



**PARSONS**

# Optimize. Innovate. Deliver.

Engineering the Future  
of Bus Rapid Transit

Parsons **PLUS** envision more



# Parsons' BRT Experience

Parsons is a trusted advisor and provider of innovative transit systems across the globe, including express bus systems and bus rapid transit (BRT). We have secured more than \$2 billion in FTA New/Smart Starts grants and have put 12 BRT/rail projects into revenue service in the last decade. Our innovative solutions have paved the way for a proven track record of quality and experience in BRT and multimodal corridor planning. From initial conceptual design, feasibility studies, environmental assessments, and alternatives analysis to final design, construction support, and construction/project management, Parsons will work with you to meet your goals to improve mobility.

## Highlights of our project expertise:

	Corridor/Operations Planning	Station Area Planning/Design	Alternatives Analysis	Conceptual Design	Preliminary Engineering	Final Design	Environmental Clearance	Transit-Oriented Development	FTA New/Small Starts Funding	Stakeholder Coordination/ Public Outreach	Construction Management/Support
Cleveland, OH, Euclid Ave. BRT	FTA Project Management Oversight										
Denver SH119 BRT	✓	✓	✓	✓	✓		✓	✓	✓	✓	
Entrance to Aspen BRT	✓	✓	✓	✓					✓	✓	
LA Metro N. Hollywood to Pasadena BRT	✓	✓	✓	✓				✓	✓	✓	
LA Metro Vermont Avenue BRT	✓	✓	✓	✓				✓	✓	✓	
Las Vegas Maryland Parkway BRT	✓	✓	✓	✓		✓		✓	✓	✓	
Las Vegas, NV, Resort Corridor BRT	✓	✓	✓	✓			✓	✓	✓	✓	
Miami Beach Connector BRT	✓	✓	✓	✓				✓	✓	✓	
Oakland, CA, East Bay BRT	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	
Omnitrans BRT Design Guidelines		✓		✓				✓			
Ontario, CA, West Valley Connector BRT	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	
Reno, NV, Virginia Street BRT	✓	✓		✓			✓	✓			
Richmond, VA, Broad Street BRT	✓	✓	✓	✓			✓	✓	✓	✓	
San Antonio Fredericksburg Road BRT		✓			✓	✓			✓	✓	✓
San Antonio Zarzamora Street BRT		✓				✓			✓	✓	✓
San Bernardino, CA, E Street BRT	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
San Francisco, CA, Van Ness Ave BRT	✓	✓	✓	✓	✓		✓	✓	✓	✓	
San José, CA, El Camino Real BRT	✓	✓	✓	✓			✓	✓	✓	✓	
York Region, Viva Quick Start BRT	✓	✓		✓	✓	✓				✓	



**sbX Green Line**  
**San Bernardino, CA**

**Roles:** Alternatives Analysis, Environmental Assessment/Reporting, Preliminary Engineering, Final Design, Construction Support

Parsons completed all work on the 15.7-mile sbX Green Line BRT project, which included activities from planning to final design, and a \$75M FTA Small Starts grant. Parsons also provided engineering services during the construction of the project’s 5.4 miles of center-running, exclusive BRT lanes; 10.3 miles of mixed-flow lanes; 23 stations with level boarding platforms; and four park-and-ride facilities. The project is one of only five BRT projects in the U.S. that have received a Bronze rating. The project also won a regional award for excellence in transportation planning.



**West Valley Connector**  
**BRT Corridor**  
**Los Angeles and**  
**San Bernardino Counties**

**Roles:** Alternatives Analysis, Environmental Assessment, Preliminary Engineering, Final Design

Parsons is responsible for environmental clearance, preliminary engineering, and final design plans for the 35-mile-long corridor through Pomona, Montclair, Ontario, Rancho Cucamonga, and Fontana. The project includes 3.5 miles of exclusive, center-running BRT lanes; 31.5 miles of side-running, mixed-flow lanes; and 50 stations. Parsons is assisting in the development of a \$75M FTA Small Starts grant.



**SH 119 BRT Corridor**  
**Boulder to Longmont, CO**

**Roles:** Environmental Clearance, Preliminary Engineering, Analyses (Alternatives, Transit and Traffic Operations, Financial, Transit-Oriented Development)

Parsons is responsible for alternatives analysis, environmental clearance, and preliminary engineering for the 20-mile-long corridor between Boulder and Longmont, as well as extensive stakeholder and public involvement. The project includes consideration of dedicated BRT lanes, bus-on-shoulder operations, BRT operations in managed express/toll lanes, transit signal priority, and enhanced stations.





## VIVA Quick Start York Region, Canada

**Roles:** Lead Civil Design, Planning, Outreach

Parsons served on a series of projects for the York region of Ontario. Viva Quick Start's network established the use of buses operating in mixed-flow traffic with queue-jump enhancements and dedicated stop locations over 100 km of main roads. Enterprise/Simcoe Promenade Boulevard was the first development, which included 0.83 km of dedicated rapidway with customized stations. The vivaNext H3 project brought the first rapidway to a main road, including 6.4 km of east- and westbound rapidways and associated stations, utilities, and landscaping.



## Las Vegas Resort Corridor BRT Las Vegas, NV

**Roles:** Feasibility Study, Alternatives Analysis

Parsons conducted a feasibility study and an alternatives analysis for the 33-mile corridor from Las Vegas to Henderson with connections to McCarran International Airport. The work focused on travel-demand/ridership forecasts, capital and operating estimates, traffic analysis, and station simulations. Multiple alignment and station options were considered, and BRT was selected as the preferred technology. Based on the feasibility study, the RTC implemented the 10-mile Resort Corridor BRT service that connects with downtown Las Vegas. The project is one of only five BRT projects in the U.S. that have received a Bronze rating.



## Euclid (HealthLine) Corridor BRT Cleveland, OH

**Roles:** Project Management Oversight

Parsons oversaw the 7-mile development of 36 stations, right-hand and left-hand high platforms for level boarding and roll-on/roll-off wheelchair access, and 21 articulated diesel-electric hybrid vehicles. The vehicles are equipped with bridge plate wheelchair ramps and precision mechanical docking arms to minimize the vehicle-to-platform gap at stations. Parsons also developed realistic staffing plans, utilities management, and construction safety, as well as risk assessment and mitigation plans.



## PRIMO Transit Centers and Stations

### San Antonio, TX

**Roles:** Architectural Design and, Civil; Structural; and Mechanical, Electrical, and Plumbing Engineering Services

The project involved architectural/engineering design services for VIA's first bus rapid transit line in San Antonio, including the South Texas Medical Center Transit Center, 16 in-line bus rapid transit stations, and associated improvements. Several sustainable designs were implemented, including energy-efficient mechanical system, drought-resistant landscaping, and retention ponds for stormwater. In addition, aesthetic elements and lighted canopies resulted in this award-winning project and subsequent assignments with this client.



## East Bay Bus Rapid Transit

### Oakland, CA

**Roles:** Environmental Assessment, Preliminary Engineering, Final Design, Design Support during Construction Services

Parsons converted one traffic lane in each direction to dedicated bus use for a 9.5-mile corridor between downtown Oakland and San Leandro, in Alameda County. The project includes exclusive transit lanes, more than 40 new traffic signals and the modification of 75 existing signals, transit signal priority (TSP) at all signalized intersections, and 34 new passenger stations with level boarding, all of which will improve reliability and reduce travel time.



## Metro Orange Line

### San Fernando Valley, CA

**Roles:** Engineering Support Services

Parsons was part of the multidisciplinary team that produced a major investment study (MIS) evaluating seven fixed-guideway transit alternatives for construction within a former railroad right-of-way in the San Fernando Valley. Project tasks include the analysis of the 14-mile corridor, the development of urban design/conceptual engineering plans and station concepts, as well as an assessment of the construction methods of the BRT project.



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