National Capital Region
Transportation Planning Board

MEMORANDUM

TO: TPB Technical Committee

FROM: Jane Posey, TPB Transportation Engineer

SUBJECT: Detailed Transit Assumptions in Visualize 2045

DATE: May 3, 2019

In order to maintain future-year transit networks with the most up-to-date assumptions, we are requesting that you review the attached document, which lists all future transit projects that were coded into the Visualize 2045 Long Range Transportation Plan networks, and inform us, in writing, of any changes that should be made. Please only list assumptions for projects currently in the Plan, or for projects that will be included in your FY2021-2026 TIP update inputs. For the purposes of transit network coding, the following information is needed: detailed routes (road to road tracing of bus paths including stop location information), headways, runtimes, and fare assumptions for each bus or train. We need information for both peak and off-peak weekday service. Please submit all changes, in writing, by July 5, 2019.

The attached information does not include parking lot information and does not list studies. If you need more detailed information in order to facilitate your review, please contact me at (202) 962-3331 or at jposey@mwcog.org. Thank you for your assistance.

December 17, 2018

Future Transit Service Coding Assumptions from Visualize 2045:

METRORAIL:

1. Metrorail Service Changes (Allison Davis email 12/13/2017)

FROM	TO	2010 network		2013 Rush Plus		2014 (Silver Phase I)		2017 Remove Rush Plus		2020 (Silver Phase II)		2027 & beyond Revert back to Rush Plus		
		am	op	am	op	am	op	am	op	am	op	am	op	
Shady Grove	Glenmont	6	12	6	12	6	12	8	12	8	12	6	12	WMREDA
Grosvenor	Silver Spring	6	12	6	12	6	12	8	12	8	12	6	12	WMREDB
Greenbelt	Branch	6	12	6	12	6	12	8	12	8	12	6	12	WMGRNA
Mt. Vn Sq.-UDC (peak only)	Huntington	6	--	6	--	6	--	8	--	8	--	6	--	WMYELA(PK)
Ft. Totten (off peak only)	Huntington	--	12	--	12	--	12	--	12	--	12	--	12	WMYELA(OP)
FranSpgfld	Largo	6	12	9	12	12	12	8	12	8	12	12	12	WMBLUA
FranSpgfld	Greenbelt	--	--	20	--	12	--	--	--	--	--	12	--	WMYELB(PK)
Vienna	New Carrollton	6	12	6	12	6	12	8		8	12	6	12	WMORNA
Vienna	Largo	--	--	20	--	--	--	--	--	--	--	--	--	WMORNB
Dulles GrnWay	Largo	--	--	--	--	--	--	--	--	8	12	6	12	WMSILV
Wiehle Ave	Largo	--	--	--	--	6	12	8	12	--	--	--	--	WMSILV

2. Dulles Corridor Metrorail (WMSILV):
   Wiehle-Reston East to VA 772/Greenway (2020) (scenario: SILVER2)

   ⇨ Stations (network node):
   VA 772/Dulles Greenway (8097)
   VA 606 (8096)
   Dulles Airport (8095)
   Innovation Center (8094)
   Herndon/Monroe (8093)
   Reston Town Center (8092)
   Wiehle-Reston East (8091)

3. Potomac Yards Metrorail Station (2021) (scenario: POTYDS)

    - ⇨ add 2 minutes to runtime
    - ⇨ station 8084; affects WMYELA & WMBLUA (AM & OP)

OTHER RAIL:

1. Purple Line Transitway from Bethesda to New Carrollton (2020) (scenario: PURPLE)
   (assumptions from Rick Kiegel via Lyn Erickson, email 1/16/2014)
   Service frequency: peak 6 minutes, off-peak 12 minutes

    - ⇨ Stations (network node):
      Bethesda (10015)
      Chevy Chase Lake /Connecticut Ave. (10016)
      Lyttonsville (10017)
      Woodside/ 16th St. (10073)
      Silver Spring Transit Center (10018)
      Silver Spring Library (10019)
      Dale Dr. (10023)
      Manchester Rd. (10020)
      Long Branch (10021)
      Piney Branch Rd./University Blvd (10022)
      Takoma/Langley Transit Center (10024)
      Riggs Rd. (10025)
      Adelphi/ West Campus (10028)
      UM Campus Center (10036)
      UM Campus East (10029)
      College Park UMD Metro(10030)
      M-Square (10031)
      Riverdale Park (10032)
      Beacon Heights (10035)
      Annapolis Rd./Glenridge (10034)
      New Carrollton (10037)

    - ⇨ Modifed buses as per Rick Kiegel via Lyn Erickson email 1/16/2014
      (J1, J2, J3, J4, C2, C4, F4, F6, RO15, The Bus 17, UM Shuttles 104 & 111)

2. Potomac Shores (formerly Cherry Hill) VRE station (2017) (scenario: POTSHRS)

    - ⇨ station 9085
    - ⇨ add 2 minutes to runtime (AMTK86I, AMTK94I, AMTK95O, VRED1I, VRE301)

3. VRE service frequency (2020) (email from Sonali Soneji, VRE- 11/30/15)
   (scenario: VREFREQ)

    - ⇨Fredericksburg local (VFRED1I)- increase peak period headway to 20 minutes
    - ⇨Manassas local (VMASS1I)- increase peak period headway to 20 minutes

4. MARC service improvements (email from Rick Kiegel 1/15/2014) (2029)

(scenario: MARCFREQ)

- ⇨Camden Line: add 1 peak train in reverse direction (MCAMNEW)
- ⇨Brunswick: add 1 peak train in peak direction and 1 peak train in reverse peak direction (MBRNEW1 & MBRNEW2)
- ⇨Penn Line: add 1 peak express train in peak direction (MPENNEW)
- ⇨walk connection between Met. Grove MARC & CCT stations (9008-10505)

OTHER TRANSIT:

1. Crystal City / Potomac Yards Busway (email from Dan Malouff 2/26/16)
   (scenario: MWAYEXT) (routes: MWAYN, MWAYS)
   Arlington- dedicated lane extension from Crystal City Metro to Army Navy Dr. Transit Station (2021)

   - ⇨ Added buses to serve facility (service frequency: every 12 minutes, with every 6 minute supplement during peak times between Reed Ave. and Crystal City Metro)
   - ⇨ Improved runtimes of routes that run on facility
   - ⇨ After 2021 extension to Army Navy Dr. Transit Station, headways will remain 6 minutes at peak north of Reed Ave, and 12 minutes at other times, and south of Reed Ave.
   - ⇨ add 5 minutes to route for extension

2. DC Streetcar – H St. / Benning Rd.- from Union Station to Oklahoma Ave. (2016)
   (scenario: DCSTHST1) (2016-2022, then replace with DCSTHST2)

   Service frequency: peak 15 minutes, off-peak 30 minutes, by 2020 peak & off-peak headways 10 minutes (from Faisal Hameed email 6/25/14), fares similar to bus

   ⇨ Stations (network node):
   H & 1st NE (10821)
   H & 5th NE (10820)
   H & 8th NE (10819)
   H & 13th NE (10818)
   H & Maryland Ave (10817)
   Benning and 19th NE (10816)
   Benning and Oklahoma Ave. (10815)

3. DC Streetcar – Benning Rd.- from Oklahoma Ave. to Benning Rd. Metro (2023)
   (scenario: DCSTHST2 when combined with Union Station to Oklahoma Ave segment)
   This route replaces DCSTHST1)

   Service frequency: peak & off-peak headways 10 minutes (from Faisal Hameed email 6/25/14), fares similar to bus, RT=24 mins

   ⇨ Stations (network node):
   Kingman Island (10814)
   Benning and 34th NE (10813)

Benning and Minnesota Ave. (10812)
Benning and 42nd NE (10811)
Benning Rd. METRO (10810)

4. DC Streetcar – Union Station to Georgetown (2025)
(scenario: DCSTGTWN)

Service frequency: peak & off-peak 10 minutes (from Faisal Hameed email 6/25/14), fares similar to bus

⇨ Stations (network node):
H & 1st NE (10821)
K St. between 3rd and 4th Streets NW (10822)
Mount Vernon Square (10823)
K St. & McPherson Square (10824)
K St. & Farragut Square (10825)
K St. & 19th and 20th Streets (10826)
K St. & 25th and 26th Streets (10827)
K St. & Wisconsin Ave (10828)

5. DC Circulator Navy Yard route realignment (2018)
(scenario: NVYYRD) (routes: DCN22N, DCN22S)
Info from David Koch email 1/2/2018

Realigned route will run from L'Enfant Plaza Metro station to Eastern Market Metro station.

Service frequency: 10 minutes at all times

(see Attachment A)

6. DC Circulator Rosslyn to Dupont Circle extension to U St./Howard University (2018)
(scenario: UHOWEXT) (routes: DCDGRN, DCDGRS)
Info from Circe Torruellas 2/10/2015 email link to *DC Circulator 2014 Transit Development Plan Update* December, 2014

Service frequency: 10 minutes at all times

(see Attachment A)

7. DC Circulator Potomac Ave. to Skyland, realignment (2018) (scenario: POTSKY)
(routes: DCPOTSKI, DCPOTSKO)
Info from David Koch email 1/2/2018

Service frequency: 10 minutes at all times, run time= 40 mins

(see Attachment A)

8. 16th St. Bus Priority Improvements (2021) (scenario: 16THST)

    ⇨ Improved run times by 10 % for all buses serving facility

9. Corridor Cities BRT (2022) (info from Environmental Assessment August, 2017) (scenario: CCTBRT)

(scenario: CCTBRTU- university) (service frequency: peak 15 mins, off-peak 30 mins)

⇨ Stations (network node):

Shady Grove (10513) w/parking (13501)
East Gaither (10512)
West Gaither (10511)
Crown Farm (10510) w/parking (13502)
DANAC (10509)
LSC Central (10518)
Universities at Shady Grove (10517)
Traville Gateway Dr. (10516)
LSC West (10515) w/parking (14500)
Kentlands (10507) w/parking (13500)
NIST (10506)
Firstfield (10514)
MetroGrove (10505) w/parking (13504)

(scenario: CCTBRT - direct) (service frequency: peak 5 mins, off-peak 10 mins)

⇨ Stations (network node):

Shady Grove (10513) w/parking (13501)
East Gaither (10512)
West Gaither (10511)
Crown Farm (10510) w/parking (13502)
DANAC (10509)
LSC Central (10518)
LSC West (10515) w/parking (14500)
Kentlands (10507) w/parking (13500)
NIST (10506)
Firstfield (10514)
MetroGrove (10505) w/parking (13504)

(see Attachment B)

10. US 29 BRT- Silver Spring Transit Center to Burtonsville PNR (2020) (scenario: 29BRT1) (service frequency: peak 15 mins, NO off-peak service)

⇨ Stations (network node):

Silver Spring Transit Center (10600)
Fenton St (10601)
University Blvd (10602)
Burnt Mills (10603)
Tech Rd (10607)
Burtonsville PNR (10610)

(see Attachment C)

11. US 29 BRT- Silver Spring Transit Briggs Chaney PNR (2020) (scenario: 29BRT2)
(service frequency: peak 15 mins, off-peak 15 mins)
    - ⇨ Stations (network node):
        - Silver Spring Transit Center (10600)
        - Fenton St (10601)
        - University Blvd (10602)
        - Burnt Mills (10603)
        - Oak Leaf Dr (10604)
        - White Oak Transit Center (10605)
        - Steward Ln (10606)
        - Tech Rd (10607)
        - Castle Ridge (10608)
        - Briggs Chaney PNR (10609)

(see Attachment C)

12. MD 355 BRT- Clarksburg Outlets to Rockville Metro (orange route) (2045)
(scenario: 355BRT1) (service frequency: peak 5 mins, off-peak 15 mins)
Info from Corey Pitts (Mont. Co. DOT) email 1/24/2018
    - ⇨ Stations (network node):
        - Clarksburg Outlets (10660)
        - Redgrave Pl (10661)
        - Shawnee Ln – Observation Dr (10662)
        - COMSAT – Observation Dr (10663)
        - Milestone Center Dr- Observation Dr (10664)
        - Shakespeare Blvd- Observation Dr (10665)
        - Montgomery College – Germantown- Observation Dr (10666)
        - Holy Cross Hospital – Observation Dr (10667)
        - Professional Dr (10668)
        - Watkins Mill Rd (10669)
        - Lakeforest Blvd (10671)
        - Chestnut St/ Walker Ave (10672)
        - Cedar Ave/ Fulks Corner Ave (10673)
        - Education Blvd (10674)
        - Shady Grove Metrorail Station (10513) parking (11001) (metrorail 8001)
        - Indianola Dr (10675)
        - Mannakee St (10676)
        - Rockville Metro Station (10616) parking (11002) (metrorail 8002)
    - ⇨ Improved run times by 10 % for all buses serving facility

(see Attachment D)

13. MD 355 BRT- Lakeforest Transit Center to Rockville Metro (blue route) (2045)
(scenario: 355BRT2)
(service frequency: peak 12 mins, off-peak 15 mins)
Info from Corey Pitts (Mont. Co. DOT) email 1/24/2018
    - ⇨ Stations (network node):
        - Lakeforest Transit Center (10670) parking (13071)
        - Lakeforest Blvd (10671)
        - Chestnut St/ Walker Ave (10672)
        - Cedar Ave/ Fulks Corner Ave (10673)

Education Blvd (10674)
Shady Grove Metrorail Station (10513) parking (11001) (metrorail 8001)
Indianola Dr (10675)
Mannakee St (10676)
Rockville Metro Station (10616) parking (11002) (metrorail 8002)

⇨ Improved run times by 10 % for all buses serving facility
(see Attachment D)

14. MD 355 BRT- Montgomery College (Rockville Campus) to Bethesda Metro (pruple route) (2045)
(scenario: 355BRT3)
(service frequency: peak 10 mins, off-peak 15 mins)
Info from Corey Pitts (Mont. Co. DOT) email 1/24/2018

⇨ Stations (network node):

Montgomery College (Rockville Campus) (10615) (also Viers Mill BRT)
Mannakee St (10676)
Rockville Metro Station (10616) parking (11002) (metrorail 8002) (also Viers Mill BRT)
Edmonston Drive (10677)
Templeton Place (10678)
Halpine Road (10679)
Hubbard Drive (10680)
White Flint Metro Station (10630) parking (11004) (metrorail 8004)
Security Lane (10681)
Grosvenor Metro Station (10682) parking (11005) (metrorail 8005)
Pooks Hill Road (10683)
Cedar Lane (10684)
Medical Center Metro Station (10685) (metrorail 8006)
Cordell Avenue (10686)
Bethesda Metro Station (10687) parking (11007) (metrorail 8007)

⇨ Improved run times by 10 % for all buses serving facility
(see Attachment D)

15. Randolph Road BRT- White Flint Metro to US 29/Tech Road (2040)
(scenario: RANDBRT)
(service frequency: peak 7 mins, off-peak 15 mins)
Info from Joana Conklin email 1/24/2018

⇨ Stations (network node):

White Flint Metro Station (10630) parking (11004) (metrorail 8004)
Randolph Rd/ Lauderdale Dr. (10631)
Randolph Rd/MD 586 (10622) (also Viers Mill BRT stop)
Randolph Rd/MD 185 (10632)
Randolph Rd/Bluhill Rd (10633)
Randolph Rd/MD 97 (10634)
Glenmont Metro Station (10635) parking (11026) (metrorail 8026)
Randolph Rd/Glenallan Ave (10636)
Randolph Rd/MD 650 (10637)
Randolph Rd/Fairland Rd (10638)

US 29/ Tech Road (10607) (also US 29 BRT stop)

⇨ Improved run times by 10 % for all buses serving facility

(see Attachment E)

16. North Bethesda Transitway- Montgomery Mall Transit Center to White Flint Metro (2035)
(scenario: NBETHBRT)
(service frequency: peak 7 mins, off-peak 15 mins)
Info from Joana Conklin email 1/24/2018
Speed 12 mph as per Corey Pitts email 5/2/2018
Use segment to White Flint Metro as per Gary Erenrich email 12/4/2017

⇨ Stations (network node):

Montgomery Mall Transit Center (10640) parking
Rock Spring Dr/ Fernwood Rd (10641)
Rockledge Dr/ Rock Spring Dr. (10642)
Rock Spring Dr/ MD 187 (10643)
MD 187/ Tuckerman Ln (10644)
MD 187/ Edson Ln/ Poindexter Ln (10645)
MD 187/ Executive Blvd/ Hoya Dr (10646)
White Flint Metro Station (10630) parking (11004) (metrorail 8004) (also Randolph Rd BRT)

⇨ Improved run times by 10 % for all buses serving facility

(see Attachment F)

17. New Hampshire Ave- Colesville PNR to Takoma Metro (2045)
(scenario: NHBRT) (service frequency: peak 7 mins, off-peak 15 mins)
Info from Joana Conklin email 1/24/2018
Speed 19.3 mph as per Corey Pitts email 5/3/2018

⇨ Stations (network node):

Colesville PNR (10650) parking
MD 650/ Randolph Rd (10637) (also Randolph Rd BRT)
MD 650/ Valleybrook Dr (10651)
MD 650/ Jackson Rd (10652)
White Oak Transit Center (10605) (also US 29 BRT)
FDA White Oak Campus (10653)
MD 650 at Hillandale (10654)
MD 650/ Oakview Dr (10655)
MD 650/ Northampton Dr (10656)
Takoma/ Langley Park Transit Center (10657) (also Purple Line 10024)
MD 650/ MD 410 (10658)
MD 650/ Eastern Ave (10659) at Takoma Metro (8022)

⇨ Improved run times by 10 % for all buses serving facility

(see Attachment G)

18. Veirs Mill BRT- Rockville Metrorail to Wheaton Metro Station (2030)
(scenario: VIERSBRT1)
(service frequency: peak 9 mins, off-peak 18 mins)
Info from Joana Conklin email 1/24/2018- Use Alt 3

- ⇨ Stations (network node):

Rockville Metrorail (10616) (connect w/Metro 8002 and Marc 9005)
MD 28/ First St (10617)
Broadwood Dr (10618)
Twinbrook Pkwy (10619)
Aspen Hill Rd (10620)
Parkland Dr (10621)
Randolph Rd (10622)
MD 185 (10623)
Newport Mill Rd (10624)
MD 193 (10625)
Wheaton Metrorail (10626) parking (11025) (Metrorail 8025)

(see Attachment H)

19. Veirs Mill BRT- Montgomery College to Wheaton Metro Station (2030)
(scenario: VIERSBRT2)
(service frequency: peak 15 mins, off-peak 30 mins)
Info from Joana Conklin email 1/24/2018 – Use Alt 3

- ⇨ Stations (network node):

Montgomery College (10615)
Rockville Metrorail (10616) (connect w/Metro 8002 and Marc 9005)
MD 28/ First St (10617)
Broadwood Dr (10618)
Twinbrook Pkwy (10619)
Aspen Hill Rd (10620)
Parkland Dr (10621)
Randolph Rd (10622)
MD 185 (10623)
Newport Mill Rd (10624)
MD 193 (10625)
Wheaton Metrorail (10626) parking (11025) (Metrorail 8025)

(see Attachment H)

20. Veirs Mill Rd. Bus Improvements (TIGER Grant) (2020) (scenario: TIGERVIER)

- ⇨ Improved run times by 10 % for all buses serving facility

21. Beltway HOT lanes transit service (2020, 2030) (scenario: BELTHOT)

(See Attachment I)

22. I-66 HOT lane bus service- outside the Beltway (2021, 2025, 2030, & 2040) (email from Valerie Pardo VDOT 2/24/2016 with details from Lucas Muller, Kimley-Horn consultants 2/23/16 email) (scenario: I66HOTO)

(See Attachment J)

23. I-66 HOT lane bus service- inside the Beltway (2025 & 2040) (scenario: I66HOTI)
email from Valerie Pardo VDOT 2/24/2016

(See Attachment K)

24. US 1 (VA) BRT (2030) (scenario: US1BRT)
Email from Mike Lake (Fairfax DOT) 3/26/2015

Service frequency: peak 6 minutes, off-peak 12 minutes, fares similar to Metrobus
Route: From Huntington Metro, BRT will run south along Kings Highway, then south down US 1 to the Woodbridge VRE station

⇨ Stations (network node):
Huntington (at metro station) (10550)
Penn Daw (10551)
Beacon Hill (10552)
Lockheed Blvd. (10553)
Hybla Valley (10554)
Gum Springs (10555)
South County Center (10556)
Woodlawn (10562)
Ft. Belvoir (Accotink Village) (10557)
Pohick Rd. North (10558)
Lorton Rd. (10559)
Gunston Rd. (10560)
Woodbridge (at VRE station) (10561)

25. US 1 (VA) buses (2035) from VA235 N. to Beltway/Alex. SCL (scenario: US1VABUS)

⇨ Improved run times by 10 % for all buses serving facility

26. Fairfax Connector Bus Expansion (2020) (scenario: FFXBUS)
email from Malcolm Watson (Fairfax DOT) 2/2/2016

⇨ new and expanded bus service

(see Attachment L)

27. West End Transitway (2024) (scenario: VANDBRT1 and VANDBRT2)
email from Pierre Holloman 2/26/16

- ⇨ Alexandria Alternative D
- ⇨ 10 min peak, 15 min off-peak headways

(see Attachment M)

28. Alexandria DASH Expansion (2020) (scenario: ALEXBUS)
Email from Pierre Holloman 2/26/2016

- ⇨ Increased Frequency for AT8,(from 30 min to 15 min peak headways in 2020)

29. Duke St. Transitway (2024) (scenario: DUKEBUS)

- ⇨ Improved run times by 10 % for all buses serving facility

NOTE: This list does not include Park-n-Ride lot information.

ATTACHMENT A

PROPOSED MAJOR SERVICE CHANGES

Potomac Ave Metro - Skyland via Barracks Row

- Realignment of route to serve Union Station and Congress Heights Metro via Barracks Row and Downtown Anacostia.
- Regular Saturday service from 7:00 AM - 9:00 PM and new Sunday service 7:00 AM - 9:00 PM

Union Station - Navy Yard Metro

- Realignment of route to serve Eastern Market to L'Enfant Plaza via Barracks Row, Navy Yard Metro, M Street SE/SW, and Waterfront Metro.
- Regular Saturday service from 7:00 AM - 9:00 PM and new Sunday service 7:00 AM - 9:00 PM

Georgetown - Union Station

- Regular late-night service between McPherson Square and Union Station from 9:00 PM to 3:00 AM on Friday and Saturday.

Fare Media

Elimintation of unlimted-use paper passes that are valid only on DC Circulator. DC Circulator will continue to accept the unlimited Regional Bus Pass available on SmarTrip cards. **No change is proposed to the base fare of $1 per trip**.

Circulator

Combined New Service!

ATTACHMENT B CCT Assumptions for conformity

Visualize 2045 ~~RT 42 mins~~ ~~Peak HH 15~~ ~~OP HH 34~~

Executive Summary

This Environmental Assessment (EA) has been prepared in accordance with the National Environmental Policy Act (NEPA) to evaluate the potential natural, cultural, and socioeconomic effects that may result from the proposed Corridor Cities Transitway (CCT) Project. The Maryland Department of Transportation Maryland Transit Administration (MDOT MTA) is the Project sponsor and the Federal Transit Administration (FTA) is the lead federal agency. The Environmental Protection Agency (EPA), the U.S. Army Corp of Engineers (USACE), the National Institute of Standards and Technology (NIST), and National Capital Planning Commission (NCPC) are cooperating agencies (**Appendix A**).

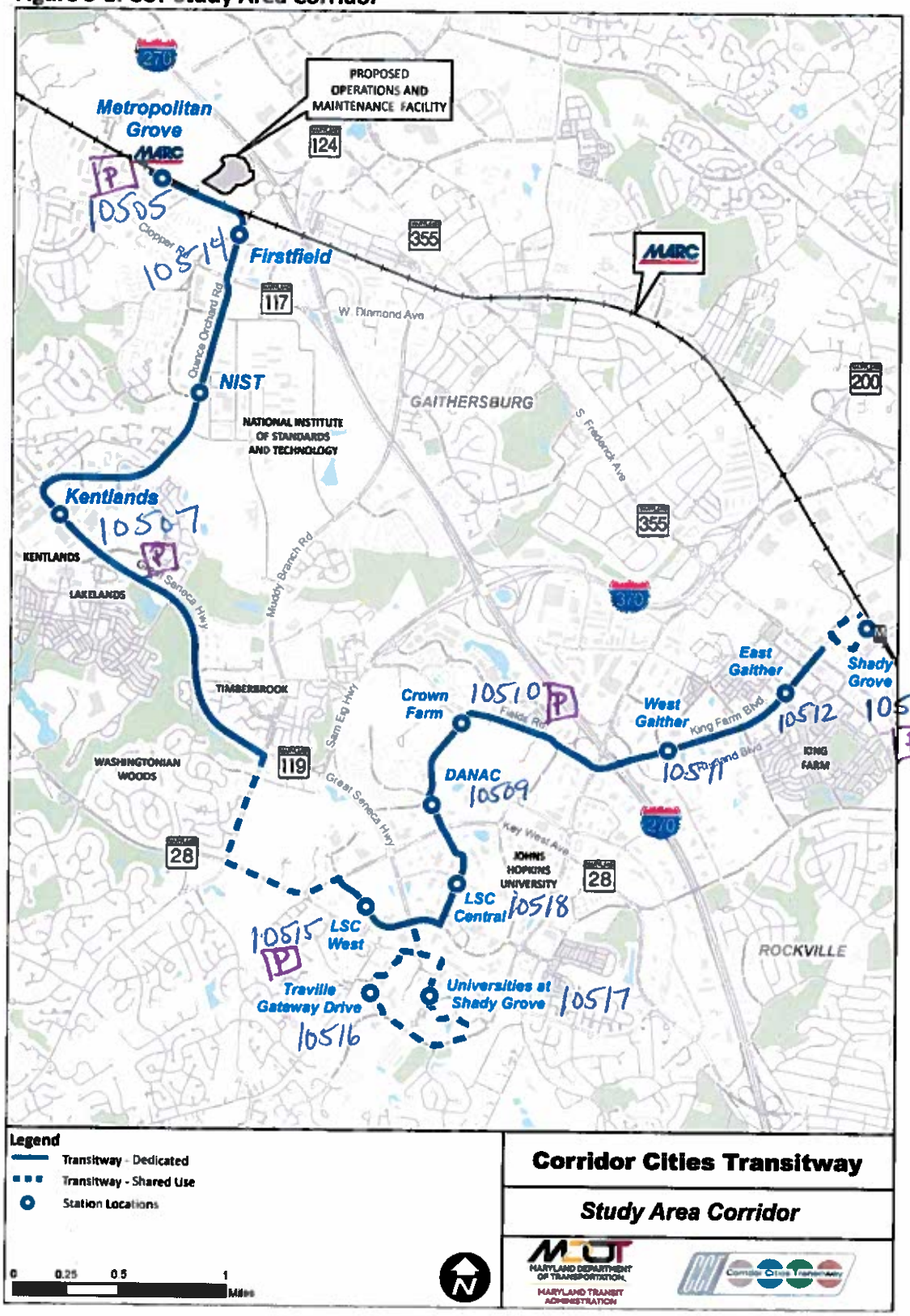
Funding for final design and construction, including right-of-way acquisition for the CCT, has been deferred until fiscal year (FY) 2023. Lower than expected fuel prices and gas tax collection resulted in a shortfall of $746 million in overall Maryland Department of Transportation (MDOT) revenue for state transportation projects. Of the $746 million shortfall, approximately $78 million was deferred, which had previously been allocated to fund CCT final design and right-of-way acquisition. If funding for the CCT becomes available via increased gas tax revenue, private interests, county or city funds, the CCT may move forward on finalizing the EA, updating the design, and entry into FTA's Capital Investment Grant Program, prior to FY 2023.

Description of Project

The CCT Project is a nine-mile bus rapid transit (BRT) line operating between the Metropolitan Grove MARC Station and the Shady Grove Metrorail Station. The transitway would travel adjacent to or in the median of existing and proposed roadways for the majority of the alignment with grade-separated crossings of selected roadways at busy intersections. The term **transitway** is used to describe the horizontal and vertical location of the BRT route proposed in the Build Alternative. The Build Alternative includes the transitway with 13 stations and an Operations and Maintenance (O&M) Facility.

Two CCT routes would operate along the transitway: CCT Direct Service and CCT via Universities and Shady Grove (USG) (**Figure S-1**). The CCT Direct Service route would operate between the Metropolitan Grove and Shady Grove Stations of the CCT, stopping at every station along the transitway. The CCT Service via USG would operate along the transitway, stopping at all stations, but would divert off the transitway to serve two additional stations. For example, buses traveling from the Shady Grove Station on this route would leave the transitway after the Life Sciences Center (LSC) Central Station, stop at the USG and Traville Gateway Drive Stations, return to the transitway, and stop at the LSC West Station and all stations to the Metropolitan Grove Station.

Figure S-1: CCT Study Area Corridor



2 routes

CCTBRT
AM H1 = 5
OP H1 = 10
RT = 42 mins
(does not go to USG & Traville)

CCTBRTU
AM H1 = 15
OP H1 = 30
RT = 46 mins

The CCT Direct Service would operate on five-minute headways[1] during peak periods, six minutes during mid-day, and ten-minute headways during off-peak periods. The one-way travel time from Shady Grove Station to Metropolitan Grove Station would be approximately 42 minutes. The CCT via USG would operate on 15-minute headways during peak periods and 30 minute-headways during off-peak periods. The one-way travel time for CCT service via USG would be approximately 46 minutes.

The 13 stations for the CCT would be specially designed with CCT branding for easy recognition by transit users. Stations would include shelters, seating, fare machines, and both fixed and variable signage to provide customers with information on the CCT route and services, as well as current operations. Safe access for pedestrians and parking for bikes would be provided at all CCT stations. The 11 stations along the CCT Direct Service transitway include the following locations:

- Shady Grove
- East Gaither
- West Gaither
- Crown Farm
- DANAC
- LSC Central
- LSC West
- Kentlands
- NIST
- Firstfield
- Metropolitan Grove

On the CCT via USG, there will be two stations at the following locations:

- Universities at Shady Grove
- Traville Gateway Drive

The CCT would include parking at five stations: Shady Grove, Crown Farm, LSC West, Kentlands, and Metropolitan Grove. To maintain the CCT vehicles, an O&M Facility would be located near the Metropolitan Grove MARC Station.

All CCT service would operate seven days per week. The hours of operation would be consistent with the Washington Metropolitan Area Transit Authority's (WMATA) Red Line Metrorail service for weekday and weekend service. Metrorail service begins at 5 AM on weekdays and 7 AM on weekends, and ends at 12 AM on Sunday through Thursday or 3 AM on Friday and Saturday. The projected ridership on the CCT in 2035 is 30,429 trips per day.

Refer to **Chapter 2** for additional information on the proposed Project components of the Build Alternative.

[1] Headway is the time interval or distance between two vehicles, such as automobiles, buses, or railroad or subway cars, traveling in the same direction over the same route

ATTACHMENT C

MCDOT
Montgomery County
Department of Transportation

Search

Bus Rapid Transit Project

US 29 Project

This page contains an overview of the US 29 project, important reference documents, and information about open houses. Information about additional opportunities for public involvement such as Corridor Advisory Committee (CAC) meetings or project FAQs can be found on other parts of this website or at www.GetOnBoardBRT.com.

Montgomery County Department of Transportation (MCDOT) is designing and constructing a Bus Rapid Transit (BRT) line along US 29 to meet the needs of residents and businesses along this busy route.

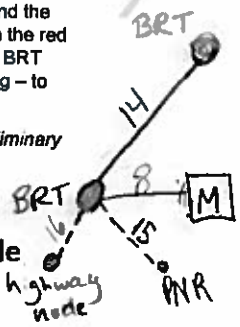
BRT service will:

- Use the existing bus-on-shoulder lanes on US 29 in the northern section of the corridor.
- Operate in mixed traffic in the southern section of US 29 and along Lockwood Drive, Stewart Lane, Briggs Chaney Road, and Castle Boulevard.

Service plans currently being considered include:

- Two route patterns in the peak period and one route pattern in the off-peak period.
- Running every 7.5 minutes during the peak period and every 15 minutes during the off-peak.
- The proposed span of service is 5am to midnight, 7 days/week.
- Transit signal priority will be installed at up to 15 intersections along the corridor to provide traffic signal benefits to BRT vehicles where appropriate – to extend the green light or shorten the red light duration when a BRT vehicle is approaching – to reduce travel time.

The service plan is preliminary and may be modified.

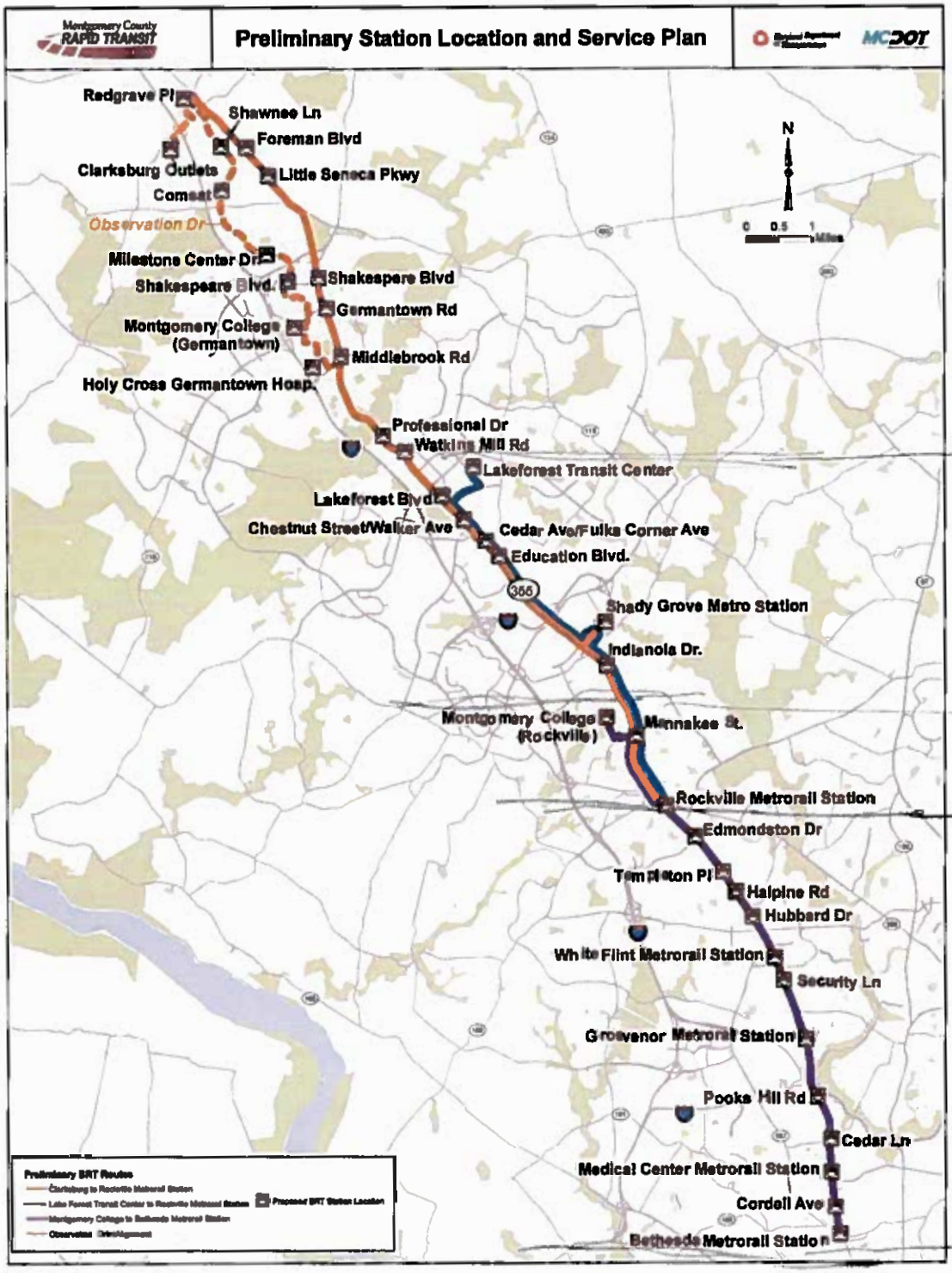


Silver Spring Metro 8023
Silver Spring Commuter Rail 9002
Silver Spring Light Rail (Purple) 10018

Project Schedule

from Corey Pitts 1/24/2018 email
Mont. Co. DOT

Figure 4-37: Proposed Station Locations and Service Plan



Scenario: MD355BRT
year=2045

use these as per Corey Pitts email 11/24/2018

headways: 10 mins 12 mins 5 mins

Jane: OP=15 mins headway

Table 8-1: Station Location by Alternative

		Alternative			Route		
		2	3C	4C	Purple	Blue	Orange
10660	Clarksburg Outlets	●	●	●	355BRT3	355BRT2	355BRT1
10661	Redgrave Place	●	●	●			
10662	Shawnee Lane (Observation Drive)		●	●			
10663	COMSAT (Observation Drive)		●	●			
10664	Milestone Center Drive (Observation Drive)		●	●			
10665	Shakespeare Boulevard (Observation Drive)		●	●			
10666	Montgomery College – Germ. (Observation Drive)		●	●			
10667	Holy Cross Hospital (Observation Drive)		●	●			
	Foreman Boulevard	●					
	Little Seneca Parkway	●					
	Shakespeare Boulevard	●					
	MD 118 (Germantown Rd)	●					
	Middlebrook Road	●					
10668	Professional Drive	●	●	●			
10669	Watkins Mill Road	●	●	●			
10670	Lakeforest Transit Center parking 13071 (22490)	●	●	●			
10671	Lakeforest Boulevard	●	●	●			
10672	Chestnut Street / Walker Avenue	●	●	●			
10673	Cedar Avenue / Fulks Corner Avenue	●	●	●			
10674	Education Boulevard	●	●	●			
10513	Shady Grove Metrorail Station 8001 park 11001 10513 22395 22397	●	●	●			
10675	Indianola Drive	●	●	●			

Orange - 355BRT1 - Clarksburg Outlets to Rockville Metro
blue - 355BRT2 - Lakeforest Transit Ctr to Rockville Metro
Purple - 355BRT3 - Mont. College Rockville to Bethesda Metro

	Alternative			Route		
	2	3C	4C	Purple	Blue	Orange
10615 Montgomery College (Rockville Campus) (also Viers Mill BRT)	●	●	●			
10676 Mannakee Street	●	●	●			
10616 Rockville Metrorail Station 8002 Parking 11002 9005 10616 22357 22370 (also Viers Mill BRT)	●	●	●			
10677 Edmonston Drive	●	●	●			
10678 Templeton Place	●	●	●			
10679 Halpine Road	●	●	●			
10680 Hubbard Drive	●	●	●			
10630 White Flint Metrorail Station 8004, parking 11004 22332 22670	●	●	●			
10681 Security Lane	●	●	●			
10682 Grosvenor Metrorail Station 8005, parking 11005 22327	●	●	●			
10683 Pooks Hill Road	●	●	●			
10684 Cedar Lane	●	●	●			
10685 Medical Center Metrorail Station 8006, ~~parking~~ 22054	●	●	●			
10686 Cordell Avenue	●	●	●			
10687 Bethesda Metrorail Station 8007, parking 11007 11015 22048	●	●	●			
Total Number of Stations	31	32	32			

distance: (miles)	8	6	15
runtime: (mins) (assume 15mph)	32	24	60

use as per Joana Conklin email 1/24/2018

Vizualize 2045

ATTACHMENT E

Approved and Adopted

Countywide Transit Corridors Functional Master Plan

December 2013

Montgomery County Planning Department
M-NCPPC
MontgomeryPlanning.org

Randolph Rd BRT ⇒ pg 54

North Bethesda BRT ⇒ pg 51

Corridor 7: Randolph Road

Randolph Road is a commuter corridor with traffic and congestion in the westbound direction in the morning and the eastbound direction in the evening. Major activity centers include White Flint, Glenmont, and the emerging mixed-use center at White Oak. Residential uses fill in the gaps between these areas.

While ridership forecasts are low for the corridor, it does provide important linkages to other BRT corridors. Therefore, because this corridor is important for the integrity of the BRT network, but the ridership potential is limited and the potential impacts to residential properties are high, this Plan recommends a mixed traffic transitway.

There are two alternative routes in the westernmost portion of the corridor. One alternative is in dedicated right-of-way following the Veirs Mill Road BRT line (Corridor 10) from Randolph Road to its station at Parkland Drive, then proceeding west along Montrose Parkway over Rock Creek, Parklawn Drive (where there would be a station), and the CSX Metropolitan Branch, joining the MD 355 South BRT line (Corridor 4) to the White Flint Metro Station. The other alternative would proceed in mixed traffic west on Randolph Road (and a station at Lauderdale Drive), south on Parklawn Drive, and west on Nicholson Lane to the White Flint Metro Station. A sub-option of this second alternative would use Nebel Street rather than Parklawn Drive if the at-grade Randolph Road crossing of the CSX tracks is retained.

This corridor has greater ridership potential if a higher level of land use is approved as part of the White Oak Science Gateway Master Plan.

Scenario = RANDBRT

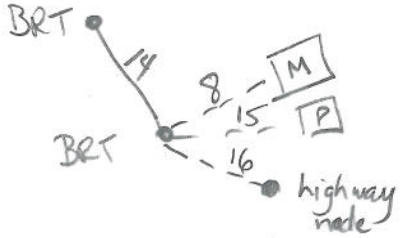
Station Locations

White Flint Metro Station 10630 metro 8004 parking 11004 22332 22670
Montrose Parkway and Parklawn Drive, and Montrose Parkway and Veirs Mill Road, or Randolph Road and Lauderdale Drive 10631
Randolph Road and MD 586 10622 (also Viers Mill BRT stop)
Randolph Road and MD 185 10632
Randolph Rd and Bluhill Road 10633
Randolph Road and MD 97 10634
Glenmont Metro Station 10635 metro 8026 parking 11026 22580
Randolph Road and Glenallan Avenue 10636
Randolph Road and MD 650 10637
Randolph Road and Fairland Road 10638
US 29 and Tech Road 10607 (also US 29 BRT Stop)

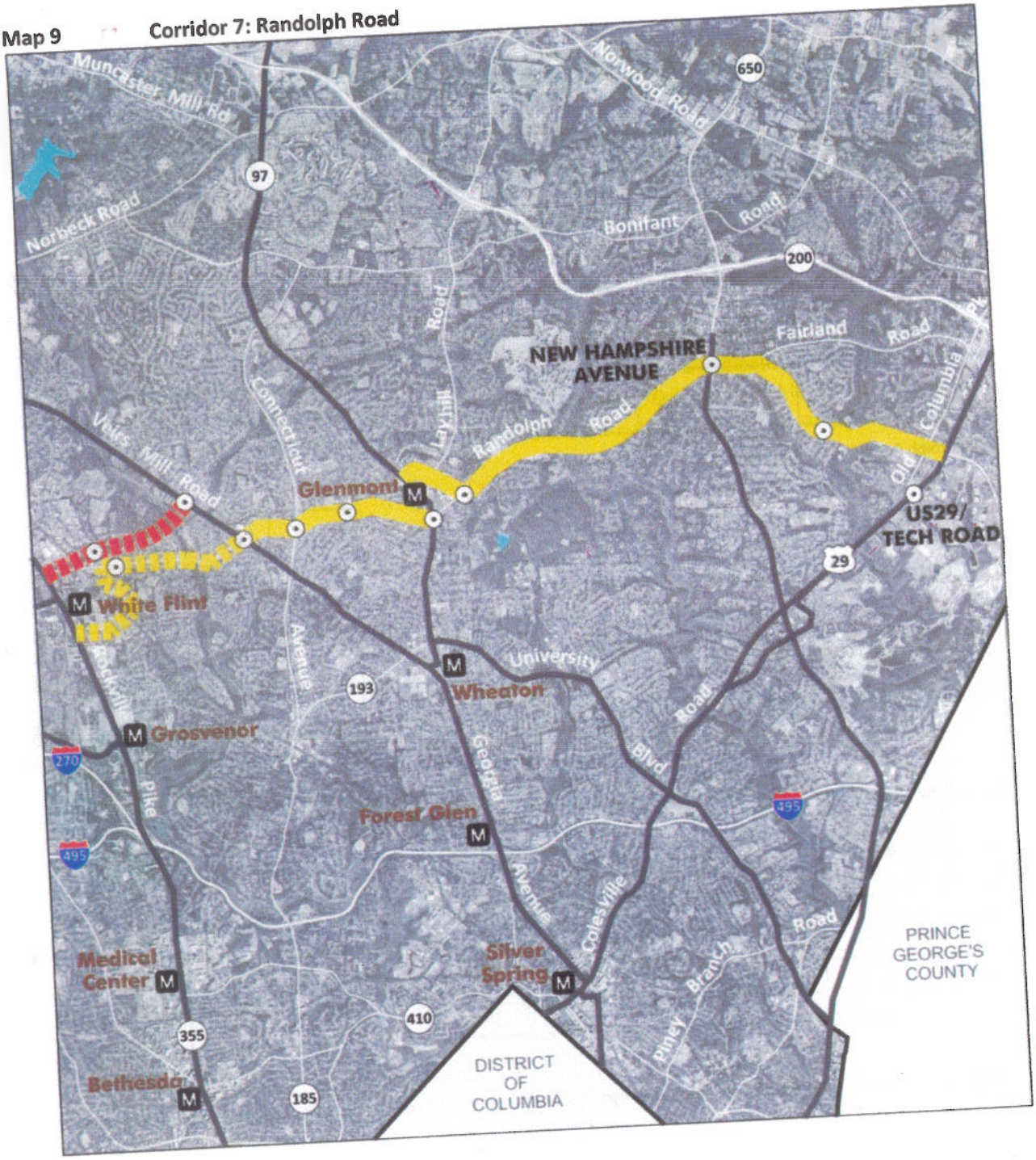
as per Joana Conklin in 1/24/2018 email
H1 AM = 7 mins
H1 OP = 15 mins

distance = 11 miles

Speed = 13



Map 9 Corridor 7: Randolph Road



County Line
Dedicated Lane(s) Alternative Alignment
Mixed Traffic
Mixed Traffic Alternative Alignment
Other BRT Corridors
BRT Station
Metro Station
0 5000 ft

use as per Joana Conklin
email 1/24/2018

Vizualize 2045

ATTACHMENT F

Approved and Adopted

Countywide Transit Corridors Functional Master Plan

December 2013

Montgomery County Planning Department
M-NCPPC
MontgomeryPlanning.org

Randolph Rd BRT ⇒ pg 54

North Bethesda BRT ⇒ pg 51

Corridor 6: North Bethesda Transitway

The North Bethesda Transitway was originally conceived as a spur from the Metrorail Red Line to the Rock Spring office park area and to Montgomery Mall in the 1992 North Bethesda/Garrett Park Master Plan. At its eastern end, the transitway terminates at the Grosvenor Metrorail Station. At its western end, it terminates at a planned transit center at Montgomery Mall. Much of the right-of-way along Rock Spring Drive, Fernwood Road, and Tuckerman Lane is currently available through easements and dedications provided through the development review process. Most of the planned route between Rockville Pike and Old Georgetown Road is not suitable as a BRT route, however, and so this portion of the North Bethesda Transitway is deleted from the master plan.

Corridor recommendations, from west to east:

- At the Fernwood Road bridge, high-occupancy-vehicle (HOV) ramps connecting with the HOV lanes on the I-270 West Spur, both to and from the north and south. The ramp to/from the north exists; the ramp to/from the south would become part of continuous pair of master-planned transit lanes connecting Montgomery and Fairfax Counties.
- Along Westlake Terrace, Fernwood Road, and Rock Spring Drive between the I-270 West Spur and Old Georgetown Road, two additional dedicated lanes.
- Along Old Georgetown Road, from Rock Spring Drive to Tuckerman Lane, an additional dedicated lane.

There are two alternative routes in the easternmost portion of the corridor. One alternative is in dedicated lanes following Tuckerman Lane to the Grosvenor Metro Station. The other alternative would proceed north on Old Georgetown Road in a dedicated lane to the western leg of Executive Boulevard, and then east on Old Georgetown Road in mixed traffic to Rockville Pike and the White Flint Metro Station.

Scenario = NBETH BRT as per Joana Conklin in 1/24/2018 email:

H1 AM = 7 mins
H1 OP = 15 mins

Speed = 12 mph as per Corey Pitts 5/2/18 email

Station Locations

Montgomery Mall Transit Center 10640 – parking 13023, 13047
Rock Spring Drive and Fernwood Road 10641
Rockledge Drive and Rock Spring Drive 10642
Rock Spring Drive and MD 187 10643
MD 187 and Tuckerman Lane 10644

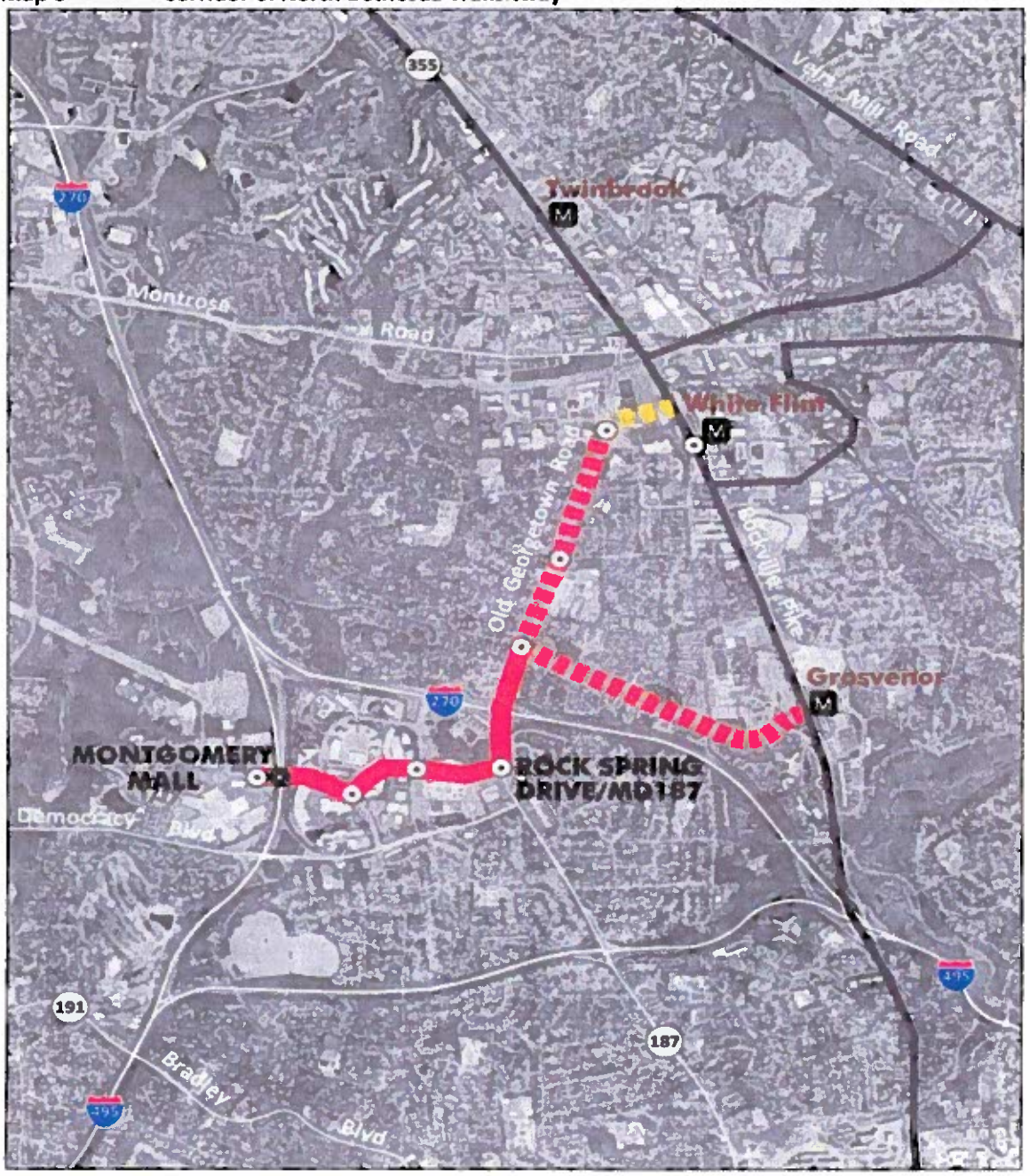
And either:
MD 187 and Edson Lane/Poindexter Lane 10645
MD 187 and Executive Boulevard/Hoya Drive 10646
White Flint Metro Station 10630 (also Randolph Rd BRT stop), Metro 8004, parking 11004, 22332 22670

Or:
Grosvenor Metro Station

3.5 miles ⇒ 17 mins RT

use this, as per Gary Erenrich email 12/4/2017

Map 8 **Corridor 6: North Bethesda Transitway**



Dedicated Lane(s)
Dedicated Lane(s) Alternative Alignment
Mixed Traffic Alternative Alignment
Other BRT Corridors
BRT Station
HOV Interchange
Metro Station

0 2500 ft

use as per Joana Conklin email 1/24/2018

Vizualize 2045

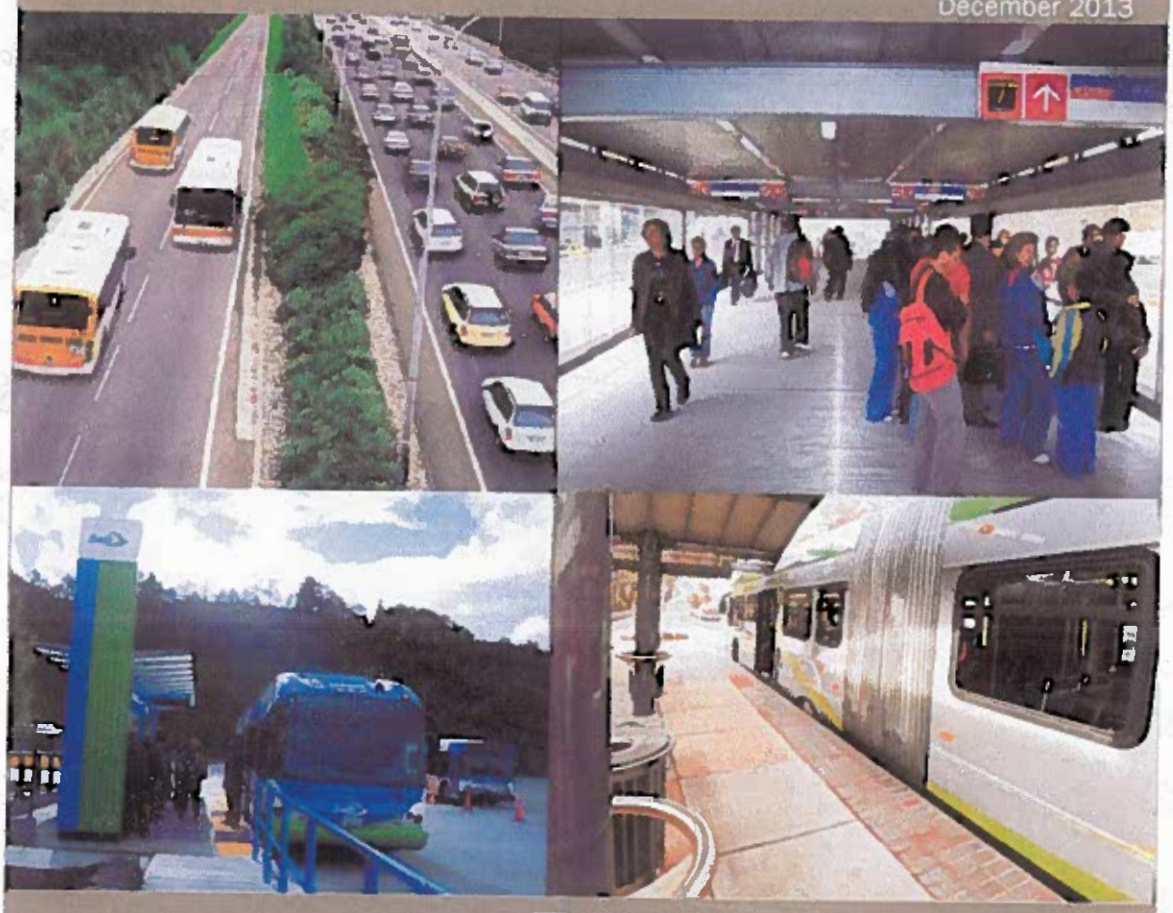
ATTACHMENT G

use H1 AM = 7 mins
H1 OP = 15 mins

Approved and Adopted

Countywide Transit Corridors Functional Master Plan

December 2013



Montgomery County Planning Department
M-NCPPC
MontgomeryPlanning.org

Randolph Rd BRT ⇒ pg 54

North Bethesda BRT ⇒ pg 51

New Hampshire Ave BRT ⇒ pg 49

Corridor 5: New Hampshire Avenue

New Hampshire Avenue is a commuter corridor, with most traffic flowing southbound in the morning and northbound in the evening. Activity centers are located at Takoma/Langley Crossroads and the emerging mixed-use center at White Oak. The City of Takoma Park has been advancing a concept plan adopted locally in 2008 to convert New Hampshire Avenue, from University Boulevard to Eastern Avenue, into a more pedestrian-friendly, multi-way boulevard that accommodates multiple modes of transportation, while serving as a destination.

Corridor recommendations, from north to south:

- From Colesville park-and-ride to Lockwood Drive, a mixed traffic transitway.
- From Lockwood Drive to the District line, dedicated lane(s). During facility planning, however, curb lanes or mixed traffic treatments should be considered from Sligo Creek Parkway to the District line, as outlined in the City of Takoma Park's *New Hampshire Avenue Corridor Concept Plan.*

2045 Scenario = NHBRT

Joana Conklin 1/24/2018 email

AM headway 7 mins
OP headway 15 mins

Speed 19.3 MPH (5/3/2018 email from Corey Pitts)

Station Locations

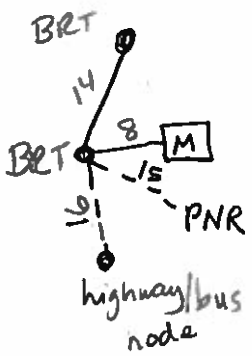
Colesville park-and-ride 10650 Parking 13044 22564
MD 650 and Randolph Road 10637 (also Randolph Rd BRT)
MD 650 and Valleybrook Drive 10651
MD 650 and Jackson Road 10652
White Oak Transit Center 10605 (also US 29 BRT)
FDA White Oak Campus 10653
MD 650 at Hillandale 10654
MD 650 and Oakview Drive 10655
MD 650 and Northampton Drive 10656
Takoma/Langley Transit Center 10657 purple line 10024 ~~26029~~ 26017 Moved Purple Line Station Node
~~MD 650 and MD 410~~ 10658
MD 650 and ~~Eastern Avenue~~ 10659 (put at Takoma Metro since that is the limit in the conformity table)

15/4 keep

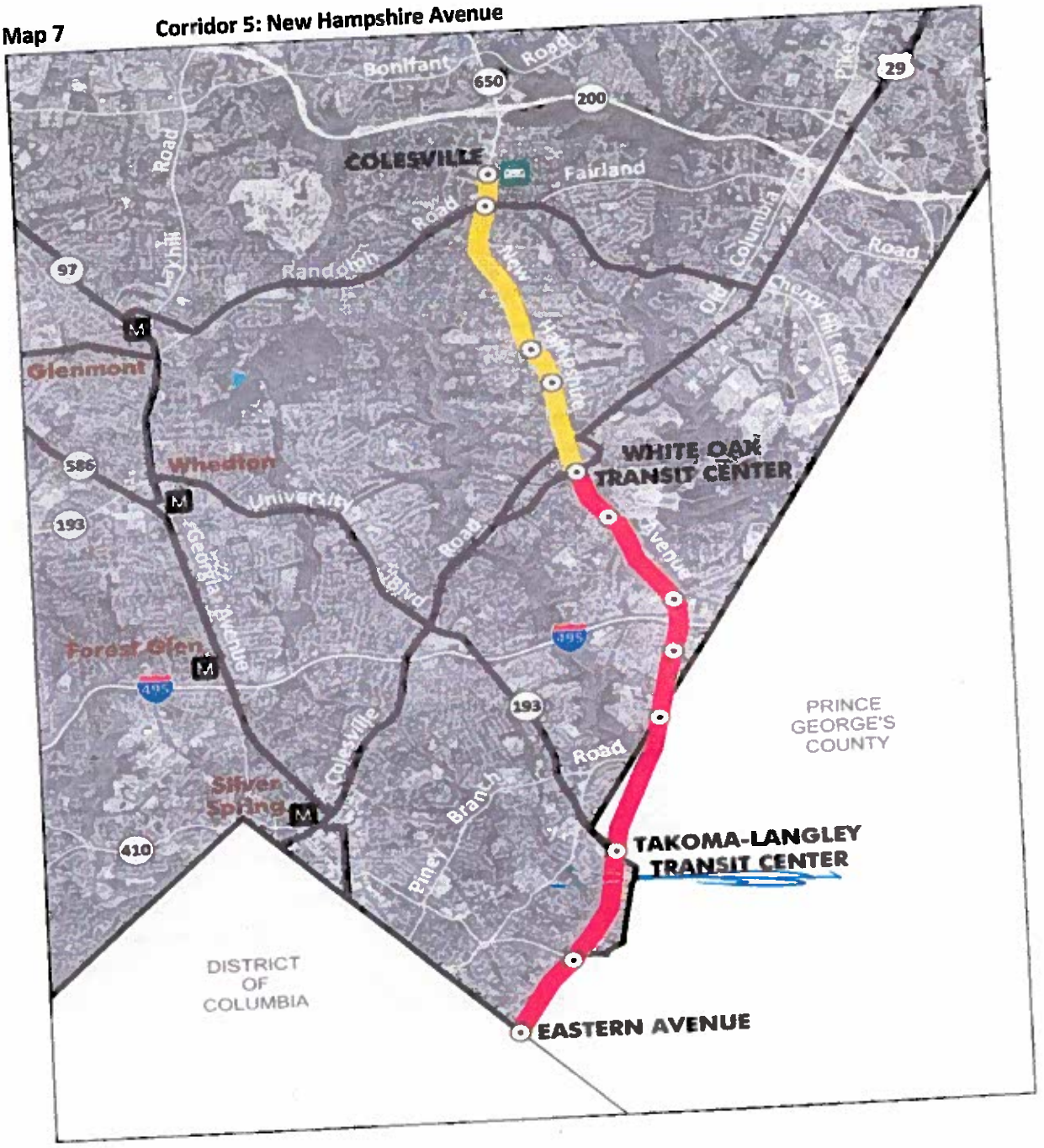
Stations within Prince George's County must be confirmed in that County's master plan.

Takoma Metro 8022 20872

runtime =
8.3 miles = 26 mins



Map 7 **Corridor 5: New Hampshire Avenue**



County Line
Dedicated Lane(s)
Mixed Traffic
Other BRT Corridors

BRT Station
Metro Station
Park-and-Ride Station

0 5000 ft

ATTACHMENT H

LinRin email from
Joana Conklin
1/24/18

as per Joana:
use Alt 3

Montgomery County
RAPID TRANSIT

WELCOME

to the MD 586 Veirs Mill Road Bus Rapid Transit Study

PUBLIC MEETING

September 28, 2016

Maryland Department of Transportation

MCDOT

montgomerycountymd.gov/brt

Alternative 3

used for visualize

TRANSIT SERVICE

- New BRT Service (articulated buses providing a limited-stop express service with higher frequencies than the enhanced bus service)

Combined headways

6 mins = 10 buses/hr
18 mins = 3 buses/hr
9 mins ≈ 7 buses/hr

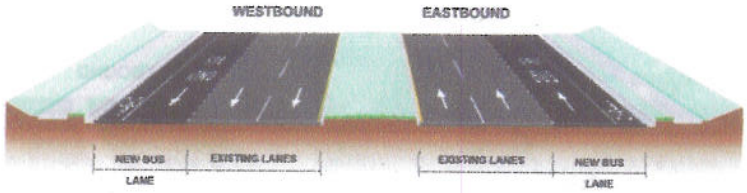
Bus Service	Headways				Span of Service	
	Peak		Off-Peak			
	Wheaton to Rockville	Rockville to Montgomery College	Wheaton to Rockville	Rockville to Montgomery College	Wheaton to Rockville	Rockville to Montgomery College
New BRT Service	6 minutes	18 minutes	10 minutes	30 minutes	6 AM to midnight	8 AM to 10 PM

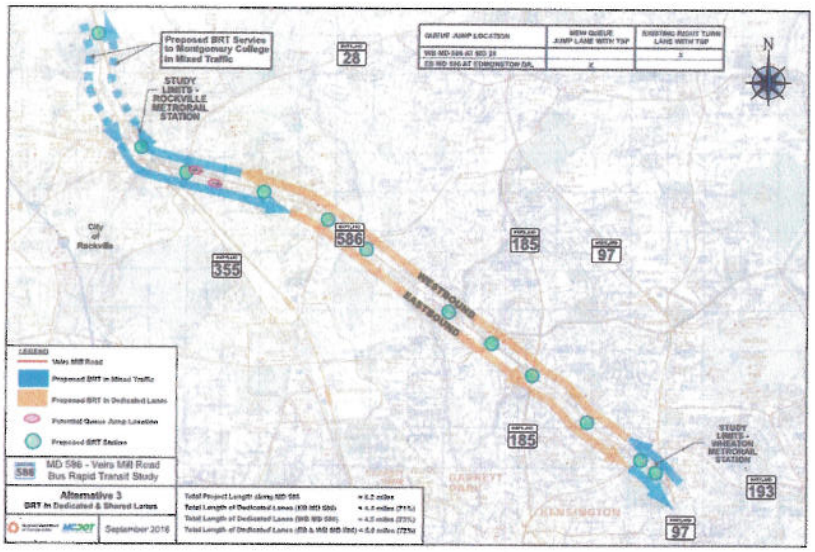
10 mins = 6 buses/hr
30 mins = 2 buses/hr
15 mins = 4 buses/hr

modified to reflect combined headway: 9 → 15, 18 → 30

RUNNINGWAY

- Curb-running dedicated lanes where feasible, existing lanes in mixed traffic otherwise.
- Green light priority signaling to help reduce delays at signalized intersections.





BRT STATIONS (same 12 locations for all 3 build alternatives)

- New BRT Stations would be added at:
  - Montgomery College 10615
  - Rockville Metrorail Station 10616
  - MD 28 (First Street) 10617
  - Broadwood Drive 10618
  - Twinbrook Parkway 10619
  - Aspen Hill Road 10620
  - Parkland Drive 10621
  - Randolph Road 10622
  - MD 185 (Connecticut Avenue) 10623
  - Newport Mill Road 10624
  - MD 193 (University Boulevard) 10625
  - Wheaton Metrorail Station 10626 – Connection w/ metrorail 8025 11025

connection w/ Metro 8002 & MARC 9005

DRAFT: 3-15-07

3/17/07 email
from Kanti Srikanth (VD

ATTACHMENT I

Beltway HOT Lanes Bus Service

No.		Origin	Destination	2006	~~2010~~	2020	2030
				Base	~~HOT~~	HOT	HOT
EXISTING ROUTES:				Hdwy	~~Hdwy~~	Hdwy	Hdwy
NEW / MODIFIED ROUTES:*							

* New routes assumed in the CLRP originally assumed for 2030.

1	14A-D	Bethesda	McLean Bible Church via Tysons	NA	~~NA~~	15	15
2	14A-D	McLean Bible Church	Bethesda via Tysons	NA	~~NA~~	15	15
3	14A-D	Lakeforest Mall	McLean Bible Church via Tysons	NA	~~NA~~	15	15
4	14A-D	McLean Bible Church	Lake Forest Mall via Tysons	NA	~~NA~~	15	15
5	17FO	Pentagon (not in base, did not add)	Kings Park West	20	~~20~~	20	15
6	17GI	George Mason University	Pentagon	30	~~20~~	20	15
7	17HI	Kings Park West	Pentagon	20	~~20~~	20	15
8	17KI	Kings Park West	Pentagon	30	~~20~~	20	15
9	17LI	Kings Park West	Pentagon	30	~~20~~	20	15
10	OmniRide	Dale City PNR	Tysons Central	NA	~~30~~	15	10
11	Martz	Stafford (US 1 & VA 630) (not in base, did not add)	Tysons Central	NA	~~20~~	10	8
12	B2	Franconia Springfield Metro	Tysons Central	NA	~~NA~~	15	15
13	B3	Huntington Metro	Tysons Central	NA	~~NA~~	15	15
14	B4	Fair Oaks	Landmark Shopping Center	NA	~~NA~~	20	15
15	B5	Fair Oaks	Franconia Springfield Metro	NA	~~NA~~	20	15
16	B6	Annandale	Tysons Central	NA	~~NA~~	15	15
17	B7	Chantilly	Tysons Central	NA	~~NA~~	15	15
18	M1	Fredericksburg	Tysons Central	NA	~~NA~~	15	15

ATTACHMENT J

MWCOG CLRP Update - Transit Assumptions

Route Name	Interim Stops	Similar Existing/Programmed Commuter Bus Route	GIS Id	Opening Year Headway	2023 Headway	2025 Headway	2030 Headway	2035 Headway	2040 Headway	Run Time (Minutes)	Daily Hours of Operation (AM & PM Peak Periods)	Number of Stops	Fare (assumes SmarTrip)
Haymarket to Tysons	None		2	N/A	N/A	N/A	N/A	60	45	44	8	2	$ 2.90
Haymarket to DC	None		1	60	60	60	45	N/A	N/A	73	8	2	$ 5.75
Haymarket to DC	None		22	N/A	N/A	N/A	N/A	45	45	73	8	2	$ 5.75
Gainesville to Westfields	None		3		60	45	45	25	25	31	8	6	$ 2.90
Gainesville to Chantilly/US 50	None		4	N/A	N/A	N/A	N/A	60	45	25	8	4	$ 2.90
Gainesville to Reston	None		5	25	25	25	25	25	25	35	8	2	$ 2.90
Gainesville to Herndon	Innovation (Fairfax County)		6	N/A	60	45	45	30	25	41	8	5	$ 2.90
Gainesville to Chantilly/Herndon	None		7	N/A	N/A	N/A	N/A	60	45	25	8	6	$ 2.90
Gainesville to Tysons	None	PRTC Gainesville Metro Direct	8	30	30	20	15	N/A	N/A	45	8	2	$ 2.90
Gainesville to Tysons	None	PRTC Gainesville Metro Direct	9	N/A	N/A	N/A	N/A	15	15	39	8	2	$ 2.90
Gainesville to DC	East Falls Church Metrorail[1]	PRTC Gainesville OmniRide (Modified)	10	20	20	15	15	15	15	76	8	3	$ 5.75
Gainesville to Merrifield	None		11	N/A	N/A	35	35	35	35	46	8	4	$ 2.90
Manassas to Reston	None		12	N/A	N/A	N/A	60	60	45	28	8	2	$ 2.90
Manassas to Tysons	None	PRTC Manassas Metro Direct	13	30	30	30	30	25	25	38	8	2	$ 2.90
Manassas to DC	Pentagon	PRTC Manassas OmniRide	14	20	20	20	15	15	15	86	8	11	$ 5.75
Manassas to Merrifield	None		15	60	60	60	60	60	60	39	8	4	$ 2.90
Centreville to Tysons	None		16	N/A	N/A	N/A	N/A	60	45	30	8	2	$ 1.75
Centreville to DC	None		17	N/A	25	25	25	25	25	47	8	2	$ 1.75
Monument to DC	None		18	N/A	N/A	N/A	N/A	35	35	43	8	2	$ 4.00
Monument to DC	None		23	35	35	35	35	N/A	N/A	43	8	2	$ 4.00
Westfields to Vienna	None		19	60	60	60	60	60	60	37	8	4	$ 1.75
Stringfellow to Vienna[2]	None	Fairfax Connector 600 Series (631,632,624,634)	21	N/A	N/A	N/A	N/A	7.5	7.5	21	8	2	$ 1.75
Stringfellow to Mark Center	Pentagon		20	N/A	N/A	N/A	N/A	60	60	68	8	4	$ 4.00

Notes:

1. East Falls Church stop dependent on available bus bay capacity
2. Stringfellow to Vienna service represents increase of service levels from existing/programmed Fairfax Connector Service. Increase in headway subject to route performance .
3. Table is intended to be used with accompanying GIS files for routes and stops
4. Fares based on current (2015) fares:
- Commuter buses originating in Prince William, destined to Arlington or DC: PRTC OmniRide ($5.75 SmarTrip)
- Commuter buses originating in Prince William, destined elsewhere: PRTC MetroDirect (2.90 SmarTrip)
- Commuter buses originating in Fairfax, destined to Arlington or DC: Fairfax Connector Express - route 394/395 ($4.00)
- Commuter buses originating in Fairfax, destined elsewhere - Fairfax Connector Route ($1.75)
If fares are inflated in the future in other modeled routes, we expect these routes would increase in a corresponding manor.
5. Stops are located in a separate shapefile and listed by the Route Name and GIS ID#
6. Routing and stops represent assumptions only current as of February 2016. Specific routing at origins and destinations will be determined by the operator closer to implementation and are subject to change
7. Routes are expected to operate in the peak direction only during the peak periods (i.e AM Eeastbound and PM Westbound)
8. For routes shown that have similar existing or programmed service, headway shown for all combined service (rather than additive)

 2/24/2016 VDOT updates

Transit Service Enhancements for I-66 Inside the Beltway CLRP Submission (placeholder subject to change**)

Route	Change
New Outside the Beltway Services	
Rapid Bus Service from outside the Beltway:	Bi-directonal, all day + weekend
Haymarket to Arlington/DC	
Gainesville to Arlington/DC	
Manassas to Arlington/DC	
New Priority Bus Services	
U.S. 29 Priority Bus	Bi-directional, all day service 2025
U.S. 50 Priority Bus – via Ballston	Bi-directional, all day service 2025
U.S. 50 Priority Bus – via U.S. 50	Add route from Fair Lakes to D.C. core along U.S. 50 2040
U.S. 50 Priority Bus – Tysons	Add route from Tysons Corner along U.S. 50 and Wilson Boulevard 2040
Local Routes in Study Area:	
Metrobus 1B	Increase peak-period frequency; improve inbound runtime 2040
Metrobus 1C	Increase peak and off-peak frequencies
Metrobus 1E	Improve runtime
Metrobus 2C	Increase peak and off-peak frequencies
Metrobus 3A	Extend routing to NVCC and East Falls Church and increase frequency
Metrobus 3E	Add reverse-peak direction service and increase peak-direction service frequency; add off-peak service
Metrobus 3T	Increase off-peak-period frequency
Metrobus 4A	Reroute to end at Seven Corners; increase frequency
Metrobus 4E	Increase peak-period frequency, improve runtime
Metrobus 4H	Improve runtime
Metrobus 10B	Increase peak-period frequency
Metrobus 15L	Increase peak-period frequency
Metrobus 22A	Increase peak-period frequency
Metrobus 23A	Increase peak-period frequency
Metrobus 23C	Increase peak-period frequency
Metrobus 25A	Increase peak and off-peak frequencies
Metrobus 25B	Increase northbound off-peak frequency and peak frequencies in both directions
Metrobus 28A	Increase peak-period frequency, improve runtime
Metrobus 28E	New route between Skyline Plaza and East Falls Church
Metrobus 38B	Increase frequency
ART	
ART 42	Increase the reverse-peak direction, peak-period frequency
ART 45	Increase peak-period frequency, improve run time
ART 52	Increase peak and off-peak frequencies
ART #75	Extend routing to Shirlington and Virginia Square; add off-peak service
ART #77	Extend to Rosslyn and increase frequency
New ART1	Add route between Arlington Hall and Crystal City
New ART2	Add route between Court House and Pentagon City

see page K-2 for more details

**Services subject to change based on environmental study, public outreach, and stakeholder working group inputs.

Draft 2/11/15

2/24/2016 VDOT updates

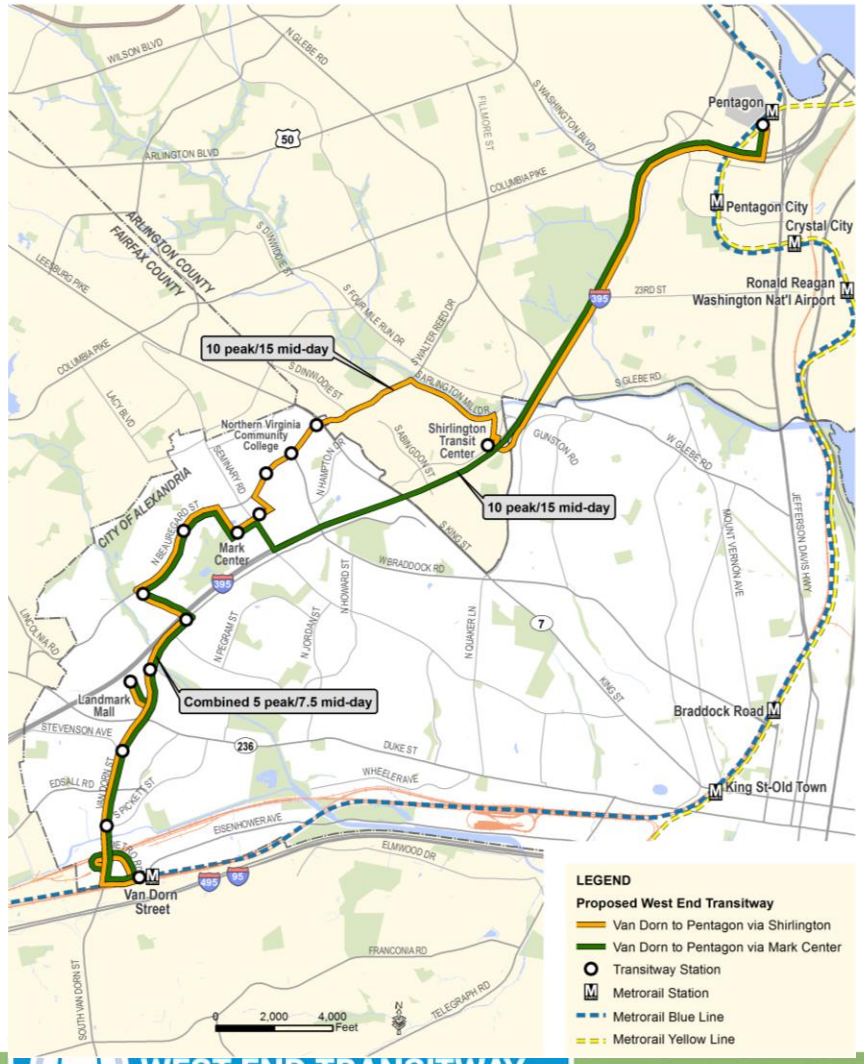
Route	Change	Comment	Peak	Off-pk	Peak	Off-peak	Route Speed	Year	INBOUND	OUTBOUND	Map page
New Outside the Beltway Services											
Rapid Bus Service from outside the Beltway:	Bi-directional, all day + weekend		see outside the Beltway submission								
Haymarket to Arlington/DC											
Gainesville to Arlington/DC											
Manassas to Arlington/DC											
New Priority Bus Services											
U.S. 29 Priority Bus	Bi-directional, all day service	note: both di-directional route	new	new	10	10	18	2025	MEX29_CS_EB	MEX29_CS_WB	5
U.S. 50 Priority Bus – via Ballston	Bi-directional, all day service	note: both di-directional route. adjust headways for U.S. 50 trunk?	new	new	10	10	18	2025	MEX50_PB_EB	MEX50_PB_WB	6
U.S. 50 Priority Bus – via U.S. 50	Add route from Fair Lakes to D.C. core along U.S. 50	Assume peak only. Adjust headways for U.S. 50 trunk?	new	new	24	na	18	2040	MEX50_CS_EB	MEX50_CS_WB	n/a
U.S. 50 Priority Bus – Tysons	Add route from Tysons Corner along U.S. 50 and Wilson Boulevard	Assume peak only. Adjust headways for U.S. 50 trunk?	new	new	24	na	18	2040	MEX_TYS_EB	MEX_TYS_WB	n/a
Local Routes in Study Area:											
Metrobus 1B	Increase peak-period frequency; improve inbound runtime	no changes to off-peak headways	30	na	15	na	18	2040			
Metrobus 1C	Increase peak and off-peak frequencies	does not exist									
Metrobus 1E	Improve runtime	runtime only. No Δ headway	30	na	na	na	18	2040			
Metrobus 2C	Increase peak and off-peak frequencies	does not exist									
Metrobus 3A	Extend routing to NVCC and East Falls Church and increase frequency	some 3As already run to NVCC. Assume ALL future 3As to run to NVCC	30	60	15	30	12	2040	WM03AI	WM03AO	13
Metrobus 3E	Add reverse-peak direction service and increase peak-direction service frequency	does not exist									
Metrobus 3T	Increase off-peak-period frequency	no changes to peak headways	na	60	na	30	12	2040			
Metrobus 4A	Reroute to end at Seven Corners; increase frequency in peak only	Exist. route does not go beyond 7 Corners. Assume now combined with other 4s	30	50	15	50	12	2040	WM04AI	WM04A0	16
Metrobus 4E	Increase peak-period frequency, improve runtime	does not exist									
Metrobus 4H	Improve runtime	does not exist									
Metrobus 10B	Increase peak-period frequency	no changes to off-peak headways	30	30	15	30	12	2040			
Metrobus 15L	Increase peak-period frequency	no changes to off-peak headways	30	na	15	na	12	2040			
Metrobus 22A	Increase peak-period frequency	no changes to off-peak headways	30	na	15	na	12	2040			
Metrobus 23A	Increase peak-period frequency	23A is now non-peak only. Assume headway increase applied to 23B	25	30	15	30	12	2040			
Metrobus 23C	Increase peak-period frequency	does not exist									
Metrobus 25A	Increase peak and off-peak frequencies		40	60	15	30	12	2040			
Metrobus 25B	Increase northbound off-peak frequency and	no changes to peak headways	na	60	na	30	12	2040			
	peak frequencies in both directions	no changes to off-peak headways	30	na	15	na	12	2040			
Metrobus 28A	Increase peak-period frequency, improve runtime	no changes to off-peak headways	25	na	15	na	12	2040			
Metrobus 28E	New route between Skyline Plaza and East Falls Church		new	new	15	30	12	2040	WM28EI	WM28EO	12
Metrobus 38B	Increase frequency		15	20	15	30	12	2040			
ART											
ART 42	Increase the reverse-peak direction, peak-period frequency		17	NA	15	60	12	2040			
ART 45	Increase peak-period frequency, improve run time		30	na	15	na	12	2040			
ART 52	Increase peak and off-peak frequencies		30	60	15	30	12	2040			
ART #75	Extend routing to Shirlington and Virginia Square	routing only	na	na	na	na	12	2040	ART75I	ART75O	19
ART #77	Extend to Rosslyn and increase frequency		30	30	15	15	12	2040	ART77I	ART77O	20
New ART1	Add route between Arlington Hall and Crystal City		new	new	15	30	12	2040	ARTNEW1I	ARTNEW1O	17
New ART2	Add route between Court House and Pentagon City		new	new	15	30	12	2040	ARTNEW2I	ARTNEW2O	18

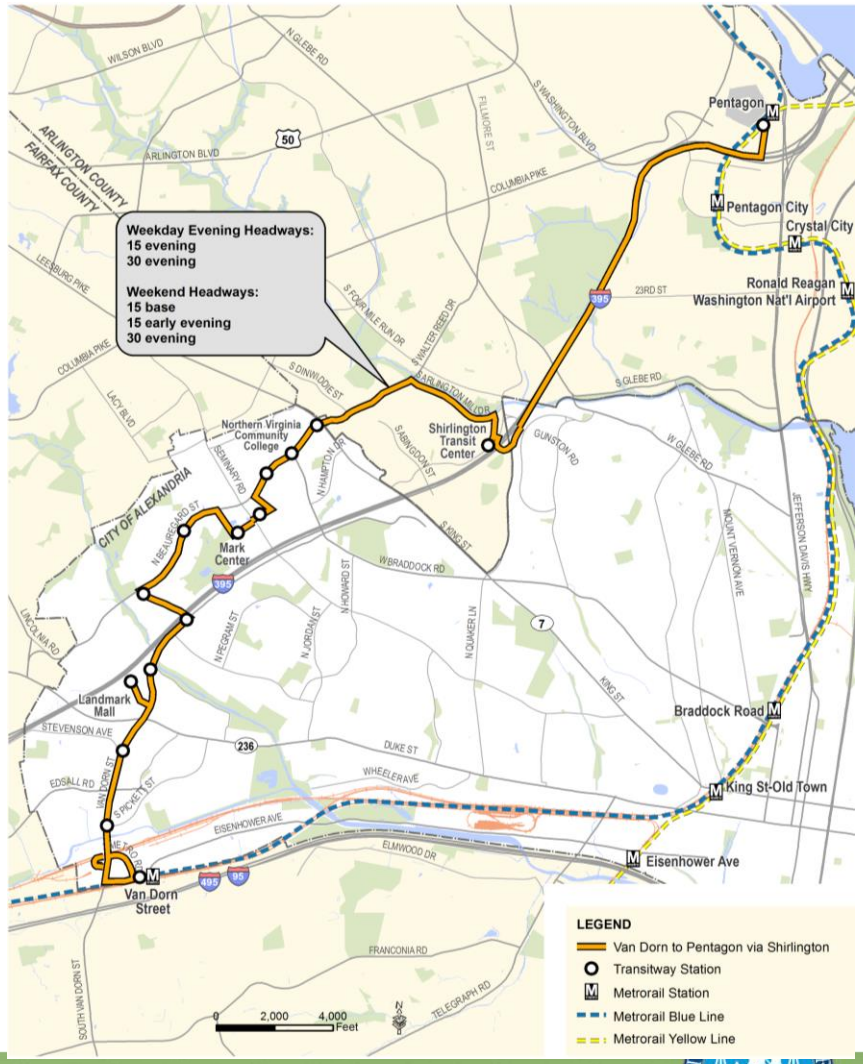
ATTACHMENT L

2016 CLRP / AQC Route Information - Fairfax Connector

Route	New/Revised/Cancelled	Start	End	Via	Bi-Directional Service	Peak Headway (min)	Planned in Fiscal Year
624	New	Vienna Metro	Stringfellow Road P&R	Fair Lakes	no	20	2016
634	New	Stringfellow P&R	Vienna Metro	----	no	20	2016
313	New	Fair Oaks Mall	Franconia-Springfield Metro	Burke Centre VRE	yes	30	2017
321	Revised	Franconia-Springfield Metro	Franconia-Springfield Metro	Counter Clockwise	no	20	2017
322	Revised	Franconia-Springfield Metro	Franconia-Springfield Metro	Clockwise	no	20	2017
451	New	Dunn Loring Metro	Dunn Loring Metro	INOVA Fairfax Hospita	no	20	2017
464	New	Barkley Gate Lane	Vienna Metro	----	yes	30	2017
161	Revised	Mt. Vernon Hospital	Huntington Metro	Richmond Hwy	no	30/60	2018
162	Revised	Mt. Vernon Hospital	Huntington Metro	Harrison Lane	no	30/60	2018
585	Revised	Metrotech at Chantilly	Reston Town Ctr. Metro		no	20	2019
605	Revised	Fairfax Co. Govt. Ctr.	Reston Town Ctr. Metro	INOVA Fair Oaks Hosp	yes	20	2019
924	Revised	Town Ctr. Plaza	Herndon Metro	Herndon Pkwy.	no	20	2019
929	Revised	Centreville at Kinross Circle	Herndon Metro	----	yes	20	2019
950	Revised	Wielhe Metro	Herndon Metro	----	yes	20	2019
983	Revised	Innovation Ctr. Metro	Udvar-Hazy Center	Frying Pan Road	yes	20	2019
RIBS 1	Revised	Lake Anne	------ Metro	----	no	20	2019
RIBS 2	Revised	South Lakes	Reston Town Ctr. Metro	----	yes	20	2019
RIBS 3	Revised	Hunter Woods	------ Metro	----	no	20	2019
RIBS 4	Revised	North Point	Reston Town Ctr.	----	yes	20	2019
RIBS 5	Revised	Herndon	Reston Town Ctr.	----	yes	20	2019
308	New	Richmond Hwy.	Franconia-Springfield Metro	----	yes		
691	New	Stringfellow P&R	Pentagon	Mark Center	yes		
692	New	Fairfax Co. Govt. Ctr.	State Department	Foggy Bottom	yes		

Proposed Operations Plan





WEST END TRANSITWAY