:44 6:57 7:44 7:50 7:56 7:58 8:00 8:28
 8:31 8:37 8:47 10:17 10:47 11:17 11:47

Weekend PM Departures
 10:10 10:44 11:14 11:44 11:48 11:54 11:56 11:58 12:00 12:28
 12:31 12:37 12:47 10:17 10:47 11:17 11:47

S9 Westbound

S10 Westbound

S12 Westbound

S14 Westbound



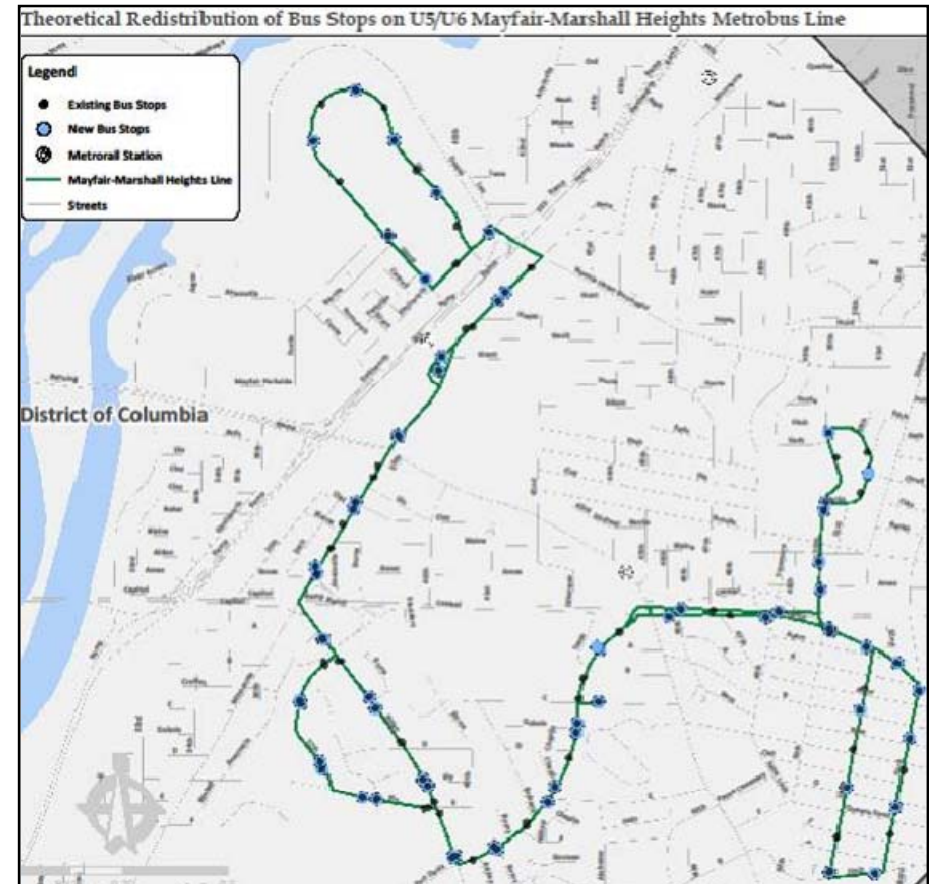
Recommended Metrobus Stop Amenities

A hierarchy of amenities prioritizes investments to reflect the variety of uses and demand levels based on functional criteria

Required Feature	Basic Stop	Enhanced Service Bus Stop	Transit Center
Bus Stop Sign	Yes	Yes	Yes
ADA 5'x8' Landing Pad	Yes	Yes	Yes
Sidewalk (access pathway)	Yes	Yes	Yes
Lighting	Evening Service	Yes	Yes
Expanded Boarding & Alighting Area (Rear-door Access)	No	Yes	Yes
Bus Bay (Pull Off)	travel speed higher than 45 mph	Route Specific	Yes
Shelter(s)	50+ boardings/day	Yes	Based on Demand
Seating	Optional	Yes	Yes
Trash Receptacle	Site Specific	Yes	Yes
Information Case	50+ boardings/day	Yes	Yes
System Map	Contingent on Shelter	Yes	Yes
Real-time Display (LED + Audio)	Optional	Yes	Yes
Interactive Phone System on-site	No	No	Yes

Impact on Performance

- Reviewed stop spacing optimization and consolidation studies
- Other transit systems have found that 4-5 stops per mile provides best balance of customer access and operational efficiency
- Reduction of bus stops could reduce travel times and operational costs
- A project will be initiated to review stop spacing and safety to optimize locations, spacing and travel times





Next Steps

- Staff will continue to work with JCC to develop program elements.
- Staff will provide recommendations to the General Manager.
- Present recommendations to the Customer Service, Operations and Safety Committee in January 2010.
- Assist jurisdictions in prioritizing bus stop investments using consolidated regional bus stop inventory data.
- Sustain Metrobus stop design and customer information through active program management.



Appendix 1 - Proposed Bus Stop Customer Information Elements



Appendix 1 – Metrobus Stop Flag and Pole

Metrobus Stop Flag

- Dimension – 36" w x 18" h
- Metrobus branding flag
- Bus stop identification number
- Next bus branding
- Route number(s)
- Special service notes
- International bus stop logo
- Website address
- Telephone number
- Reflective surfaces on Metrobus and international bus symbol

Pole

- 12-foot U-Channel pole with breakaway feature
- Information case (6' w x 30' h)
- Tactile raised-letter plaque with bus stop identification number



Appendix 1 – Info Case and Multi-Operator Flag

Information Case Panel

- 12-point font size minimum
- Bus stop location name
- Stop-specific schedule
- Fare information
- How-to-Ride guide
- Travel time between time points
- Bus stop identification number
- Metrobus branding heading

Multi-Operator Stop

- Local operators bus flag – dimension 36" w X 7" h
- Brand logo
- Route number
- Website address
- Telephone number
- Special service notes