

Technical Appendix G: Merced Loop Road

Table of Contents

G.1 Merced Loop Road

G.1.1 Introduction

G.2 Atwater Merced Expressway (AME)

G.2.1 Overview

G.2.2 AME Cost Estimate

G.2.3 Proposed Intersections with the AME

G.2.4 AME Phasing Plan

G.3 Campus Parkway

G.2.1 Phases of the Campus Parkway

G.2.2 Character of the Campus Parkway

G.2.3 Funding and Constructing the Campus Parkway Project

G.1 Merced Loop Road

G.1.1 Introduction

The loop concept came from the Highway 99 Major Investment Study begun in 1993 and adopted by the Merced County Association of Governments (MCAG) in 1997. It derived from an assessment that State Highway 99 through Merced/Atwater could only fit 6 lanes on the existing footprint, although 8 lanes would be needed in the future; with a full loop-road, 6 lanes would suffice. The Campus Parkway idea came from the City of Merced’s “Eastern Beltway” study. The Atwater-Merced Expressway originated from plans for a functional north-south state highway to replace the existing Highway 59 alignment. The other sides of the loop were drawn where they seemed most reasonable.

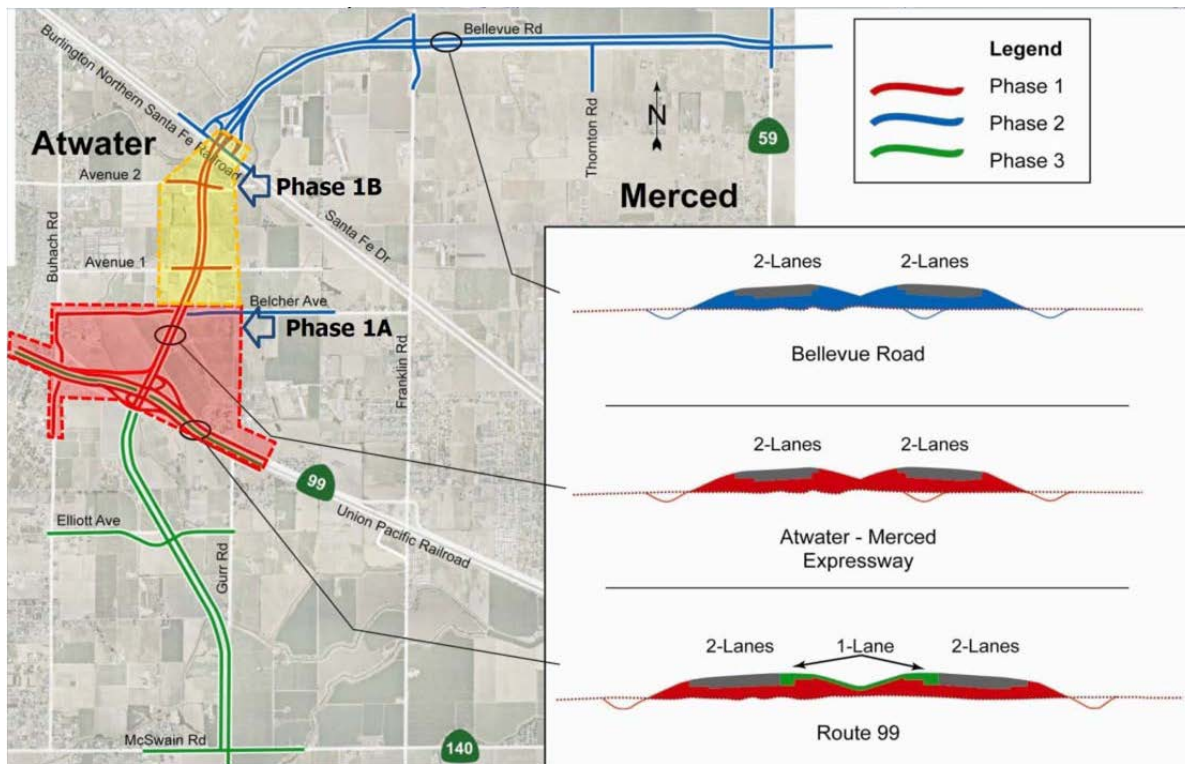
Portions of the loop-road were never definitively identified as an expressway, for example, Bellevue Road between State Highway 59 and Lake Road; Mission Avenue/Dickenson Ferry Road; and that section of Campus Parkway located north of Yosemite Avenue, among others. An all-expressway loop-road isn’t being actively planned, and the loop has not been called out prominently in the Regional Transportation Plan (RTP) for several years. While major transportation infrastructure is still needed to support planned growth, funding expectations are much less than they were years ago.

The Campus Parkway Project and the Atwater-Merced Expressway (AME) are two segments of the loop road that are being planned, designed, and constructed as funding becomes available. These are described below in greater detail.

G.2 Atwater Merced Expressway (AME)

G.2.1 Overview

The design of the Atwater-Merced Expressway calls for tightly controlled access and an ultimate 4-lane expressway. The Project is a multi-phased project.



G.2.2 AME Cost Estimate

Funding for Phase 1A-Remainder, Phase 1B, Phase 2, and Phase 3 has not been identified or collected.

Phase	Cost	Funding Need
1A-Reduced		
R/W	\$ 11.9 M	\$ 11.9 M
CON	\$ 54.3 M	\$ 54.3 M
1A-Remainder	\$ 46.9 M	\$ 46.9 M
1B	\$ 66.2 M	\$ 66.2 M
2	\$ 83.9 M	\$ 83.9 M
3	\$ 71.8 M	\$ 71.8 M

G.2.3 Proposed Intersections with the AME



G.2.4 AME Phasing Plan

Phase 1A-Reduced

A Tier 1 Project in the Regional Transportation Plan, this phase includes the construction of a new Hwy 99 interchange (replace Buhach Road Interchange), along with a 2-lane expressway to connect with Green Sands Ave. Ashby Road will be closed off near Gurr and Buhach Roads. Phase 1A-Reduced is fully funded for design, and right-of-way certification is anticipated to be completed by mid-December 2012. MCAG will request ~\$55 million funding allocation for construction from CTC in March 2013.

Phase 1A-Remainder

Replace OH Bridge, widen to 4 Lanes for AME segment, local facilities and Bridge Structures. Replace Buhach Road Overhead Bridge. Widen to 4 lanes the AME Phase 1A segment, local facilities, and bridge structures.

Phase 1B

Green Sands Avenue to Santa Fe Drive. Construct new expressway from Green Sands Avenue north to Santa Fe Drive overcrossing structure. Funds will need to be identified.

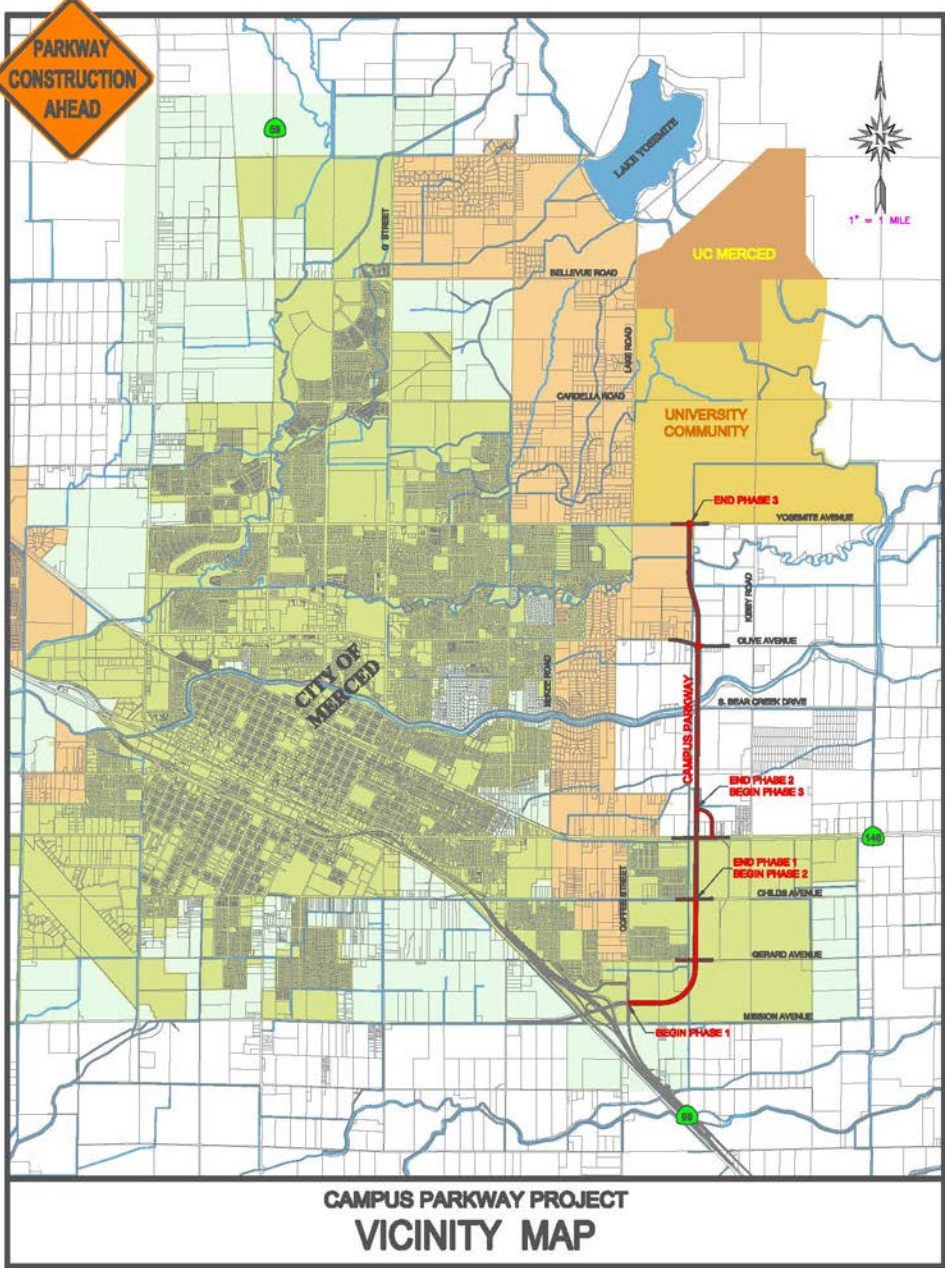
Phase 2

Santa Fe Drive to Hwy 59. Construct new expressway from Santa Fe Drive overcrossing structure to connection with Hwy 59. Funds will need to be identified.

Phase 3

New Hwy 99 Interchange to Hwy 140. Construct new expressway from new Hwy 99 interchange south to connection with Hwy 140. Funds will need to be identified.

G.3 Campus Parkway



G.3.1 Phases of the Campus Parkway Project

The planning, design, and construction of the portion of Campus Parkway located south of Yosemite Avenue is being spearheaded by Merced County, whereas the segment between Yosemite Avenue and Bellevue Road will be incorporated into the development plans of UC Merced and the University Community. The Circulation Element of the *Bellevue Corridor Community Plan* refers to the southern segment as Campus Parkway “Proper,” and the southern segment as Campus Parkway “Extended.”

Campus Parkway “Proper”

Merced County took the lead to prepare detailed analysis and design plans for the portion of Campus Parkway from SR-99 to Yosemite Avenue, and has received CEQA and NEPA EIR and EIS certification respectively.

Phase 1 – Mission Avenue Interchange (Hwy 99) to Childs Avenue: This segment has been completed and is open to traffic.

Phase 2 – Childs to Connector Road to SR 140: The segment is fully designed, right of way is being acquired, and ready to construct as soon as sufficient funds have been identified. According to Merced County, this segment is the most critical at this time and would be constructed next. The cost to construct this segment has been determined to be approximately \$33 million; NOTE: the 2011 RTP states \$43 million.

Phase 3 – Connector Road to SR 140 to Yosemite Avenue: This segment is fully designed, right of way is being acquired, and ready to construct as soon as sufficient funds have been identified. The cost to construct this segment has been determined to be approximately \$54.6 million.

Campus Parkway “Extended”

Detailed plans of this section of the Campus Parkway have yet to be prepared. Detailed analysis and design of Campus Parkway Extended has been deferred until the UC and Trust move forward with their next phase of planning for the University Community. Based on land ownership patterns, “Campus Parkway Extended” has three phases.

Segment 1 – Yosemite Avenue to Cardella Road: This segment is located through the southern portion of the University Community.

Segment 2 – Cardella Road to a point ¼ mile south of Bellevue: This segment is located along the western edge of the University Community.

Segment 3 – The ¼ mile segment south of Bellevue Road : This segment is located along the western edge of UC Merced.

G.3.2 Character of the Campus Parkway

Campus Parkway is planned to extend 4.5 miles from the Mission Interchange at Highway 99 to Yosemite Avenue. While constructed as a four lane road, it has the potential for six lanes.

Access to Campus Parkway

Campus Parkway was envisioned and designed to be a limited-access expressway. At-grade intersections are proposed with other major streets, namely: Yosemite Avenue, Olive Avenue, Childs Avenue, and Gerard Avenue. A connection with State Route 140 is proposed to be provided with a hook-shaped ramp connector roadway. Overpass bridge structures are proposed over State Route 140 and the adjacent BNSF Railroad as well as over Bear Creek and the adjacent Bear Creek Drives. Access to adjacent parcels via collector roads, local roads and driveways, while not prohibited, would be inconsistent with the design and purpose of the intent of the roadway. Development of lands adjacent to the Campus Parkway will be influenced by plans approved by the City of Merced, Merced County, and the State of California (UC Merced). These are discussed briefly below. Generally, an expressway nature with limited access will characterize that segment located between the Mission Avenue Interchange and Yosemite Avenue, while those portions of Campus Parkway that are adjacent to more intensive land uses (commercial, residential, business centers, and research and development parks) are likely to function more like a limited access major arterial with signalized collector street intersections.

City of Merced

The Campus Parkway extends through the City of Merced from the Mission Avenue Interchange at State Route 99 to the south side of SR 140. Although mostly vacant today, adjacent lands have urban land use designations for future commercial, industrial, business-park, and residential uses. Discussions between Staff and property owners have included consideration of access points in a manner that benefits the Parkway and provides reasonable access to adjacent development.

Merced County

The Campus Parkway is planned to extend through unincorporated lands in Merced County from SR 140 to Bellevue Road. In this area, the Campus Parkway may have three separate designs:

- 1) From SR 140 to Yosemite Avenue - The nature of this segment is an expressway, with road connections at SR 140, Olive Avenue, and Yosemite Avenue, and overpasses of Bear Creek and adjacent Bear Creek Drives. Adjacent land uses are agricultural and lay outside the City of Merced's Sphere of Influence.

2) Between Yosemite Avenue and a point $\frac{1}{4}$ mile south of Bellevue Road, the Campus Parkway will extend through the future University Community. According to the adopted *2004 University Community Plan* (Figure 16 and Table 3), south of Cardella Road, Campus Parkway is conceptually described as a major arterial boulevard having a maximum of 6 lanes, posted speed of 35 mph to 45 mph, and intersection spacing of $\frac{1}{4}$ mile within a 128-foot right of way. Adjacent land uses will be residential, commercial, and business centers. Although Campus Parkway may not be an expressway through the community, it will still be a limited-access major arterial.

3) Per the 2009 Long Range Development Plan for UCM, which includes lands controlled by the State of California and the Virginia Smith Trust (VST), the segment of the Campus Parkway between Cardella Road and a point $\frac{1}{4}$ mile south of Bellevue is adjacent to lands planned for a future high school and park, and research and development. Street intersection spacing is $\frac{1}{4}$ mile, and less in some areas. The southern leg of the Campus Loop Road (a four lane road with a 120-foot right of way) intersects with Campus Parkway at a traffic circle, approximately $\frac{1}{2}$ mile south of Bellevue Road. Campus Parkway planned as a four lane facility (with potential to expand to 6 lanes) in a 150-foot right-of-way.

UC Merced

Between Bellevue Road and a point $\frac{1}{4}$ south of Bellevue Road, Campus Parkway is a four lane facility (with potential to expand to 6 lanes) within a 150-foot right-of-way. A large traffic circle is planned at its intersection with Bellevue Road, and an at-grade street intersection with Campus Parkway is planned $\frac{1}{4}$ south of Bellevue Road. This intersection provides access to the research and development land uses located in this area; this connecting road is described as a 2 lane facility with turn lanes in an 80-foot right-of-way.

Pedestrian and Bicycle Facilities

A dual-use pedestrian sidewalk and off-street bike path is located on the north side of the Campus Parkway, between Coffee Street and Childs Avenue. This facility is separated from the roadway by a landscaped parkway, and north of Gerard Avenue, it meanders through landscaped stormwater detention facilities that serve the Campus Parkway.

Utilities

The Campus Parkway contains an east-west oriented replacement sewer and water lines in the Gerard Avenue intersection. Irrigation lines for landscaping along the roadway were also installed.

G.3.3 Funding and Constructing the Campus Parkway Project

Campus Parkway “Proper”

Phase 1 – Has been constructed.

Funding Sources: The RTP includes Phases 2 and 3 as Tier 1 projects, costing approximately \$43 million and \$57 million respectively, to be covered by RTIF funds and funds collected locally as fees from developers. For example, UC Merced will pay a “proportionate share” as a CEQA mitigation-related fee. The RTIF estimates the overall cost to be \$63 million to complete Phases 2 and 3, with \$48 million from RTIF sources and \$15 million from other sources. As of October 2012, \$518,000.00 is available for construction.

Design: The Campus Parkway “Proper” project is a Merced County project. Phase 2 and 3 are fully designed and ready to construct as soon as sufficient funds have been identified.

Construction: According to Merced County, Phase 2 is the most critical and would be constructed next. Although the current Regional Transportation Plan (RTP) lists Phases 2 and 3 to be constructed and opened to traffic in 2012/2014 and 2014/2016 respectively, these forecasts will be adjusted with the next RTP.

Campus Parkway “Extended”

Funding: The 2011 RTP lists Campus Parkway Extended as a Tier 2 project of the regional roadway network. Tier 2 projects are not on the list of regional projects and do not receive regional funding; they are funded by local mechanisms. The 2011 RTP estimates the construction of Campus Parkway Extended will cost \$50 million dollars. No local dollars have been set aside for construction of this segment of the Campus Parkway.

Design: The Campus Parkway “Extended” project is to be designed and constructed by adjacent landowners/developers. Detailed plans of this section of the Campus Parkway have yet to be prepared. Detailed analysis and design of Campus Parkway Extended has been deferred until the UC and Trust move forward with their next phase of planning for the University Community.

Construction: Currently, there are no construction forecasts for the Campus Parkway Extended. From the County’s perspective, the developers of the University Community, UC Merced and/or other projects which will create the need for this section of roadway are expected to construct this portion of Campus Parkway. While the *UC Merced 2009 Long Range Development Plan* accommodated the Parkway, UCM does not plan to construct the road. Further discussions are needed to define construction responsibilities of the road adjacent to UC Merced. Until such time as the Campus Parkway is constructed, traffic will utilize Lake Road, and as traffic levels

increase, necessary improvements to Lake Road would be made. No additional travel lanes are being planned for Lake Road, however.

Table 16: Regionally Funded Projects – all amounts in millions (x \$1,000,000) in YOE*

Projects	Year	Total Cost	Cost by Funding Programs/Source (deciding agency in parentheses)				
	(CON / Open to traffic)	(in YOE dollars)	IIP, TCRP, SHOPP (State)	99 Bond (State)	RIP (MCAG)	RTIF (MCAG)	Dev., Local (Other)
map	Route - Project – Scope/Type - Limits and/or (Post-miles)						
Tier 1							
D	99 - Arboleda Freeway - 4E to 6F - (4.6 - 10.5)	'10 / '13	177	37	140		
E	99 - Plainsburg Freeway - 4E to 6F - (0.0 / 4.6)	'11 / '14	119	11	108		
F	99 - Livingston-Delhi Widen - 4F to 6F - (28.8 / 37.3)	'14 / '16	80	80			
G2	n/a - Campus Parkway - new 4E – Childs Ave. to Hwy. 140	'12 / '14	43	5		27	11
G3	n/a - Campus Parkway - new 4E - Hwy 140to Yosemite Ave	'14 / '16	57			21	36
H1	152 - Los Banos Bypass, segment 1 - new 4E - Hwy. 165 to Santa Fe Grade (x / 24.8)	'14 / '16	72	30		17	25
H2	152 - Los Banos Bypass, segment 2 - new 4E - w. of Los Banos to Hwy. 165 (16.0 / x)	'20 / '22	154	45		84	25
I1	59 – Widening phase 1 – intersection, turn lanes	'12 / '13	6			6	
I2	59 - Widening - 2C to 4C - 16 th to Olive (15.4 / 16.6)	'16 / '18	35			35	
K1	99 – Atwater-Merced Expressway Phase 1A (19.3 / 20.9)	'12 / '15	98		50	18	30
K	59 - Atwater-Merced Expressway - new 4E	'22 / '25	116			52	30 34
Tier 1 Subtotal			957	208	298	212	158 81
Tier 2 - Unconstrained							
	Bellevue Rd connection to 99 Westside		10				2.15
	Mission Ave. Improvement (59 to 99)		16				1.70
	SR 99 Merced to Atwater Freeway – to 6 lane - (12.8 - 19.3)		260				
	SR 99 Atwater Freeway and Applegate Interchange – to 6 lanes – (20.9 – 23.8)		160				
	SR 59 widen to 4/5 lanes – Mission to Childs		10				5.00
	SR 59 widen shoulders, passing lanes – SR 152 to Mission Ave.		45				
	SR 140 widen to 4 lanes – Bradley Overhead to Campus Pkwy		14				5.25
H3	152 - Los Banos Bypass, segment 3 - interchanges		191				
	SR 165 realignment / N. of Hilmar		43				11.20
	140/33 Gustine Truck Route		15				3.05
	Campus Parkway – Yosemite Ave. to Bellevue Rd.		50				
	SR 165 widening/bypass Los Banos		25				
	Santa Fe Ave. widening from 59 to Winton		50				
	SR 59 Southern re-alignment		150				
Tier 2 subtotal			1,039				
Total Need =			1,996				

*: YOE is "Year of Expenditure".

Note that all amounts are estimates based on the information available and are subject to change.

