

Alternative 4: Light Rail Transit

Three components define Alternative 4, the mode, alignments and options. The mode for Alternative 4 is LRT. There are different routes under consideration that the LRT could operate along horizontally and vertically. The horizontal alignments extend west to east from CMS and Security Square Mall to Bayview. The vertical alignments include surface, varying lengths of tunnel and aerial structures. These alignments are shown in **Figure 2-10** and listed below by geographic area.

Geographic Area 1

Along Security Boulevard and then to Rolling Road and the north side or south side of the mall, or continuing along Security Boulevard.

Geographic Area 2

Continuing along Security Boulevard or along the central alignment to the I-70 East Park-and-Ride and Cooks Lane at US 40.

Figure 2-10: Alternative 4: Light Rail Transit

Geographic Area 3 & 4

The alignments continue along US 40 at the surface or in a tunnel.

Geographic Area 5

There are three surface alignments under consideration in this geographic area: along US 40 in the lower level, Franklin Street or Mulberry Street. It would then continue along Martin Luther King, Jr. Boulevard on surface or in a tunnel. There are two tunnel alignments (with several portal locations) under consideration in this area: under Fremont Avenue or adjacent to the west side of Martin Luther King, Jr. Boulevard.

Geographic Area 6

The alignments in this geographic area continue from Martin Luther King, Jr. Boulevard through downtown on surface alignments along Baltimore and Lombard Streets. The alignments proceed to either Central Avenue or along Pier 5/6 to alignments on Eastern Avenue and Fleet Street. There are tunnel alignments under consideration through downtown under Lombard and

Fayette Streets to Central Avenue, or the tunnel could continue to the south and east under Eastern Avenue/ Fleet Street/Aliceanna Street.

Geographic Area 7

Along Central Avenue there are surface alignments to Eastern/Fleet or Fleet/Aliceanna couplets. The alignments then continue along either of these surface couplets, or in a tunnel alignment under Eastern Avenue/Fleet Street/Aliceanna Street.

Geographic Area 8

At Chester Street, the surface alignments would either continue along the Eastern/Fleet couplet or continue along Boston Street. There are two tunnel alignments in this geographic area. One tunnel alignment is under Eastern Avenue. The other tunnel alignment continues from Fleet Street to Aliceanna Street.

Geographic Area 9

From Conkling Street to just east of Haven Street, the surface alignments continue from either Boston Street or

Eastern Avenue. The Eastern Avenue tunnel alignment would end in a portal near Haven Street. There is only one surface alignment in this area terminating at Bayview. The surface alignment would be on new right-of-way following this general alignment: along the Norfolk Southern railroad to an aerial structure over active freight rail lines. The alignment transitions back to the surface along the west side of I-895, continuing under I-895 to an alignment on new right-of-way to Bayview Medical Center.

Along all the alignments under consideration, there are different options for how the LRT would operate. Options under consideration include whether the transit would operate in a shared or dedicated lane with vehicular traffic, or whether introducing transit onto a street would result in the removal of a parking lane. The location and operational details for the options for Alternative 4: LRT are presented in Table 2-5. This table briefly describes the options by geographic area. The options are presented in greater detail in Volume II of this AA/DEIS.

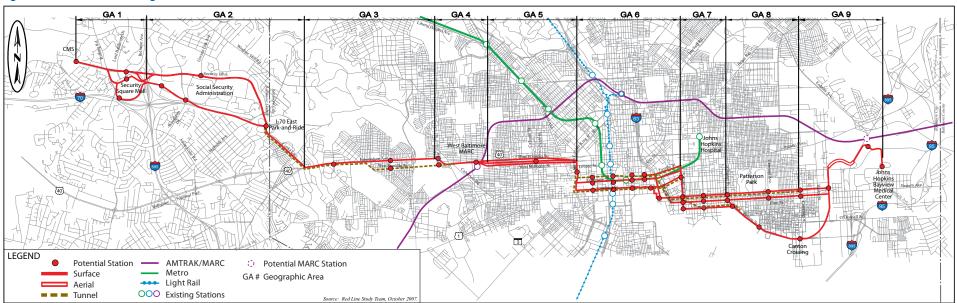




Table 2-5: Alternative 4: Light Rail Transit Options

GEOGRAPHIC AREA 1			
Segment	Surface/ Tunnel/ Aerial	Option Description	
Security Blvd. from CMS to Rolling Road	Surface	Dedicated transit on south side of Security Boulevard	
	Surface	Dedicated transit on south side of Security Boulevard	
Security Sq. Mall Area from Rolling Road to I-695	Surface	Dedicated transit on west side of Rolling Road, dedicated transit on north side of mall	
	Surface	Dedicated transit on west side of Rolling Road, dedicated transit on south side of mall	

GEOGRAPHIC AREA 2			
Segment	Surface/ Tunnel/ Aerial	Option Description	
I-695 Area from I-695 to	Surface	Dedicated transit on south side of Security Boulevard	
Woodlawn Drive	Surface	Dedicated transit on central alignment between I-70 and Security Blvd.	
Social Security	Surface	Dedicated transit on south side of Security Boulevard, 2 traffic lanes eastbound, 3 traffic lanes westbound.	
Administration Area from Woodlawn Dr. to I-70 Park-and-Ride	Surface	Dedicated transit on north side of I-70	
I-70 Park-and-Ride	Surface	Multiple options for location of surface parking lot including with and without maintenance facility; representative option includes alignment along I-70, parking lot in the northwest quadrant and no maintenance facility	
	Surface	Dedicated transit in median, one lane of traffic in each direction, full time parking on west side	
Cooks Ln. from I-70 Park-	Surface	Dedicated transit inbound, one traffic lane inbound, shared transit/traffic outbound, full time parking on west side	
and-Ride to US 40	Surface	Shared transit/traffic lanes in each direction, full time parking on west side	
	Tunnel	Cooks Lane tunnel	

GEOGRAPHIC AREA 3			
Segment	Surface/ Tunnel/ Aerial	Option Description	
US 40 from Cooks Ln. to Longwood St.	Surface	Dedicated transit in median, 3 traffic lanes peak period, peak direction, no parking; 2 traffic lanes peak period, off-peak direction, one lane of parking	
	Surface	Dedicated transit in median, 2 traffic lanes in each direction, full time parking in curb lane	
	Tunnel	US 40 and West Franklin Street Tunnel to Calverton Road	

GEOGRAPHIC AREA 4			
Surface/ Tunnel/ Aerial		Option Description	
US 40 from Longwood St. to W. Baltimore MARC	Surface	Dedicated transit on north side and/or in median of Franklin St., 3 traffic lanes peak period, peak direction, no parking; 2 traffic lanes peak period, off-peak direction, one lane of parking. Outbound traffic is diverted from Franklin St. to Franklintown Rd. and Edmondson Ave.	
	Surface	Dedicated transit on north side of Franklin St., 3 traffic lanes inbound, 1 traffic lane outbound, full time parking in outbound curb lane. On Edmondson Ave., 3 traffic lanes outbound peak period, peak direction, no parking; 2 traffic lanes outbound peak period, off-peak direction, one lane of parking; 1 traffic lane inbound, full time parking in inbound curb lane.	
	Surface	Dedicated transit in median, 2 traffic lanes in each direction, full-time parking in curb lane	
	Tunnel	US 40 and West Franklin Street Tunnel to Calverton Road (Portal C)	

GEOGRAPHIC AREA 5			
Segment	Surface/ Tunnel/ Aerial	Option Description	
Franklin/US 40/Mulberry	Surface	Dedicated transit in median of US 40, 2 traffic lanes in each direction	
from W. Baltimore MARC to	Surface	Dedicated transit on south side of Franklin St.	
Martin Luther King, Jr. Blvd.	Surface	Dedicated transit on north side of Mulberry St.	
Martin Luther King, Jr. Blvd. from US 40 to Lombard St.	Surface	Dedicated transit on west side of MLK Jr. Blvd.	
	Tunnel	Fremont Avenue tunnel	
	Tunnel	MLK Jr. Blvd. tunnel – portal between W. Lexington Ave. and W. Fayette St. (Portal F)	

GEOGRAPHIC AREA 6			
	Surface/ Tunnel/ Aerial	Option Description	
Fayette/Baltimore/ Lombard from Martin Luther King Jr. Blvd to Market Pl.	Surface	Dedicated transit in second lane out on Baltimore St-Lombard St couplet. On Baltimore, 2 eastbound traffic lanes, 1 parking lane right curb full time. On Lombard, 3-5 westbound traffic lanes, 1 parking lane right curb full time.	
	Surface	Dedicated transit curbside on Baltimore St-Lombard St couplet. On Baltimore, 2 eastbound traffic lanes, 1 parking lane left curb full time. On Lombard, 3-5 westbound traffic lanes, no parking on either curb.	
	Surface	Dedicated transit (two-way) on north side of Baltimore St., 1 traffic lane eastbound, intermittent parking in right curb lane	
	Tunnel	Fayette Street tunnel	
	Tunnel	Lombard Street tunnel	



Table 2-5: Alternative 4: Light Rail Transit Options (continued)

GEOGRAPHIC AREA 6 (Continued)				
Segment	Surface/ Tunnel/ Aerial	Option Description		
	Surface	Dedicated transit in second lane out on Baltimore St-Lombard St couplet to Central Ave. On Baltimore, 2 eastbound traffic lanes, 1 parking lane right curb full time. On Lombard, 1-3 westbound traffic lanes, 1 parking lane right curb full time.		
	Surface	Dedicated transit on Baltimore St-Lombard St couplet to Central Ave. On Baltimore, eastbound transit curbside, 2 eastbound traffic lanes, 1 parking lane left curb full time. On Lombard, westbound transit second lane out, 1-3 westbound traffic lanes, no parking on left curb.		
	Surface	Dedicated transit (two-way) on north side of Baltimore St. to Central Ave., 1 traffic lane eastbound, intermittent parking in right curb lane		
	Tunnel	Fayette Street tunnel to Central Ave. with various portal locations		
	Tunnel	Lombard Street tunnel to Central Ave. with various portal locations		
Baltimore/ Lombard/ Central/	Tunnel	Fayette St. tunnel continuing to Eastern Ave. tunnel		
Pier 5/6 from	Tunnel	Lombard St. tunnel continuing to Eastern Ave. tunnel		
Market Pl. to Central Ave. at	Surface	From Market Pl. to President St., dedicated transit curbside W Falls Ave-Harbor Magic Way Couplet to Eastern-Fleet couplet.		
Aliceanna St.	Surface	Dedicated transit second lane out on Central Ave., 1 traffic lane in each direction with center left turn lane, 1 parking lane on each curb full time.		
	Surface	Dedicated transit in median on Central Ave., 1 traffic lane in each direction, 1 parking lane on each curb full time.		
	Surface	Dedicated transit second lane out Eastern-Fleet couplet, one-way traffic on Eastern-Fleet, 2 traffic lanes peak direction, right curb parking full- time; 1 traffic lane off-peak direction, parking both curbs		
	Surface	Dedicated transit second lane out Eastern-Fleet Couplet, one-way traffic on Eastern-Fleet, 1 traffic lane, full-time parking both curbs		
	Surface	Dedicated transit second lane out Eastern-Fleet Couplet, two-way traffic on Eastern-Fleet, 1 lane in each direction, full-time parking right curb only		

GEOGRAPHIC AREA 7			
Segment	Surface/ Tunnel/ Aerial	Option Description	
	Surface	Dedicated transit second lane out Eastern-Fleet couplet, one-way traffic on Eastern-Fleet, 2 traffic lanes peak direction, right curb parking full- time; 1 traffic lane off-peak direction, parking both curbs	
	Surface	Dedicated transit second lane out Eastern-Fleet Couplet, one-way traffic on Eastern-Fleet, 1 traffic lane, full-time parking both curbs	
Eastern/Fleet/ Aliceanna Sts. from Central Ave. to	Surface	Dedicated transit second lane out Eastern-Fleet Couplet, two-way traffic on Eastern-Fleet, 1 lane in each direction, full-time parking right curb only	
	Surface	Dedicated transit second lane out Fleet-Aliceanna couplet, one-way traffic on Fleet-Aliceanna, 2 traffic lanes peak direction, right curb parking full time; 1 traffic lane off-peak direction, parking both curbs	
Chester St.	Surface	Dedicated transit second lane out Fleet-Aliceanna Couplet, one-way traffic on Fleet-Aliceanna, 1 traffic lane, full-time parking both curbs	
	Surface	Dedicated transit second lane out Fleet-Aliceanna Couplet, two-way traffic on Fleet-Aliceanna, 1 lane in each direction, full-time parking right curb only	
	Tunnel	Eastern Ave. Tunnel	
	Tunnel	Fleet/Aliceanna Tunnel	

GEOGRAPHIC AREA 8			
Segment	Surface/ Tunnel/ Aerial	Option Description	
	Surface	Dedicated transit second lane out Eastern-Fleet couplet, one-way traffic on Eastern- Fleet, 2 traffic lanes peak direction, right curb parking full-time; 1 traffic lane off-peak direction, parking both curbs	
	Surface	Dedicated transit second lane out Eastern-Fleet Couplet, one-way traffic on Eastern- Fleet, 1 traffic lane, full-time parking both curbs	
	Surface	Dedicated transit second lane out Eastern-Fleet Couplet, two-way traffic on Eastern- Fleet, 1 lane in each direction, full-time parking right curb only	
Eastern/Fleet/Boston Sts. from Chester St. to Conkling St.	Surface	Dedicated transit in median of Boston St., 2 traffic lanes in each direction, full time parking westbound right curb	
	Surface	Dedicated transit on south side of Boston St., 1 traffic lane in each direction with continuous left turn lane, full-time parking westbound right curb	
	Tunnel	Fleet/Aliceanna tunnel to a portal on Aliceanna Street (Portal M)	
	Tunnel	Fleet/Aliceanna tunnel to a portal on Boston Street (Portal N)	
	Tunnel	Eastern Ave. Tunnel	

GEOGRAPHIC AREA 9				
Segment	Surface/ Tunnel/ Aerial	Option Description		
	Surface	Dedicated transit second lane out Eastern-Fleet couplet, one-way traffic on Eastern- Fleet, 2 traffic lanes peak direction, right curb parking full-time; 1 traffic lane off-peak direction, parking both curbs		
Conkling Street to Norfolk	Surface	Dedicated transit second lane out Eastern-Fleet Couplet, one-way traffic on Eastern- Fleet, 1 traffic lane, full-time parking both curbs		
Southern Canton Railroad	Surface	Dedicated transit second lane out Eastern-Fleet Couplet, two-way traffic on Eastern- Fleet, 1 lane in each direction, full time parking right curb only		
	Tunnel	Eastern Ave. tunnel to Portal O		
	Surface	From Boston St. at Conkling Street on abandoned N-S railroad right-of-way		
Norfolk Southern/Canton Railroad to Bayview MARC Station	Aerial & Surface	Kresson B Alignment - at-grade in inactive Norfolk Southern railroad right-of-way; aerial structure over active Norfolk Southern railroad to dedicated surface alignment north of Lombard Street on west side of I-895, under I-895		
Bayview MARC Station to Bayview Medical Campus	Surface	Alignment on new right-of-way to Mason Lord Drive, dedicated transit on east side of Mason Lord Drive		

RED LINE CORRIDOR TRANSIT STUDY AA/DEIS

VOLUME I - CHAPTER 2: ALTERNATIVES CONSIDERED