Appendix 4

Berkeley Strategic Transportation Plan

Second Addendum

January 2021

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Appendix 4. Berkeley Strategic Transportation Plan Second Addendum

Since the 2016 adoption of the Berkeley Strategic Transportation Plan (BeST Plan), the City of Berkeley has made strides in project development, safety policies, and complete streets design thinking. This appendix serves as an addendum to the BeST Plan to provide:

- A status update on the Five-Year Priority Projects to demonstrate progress
- An update on the status of the Berkeley Vision Zero Program since Vision Zero was incorporated into the BeST Plan by way of the 2018 Addendum (see Appendix 3)
- Recommendations for use of published national and regional design guidance in order to incorporate best practices into the planning and design of Berkeley's streets

Section I: Five-Year Priority Project Update

The City has made significant progress on the BeST Plan Five-Year Priority Projects since the adoption of the Plan in 2016 and the completion and adoption of the first BeST Plan Addendum in 2018 (see Appendix 3).

This Second Addendum proposes one amendment to the Five-year Priority Projects list. This amendment adds "High-priority Bicycle Plan Projects" to the "Bikeway Intersections" project category. This change incorporates Tier 1 projects from the 2017 Bicycle Plan into the BeST Plan Five-Year Priority Projects list without these projects being limited to Bikeway Crossings. The change is also consistent with the High-Priority Pedestrian Plan projects category already included on the Five-Year Priority Projects list.

Figure 1: Five-Year Priority Projects

PROJECT	Phase 1 Project Development /Scoping	Phase 2 Environmental Study/ Preliminary Engineering	Phase 3 Detailed Design	Phase 4 Construction
West Berkeley				
9th Street Bikeway Path Extension				
Gilman Grade Separation				
Gilman Interchange				
Railroad Quiet Zone				
Southside Area				
Southside Complete Streets				
Bikeway Intersections & High-Priority Bicycle Plan Projects				
Downtown Berkeley				
Center Street Plaza				
Downtown Berkeley BART Plaza				
Downtown Transit Center				
Hearst Complete Streets				
Milvia Protected Bikeway				
Shattuck Avenue Reconfiguration				
Signal Interconnect & Transit Signal Priority				
High Priority Pedestrian Plan Projects				
Safe Routes to School Projects				
Ohlone Greenway Upgrade & Street Crossings				

Completed Phase

Current Phase

Future Phase

Ongoing project category with many smaller projects

Table 1: Five-Year Priority Project Status Updates[1,2]

PROJECT	LEAD	COMPLETE	FUNDING STATUS[3]	IN BERKELEY STRATEGIC PLAN[4]	CURRENT PHASE
Hearst Complete Streets	COB	✓		Yes	--
Downtown Berkeley BART Plaza	COB	✓		Yes	--
Safe Routes to School: Emerson, Sylvia Mendez, and John Muir Elementary Schools, King Middle School	COB	✓		Yes	--
Shattuck Avenue Reconfiguration	COB	✓		Yes	--
9th Street Bikeway Path Extension	COB		✓	Yes	*Construction*
Milvia Protected Bikeway	COB		✓	Yes	*Finalizing Construction Bid Documents*
Gilman Interchange	Alameda CTC		✓	Yes	*Finalizing Construction Bid Documents*
Southside Complete Streets	COB		✓	Yes (Dana Street portion)	*Project Alternatives Development*
Bikeway Intersections & High-Priority Bicycle Plan Projects:					
Virginia Street at Martin Luther King, Jr. Way Rectangular Rapid Flashing Beacon (RRFB)		✓		Yes	--
Hillegass Street at Ashby Avenue Pedestrian Hybrid Beacon (PHB)	COB	✓		Yes	--
Virginia at Sacramento Street Traffic Signal	COB		✓	Yes	*Construction*
Virginia at San Pablo Avenue PHB, California Street at Ashby RRFB	Caltrans[5]		✓	Yes	*Detailed Design*
Russell and Woolsey Streets at Adeline Street PHBs	COB		✓	Yes	*Grant Agreement Execution*
Russell and Woolsey at Shattuck Avenue, Mabel Street at Dwight Way RRFBs	COB		✓	Yes	*Grant Agreement Execution*
High Priority Pedestrian Plan Project:					
Sacramento Street/North Berkeley BART Complete Streets	COB		✓	Yes (Virginia Street crossing)	*Construction*

Table 1: Five-Year Priority Project Status Updates[1,2] (Continued)

PROJECT	LEAD	COMPLETE	FUNDING STATUS[3]	IN BERKELEY STRATEGIC PLAN[4]	CURRENT PHASE
Railroad Quiet Zone	COB		X		*Detailed Design of Gilman Railroad Crossing Safety Component*
Center Street Plaza	COB		X	Yes	*Funding for Conceptual Design Deferred*
Safe Routes to School Projects	COB		X[8]	Yes	--
Downtown Transit Center	COB		O		
Gilman Grade Separation	COB		O		--
Bike Boulevard Intersections[6]	COB		O	Yes	--
Signal Interconnect and Transit Signal Priority[7]	COB		O		--
High Priority Pedestrian Plan Projects	COB		O[8]	Yes	--
Ohlone Greenway Rehabilitation and Street Crossings	COB		O	Yes (street crossing upgrades during repaving projects)	--

Notes:

1. Project status are as of December 2020. Figure 1 and Table 1 are updates to the table shown on page 69 of the BeST Plan.
2. COB = City of Berkeley; Alameda CTC = Alameda County Transportation Commission
3. ✓ = Fully Funded and Project Development Underway; X = Partially Funded; O = Seeking Funding
4. The City of Berkeley Strategic Plan was passed by the Council of the City of Berkeley to help prioritize projects and programs to help meet the City's goals. The Plan can be found at: https://www.cityofberkeley.info/strategic-plan/.
5. The City of Berkeley is engaging with Caltrans to refine projects to better serve both pedestrians and bicyclists.
6. Nine intersections are prioritized for the first phase of future funding: Woolsey Bike Boulevard (BB) at Shattuck; Russell BB at San Pablo Ave, Sacramento St, Adeline, and Shattuck; Channing BB at San Pablo Ave and Sacramento St; California St BB at Dwight; Hillegass/Bowditch BB at Dwight.
7. First phase includes wayside signal upgrades to support transit signal priority on University Ave between Oxford and San Pablo Ave.
8. High Priority Pedestrian Plan Projects and Safe Routes to School Projects are ongoing projects and include projects at various phases.

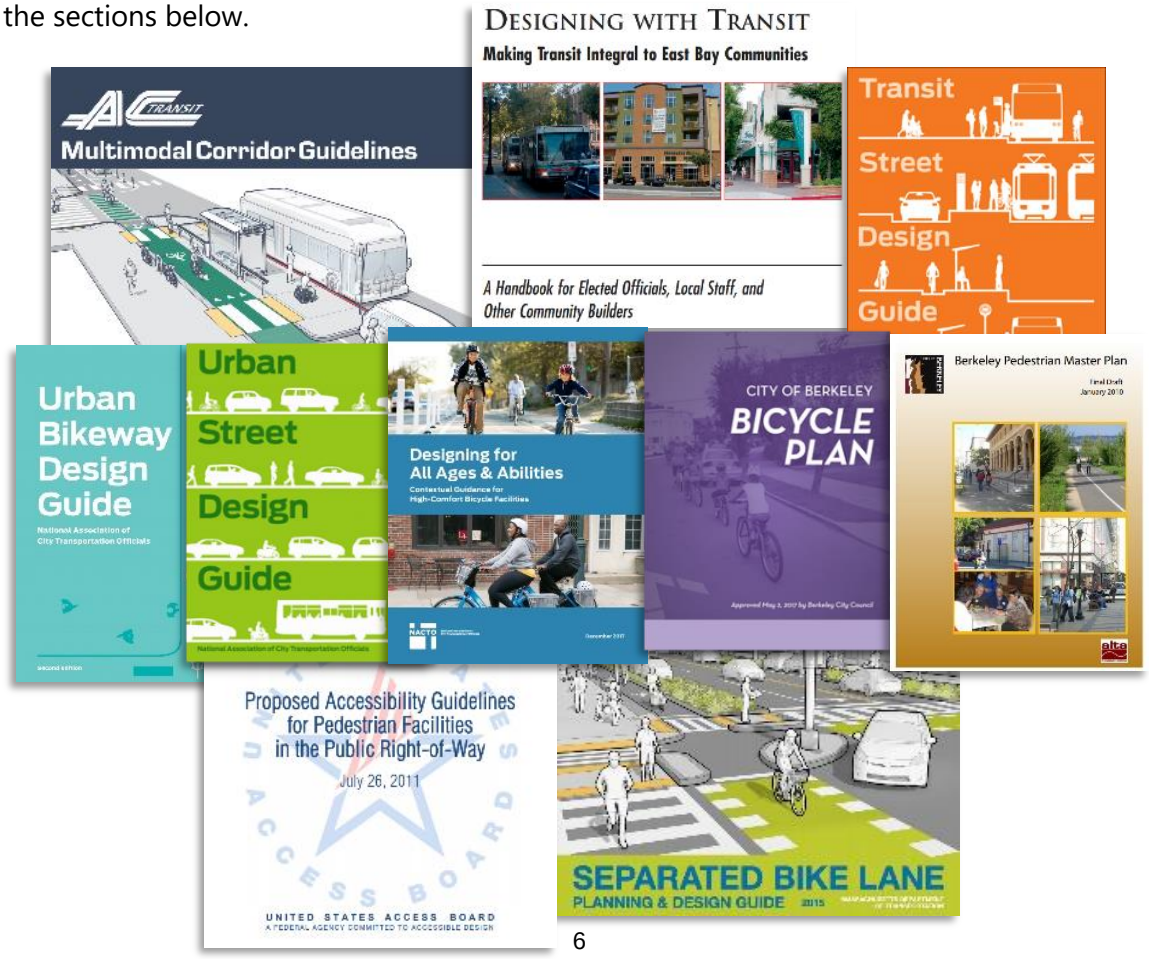
Section II: Vision Zero Program Status Update

The BeST Plan builds upon and enhances existing City goals and policies to help the City achieve Berkeley's transportation vision of Complete Streets. Included are goals and policies oriented towards ensuring the safety of all street users, in support of Vision Zero. The term "Vision Zero" describes a systemic, proactive approach to transportation safety that strives to eliminate all deaths and severe injuries on City roadways through evidence-based engineering, supported by education and enforcement.

In March 2018, the Council of the City of Berkeley showed its commitment to Vision Zero by passing a Vision Zero Policy resolution that established a goal of eliminating traffic deaths and severe injuries in the City by 2028. The resolution also called for establishing a multidisciplinary Vision Zero Task Force to advise Council on the development and implementation of a Vision Zero Action Plan. This resolution was incorporated into the BeST Plan by way of the Addendum approved in September 2018 and incorporated into the BeST Plan as Appendix 3. Subsequent to this, the City convened a Vision Zero Task Force and Advisory Committee for the purpose of advising the City on the development of a Vision Zero Action Plan. The Task Force consisted of staff from key City departments, including Public Works, Fire, Police, and Public Health. The Advisory Committee consisted of representatives from City Commissions, AC Transit and UC Berkeley, and local traffic safety advocacy groups. The Vision Zero Action Plan was adopted by the Berkeley City Council in March 2020 and can be found at the following website: https://www.cityofberkeley.info/visionzero.aspx.

Section III: Design Guideline Recommendations

Today, Berkeley uses a variety of resources, including the City's standard details, **City of Berkeley Municipal Code (BMC)**, and the **California Manual on Uniform Traffic Control Devices (CA MUTCD)** to plan and design complete streets. In recent years, additional national best practices have emerged, which provide a more robust toolkit, with proven safety and mode shift benefits. Through this addendum, the City of Berkeley seeks to adopt these nationally recognized street design guidelines to standardize the City's approach to designing and planning for complete streets, as outlined in **Table 2**. These design guidelines should be consulted and incorporated into any planning, design, and engineering projects that affect streets and building frontages within the City. These design guidelines do not replace the City's adopted standards but provide planning and general design guidance that should be the starting point for all transportation projects in Berkeley. These should always be used in conjunction with evidence-based engineering to find a context-sensitive solution that prioritizes safety, accessibility, and complete streets. Table 2 identifies which design guidelines to which to refer based on project type. The **BMC** will prevail in all cases where there are discrepancies. More information about each design guideline document is provided in the sections below.



Transit Design

GThe Alameda-Contra Costa Transit District (AC Transit) **Designing with Transit**[1] (2004) handbook serves as general guidance for creating transit-supportive streets. The **AC Transit Multimodal Corridor Design Guidelines**[2] (2018) is a supplement that provides detailed specifications for bus stop design with adjacent bicycle facilities, taking into consideration AC Transit's operations needs for different service vehicles and different roadway configurations. The National Association of City Transportation Officials (NACTO) **Transit Street Design Guide**[3] (2016) provides some innovative and detailed transit design elements not contained in AC Transit's materials, such as transit-only lane design and transit signal priority.

Roadway Design

The National Association of City Transportation Officials (**NACTO) Urban Street Design Guide**[4] (2013) takes the perspective that roadways are public places for everyone, regardless of travel mode. The Guide provides details on lane width, design speed, and curb radii that fit the needs of the City of Berkeley.

Bicycle Design

The **Berkeley Bicycle Plan**[5] (2017) should be referenced as a starting point for all transportation and street planning, engineering, and construction projects. The Massachusetts Department of Transportation (**MassDOT) Separated Bike Lane Planning & Design Guide**[6] (2015) provides detailed planning and design considerations for Class IV separated bikeway and intersection design, including protected intersections. It does not cover design of other bicycle treatments (e.g., Class II bicycle lanes and Class III bicycle boulevards). The **NACTO Urban Bikeway Design Guide**[7] (2014) provides detailed bicycle facility design guidance for a range of bikeway types, including Class II bicycle lanes, Class III bicycle routes, and Class IV Separated Bikeways. It does not currently provide guidance for protected intersections. The **NACTO Designing for All**

[1] Available at: http://www.actransit.org/wp-content/uploads/designing_with_transit2.pdf
[2] Available at: http://www.actransit.org/wp-content/uploads/AC_Transit_Multimodal_Corridor_Guidelines_Final.pdf
[3] Available at: https://nacto.org/publication/transit-street-design-guide/
[4] Available at: https://nacto.org/publication/urban-street-design-guide/
[5] Available at: https://www.cityofberkeley.info/berkeleybikeplan/
[6] Available at: https://www.mass.gov/lists/separated-bike-lane-planning-design-guide
[7] Available at: https://nacto.org/publication/urban-bikeway-design-guide/

Ages & Abilities guidance (2017) supplements the NACTO Urban Bikeway Design Guide by providing design criteria for making bikeways comfortable to use by children, families, and anyone who does not feel safe when exposed to a high traffic volume or high traffic speeds, which is the majority of the population according to the findings of a survey conducted for the Berkeley Bicycle Plan 2017.

Pedestrian Design

The **Berkeley Pedestrian Master Plan**[8] should be referenced as a starting point for all transportation and street planning, engineering, and construction projects. The **Berkeley Pedestrian Master Plan** is in the process of being updated. The **NACTO Urban Street Design Guide** provides guidance on sidewalk dimensions and intersection treatments, and sidewalk and streetscape recommendations that are applicable to Berkeley streets. Refer to the Access Board's **Proposed Accessibility Guidelines for Pedestrian Facilities in the Public Right-of-Way**[9] (2011) for general guidance on accessibility considerations for street design.

[8] Available at: https://www.cityofberkeley.info/pedestrian/
[9] Available at: https://www.access-board.gov/attachments/article/743/nprm.pdf

Table 2: Design Guidance Applicability Summary[1,2]

Mode	Design Element	AC Transit Designing with Transit	AC Transit Multimodal Corridor Design Guidelines	NACTO Transit Street Design Guide	NACTO Urban Street Design Guide	NACTO Urban Bikeway Design Guide and Designing for All Ages & Abilities Guide	MassDOT Separated Bike Lane Planning & Design Guide
Transit	Bus Stops with Bicycle Facilities		✓				
	Bus Stops without Bicycle Facilities	✓		✓			
	Midblock and Transit-Only Lanes	✓		✓			
	Intersections and Transit Signal Priority	✓		✓			
Auto	Travel Lane Width				✓		
	Design Speed				✓		
	Curb Radii				✓		
Bicycle	Separated Bikeways					✓	✓
	Bicycle Lanes					✓	
	Bicycle Boulevards					✓	
Pedestrians	Sidewalk/Streetscape				✓		
	Uncontrolled Crosswalks				✓		
	Controlled Crosswalks				✓		

Notes:

1. The City of Berkeley Municipal Code will prevail over all other guidance sources where there are discrepancies.
2. The Berkeley Bicycle Plan and Pedestrian Plan should be referenced as a starting point for all transportation and street planning, engineering, and construction projects.