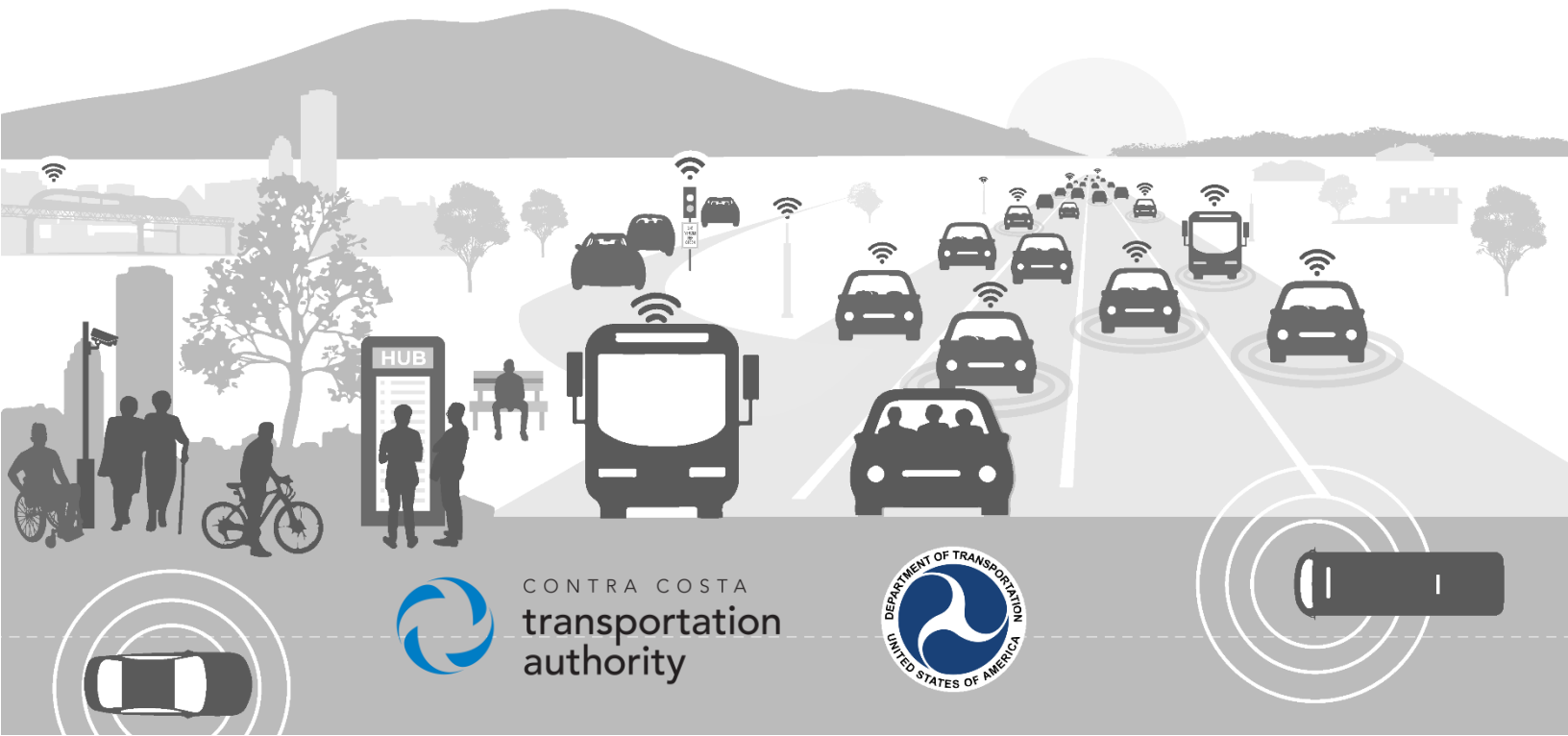


Multimodal Projects Discretionary Grant (MPDG) - Mega

Section 3 | Project Budget

INNOVATE 680
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Access the *Innovate 680* program resource webpage [here](#).



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3 | Project Budget

GRANT FUNDS, SOURCES AND USES OF PROJECT FUNDING SUMMARY

MPDG Request Amount	\$ 212,730,000	56%	Federal MPDG
Other Federal Funding	\$ 52,030,000	14%	CRP, SHOPP, STIP, STP, PTA
Non-Federal Funding	\$ 97,476,000	25%	Measure J, Other Local, RM3, SB1 LPP, STIP, TIRCP
Prior Non-Participating	\$ 17,432,000	5%	Various
Total Combined Project	\$ 379,668,000	100%	

Note: Fund sources include the State Transportation Improvements Program (STIP), State Highway Operations and Protection Program (SHOPP), Surface Transportation Program (STP), Local Contra Costa ½ cent transportation sales tax Measure J, Congestion Relief Program (CRP), Regional Measure 3 (RM3), Bay Area Infrastructure Financing Authority (BAIFA) State Local Partnership Program (SB1 LPP), and Transit and Intercity Rail Capital Program (TIRCP).

TABLE 1: PARTICIPATING COST/FUNDING (YOES\$ IN THOUSANDS)

Funding Sources	Shared Mobility Hubs	Express Lane Completion	Coordinated Adaptive Ramp Metering	Total Cost/Funding
MPDG Funding Request	\$ 46,461,593 59%	\$116,308,065 60%	\$ 49,780,170 56%	\$ 212,729,829 59%
Other Federal Funds	\$ 14,810,000 19%	17,250,000 9%	\$ 19,970,000 22%	\$ 52,030,000 14%
Non-Federal Funds	\$ 16,849,215 22%	61,296,318 31%	\$ 19,330,000 22%	\$ 97,475,533 27%
Total Combined Project	\$ 78,300,808 100%	194,854,383 100%	\$ 89,080,170 100%	\$ 362,235,362 100%

With \$167 million in state, other federal, regional, and local funding already secured, the Combined Project will fulfill the Mega grant goals to generate regional economic, mobility, and safety benefits and is consistent with USDOT’s priorities of delivering transportation projects that reduce vehicle miles traveled (VMT), reduce greenhouse gas (GHG) emissions and air pollutants, and increase equity and access to historically disadvantaged and low-income communities. Each component project has independent utility and is highly scalable based on available funding. A summary of funding is included in **Table 1** and a funding plan detailing Federal Fund Sources and required non-federal match for future eligible project costs is included in [Attachment C, Funding Commitments](#).

The secured funding will be utilized for the pre-construction phases. The requested MPDG funding will cover the construction costs of the SMH, Express Lane Completion, and CARM projects. The requested funds will also cover the operation costs of SMHs and CARM. More details on component project budgets and associated scope are available below, and relevant supporting documentation resources are linked throughout the application narrative.

1. SHARED MOBILITY HUBS



The three SMHs work in tandem with the ZEH I-680 Express Bus service to encourage transit use and achieve mode shift along the I-680 corridor. The integration of SMHs and the ZEH I-680 Express Bus service, noted in this MPDG application as the SMH project for simplicity, is being implemented by the partnership of CCTA, County Connection, and LAVTA. After the completion of the [Tri-Valley Hub Network Integration Study](#) (led by LAVTA) in 2021, the three agencies have been partnering to implement the ZEH I-680 Express Bus service and the SMHs. The capital infrastructure needed includes hydrogen fueling/maintenance facilities and the physical SMH

implementations at each of the stops of the ZEH I-680 Express Bus service. These are Bollinger Canyon Rd in San Ramon, Walnut Creek BART, and the Martinez Amtrak Station. The SMHs will facilitate transit connectivity and encourage travelers to take alternative modes of transportation. The SMHs will have services and amenities that will make it easier for travelers to connect to transit, including enhanced wayfinding, bike/pedestrian infrastructure, real-time travel data displays, shared micro-mobility services, transit signal priority (TSP) systems, bus bays, and electric vehicle/bike chargers. Access SMH conceptual plans [here](#).

Martinez Amtrak SMH | The SMH will connect Express Bus riders to other bus connections, Capitol Corridor Amtrak line, and active transportation modes. The component project includes enhancing bicycle connections with the local bike network and the surrounding recreational trails at the Martinez Regional Shoreline Park. The SMH is located at the northern end of the I-680 corridor and serves as a regional intermodal hub for Northern California Amtrak and Capitol Corridor service and the regional bus operators of County Connection, Tri Delta Transit, and Western Contra Costa County Transit (West CAT). The Amtrak station is located at the west end of downtown Martinez, which is a designated Disadvantaged Community (DAC). The SMH is close to commercial buildings, Contra Costa Community College, residential neighborhoods, and regional parks. As the seat of the County, downtown Martinez is also the home of the County Superior Court, County Administrative offices, and other governmental office complexes, which are major employers in the area. Access Martinez SMH cost estimate [here](#).

Walnut Creek BART SMH | The SMH will improve the BART Station to support the new ZEH I-680 Express Bus service. The proposed SMH improvements focus on providing improved bicycle and pedestrian access to the BART station through new on-street and off-street connections, improving street crossings, and enhancing wayfinding and amenities both inside the station and along the surrounding roadway network. These improvements will promote bicycle, pedestrian, and transit access to BART and support ridership growth potential from the adjacent Transit Oriented Developments (TOD), thereby reducing BART riders' reliance on driving to the station. Access Walnut Creek BART SMH cost estimate [here](#).

Bollinger Canyon Road SMH | The SMH is located at Bishop Ranch, east of I-680/Bollinger Canyon Road interchange. Bishop Ranch is a large employment center with adjacent points of interest, including the City Center commercial center, Iron Horse Regional Trail that runs parallel to I-680, a large business campus that is the largest employment center in central Contra Costa County, and community services such as library, schools, and medical centers. Bishop Ranch is a mix of retail and commercial services with high-density residences currently under construction. The proposed SMH will provide mobility services to Bishop Ranch users and residents to create a mode shift from Single Occupancy Vehicle (SOV) trips to multimodal trips.

TABLE 2: SMH COST/FUNDING (YOES IN THOUSANDS)

	Mega Request	Non-Federal Match	Other Federal	Total	Match Source	
SMHs and Hydrogen Fueling Infrastructure	ENV	-	\$1,008,000 94%	\$66,000 6%	\$1,074,000 100%	CRP, Measure J, RM3
	PS&E	-	\$3,533,000 70%	\$1,546,000 30%	\$5,079,000 100%	CRP, RM3, TIRCP
	CON	\$32,713,421 56%	\$12,308,215 21%	\$13,198,000 23%	\$58,219,636 100%	CRP, PTA, RM3, TIRCP, Other Local
	OPE*	\$13,928,172 100%	-	-	\$13,928,172 100%	
TOTALS	\$46,641,593 59%	\$16,849,215 22%	\$14,810,000 19%	\$78,300,808 100%	<i>*OPE = Operations</i>	

The construction costs of the SMHs shown in **Table 2** above include a 30% contingency to reflect the level of preliminary design from the Feasibility Study. The construction costs also include the implementation of the hydrogen fueling and maintenance facilities which are fully funded. The MPDG funding will cover construction costs of two SMHs at Walnut Creek BART Station and Martinez Amtrak Station (Bollinger Canyon SMH construction is fully funded, see [cost estimate](#)).

Since these SMHs are an environmental mitigation for transportation impacts under CEQA for the NB 680 Express Lane Completion Project, the requested MPDG funding includes operation costs of the three SMHs for a mitigation period of 20 years, which covers costs for data connectivity for the real-time displays, electrical charging for vehicles and bicycles, lighting, security, and maintaining the bus facilities in a state of good repair.

2. EXPRESS LANE COMPLETION

The requested MPDG funding will be used for the construction phase of the Express Lane Completion component project elements (**Table 3**):

- ➔ Construction of braided ramps between the North Main St/Lawrence Way Interchange and the Treat Boulevard Offramp, separating the Treat Blvd off-ramp traffic from the North Main St/Lawrence Way on-ramp. The Treat Blvd off-ramp would be elevated over the Lawrence Way on-ramp to make merging onto the freeway safer and more efficient.
- ➔ Construction of a new NB express lane from north of SR-24 to the SR-242 junction.
- ➔ Conversion of the existing NB HOV lane from SR-242 to south of the Benicia Martinez Bridge Toll Plaza to an express lane.
- ➔ Construction costs include system integration of the new express lane into the existing express lane tolling system.

TABLE 3: EXPRESS LANE COMPLETION COST/FUNDING (YOE\$ IN THOUSANDS)

		Mega Request	Non-Federal Match	Other Federal	Total	Match Source
Express Lane Completion	<i>ENV</i>	-		\$2,250,000 100%	\$2,250,000 100%	STP
	<i>PS&E</i>	-	\$15,880,000 100%	-	\$15,880,000 100%	BAIFA, RM3
	<i>ROW</i>	-	\$5,358,060 100%	-	\$5,358,060 100%	RM3
	<i>CON*</i>	\$116,308,065 68%	\$40,058,258 23%	\$15,000,000 9%	\$171,366,323 88%	BAIFA, RM3, STIP
TOTALS		\$116,308,065 60%	\$61,296,318 31%	\$17,250,000 9%	\$194,854,383 100%	

**Funds in italics can only be used for construction phase.*

The pre-construction phases are fully funded with other secured funds. The requested MPDG funds will cover construction costs, which include contingencies of 20% for roadway construction, 25% for structures, and 30% for system integration to cover unanticipated cost increases. The construction costs are estimated from the [30% level design](#) performed in the current environmental clearance phase. Access Express Lane Completion component project cost estimate [here](#).

3. COORDINATED ADAPTIVE RAMP METERING

The CARM component project will install TOS and ramp metering elements in the corridor. Vehicle detection equipment, including advanced infrared-based devices, will be installed along the freeway mainline and on each entrance ramp and exit ramp. The Project also includes construction of additional on-ramp storage and lanes at the following four interchanges: Bollinger Canyon Rd, Crow Canyon Rd, Sycamore Valley Rd, and Olympic Blvd for Segment 1; and Oak Rd and Willow Pass Rd for Segment 3A. The Project proposes to use The Infra-Red Traffic Logger (TIRTL) traffic detection technology to collect real-time information on traffic conditions and adaptively optimize ramp meter throughputs to balance queues and enhance traffic flow. Specifically, the Project requires 79 TIRTL sites nominally located at every 1/3 of a mile in the NB direction within the Project Limits.

The CARM Component Project includes 2 segments. Segment 1 covers NB ramps from Alcosta Blvd to Olympic Blvd with the [design at 30% level](#). Segment 3A covers NB ramps from North Main St to Willow Pass Rd with the [design at a conceptual level](#). The two segments will be constructed under two contracts for improved integration and cost efficiencies; specifically, Segment 3A will be constructed during the Express Lane Completion construction to minimize construction interface risks and disruption to the public. Segment 1 of CARM yields a BCR of 2.23, when CARM Segment 3A is added the component project will significantly improve traffic flow on a 19-mile segment of I-680 – the most congested section – yielding a benefit-cost ratio (BCR) of 4.38. Previously, \$1 million was expended on preliminary engineering and environmental approval. See **Table 4** and [Segment 1 cost estimate](#) and [Segment 3A cost estimate](#) and [systems integration and operations cost estimate](#) here.

TABLE 4: CARM COST/FUNDING (YOE\$ IN THOUSANDS)

	Mega Request	Non-Federal Match	Other Federal	Totals	Match Source
CARM	<i>ENV</i>	-	\$880,000	\$880,000	Measure J
			100%	100%	
	<i>PS&E</i>	-	\$3,450,000	\$3,450,000	Measure J, TVTC
			100%	100%	
	<i>CON*</i>	\$37,222,000	\$15,000,000	\$19,970,000	STIP, SHOPP
		52%	21%	28%	
	<i>OPE**</i>	\$12,558,000	-	\$12,558,000	
		100%		100%	
TOTALS	\$49,780,000	\$19,330,000	\$19,970,000	\$89,080,000	
	56%	22%	22%	100%	

**Funds in italics can only be used for construction phase. **OPE=Operation*

The CARM project budget includes contingencies based on the level of design completed and risks identified in the [project risk register](#). They are summarized in **Table 5**.

TABLE 5: CARM COMPONENT PROJECT CONTINGENCIES

CARM Seg.	Task	Contingency %	Comments
1	Construction	20%	Segment at 30% design. Risk register developed.
	System Integration	30%	Higher % used as this is a new technology.
3A	Construction	35%	Higher % used as design is at conceptual level.
	System Integration	35%	Higher % used as design is at conceptual level.