CORRIDOR ACCESS STUDY (CAST) – RECOMMENDATIONS REPORT

PREPARED FOR:
PRINCE GEORGE’S COUNTY PLANNING DEPARTMENT,
THE MARYLAND NATIONAL CAPITAL PARK AND PLANNING COMMISSION

JUNE 2011
TABLE OF CONTENTS

SECTION I – EXECUTIVE SUMMARY .................................................. 3
SECTION II – TAKOMA – LANGLEY TRANSIT CENTER .............. 7
SECTION III – RIGGS ROAD (ADELPHI) .............................................. 12
SECTION IV – WEST CAMPUS – ADELPHI ROAD (UNIVERSITY HILLS) .................................................. 18
SECTION V – CAMPUS CENTER (UMD CAMPUS CENTER) ........... 23
SECTION VI – EAST CAMPUS .............................................................. 27
SECTION VII – COLLEGE PARK – UMD (COLLEGE PARK TRANSIT CENTER) .............................................. 32
SECTION VIII – RIVER ROAD (M3) ..................................................... 37
SECTION IX – RIVERDALE PARK ......................................................... 41
SECTION X – RIVERDALE – EAST PINES (BEACON HEIGHTS) ... 47
SECTION XI – ANNAPOLIS ROAD (GLENRIDGE) ......................... 52
SECTION XII – NEW CARROLLTON TRANSIT CENTER ............ 57
SECTION XIII – PARALLEL TRAIL RECOMMENDATIONS ....... 62
SECTION XIV – INTER-MODAL ACCESS REQUIREMENTS .......... 66
SECTION XV – IMPLEMENTATION STRATEGIES / FURTHER EVALUATIONS .............................................. 68

TABLES

TABLE II – 1: PEDESTRIAN AND BICYCLE ACCESS .................... 8
TABLE II – 2: BUS AND SHUTTLE ACCESS ....................................... 9
TABLE II – 3: INTERSECTION AND TRAFFIC CALMING .................. 9
TABLE III – 1: PEDESTRIAN AND BICYCLE ACCESS .................... 13
TABLE III – 2: BUS AND SHUTTLE ACCESS .................................... 14
TABLE III – 3: INTERSECTION AND TRAFFIC CALMING .................. 14
TABLE IV – 1: PEDESTRIAN AND BICYCLE ACCESS ..................... 19
TABLE IV – 2: BUS AND SHUTTLE ACCESS ..................................... 19
TABLE IV – 3: INTERSECTION AND TRAFFIC CALMING ................. 20
TABLE V – 1: PEDESTRIAN AND BICYCLE ACCESS .................... 23
TABLE V – 2: BUS AND SHUTTLE ACCESS ..................................... 24
TABLE V – 3: INTERSECTION AND TRAFFIC CALMING ................. 24
TABLE VI – 1: PEDESTRIAN AND BICYCLE ACCESS .................... 28
TABLE VI – 2: BUS AND SHUTTLE ACCESS ..................................... 29
TABLE VI – 3: INTERSECTION AND TRAFFIC CALMING .................. 29

TABLES (Con’t)

TABLE VII – 1: PEDESTRIAN AND BICYCLE ACCESS .................... 33
TABLE VII – 2: BUS AND SHUTTLE ACCESS .................................... 33
TABLE VII – 3: INTERSECTION AND TRAFFIC CALMING .................. 34
TABLE VIII – 1: PEDESTRIAN AND BICYCLE ACCESS .................... 38
TABLE VIII – 2: BUS AND SHUTTLE ACCESS .................................... 38
TABLE VIII – 3: INTERSECTION AND TRAFFIC CALMING ................. 38
TABLE IX – 1: PEDESTRIAN AND BICYCLE ACCESS ...................... 42
TABLE IX – 2: BUS AND SHUTTLE ACCESS ..................................... 43
TABLE IX – 3: INTERSECTION AND TRAFFIC CALMING ................. 44
TABLE X – 1: PEDESTRIAN AND BICYCLE ACCESS ....................... 48
TABLE X – 2: BUS AND SHUTTLE ACCESS ..................................... 48
TABLE X – 3: INTERSECTION AND TRAFFIC CALMING ................. 49
TABLE XI – 1: PEDESTRIAN AND BICYCLE ACCESS ....................... 53
TABLE XI – 2: BUS AND SHUTTLE ACCESS ..................................... 53
TABLE XI – 3: INTERSECTION AND TRAFFIC CALMING ................. 54
TABLE XII – 1: PEDESTRIAN AND BICYCLE ACCESS ..................... 58
TABLE XII – 2: BUS AND SHUTTLE ACCESS ................................... 59
TABLE XII – 3: INTERSECTION AND TRAFFIC CALMING ................. 59

MAPS

MAP 1: TAKOMA-LANGLEY TRANSIT CENTER ........................................ 10
MAP 2: RIGGS ROAD (ADELPHI) ...................................................... 16
MAP 3: WEST CAMPUS – ADELPHI ROAD (UNIVERSITY HILLS) ........ 21
MAP 4: CAMPUS CENTER (UMD CAMPUS CENTER) ......................... 25
MAP 5: EAST CAMPUS ................................................................. 30
MAP 6: COLLEGE PARK – UMD (COLLEGE PARK TRANSIT CENTER) ....... 35
MAP 7: RIVER ROAD (M3) .............................................................. 39
MAP 8: RIVERDALE PARK .............................................................. 45
MAP 9: RIVERDALE – EAST PINES (BEACON HEIGHTS) ................. 50
MAP 10: ANNAPOLIS ROAD (GLENRIDGE) ...................................... 55
MAP 11: NEW CARROLLTON TRANSIT CENTER .............................. 60
SECTION I – EXECUTIVE SUMMARY

Purpose
The overall goal of the CAST study is to evaluate multi-modal access to the eleven (11) proposed Purple Line Locally Preferred Alternative (LPA) Stations within Prince George’s County. This report provides an additional piece of the overall plan for the development of the stations by providing further analysis and recommendations for pedestrian and bicycle access. The CAST study was initiated by the Purple Line Bicycle Access and Bicycle Hub Location Study (Toole Study) completed in June 2010. Providing effective multi-modal access to the stations will be essential to the success of the Purple Line Light Rail system. A number of development projects and sector planning efforts are currently underway providing opportunities to implement new bicycle and pedestrian facilities around the stations. This report will provide additional information to help policy makers, planners and engineers make better decisions as design of the Purple Line LPA moves forward.

Each Purple Line LPA Station in this report is designated with the LPA names with the updated names as suggested by M-NCPPC in parenthesis.

CAST focuses on an approximate one-half mile walk-shed distance from each station. The stations included in the study are as follows:

1. Takoma-Langley Transit Center (Takoma-Langley Transit Center)
2. Riggs Road (Adelphi)
3. West Campus-Adelphi Road (University Hills)
4. Campus Center (UMD Campus Center)
5. East Campus (East Campus)
6. College Park-University of Maryland (College Park Transit Center)
7. River Road (M-Square)
8. Riverdale Park (Riverdale Park)
9. Riverdale-East Pines (Beacon Heights)
10. Annapolis Road (Glennridge)
11. New Carrollton (New Carrollton Transit Center)

CAST evaluates the opportunities and challenges at each station and the existing conditions of the multi-modal network including existing streets, trails, sidewalks, land-use, and transit bus stops to develop the access needs. Site specific recommendations are then developed based on the findings from a field audit of each station, research from various sector plans, master plans and studies and meetings with M-NCPPC staff.

Resources Used to Develop Recommendations
- M-NCPPC staff
- Consultant Team
- Takoma/Langley Crossroads Sector Plan, November 2009
- Central US 1 Corridor Sector Plan
- University of Maryland, 2007-2020 Facilities Master Plan Update
- Central Annapolis Road Corridor Sector Plan
- New Carrollton Transit District Development Plan
- Countywide Master Plan of Transportation (MPOT)
- Takoma/Langley Crossroads Pedestrian Access and Mobility Study, July 2007
- Purple Line Bicycle Access and Bicycle Hub Location Study (Toole Study), June 2010
- New Carrollton Interim Pedestrian Safety Improvements Study, June 2010
- Central Kenilworth Avenue Revitalization Report, Spring 2008
- MTA – Purple Line New Starts Definition Plan and Profile Sheets, October 2010
- MTA – Takoma-Langley Park Transit Center, Revised 30% Plans, August 2010
- Metrorail Bicycle & Pedestrian Access Improvements Study, October 2010

Methodology
This study involved determining the location of each proposed Purple Line LPA Station and adding a ½ mile radius circle around each station on an aerial photo to determine the access shed. Initial background information was gathered from M-NCPPC staff and a review of various sector plans, master plans and studies pertaining to specific areas. Logical routes within the half-mile access sheds were initially determined and reviewed through a Google Earth street view. A field audit followed to capture field photos and verify existing conditions. Existing bus stops were located using a GIS reader and compared to the bus locations supplied by Prince George’s County DPW&T and M-NCPPC GIS data. Improvements referenced in the various sector plans, master plans and studies were evaluated and recommendation were then made to address pedestrian, bicycle and bus transit access problems based on sector plans, master plans, other studies and review of existing conditions and needs.

Study Results
The results from the CAST confirmed what the Toole Study presented as the functionality of the “Pedestrian and Bicycle Sheds”. The CAST expands further into recommendations for pedestrian and bicycle access. From a pedestrian access standpoint, all the “Pedestrian Sheds” within a half mile of the proposed stations need improvements whether sidewalk is missing entirely to missing connections to major pedestrian routes or destinations. The study also identifies where existing sidewalks and intersection are non-compliant. Unless roadway improvements have recently occurred, the majority of the existing sidewalks and intersection are non-compliant and will require reconstruction and intersection improvements. Most of the existing signalized intersections will require modifications to implement pedestrian signals, push-buttons and crosswalks. At crossings where high pedestrian traffic is expected, new technology, such as HAWK signals, may improve the safety of the crossings.

The stations with the most non-functioning “Pedestrian Sheds” included Riggs Road, Riverdale Park and Beacon Heights. These “Pedestrian Sheds” contain large amounts of missing sidewalks within the communities with Riggs Road having substantial barriers creating separation between communities.

Recommendations
The CAST identifies recommendations for a broad range of improvements to increase the percentage of people walking and bicycling to and from the proposed Purple Line LPA Stations. The recommendations are intended to improve safety, access, and mobility for all users. The recommendations provided will vary in costs and effort. The costs and priority of each recommendation is not addressed in the CAST, but may be addressed in future studies. Implementation of the wide variety of improvements will involve a wide variety of stakeholders including MTA, WMATA, SHA, M-NCPPC, Prince George’s County DPW&T, City of College Park, local jurisdictions, and members of the walking and bicycling community. Implementation strategies will be discussed further is Section XV. Some of the infrastructure improvements can be implemented in the short term, but many of the recommendations can only be implemented as Transit Oriented Development (TOD) occurs around the stations.

The recommendations in this study are organized into three sections: pedestrian and bicycle access; intersection, lighting and traffic calming improvements; station improvements; and bus and shuttle access improvements. The recommendations consist of a combination of existing Sector Plan and Master Plan (MPOT and University of Maryland) recommendations, new recommendations as a result of a detailed site analysis within the CAST based on
opportunities and constraints analysis, and recommendations from the previous Toole Study. The pedestrian and bicycle access recommendation tables are broken down by on-road bicycle facilities (bike lanes/cycle tracks), shared-use roadways, sidewalk needs, shared-use paths, and new roadways. All of these recommendations are called out on the maps with individual map key numbers. The intersection and traffic calming improvements are summarized in a separate table with the intersections indicated on the map. Additional station access improvements are summarized providing guidance for additional crossing and sidewalk capacity needs and bicycle accommodations. Finally, bus and shuttle access recommendations are summarized in a table and shown on the maps documenting the existing bus stops within the half-mile radius of the proposed Purple Line LPA Stations and indicating bus stops to be relocated or needing bus shelters.

All of the Purple Line LPA Station recommendations include safety improvements such as crossing upgrades at intersections, traffic calming, and new pedestrian lighting; ADA improvements at intersections; additional bike racks; and way-finding signage. The following is a summary of the new facility recommendations for each station:

Takoma-Langley Transit Center
The Takoma-Langley Transit Center Purple Line LPA Station is located within the Takoma/Langley Crossroads Sector Plan area. The recommendations include those from the Sector Plan, MPOT, and new recommendations based on the field audit. New facility improvements include cycle tracks along University Boulevard (MD 193) and New Hampshire Avenue (MD 650); bike lanes along 14th Avenue; designated shared-use roadways along various community streets connecting to University Boulevard, New Hampshire Avenue, shopping centers and existing trail heads; new sidewalks (where missing); and a new Rambalas roadway linking University Boulevard to local recreation centers. Other recommendations include stations improvements for the proposed Transit Center such as a bike station, wide sidewalk throughout the facility, and enhanced crossings at University Boulevard. No additional bus stop recommendations were provided due to the proposed Transit Center.

Riggs Road (Adelphi)
The Riggs Road Purple Line LPA Station is also located within the Takoma/Langley Crossroads Sector Plan area. The recommendations include those from the Sector Plan, MPOT, and new recommendations based on the field audit. New facility improvements include cycle tracks along University Boulevard (MD 193); bike lanes along a portion of Riggs Road (MD 212) and Jasmine Terrace; designated shared-use roadways along a portion of Riggs Road and various community streets connecting to University Boulevard, Riggs Road, shopping centers and existing trail heads; new sidewalks (where missing); new shared-use paths providing connection across the PEPCO right-of-way and linking the Carol Highlands community to University Boulevard and Riggs Road; and new roadway extensions for Holton Lane and Hannon Street. Other recommendations include stations improvements such as wide sidewalk around the station platform and enhanced crossings at University Boulevard. No bus stop relocations are recommended, but three (3) bus shelters are recommended at existing bus stops.

West Campus-Adelphi Road (University Hills)
The West Campus-Adelphi Road Purple Line LPA Station is partially located within the University of Maryland Master Plan area. The recommendations include those from the Master Plan, MPOT, and new recommendations based on the field audit. New facility improvements include cycle tracks along University Boulevard (MD 193) and Campus Drive; bike lanes along a portion of Adelphi Road and Mowatt Lane; designated shared-use roadways along some local and campus roads connecting to Adelphi Road, destination on campus, local parks/trails; new sidewalks (where missing or non-compliant); and new sidepath along Adelphi Road to connect to University Boulevard. Other recommendations include stations improvements such as wide sidewalk around the station platform and enhanced crossings at UMUC. Two (2) bus stops are recommended for relocation to within 500 feet of the platform, and four (4) bus shelters are recommended at existing bus stops.

Campus Center (UMD Campus Center)
The Campus Center Purple Line LPA Station is located within the University of Maryland Master Plan area. The recommendations include those from the Master Plan and new recommendations based on the field audit. New facility improvements include designated shared-use roadways along some campus roads connecting destinations on campus and new sidewalks (where missing). Other recommendations include stations improvements such as wide sidewalk around the station platform and enhanced crossings at Campus Drive. No bus stop relocations are recommended, but one (1) bus shelter is recommended at an existing bus stop.

East Campus
The East Campus Purple Line LPA Station is partially located within the University of Maryland Master Plan and Central US I Corridor Sector Plan areas. The recommendations include those from the Master and Sector Plans, MPOT, and new recommendations based on the field audit. New facility improvements include cycle tracks along Baltimore Avenue (US 1) and Rosborough Lane; designated shared-use roadways along various local and campus roads connecting to Baltimore Avenue, the College Park Metro Station, and existing trails; new sidewalks (where missing or non-compliant); and new shared-use paths along Knox Road and Rhode Island Avenue (currently under design). Other recommendations include stations improvements such as a bike station, wide sidewalk around the station platform and enhanced crossings at Baltimore Avenue. No bus stop relocations are recommended, but four (4) bus shelters are recommended at existing bus stops.

College Park-University of Maryland (College Park Transit Center)
The College Park-University of Maryland Purple Line LPA Station is not located within the any specific Master or Sector Plan area. The recommendations include those from the MPOT and new recommendations based on the field audit. New facility improvements include designated shared-use roadways along various local roads connecting to the College Park Metro Station and existing trails; new sidewalks (where missing or non-compliant); and new shared-use path along Rhode Island Avenue (currently under design). Other recommendations include stations improvements such as a bike parking and wide sidewalk around the station. No additional bus stop recommendations were provided due to the existing Metro Station.

River Road (Mt)
The River Road Purple Line LPA Station is not located within the any specific Master or Sector Plan area. The recommendations include those from the MPOT and new recommendations based on the field audit. New facility improvements include designated shared-use roadways along various local roads connecting to East-West Highway (MD 410), the M-Square development and existing parks/trails; new sidewalks (where missing); new sidepaths along River Road; and shared-use paths within the new Mt development. Other recommendations include stations improvements such as a bike parking and wide sidewalk around the station. No bus stop relocations are recommended, but two (2) bus shelters are recommended at existing bus stops.

Riverdale Park
The Riverdale Park Purple Line LPA Station is not located within the any specific Master or Sector Plan area. The recommendations include those from the MPOT, Purple Line LPA preliminary plans, and new recommendations based on the field audit. New facility improvements include bike lanes along Kenilworth Avenue (MD 201), East-West Highway (MD 410), and Riverdale Road (MD 410); designated shared-use roadways along various local roads connecting to Kenilworth Avenue, East-West Highway, Riverdale Road, existing parks/trails; new sidewalks (where missing); new sidepaths along East-West Highway; new-shared-use paths connecting to Northeast Branch Trail and a local school; and new roadways realigned to create safer intersections and to connect existing roads. Other recommendations include stations improvements such as a bike parking, wide sidewalk around the station platform, and enhanced crossings at Kenilworth Avenue and East-West Highway. One (1) bus stop is
recommended for relocation to within 500 feet of the platform, and three (3) bus shelters are recommended at existing bus stops.

Riverdale-East Pines (Beacon Heights)
The Riverdale-East Pines Purple Line LPA Station is not located within the any specific Master or Sector Plan area. The recommendations include those from the MPOT, Purple Line LPA preliminary plans, and new recommendations based on the field audit. New facility improvements include bike lanes along Riverdale Road (MD 410) and Veterans Parkway (MD 410); designated shared-use roadways along various local roads connecting to Riverdale Road and local parks/trails; new sidewalks (where missing); and new sidepaths along Riverdale Road; Other recommendations include stations improvements such as wide sidewalks around the station platform and enhanced crossings at Riverdale Road and Veterans Parkway. No bus stop relocations are recommended, but three (3) bus shelters are recommended at existing bus stops.

Annapolis Road (Glenridge)
The Annapolis Road Purple Line LPA Station is located within the Central Annapolis Road Corridor Sector Plan area. The recommendations include those from the Sector Plan, MPOT, Purple Line LPA preliminary plans, and new recommendations based on the field audit. New facility improvements include cycle tracks along portions of Annapolis Road (MD 650); bike lanes along Veterans Parkway (MD 410); designated shared-use roadways along various local roads connecting to Annapolis Road and local schools and parks/trails; new sidewalks (where missing and non-compliant); and new sidepaths along Annapolis Road, Veterans Parkway, and 73rd Avenue; new shared-use paths connecting to local parks/trails; and new roadways realigned to create safer intersections and to connect existing roads. Other recommendations include stations improvements such as wide travel-ways around the station platform, ADA access to the underground station, enhanced crossings at Annapolis Road and Veterans Highway, and implementing the Glenridge Transit Village. No bus stop relocations are recommended, but four (4) bus shelters are recommended at existing bus stops.

New Carrollton Transit Center
The New Carrollton Transit Center Purple Line LPA Station is located within the Central Annapolis Road Corridor Sector Plan and the New Carrollton Transit District Development Plan areas. The recommendations include those from the Sector and Development Plans, MPOT, Purple Line LPA preliminary plans, and new recommendations based on the field audit. New facility improvements include bike lanes along Ellin Road, 85th Avenue, Ardwick Ardwick Road, Garden City Drive, Corporate Drive, Professional Place, and Cobb Road; designated shared-use roadways along Riverdale Road, Harkins Road, and various local roads connecting to Annapolis Road, Ellin Road and local parks/trails; new sidewalks (where missing and non-compliant); and new sidepaths along Annapolis Road, Ellin Road, 85th Avenue, Harkings Road, Garden City Drive, Pennsy Drive, and Corporate Drive; new shared-use paths connecting to local parks/trails; and new grade separated crossings at the Capital Beltway (I-95/I-495) and John Hanson Highway (US 50). Other recommendations include stations improvements such as a bike station, and enhanced crossings at Ellin Road. No additional bus stop recommendations were provided due to the existing Transit Center.