

Memorandum

To: CHAIR AND COMMISSIONERS

CTC Meeting: March 16-17, 2022

From: MITCH WEISS, Executive Director

Reference Number: 4.25, Action - **PINK REPLACEMENT ITEM**

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Subject: Adoption of the 2022 State Highway Operation and Protection Program (SHOPP)
Resolution #G-22-29

UPDATE: Attachment B updated to provide outstanding responses to Commission staff questions. Attachment C updated to reflect revised changes to projects.

Recommendation:

Staff recommends the Commission find that the 2022 State Highway and Protection Program (SHOPP) is adequate and consistent with the Transportation Asset Management Plan (TAMP) and adopt the 2022 SHOPP. A copy of the Proposed 2022 SHOPP is available on the Commission's [website](#).

Issue:

The 2022 SHOPP is a four-year, approximately \$17.9 billion program of projects including reservations necessary to preserve and protect the state highway system. Projects in the 2022 SHOPP were developed under an asset management framework established through the TAMP and implemented with the State Highway System Management Plan. More than half of the program's \$17.9 billion will address condition improvements across the four primary asset classes: pavement, bridges, culverts, and transportation management systems (TMS).

- The Pavement asset class includes a total of \$5.8 billion and will rehabilitate 6,347 lane miles of pavement.
- The Bridges asset class includes a total of \$2.2 billion and will improve 9.2 million square feet of bridge deck area.
- The Culverts asset class includes a total of \$0.8 billion and will rehabilitate 397,724 linear feet of culverts.
- The TMS asset class includes a total of \$0.9 billion and will fix 2,803 TMS elements.

Upon reviewing California Department of Transportation's (Caltrans) strategic asset management process and the over 700 individual projects in the program, over half of which focus on the four primary asset classes, staff believes the 2022 SHOPP is adequate and consistent with the TAMP. Additionally, the four-year portfolio of projects in the 2022 SHOPP is

expected to make significant progress toward meeting the 2027 performance targets established in Senate Bill 1 (Beall, Chapter 5, Statutes of 2017), the Road Repair and Accountability Act.

The Final 2022 SHOPP will consist of the Proposed 2022 SHOPP that was submitted to the Commission on January 31, 2022 with revisions as noted in Attachment C. After adoption, the Final 2022 SHOPP will be submitted to the Legislature and the Governor no later than April 1st.

Background:

In August 2021, the Commission adopted the 2022 State Transportation Improvement Program Fund Estimate, which identified the annual level of SHOPP funding for the 2022 SHOPP. On January 31, 2022, Caltrans submitted the proposed 2022 SHOPP to the Commission with comments from regional transportation agencies included as required by California Government Code Section 14526.5. Prior to adoption, California Government Code Section 14526.5 requires the Commission to review the SHOPP relative to its overall adequacy and consistency with the TAMP and to hold at least one hearing in Northern California and one hearing in Southern California. On February 16, 2022 the Commission held the required Northern California and Southern California SHOPP hearings.

After a finding that the SHOPP is consistent with the TAMP, California Government Code Section 14526.5 requires the Commission to adopt the SHOPP and submit it to the Legislature and the Governor no later than April 1st of each even numbered year. The Commission may decline to adopt the SHOPP if it determines that it is not sufficiently consistent with the TAMP.

Attachments:

Attachment A: Resolution G-22-29

Attachment B: Commission Staff Questions and Caltrans Responses on the Proposed 2022 SHOPP

Attachment C: Changes to the Proposed 2022 SHOPP

Attachment D: Proposed 2022 SHOPP Introduction

Attachment E: Proposed 2022 SHOPP Funding Summary (Exhibit A)

CALIFORNIA TRANSPORTATION COMMISSION
Adoption of the 2022 State Highway Operation and Protection Program

RESOLUTION G-22-29

- 1.1 WHEREAS, California Government Code Section 14526.5(a) requires the California Department of Transportation (Caltrans) to prepare, based on the Transportation Asset Management Plan, a State Highway Operation and Protection Program (SHOPP) containing projects that are necessary to preserve and protect the state highway system; and
- 1.2 WHEREAS, pursuant to California Government Code Section 14526.4, Caltrans, in consultation with the California Transportation Commission (Commission), prepared a Transportation Asset Management Plan consistent with state and federal regulations to guide the selection of projects for the SHOPP as required by Section 14526.5; and
- 1.3 WHEREAS, Caltrans' Transportation Asset Management Plan is a document assessing the health and condition of the state highway system which Caltrans utilizes to determine the most effective way to apply the state's limited financial resources; and
- 1.4 WHEREAS, pursuant to California Government Code Section 14526.4, in connection with the Transportation Asset Management Plan, the Commission has adopted targets and performance measures reflecting state transportation goals and objectives; and
- 1.5 WHEREAS, California Government Code Section 14526.5(b) requires the SHOPP to include those projects that are expected to be advertised prior to July 1 of the year following submission of the program, but which have not yet been funded, as well as those projects for which construction is to begin within four fiscal years, starting July 1st of the year following the year the SHOPP is submitted; and
- 1.6 WHEREAS, California Government Code Sections 14526.5(c) and (d) require that each transportation project in the SHOPP specify the capital and support budget for each phase, the delivery date of each major component and performance metrics as determined by the Commission; and
- 1.7 WHEREAS, Government Code Section 14526.5(d) requires Caltrans to submit the proposed SHOPP to the Commission not later than January 31 of each even-numbered year, and prior to submitting the SHOPP to the Commission Caltrans shall make a draft of the SHOPP available to transportation planning agencies for review and comment and shall include the comments in its submittal to the Commission; and

- 1.8 WHEREAS, Caltrans submitted the proposed SHOPP to the Commission on January 31, 2022; and
- 1.9 WHEREAS, California Government Code Section 14526.5(e) requires the Commission to review the SHOPP relative to its overall adequacy and consistency with the Transportation Asset Management Plan and to adopt the SHOPP and submit it to the Legislature and to the Governor not later than April 1st of each even-numbered year; and
- 1.10 WHEREAS, pursuant to Government Code Section 14526.5(e), the Commission may decline to adopt the SHOPP if the Commission determines that it is not sufficiently consistent with the Transportation Asset Management Plan; and
- 1.11 WHEREAS, Government Code Section 14526.5(f) requires the Commission, prior to adopting the SHOPP, to hold at least one SHOPP hearing in Northern California and one hearing in Southern California; and
- 1.12 WHEREAS, the Commission held the required Northern California and Southern California SHOPP hearings on February 16, 2022; and
- 1.13 WHEREAS, the Commission has reviewed the proposed 2022 SHOPP relative to its overall adequacy, consistency with the Transportation Asset Management Plan and funding priorities established in Section 167 of the California Streets and Highways Code, the level of annual funding needed to implement the program, and the impact of those expenditures on the State Transportation Improvement Program; and
- 1.14 WHEREAS, the Commission has reviewed Caltrans' asset management process, as well as the hundreds of individual projects in the program, over half of which focus on the four primary asset classes defined in the Transportation Asset Management Plan; and
- 1.15 WHEREAS, the four-year portfolio of projects in the 2022 SHOPP is expected to deliver significant performance toward meeting the 2027 performance targets established in the Road Repair and Accountability Act (Senate Bill 1, Beall, 2017).
- 2.1 NOW, THEREFORE, BE IT RESOLVED, that the Commission finds that the 2022 SHOPP is adequate, and consistent with the Transportation Asset Management Plan prepared and approved pursuant to California Government Code Section 14526.4; and
- 2.2 BE IT FURTHER RESOLVED, that the Commission hereby adopts the 2022 SHOPP.

Commission Staff Questions and Caltrans Responses on the Proposed 2022 SHOPP

Comment #1: What did Caltrans do to actively engage local partners during the project planning, scoping, and selection processes in the development of the 2022 SHOPP?

Department Response: Caltrans has enhanced communication and coordination throughout the SHOPP program development process by interacting with our local partners whenever possible to share information about projects in the planning process and into and beyond the programming process as project development progresses.

Specifically, Caltrans has done the following:

- Focused on earlier information where impacts can best mold the project scope as it evolves. During the planning phase, districts are sharing their two-year Project Initiation Document (PID) work plan list of project candidates with local partners for opportunities to coordinate.
- Participated in ‘roadshows’, and demonstrations of the virtual project book, annual meetings followed by further contact between Project Managers and local agency staff, county coordination meetings in some districts, and engagement at agency board meetings and Technical Advisory Committee (TAC) meetings in other regions.
- Implemented asset management processes and actively engaged our partners in sharing and discussing project lists and details that are published and updated quarterly in the publicly available Ten-Year project book (<http://projectbook.dot.ca.gov>). This resource also contains contact information for further follow-up on individual projects if desired.

Comment #2: How was the Climate Action Plan for Transportation Infrastructure (CAPTI) and Equity considered in the development of the 2022 SHOPP?

Department Response: The Climate Action Plan for Transportation Investment (CAPTI) was finalized in July 2021. At that time, 2022 SHOPP development was well underway. However, Caltrans’ practices incorporate many of CAPTI’s principles into the 2022 SHOPP, such as implementing the “fix-it-first” philosophy in repairing existing assets, investing in safe and accessible bicycle and pedestrian infrastructure, assessing physical climate risk (e.g., sea-level rise), making safety improvements to reduce fatalities and severe injuries for all users, and including investments in zero-emission vehicle infrastructure. Equity considerations include the use of the asset management performance approaches that will lead to equal highway system condition levels throughout

California over time. Furthermore, principals of community outreach are implemented during PID development to address transportation-related disparities, building livable places, and making inclusion central in funding decisions. Caltrans is looking at expanding the next SHSMP to address CAPTI recommended actions and has already begun initial meetings in this area.

Comment #3: CTC Resolution G-13 encourages Caltrans to develop a shelf of projects that can be released as appropriate. With the expectation of additional SHOPP funding, as well as the high reservation amounts in the outer two years, why are there no contingency projects planned for the 24/25 and 25/26 fiscal years?

Department Response: The 2022 SHOPP portfolio of projects is a product of the 2019 State Highway System Management Plan (SHSMP) and the resulting Project Initiation Document (PID) workplan. The SHSMP used an annualized projection of anticipated revenues to create the workplan for the last two years of the 2022 SHOPP. The result was fewer projects planned for the last 2 years compared to the carryover projects that were developed from an earlier SHSMP. There are many “shovel ready” Resolution G-13 Contingency projects in the first two fiscal years of the 2022 SHOPP because the annualized revenue projections prior to that time resulted in a larger PID workplan. However, additional projects are not available for G-13 Contingency status in the outer two years. It is anticipated that some projects will delay to partially smooth out the investment plan over the four-year portfolio. Furthermore, additional funding from recent federal legislation will likely lead to future mid-cycle consideration for PID development to add additional projects to these years.

Comment #4: The most recent Benchmark Report showed that we're not currently projected to meet the 10-year targets for Bridges and Culverts. How did that influence the investment levels for these assets in the 2022 SHOPP?

Department Response: Caltrans' Performance Benchmark Report last published in June 2021 identified that the culvert condition was already meeting target conditions (<10% poor) but acknowledged that the inventory was still being developed. Therefore, some uncertainty exists until the required condition assessments are complete. In the meantime, Caltrans does not yet have information that would justify additional culvert SHOPP projects.

Since the last Benchmark Report, Caltrans has implemented a program to address poor bridge decks that lead to additional programming of bridge deck projects in Fall 2021. This new initiative will result in a significant acceleration of progress in improving bridge conditions. A similar program could be implemented for culverts if the need develops.

Comment #5: How are bicycle and pedestrian safety needs incorporated into the Collision Reduction reservation?

Department Response: The 2021 State Highway System Management Plan (SHSMP) consolidated three legacy safety objectives into a single Proactive Safety program. Collision Severity Reduction was one of the consolidated programs. The new Proactive Safety Objective in the SHSMP targets safety projects that reduce fatal and serious injuries before there is a history of crashes. There are many benefits of this new approach that are believed will result in better safety outcomes. One benefit is that proactive safety improvements for bicycle and pedestrian modes can be included in this objective. These projects are planned and programmed and do not rely on a reservation.

The 2022 SHOPP has a reservation for “Reactive Safety” for near-term safety projects that are triggered by a crash history or a safety monitoring program. Caltrans has a monitoring program for bicycle and pedestrian safety.

List of New 2022 SHOPP Capital Project Amendments

Project No. Dist-Co-Rte PM PPNO Project ID EA	Project Location and Description of Work	FY	Project Costs (\$1,000)		Program Code Leg./Congress. Dists. Perf. Meas.	
Major Damage Restoration						
1 04-Mrn-1 5.1 2906H 0420000064 3AA50	Near Muir Beach, at 0.6 mile south of Pacific Way. Repair and extend retaining wall, replace culvert and guardrail, and repair pavement.	25-26	PA&ED PS&E R/W Sup Con Sup R/W Cap <u>Const Cap</u> Total	\$1,054 \$1,729 \$205 \$1,520 \$39 <u>\$4,826</u> \$9,373	21-22 23-24 23-24 25-26 25-26 25-26	201.131 Assembly: 10 Senate: 2 Congress: 2 1 Location(s)
	PA&ED: 11/21/2023 R/W: 10/10/2025 RTL: 10/17/2025 BC: 4/10/2026					
	(Concurrent COS allocation under Resolution FP-21-61; March 2022.)					
2 04-Mrn-101 6.1/6.3 2032M 0420000032 2AA30	In Corte Madera, from 0.4 mile to 0.6 mile north of Route 131 (Tiburon Boulevard). Restore slope, regrade unlined ditch, and install erosion control measures.	25-26	PA&ED PS&E R/W Sup Con Sup R/W Cap <u>Const Cap</u> Total	\$714 \$964 \$29 \$793 \$36 <u>\$2,712</u> \$5,248	21-22 23-24 23-24 25-26 25-26 25-26	201.131 Assembly: 10 Senate: 2 Congress: 2 1 Location(s)
	PA&ED: 4/24/2024 R/W: 7/15/2025 RTL: 9/5/2025 BC: 4/20/2026					
	(Concurrent COS allocation under Resolution FP-21-61; March 2022.)					
3 04-Nap-128 12.5 2906G 0420000070 4AA30	Near Saint Helena, at 1.2 miles east of Chiles Pope Valley Road. Construct retaining wall, rehabilitate drainage system, and install erosion control to stabilize slope.	25-26	PA&ED PS&E R/W Sup Con Sup R/W Cap <u>Const Cap</u> Total	\$1,539 \$1,829 \$75 \$1,813 \$44 <u>\$5,311</u> \$10,611	21-22 24-25 24-25 25-26 25-26 25-26	201.131 Assembly: 4 Senate: 3 Congress: 5 1 Location(s)
	PA&ED: 10/15/2024 R/W: 12/29/2025 RTL: 1/20/2026 BC: 11/1/2026					
	(Concurrent COS allocation under Resolution FP-21-61; March 2022.)					

List of New 2022 SHOPP Capital Project Amendments

Project No. Dist-Co-Rte PM PPNO Project ID EA	Project Location and Description of Work	FY	Project Costs (\$1,000)		Program Code Leg./Congress. Dists. Perf. Meas.	
Collision Reduction						
4 01-Men-1 6.4/6.8 4630 0116000047 0F710	Near Gualala, from north of Havens Neck Drive to north of Gypsy Flat Road; also from 0.5 mile to 0.3 mile south of Iverson Road (PM 9.3/9.5). Realign roadway and widen lanes and shoulders.	23-24	PA&ED PS&E R/W Sup Con Sup R/W Cap <u>Const Cap</u> Total	\$0 \$1,157 \$659 \$1,698 \$1,933 <u>\$3,017</u> \$8,464	21-22 21-22 23-24 23-24 23-24 23-24	201.010 Assembly: 1 Senate: 2 Congress: 1 33 Collision(s) reduced
	PA&ED: 10/22/2021 R/W: 9/15/2023 RTL: 10/2/2023 BC: 3/19/2024					
	(Concurrent COS allocation under Resolution FP-21-61; March 2022.)					
5 01-Men-101 50.7/52.2 4748 0121000023 0K890	Near Willits, from Outlet Creek Bridge to 1.5 miles north of Outlet Creek Bridge. Widen roadway to add median, construct concrete median barrier, place High Friction Surface Treatment (HFST), upgrade and extend guardrail, replace sign panels, overlay pavement, improve drainage, and place rumble strips.	24-25	PA&ED PS&E R/W Sup Con Sup R/W Cap <u>Const Cap</u> Total	\$1,476 \$1,246 \$94 \$2,780 \$22 <u>\$13,691</u> \$19,309	21-22 23-24 23-24 24-25 24-25 24-25	201.010 Assembly: 1 Senate: 2 Congress: 1 65 Collision(s) reduced
	PA&ED: 11/1/2023 R/W: 11/1/2024 RTL: 11/18/2024 BC: 4/29/2025					
	(Concurrent COS allocation under Resolution FP-21-61; March 2022.)					

List of New 2022 SHOPP Capital Project Amendments

Project No. Dist-Co-Rte PM PPNO Project ID EA	Project Location and Description of Work	FY	Project Costs (\$1,000)		Program Code Leg./Congress. Dists. Perf. Meas.	
6 07-LA-1 29.4/30.7 5854 0721000165 37760	In and near the city of Los Angeles, near the neighborhood of Playa Vista, from 83rd Street to Fiji Way. Install left turn signals, restripe for left turn storage, upgrade vehicle and bicycle detection systems, and make pedestrian crossing improvements.	23-24	PA&ED	\$465	21-22	201.010
			PS&E	\$1,047	22-23	Assembly: 62
			R/W Sup	\$15	22-23	Senate: 26
			Con Sup	\$700	23-24	Congress: 33
			R/W Cap	\$72	23-24	
			<u>Const Cap</u>	<u>\$914</u>	23-24	58.0 Collision(s)
			Total	\$3,213		reduced
		PA&ED:	9/6/2022			
		R/W:	9/15/2023			
		RTL:	10/17/2023			
BC:	6/25/2024					
(Concurrent COS allocation under Resolution FP-21-61; March 2022.)						
<hr/>						
Roadway Preservation						
7 01-Men-1 42.3/42.5 4616 0115000048 0E940	Near Albion, at Navarro Ridge Road. Improve drainage, restore eroded slopes and channels, widen shoulders, and repair roadway.	22-23	PA&ED	\$0		201.150
			PS&E	\$226	22-23	Assembly: 2
			R/W Sup	\$0		Senate: 2
			Con Sup	\$742	22-23	Congress: 2
			R/W Cap	\$0		
			<u>Const Cap</u>	<u>\$2,167</u>	22-23	1 Location(s)
			Total	\$3,135		
		PA&ED:	3/18/2019			
		R/W:	1/24/2022			
		RTL:	3/16/2023			
BC:	8/29/2023					
<hr/>						
8 05-SLO-1 64.0/R67.2 4928R 0522000106 49286	Near San Simeon, from north of Piedras Blancas Road to north of the Arroyo de la Cruz Bridge. Planting, wetland and California Red-Legged Frog mitigation for parent project EA 49280.	23-24	PA&ED	\$0		201.150
			PS&E	\$730	22-23	Assembly: 35
			R/W Sup	\$150	22-23	Senate: 17
			Con Sup	\$2,300	23-24	Congress: 24
			R/W Cap	\$3,300	23-24	
			<u>Const Cap</u>	<u>\$7,040</u>	23-24	0 Location(s)
			Total	\$13,520		
		PA&ED:	N/A			
		R/W:	7/15/2023			
		RTL:	8/15/2023			
BC:	2/17/2024					
(Concurrent COS allocations under Resolution FP-21-61; March 2022.)						

List of New 2022 SHOPP Capital Project Amendments

Project No. Dist-Co-Rte PM PPNO Project ID EA	Project Location and Description of Work	FY	Project Costs (\$1,000)		Program Code Leg./Congress. Dists. Perf. Meas.	
Mobility						
9 11-SD-805 23.9/25.1 1285 1118000115 43039	In the city of San Diego, from north of Route 52 to south of Nobel Drive. Extend existing auxiliary lanes, widen bridge, reconstruct onramps and offramps, rehabilitate pavement, and upgrade guardrail.	25-26	PA&ED PS&E R/W Sup Con Sup R/W Cap <u>Const Cap</u> Total	\$0 \$0 \$0 \$4,816 \$0 <u>\$18,689</u> \$23,505	25-26 25-26 25-26	201.310 Assembly: 77, 78 Senate: 39 Congress: 52 888.0 Daily vehicle hour(s) of delay (DVHD)
	PA&ED: N/A R/W: N/A RTL: 8/1/2025 BC: 2/19/2026					

List of New 2022 SHOPP Capital Project Amendments for Senate Bill 1 Projects

Project No. Dist-Co-Rte PM PPNO Project ID EA	Project Location and Description of Work	FY	Project Costs (\$1,000)		Program Code Leg./Congress. Dists. Perf. Meas.	
Bridge Preservation						
1 07-LA-101 20.0 4915 0715000277 31790	In the city of Los Angeles, near the neighborhood of Encino, at the Encino Pedestrian Overcrossing No. 53-1289. Remove pedestrian overcrossing.	22-23	PA&ED PS&E R/W Sup Con Sup R/W Cap <u>Const Cap</u> Total	\$0 \$500 \$100 \$1,500 \$501 <u>\$3,160</u> \$5,761	21-22 21-22 22-23 22-23 22-23	201.110 Assembly: 45 Senate: 27 Congress: 30
	PA&ED: 3/30/2018 R/W: 7/15/2022 RTL: 8/15/2022 BC: 2/15/2023					
	(Concurrent COS allocation under Resolution FP-21-61; March 2022.)					

Performance Measure: Bridges (0 Bridge(s))					
	<u>Unit</u>	<u>Good</u>	<u>Fair</u>	<u>Poor</u>	<u>Quantity</u>
Existing Condition	Square feet	0.0	3,821.0	0.0	3,821.0
Post Condition	Square feet	0.0	0.0	0.0	0.0

Roadway Preservation						
2 06-Ker-46 26.4/29.9 8012 0622000074 44257	Near Lost Hills, from 1.0 mile west of Brown Material Road to east of Pavilion Way. Financial Contribution Only (FCO) to Kern Council of Governments (Kern COG) for pavement rehabilitation.	22-23	PA&ED PS&E R/W Sup Con Sup R/W Cap <u>Const Cap</u> Total	\$0 \$0 \$0 \$0 \$0 <u>\$4,000</u> \$4,000	22-23	201.121 Assembly: 32 Senate: 14 Congress: 21
	PA&ED: N/A R/W: 6/15/2022 RTL: 7/1/2022 BC: 1/12/2023					

Performance Measure: Pavement					
	<u>Unit</u>	<u>Good</u>	<u>Fair</u>	<u>Poor</u>	<u>Quantity</u>
Existing Condition	Lane mile(s)	0.4	6.5	0.0	6.9
Post Condition	Lane mile(s)	6.9	0.0	0.0	6.9

**List of New 2022 SHOPP Capital Project Amendments
 for Senate Bill 1 Projects**

Project No. Dist-Co-Rte PM PPNO Project ID EA	Project Location and Description of Work	FY	Project Costs (\$1,000)		Program Code Leg./Congress. Dists. Perf. Meas.	
Mobility						
3 04-Ala-Var Var 1499J 0416000284 1K670	At statewide Transportation Management Centers (TMCs), District Offices, and support facilities. Replace Advanced Transportation Management System (ATMS) software and related components with a uniform statewide system. Work to be completed by Service Contract.	23-24	PA&ED PS&E R/W Sup Con Sup R/W Cap <u>Const Cap</u> Total	\$0 \$500 \$0 \$1,700 \$5 <u>\$9,800</u> \$12,005	22-23 23-24 23-24 23-24	201.315 Assembly: 18 Senate: 9 Congress: 13 0 Field element(s)
	PA&ED: 1/6/2022 R/W: 6/15/2023 RTL: 7/15/2023 BC: 11/30/2023					

**List of 2022 SHOPP Amendments
 (Cost, Scope, Schedule and Technical Changes. Includes Federal Emergency Relief.)**

Project No. Dist-Co-Rte PM PPNO Project ID EA	Project Location and Description of Work Performance Measure	FY Program Code		Project Costs (\$1,000)			
1 01-Hum-96 Var 2449 0116000129 0G140	Near Weitchpec and Orleans, at Aikens Creek Bridge No. 04-0059 (PM 28.07), Bluff Creek Bridge No. 04-0063 (PM 28.27), Bluff Creek Bridge No. 04-0225 (PM R28.91), and Slate Creek Bridge No. 04-0061 (PM 29.92); also on Route 169 at Rube Creek Bridge No. 04-0215 (PM 27.57). Upgrade bridge rails at five locations and also strengthen for truck permit load capacity at two locations. (G13 Contingency)	21-22 201.112	PA&ED	\$1,050	Prior	\$1,050	Prior
			PS&E	\$2,127	Prior	\$2,127	Prior
			R/W Sup	\$110	Prior	\$110	Prior
			Con Sup	\$0	21-22	\$2,242	21-22
			R/W Cap	\$278	21-22	\$278	21-22
			<u>Const Cap</u>	\$0	21-22	<u>\$9,350</u>	21-22
			Total	\$3,565		\$15,157	

Performance Measure

2,508.0 Linear feet

(Concurrent CONST and CON ENG allocation under Resolution FP-21-60; March 2022.)

Note: Fully program unfunded phases of this previous G-13 contingency project.

Performance Measure: Bridges (5 Bridge(s))					
	<u>Unit</u>	<u>Good</u>	<u>Fair</u>	<u>Poor</u>	<u>Quantity</u>
Existing Condition	Linear feet rail	0.0	196.0	2,312.0	2,508.0
Post Condition	Linear feet rail	2,508.0	0.0	0.0	2,508.0

**List of 2022 SHOPP Amendments
 (Cost, Scope, Schedule and Technical Changes. Includes Federal Emergency Relief.)**

Project No.
 Dist-Co-Rte
 PM
 PPNO
 Project ID
 EA

Project Location and Description of Work
 Performance Measure

FY
 Program Code

Project Costs
 (\$1,000)

2	In and near Dorris, from south of Sams Neck Road to Oregon State line (PM 45.0/54.089); also on Route 161, from Route 97 to 0.4 mile east of Indian Tom Lake Road (PM 0.037/0.5).	22-23	PA&ED	\$920	Prior	\$920	Prior
02-Sis-97		201.121	PS&E	\$900	Prior	\$900	Prior
45.0/54.4		R/W Sup	\$500	Prior	\$500	Prior	
45.0/54.089		Con Sup	\$1,120	22-23	\$1,120	22-23	
3712		R/W Cap	\$488	22-23	\$170	22-23	
0218000067		<u>Const Cap</u>	<u>\$10,700</u>	22-23	\$13,380	22-23	
4H000		Total	\$14,328		\$16,990		

Performance Measure

~~20.0 Lane mile(s)~~

21.0 Lane mile(s)

Note: The paving limits have been extended to include a portion of adjacent Route 161 resulting in change to performance, project description and construction capital. Other items attributing to construction capital increase include a stress absorbing membrane layer to increase pavement life to be used within city limits, additional lighting and flashing beacon. Decrease R/W capital as it was determined that some private property can be avoided.

Performance Measure: Pavement		<u>Good</u>	<u>Fair</u>	<u>Poor</u>	<u>Quantity</u>
	<u>Unit</u>				
Existing Condition	Lane mile(s)	6.0	15.0	0.0	21.0
Post Condition	Lane mile(s)	21.0	0.0	0.0	21.0

**List of 2022 SHOPP Amendments
 (Cost, Scope, Schedule and Technical Changes. Includes Federal Emergency Relief.)**

Project No. Dist-Co-Rte PM PPNO Project ID EA	Project Location and Description of Work Performance Measure	FY Program Code		Project Costs (\$1,000)			
3 03-Nev-80 0.0/R2.7 5111 0317000043 1H990	Near Kingvale, from Placer County line to east of Donner Pass Road (PM 0.0/R2.7L/R); also in Placer County, from west of Troy Road Undercrossing to Nevada County line (PM 68.5 68.3 /69.7). Rehabilitate roadway, construct truck climbing lane in eastbound direction, widen replace Kingvale Undercrossing No. 19-0107R and Troy Road Undercrossing No. 19-0106R , replace sign panels, upgrade lighting and Transportation Management System (TMS) elements, and rehabilitate drainage systems.	22-23 201.122	PA&ED PS&E R/W Sup Con Sup R/W Cap Const Cap Total	\$3,000 \$3,000 \$500 \$9,000 \$990 \$69,100 \$85,590	Prior 21-22 21-22 22-23 22-23 22-23 22-23	\$3,000 \$3,000 \$500 \$9,000 \$1,687 \$70,239 \$87,426	Prior 21-22 21-22 22-23 22-23 22-23

Performance Measure

45.5 Lane mile(s)

10.4 Lane mile(s)

Note: The original scope proposed to widen Kingvale Undercrossing and restripe Troy Road Undercrossing to accommodate the truck climbing lane. Further studies recommend that both aging structures be replaced with new wider bridges, thus increasing construction capital. Increase R/W capital as some utilities need protection in place or relocation. Update performance to count only the slabs being repaired instead of total project lane miles.

Performance Measure: Pavement		<u>Good</u>	<u>Fair</u>	<u>Poor</u>	<u>Quantity</u>
	<u>Unit</u>				
Existing Condition	Lane mile(s)	0.0	9.5	1.0	10.5
Post Condition	Lane mile(s)	10.4	0.0	0.0	10.4

List of 2022 SHOPP Amendments (Cost, Scope, Schedule and Technical Changes. Includes Federal Emergency Relief.)

Project No. Dist-Co-Rte PM PPNO Project ID EA	Project Location and Description of Work Performance Measure	FY Program Code		Project Costs (\$1,000)			
4 03-Nev-80 R58.7/R60.2 4305 031800014 3H560	Near Whitmore, from west of Crystal Lake Road to east of Route 20 Separation at Yuba Pass Separation and Overhead No. 17-0023L/R (PM R58.7L/R/PM R60.2); also in Placer County, from PM R58.5L/R to PM R58.6L/R. Replace and widen bridge, construct retaining walls in the median, rehabilitate drainage systems, and install Roadway Weather Information Systems (RWIS).	22-23 201.110	PA&ED PS&E R/W Sup Con Sup R/W Cap <u>Const Cap</u> Total	\$3,620 \$4,210 \$430 \$8,500 \$520 <u>\$84,500</u> \$101,780	Prior 21-22 21-22 22-23 22-23 22-23 22-23	\$3,620 \$4,210 \$430 \$8,500 \$520 <u>\$84,500</u> \$102,096	Prior 21-22 21-22 22-23 22-23 22-23 22-23

Performance Measure
2 Bridge(s)

Note: The bridge design needs to be changed to accommodate future expansion of the railroad track lines that resulted in additional utility relocations, increasing the R/W capital costs.

Performance Measure: Bridges (2 Bridge(s))					
	<u>Unit</u>	<u>Good</u>	<u>Fair</u>	<u>Poor</u>	<u>Quantity</u>
Existing Condition	Square feet	0.0	21,011.0	27,706.0	48,717.0
Post Condition	Square feet	64,351.0	0.0	0.0	64,351.0

5 03-Pla-80 42.7/49.3 5133 031800019 3H610	Near Gold Run, from west of Monte Vista Overcrossing to east of Drum Forebay Overcrossing (PM 42.7/49.3R). Rehabilitate roadway, construct truck climbing lane, replace or widen structures, upgrade median concrete barrier, sign panels, and Transportation Management System (TMS) elements, and rehabilitate drainage systems.	22-23 201.122	PA&ED PS&E R/W Sup Con Sup R/W Cap <u>Const Cap</u> Total	\$3,000 \$3,000 \$230 \$6,500 \$1,430 <u>\$62,700</u> \$76,860	Prior 21-22 21-22 22-23 22-23 22-23 22-23	\$3,000 \$3,000 \$230 \$6,500 \$1,430 <u>\$78,688</u> \$93,583	Prior 21-22 21-22 22-23 22-23 22-23 22-23
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Performance Measure
13.2 Lane mile(s)

Note: Increase R/W capital because field investigations indicate that some utilities have potential conflicts and require protection in place. Increase construction capital because the initial proposal to reduce inside shoulder to add truck climbing lane is no longer feasible. Widening of outside shoulder and construction of retaining walls are needed to add a truck climbing lane, resulting in increased costs.

Performance Measure: Pavement					
	<u>Unit</u>	<u>Good</u>	<u>Fair</u>	<u>Poor</u>	<u>Quantity</u>
Existing Condition	Lane mile(s)	3.5	9.6	0.1	13.2
Post Condition	Lane mile(s)	13.2	0.0	0.0	13.2

List of 2022 SHOPP Amendments (Cost, Scope, Schedule and Technical Changes. Includes Federal Emergency Relief.)

Project No. Dist-Co-Rte PM PPNO Project ID EA	Project Location and Description of Work Performance Measure	FY Program Code		Project Costs (\$1,000)			
6 03-Pla-89 8.9 5290 0319000129 4H980	Near Tahoe City, at the Tahoe City Maintenance Station. Demolish existing employee housing and construct new dormitory building. <u>Performance Measure</u> 1 Location(s)	22-23 23-24 201.352	PA&ED PS&E R/W Sup Con Sup R/W Cap <u>Const Cap</u> Total	\$690 \$710 \$90 \$560 \$40 <u>\$3,600</u> \$5,690	Prior 21-22 21-22 22-23 22-23 22-23 22-23	\$690 \$710 \$90 \$560 \$40 <u>\$3,600</u> \$5,690	Prior 21-22 21-22 23-24 23-24 23-24 23-24

Note: Delay project by one year. Due to delay in executing a consultant contract, the completion of PA&ED is delayed which has delayed the start of the design phase.

Performance Measure:					
	<u>Unit</u>	<u>Good</u>	<u>Fair</u>	<u>Poor</u>	<u>Quantity</u>
Existing Condition	Square Feet	0.0	0.0	1,416.0	1,416.0
Post Condition	Square Feet	4,000.0	0.0	0.0	4,000.0

7 03-Sac-51 2.0/3.5 6402 0312000054 3F070	In the city of Sacramento, from north of B Street Underpass to north of Exposition Boulevard Overcrossing at the American River Bridge No. 24-0003 and Cal Expo Undercrossing No. 24-0133. Widen and replace bridge deck and construct 0.14 mile of Class 1 bike and pedestrian path as a complete streets element. This is a Construction Manager/General Contractor (CMGC) project.	22-23 201.110	PA&ED PS&E R/W Sup * Con Sup R/W Cap * <u>Const Cap</u> Total	\$4,340 \$12,000 \$600 \$18,100 \$7,634 \$127,300 \$169,974	Prior Prior Prior 22-23 22-23 22-23 22-23	\$4,340 \$12,000 \$600 \$18,050 \$7,634 \$113,740 \$156,364	Prior Prior Prior 22-23 22-23 22-23 22-23
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(Additional \$2,700,000 contribution for Const Cap from the city of Sacramento.)

(G13 Contingency)

Performance Measure
2 Bridge(s)

Note: Split this Construction Manager/General Contractor (CMGC) parent project into EA 3F072/PPNO 03-6402B to be constructed as independent construction contract-Early Work Package No. 2.

Performance Measure: Bridges (2 Bridge(s))					
	<u>Unit</u>	<u>Good</u>	<u>Fair</u>	<u>Poor</u>	<u>Quantity</u>
Existing Condition	Square feet	0.0	166,055.0	0.0	166,055.0
Post Condition	Square feet	264,920.0	6,028.0	0.0	270,948.0

**List of 2022 SHOPP Amendments
 (Cost, Scope, Schedule and Technical Changes. Includes Federal Emergency Relief.)**

Project No. Dist-Co-Rte PM PPNO Project ID EA	Project Location and Description of Work Performance Measure	FY Program Code		Project Costs (\$1,000)			
8 03-Sac-51 5.6/5.9 6414 0318000055 3H730	In the city of Sacramento, between Marconi Avenue and Howe Avenue. Construct outer separation barrier.	22-23 201.015	PA&ED	\$410	Prior	\$410	Prior
			PS&E	\$740	Prior	\$740	Prior
			R/W Sup	\$90	Prior	\$90	Prior
			Con Sup	\$530	22-23	\$530	22-23
			R/W Cap	\$10	22-23	\$62	22-23
			<u>Const Cap</u>	<u>\$3,100</u>	22-23	<u>\$3,100</u>	22-23
			Total	\$4,880		\$4,932	
	<u>Performance Measure</u> 4 Collision(s) reduced 6 Collision(s) reduced						

Note: Increase R/W capital as additional acquisitions and utility impacts were identified. Update performance measure according to the current Department calculation method.

9 03-Sac-99 12.7/16.0 6930 0316000193 1H630	In Elk Grove, from Elk Grove Boulevard to south of Calvine Road. Construct two southbound auxiliary lanes, construct concrete median barrier, extend storage lane at southbound Elk Grove Boulevard offramp , and upgrade four five ramp metering systems.	22-23 201.310	PA&ED	\$810	Prior	\$810	Prior
			PS&E	\$1,550	21-22	\$1,550	21-22
			R/W Sup	\$250	21-22	\$250	21-22
			Con Sup	\$2,000	22-23	\$2,000	22-23
			R/W Cap	\$320	22-23	\$320	22-23
			<u>Const Cap</u>	<u>\$18,100</u>	22-23	<u>\$19,700</u>	22-23
			Total	\$23,030		\$24,630	
	<u>Performance Measure</u> 298.0 Daily vehicle hour(s) of delay (DVHD)						

Note: Update scope to include concrete median barrier, additional ramp meter, and extend storage lane at southbound Elk Grove Boulevard offramp to improve safety and operations. Increase in construction capital is due to this additional scope.

10 04-SCI-101 0.1/49.6 1495A 0416000053 0K110	In Santa Clara County, on Routes 9, 17, 85, 87, 101, 152, 237, 280, 680, and 880 at various locations. Upgrade guardrail transition railing.	23-24 22-23	PA&ED	\$1,127	Prior	\$1,127	Prior
		201.015	PS&E	\$1,574	Prior	\$1,574	Prior
			R/W Sup	\$70	Prior	\$70	Prior
			Con Sup	\$1,702	23-24	\$1,702	22-23
			R/W Cap	\$10	23-24	\$30	22-23
			<u>Const Cap</u>	<u>\$10,343</u>	23-24	<u>\$14,202</u>	22-23
			Total	\$14,826		\$18,705	
	<u>Performance Measure</u> 14 Collision(s) reduced 18 Collision(s) reduced						

Note: Increase construction capital because of the structure design recommendation that 160 locations need a concrete anchor block at the end of the bridge structure to connect the new transition railing. Increase R/W capital for additional positive underground utility verification work. Update performance measure to match the current Department calculation method.

**List of 2022 SHOPP Amendments
 (Cost, Scope, Schedule and Technical Changes. Includes Federal Emergency Relief.)**

Project No. Dist-Co-Rte PM PPNO Project ID EA	Project Location and Description of Work Performance Measure	FY Program Code		Project Costs (\$1,000)	
11 04-Son-37 3-8/4-0 2023H 0418000281 1Q480	Near Novato, at the intersection with Route 121. Improve traffic operations by modifying intersection. <u>Performance Measure</u> 577.0 Daily vehicle hour(s) of delay (DVHD)	23-24 201.310	PA&ED	\$1,458	Prior
			PS&E	\$1,570	22-23
			R/W Sup	\$83	22-23
			Con Sup	\$1,597	23-24
			R/W Cap	\$542	23-24
			<u>Const Cap</u>	<u>\$5,991</u>	<u>23-24</u>
			Total	\$11,241	

Note: Combine projects 1Q480/PPNO 04-2023H and 2Q200/PPNO 04-2025P into 2Q20U/PPNO 04-2911K. The combine is necessary to meet the NEPA requirement for purpose of independent utility. Possible cost update will be addressed in future when scope is well defined and requirements from regulatory agencies are known.

12 04-Son-37 3.8/4.3 2911K 0422000181 2Q20U	Near Novato, from 0.1 mile west to 0.4 mile east of Route 121. Improve traffic operations by modifying intersection and extending the lane merge in eastbound direction. <u>Performance Measure</u> 866.0 Daily vehicle hour(s) of delay (DVHD)	23-24 201.310	PA&ED	\$0	
			PS&E	\$3,931	22-23
			R/W Sup	\$98	22-23
			Con Sup	\$3,397	23-24
			R/W Cap	\$1,363	23-24
			<u>Const Cap</u>	<u>\$17,657</u>	<u>23-24</u>
			Total	\$26,446	

Note: Combine projects 1Q480/PPNO 04-2023H and 2Q200/PPNO 04-2025P into 2Q20U/PPNO 04-2911K. The combine is necessary to meet the NEPA requirement for purpose of independent utility. Possible cost update will be addressed in future when scope is well defined and requirements from regulatory agencies are known.

13 04-Son-37 3-9/4-1 2025P 0418000432 2Q200	Near Novato, from Route 121 to 0.2 mile east of Route 121. Improve traffic operations by extending the lane merge in eastbound direction. <u>Performance Measure</u> 866.0 Daily vehicle hour(s) of delay (DVHD)	23-24 201.310	PA&ED	\$1,469	Prior
			PS&E	\$2,361	22-23
			R/W Sup	\$15	22-23
			Con Sup	\$1,800	23-24
			R/W Cap	\$821	23-24
			<u>Const Cap</u>	<u>\$11,666</u>	<u>23-24</u>
			Total	\$18,132	

Note: Combine projects 1Q480/PPNO 04-2023H and 2Q200/PPNO 04-2025P into 2Q20U/PPNO 04-2911K. The combine is necessary to meet the NEPA requirement for purpose of independent utility. Possible cost update will be addressed in future when scope is well defined and requirements from regulatory agencies are known.

**List of 2022 SHOPP Amendments
 (Cost, Scope, Schedule and Technical Changes. Includes Federal Emergency Relief.)**

Project No. Dist-Co-Rte PM PPNO Project ID EA	Project Location and Description of Work Performance Measure	FY Program Code		Project Costs (\$1,000)			
14 05-SBt-25 53.7/54.03 2746Y 0521000064 1J481	Near Hollister, at the intersection of Route 25 and Route 156. Environmental mitigation landscape and monitoring for project EA 1J480. <u>Performance Measure</u> 0 Collision(s) reduced	23-24 22-23 201.010	PA&ED PS&E R/W Sup Con Sup R/W Cap <u>Const Cap</u> Total	\$0 \$442 \$0 \$458 \$0 <u>\$200</u> \$1,100	Prior	\$0 \$442 \$0 \$458 \$0 <u>\$200</u> \$1,100	Prior 22-23 22-23

Note: Accelerate delivery year to align this mitigation project with construction completion of parent project EA 1J480/PPNO 05-2746.

15 07-LA-2 15.0/15.3 5414 0718000189 35130	In the city of Los Angeles, at E2-N5 Ramp and W2-S5 Ramp Tunnel No. 53-0577. Seismic retrofit existing tunnel and upgrade guardrail. <u>Performance Measure</u> 1 Bridge(s)	22-23 201.113	PA&ED PS&E R/W Sup Con Sup R/W Cap <u>Const Cap</u> Total	\$1,270 \$1,800 \$55 \$2,000 \$45 \$6,550 \$11,720	Prior 21-22 21-22 22-23 22-23 22-23	\$1,270 \$1,800 \$55 \$2,000 \$45 \$8,194 \$13,364	Prior 21-22 21-22 22-23 22-23 22-23
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Note: Increase construction capital because three bridge bents and a link beam were not included in the original estimate.

Performance Measure: Bridges (1 Bridge(s))					
	<u>Unit</u>	<u>Good</u>	<u>Fair</u>	<u>Poor</u>	<u>Quantity</u>
Existing Condition	Square feet	0.0	0.0	51,773.0	51,773.0
Post Condition	Square feet	51,773.0	0.0	0.0	51,773.0

**List of 2022 SHOPP Amendments
 (Cost, Scope, Schedule and Technical Changes. Includes Federal Emergency Relief.)**

Project No. Dist-Co-Rte PM PPNO Project ID EA	Project Location and Description of Work Performance Measure	FY Program Code		Project Costs (\$1,000)			
16 07-Ven-Var 5365 0718000072 34620	In Ventura and Los Angeles Counties, on various routes at various locations. Upgrade and install new Transportation Management System (TMS) elements, install Maintenance Vehicle Pullouts (MVPs), and upgrade communication system at the Los Angeles Regional Transportation Management Center (LARTMC).	22-23 201.315	PA&ED	\$1,112	Prior	\$1,112	Prior
			PS&E	\$3,017	Prior	\$3,017	Prior
			R/W Sup	\$47	Prior	\$47	Prior
			Con Sup	\$0	22-23	\$5,345	22-23
			R/W Cap	\$22	22-23	\$22	22-23
			<u>Const Cap</u>	<u>\$0</u>	22-23	<u>\$22,324</u>	22-23
			Total	\$4,198		\$31,867	

(G13 Contingency)

Performance Measure

44 Field element(s)

Note: Fully program unfunded phases of this previous G-13 contingency project.

Performance Measure: TMS Elements		Good	Poor	
<u>Unit</u>	<u>(Operational)</u>	<u>(Not Operational)</u>	<u>Quantity</u>	
Existing Condition Field element(s)	0.0%	100.0%	36.0	
Post Condition Field element(s)	100.0%	0.0%	44.0	

17 08-Riv-15 42.4/46.2 3008S 0817000041 1H420	In Corona and Norco, from Corona Avenue to the Santa Ana River. Upgrade existing irrigation system to use recycled water.	22-23 201.210	PA&ED	\$316	Prior	
			PS&E	\$368	Prior	
			R/W Sup	\$65	Prior	
			Con Sup	\$394	22-23	
			R/W Cap	\$10	22-23	
			<u>Const Cap</u>	<u>\$3,167</u>	<u>22-23</u>	
			Total	\$4,320		

Note: Delete project. A source of recycled water is not available, so the project is unable to meet its proposed scope.

**List of 2022 SHOPP Amendments
 (Cost, Scope, Schedule and Technical Changes. Includes Federal Emergency Relief.)**

Project No. Dist-Co-Rte PM PPNO Project ID EA	Project Location and Description of Work Performance Measure	FY Program Code		Project Costs (\$1,000)			
18 08-Riv-60 13.3/19.2 3012E 0818000094 1J680	In Moreno Valley, from Day Street to east of Moreno Beach Drive. Upgrade facilities to Americans with Disabilities Act (ADA) standards. <u>Performance Measure</u> 20 Curb ramp(s) 13 Curb ramp(s)	22-23 201.361	PA&ED	\$421	Prior	\$421	Prior
			PS&E	\$948	Prior	\$948	Prior
			R/W Sup	\$497	Prior	\$497	Prior
			Con Sup	\$847	22-23	\$1,715	22-23
			R/W Cap	\$140	22-23	\$140	22-23
			<u>Const Cap</u>	<u>\$2,248</u>	22-23	<u>\$2,248</u>	22-23
			Total	\$5,071		\$5,969	

Note: Decrease performance because a locally funded project with overlapping limits will be constructing seven curb ramps. Increase construction support because working days are increasing as a result of work not considered when the schedule was developed. There is no change to construction capital because some work was not included in earlier estimates.

Performance Measure: Curb ramps					
	<u>Unit</u>	<u>Good</u>	<u>Fair</u>	<u>Poor</u>	<u>Quantity</u>
Existing Condition	Each	0.0	0.0	13.0	13.0
Post Condition	Each	13.0	0.0	0.0	13.0

19 08-SBd-247 0.0/23.0 3011F 0818000014 1J270	In and near Yucca Valley, from Route 62 to north of Gin Road. Rehabilitate pavement and widen shoulders. <u>Performance Measure</u> 47.5 Lane mile(s)	23-24 201.121	PA&ED	\$1,494	Prior	\$1,494	Prior
			PS&E	\$2,073	21-22	\$2,073	21-22
			R/W Sup	\$2,090	21-22	\$2,090	21-22
			Con Sup	\$1,884	23-24	\$2,700	23-24
			R/W Cap	\$787	23-24	\$787	23-24
			<u>Const Cap</u>	<u>\$17,954</u>	23-24	<u>\$28,500</u>	23-24
			Total	\$26,276		\$37,644	

Note: Increase construction support and capital because the amount of asphalt needed for the project was incorrectly calculated, and an additional 56,000 tons of asphalt are needed.

Performance Measure: Pavement					
	<u>Unit</u>	<u>Good</u>	<u>Fair</u>	<u>Poor</u>	<u>Quantity</u>
Existing Condition	Lane mile(s)	0.0	47.5	0.0	47.5
Post Condition	Lane mile(s)	47.5	0.0	0.0	47.5

List of 2022 SHOPP Amendments (Cost, Scope, Schedule and Technical Changes. Includes Federal Emergency Relief.)

Project No. Dist-Co-Rte PM PPNO Project ID EA	Project Location and Description of Work Performance Measure	FY Program Code		Project Costs (\$1,000)			
20 10-Cal-12 10.1/10.3 9.9/10.3 3476 1019000055 1J820	Near Valley Springs, from Route 26 east of Chestnut Street to west of Lime Creek Road (west). Intersection safety improvements.	23-24 201.010	PA&ED PS&E R/W Sup Con Sup R/W Cap <u>Const Cap</u> Total	\$1,098 \$1,374 \$221 \$1,216 \$1,297 \$4,319 \$9,525	Prior 22-23 22-23 23-24 23-24 23-24 23-24	\$1,098 \$1,374 \$221 \$1,216 \$1,764 \$3,852 \$9,525	Prior 22-23 22-23 23-24 23-24 23-24
	<u>Performance Measure</u> 18 Collision(s) reduced						

Note: Update post miles and description to encompass additional work beyond the previous limits. Increase right of way capital due to the addition of four parcel acquisitions. Decrease construction capital due to revised estimate using updated quantities.

21 10-Mer-33 R0.4/1.5 R0.6/1.5 3441 1018000276 1G250	In and near Dos Palos, from Stearman Street Christian Avenue to north of Santos Street street ; also in Gustine on Route 140 from east of Jensen Road to 2nd Street (PM 4.8/6.2). Upgrade facilities to Americans with Disabilities Act (ADA) standards and install flashing beacon.	22-23 201.361	PA&ED PS&E R/W Sup Con Sup R/W Cap <u>Const Cap</u> Total	\$1,134 \$1,594 \$200 \$1,330 \$6 \$4,463 \$8,727	Prior Prior Prior 22-23 22-23 22-23 22-23	\$1,134 \$1,594 \$200 \$1,330 \$310 \$5,170 \$9,738	Prior Prior Prior 22-23 22-23 22-23
	<u>Performance Measure</u> 72 Curb ramp(s) 67 Curb ramp(s)						

Note: Update postmiles, description, and performance measure due to reduction of two curb ramps constructed by others and three curb ramps determined to be unnecessary. Additional update to description to include the added installation of a flashing beacon. Increase right of way capital due to an increase in temporary construction easements. Increase construction capital due to revision in estimate using updated recent unit pricing.

Performance Measure: Curb ramps					
	<u>Unit</u>	<u>Good</u>	<u>Fair</u>	<u>Poor</u>	<u>Quantity</u>
Existing Condition	Each	0.0	0.0	67.0	67.0
Post Condition	Each	67.0	0.0	0.0	67.0

**List of 2022 SHOPP Amendments
 (Cost, Scope, Schedule and Technical Changes. Includes Federal Emergency Relief.)**

Project No. Dist-Co-Rte PM PPNO Project ID EA	Project Location and Description of Work Performance Measure	FY Program Code	Project Costs (\$1,000)				
22 10-SJ-5 R42.4/33.0 Var 3422 101800007 1F960	In San Joaquin and Sacramento Counties, on Routes 5, 4, 12, 26, 33, 88, 99 , 120, and 205 at various locations. Upgrade Transportation Management System (TMS) elements. <u>Performance Measure</u> 43 Field element(s) 40 Field element(s)	23-24 201.315	PA&ED PS&E R/W Sup Con Sup R/W Cap <u>Const Cap</u> Total	\$962 \$1,436 \$158 \$1,559 \$25 <u>\$9,090</u> \$13,230	Prior 22-23 22-23 23-24 23-24 23-24 23-24	\$962 \$1,436 \$158 \$1,559 \$25 <u>\$9,090</u> \$13,230	Prior 22-23 22-23 23-24 23-24 23-24 23-24

Note: Reduce performance measure due to three elements being completed by three other projects. Update description because Sacramento County locations were removed, and include a route that was erroneously excluded in past amendment. Update postmiles to align with proper documentation of various locations.

Performance Measure: TMS Elements		Good	Poor	
<u>Unit</u>		<u>(Operational)</u>	<u>(Not Operational)</u>	<u>Quantity</u>
Existing Condition	Field element(s)	79.5%	20.5%	34.0
Post Condition	Field element(s)	100.0%	0.0%	40.0

23 10-Sta-99 R4.5/R23.3 3443 1018000283 1F970	In Stanislaus and San Joaquin Counties, on various routes at various locations. Install Transportation Management System (TMS) elements, and enhance highway worker safety. <u>Performance Measure</u> 100 Field element(s) 69 Field element(s)	23-24 201.315	PA&ED PS&E R/W Sup Con Sup R/W Cap <u>Const Cap</u> Total	\$1,100 \$1,420 \$250 \$1,720 \$660 <u>\$9,650</u> \$14,800	Prior 21-22 21-22 23-24 23-24 23-24 23-24	\$1,100 \$1,420 \$250 \$1,720 \$607 <u>\$7,855</u> \$12,952	Prior 21-22 21-22 23-24 23-24 23-24 23-24
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Note: Decrease performance measure due to removal of locations that require extended environmental clearance and are therefore being added to other projects. Decrease right of way capital and construction capital due to the reduction in locations.

Performance Measure: TMS Elements		Good	Poor	
<u>Unit</u>		<u>(Operational)</u>	<u>(Not Operational)</u>	<u>Quantity</u>
Existing Condition	Field element(s)	0.0%	100.0%	36.0
Post Condition	Field element(s)	100.0%	0.0%	69.0

**List of 2022 SHOPP Amendments
 (Cost, Scope, Schedule and Technical Changes. Includes Federal Emergency Relief.)**

Project No. Dist-Co-Rte PM PPNO Project ID EA	Project Location and Description of Work Performance Measure	FY Program Code		Project Costs (\$1,000)			
24 10-Sta-99 R14.9 3475 1017000187 1H600	In Modesto, near Zeff Road Undercrossing. Construct stormwater Best Management Practices (BMPs). <u>Performance Measure</u> 18.0 Acre(s) treated/pollutant 19.0 Acre(s) treated/pollutant	23-24 22-23 201.335	PA&ED PS&E R/W Sup Con Sup R/W Cap <u>Const Cap</u> Total	\$416 \$938 \$38 \$691 \$0 <u>\$1,061</u> \$3,144	Prior Prior Prior 23-24 \$0 23-24 \$3,144	\$416 \$938 \$38 \$691 \$0 <u>\$1,061</u> \$3,144	Prior Prior Prior 22-23 22-23

Note: Accelerate project because early delivery is possible. Update performance measure because the latest survey calculated one additional acre.

25 11-Imp-111 R3.2/45.4 1318 1118000099 43030	In and near Brawley, from Jasper Road to Niland Creek Bridge; also on Route 78 from 8th Street to Ben Hulse Highway (PM R12.9/15.5). Install rumble strips, upgrade guardrail, and upgrade facilities to Americans with Disabilities Act (ADA) standards. <u>Performance Measure</u> 15 Collision(s) reduced 9 Collision(s) reduced	23-24 22-23 201.015	PA&ED PS&E R/W Sup Con Sup R/W Cap <u>Const Cap</u> Total	\$780 \$1,453 \$253 \$2,224 \$510 <u>\$10,456</u> \$15,676	Prior Prior 21-22 23-24 23-24 23-24 \$15,676	\$780 \$1,453 \$253 \$2,224 \$510 <u>\$10,456</u> \$15,676	Prior Prior 21-22 22-23 22-23 22-23
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(Concurrent COS allocation under Resolution
 FP-21-61; March 2022.)

Note: Change delivery year to accelerate delivery of this safety project. Update performance to use the current calculation method.

26 11-SD-78 7-7/9-0 4389 1119000203 43094	In and near Vista, from Mar Vista Drive to Sycamore Avenue. Add auxiliary lanes in both directions and upgrade facilities to Americans with Disabilities Act (ADA) standards. <u>Performance Measure</u> 272.0 Daily vehicle hour(s) of delay (DVHD)	25-26 201.310	PA&ED PS&E R/W Sup Con Sup R/W Cap <u>Const Cap</u> Total	\$1,328 \$1,936 \$102 \$3,949 \$148 <u>\$19,720</u> \$27,183	22-23 23-24 23-24 25-26 25-26 25-26	\$1,328 \$1,936 \$102 \$3,949 \$148 <u>\$19,720</u> \$27,183	
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Note: This project is being replaced by project EA 11-43039 in the Proposed 2022 SHOPP.

**List of 2022 SHOPP Amendments
 (Cost, Scope, Schedule and Technical Changes. Includes Federal Emergency Relief.)**

Project No.
 Dist-Co-Rte
 PM
 PPNO
 Project ID
 EA

Project Location and Description of Work
 Performance Measure

FY
 Program Code

Project Costs
 (\$1,000)

27	In Anaheim, from 0.7 mile west of Route 90 to Riverside County line (PM 18.905). Upgrade Transportation Management System (TMS) elements, rehabilitate culverts, upgrade lighting, and make highway worker safety improvements.	23-24	PA&ED	\$750	Prior	\$750	Prior
12-Ora-91		201.315	PS&E	\$1,080	Prior	\$1,080	Prior
R10.8/R18.9			R/W Sup	\$20	Prior	\$20	Prior
4506J			* Con Sup	\$1,160	23-24	\$1,160	23-24
122000027			R/W Cap	\$44	23-24	\$668	23-24
0R315			* Const Cap	\$11,710	23-24	\$11,710	23-24
		(G13 Contingency)		Total	\$14,761		\$15,388

* Phase not authorized

Performance Measure

~~53 Field element(s)~~

78 Field element(s)

Note: Environmental permit and mitigation costs due to streambed and vegetation impacts from drainage work are better identified, resulting in an increase in R/W capital. Update performance because video cameras at intersections were not properly accounted for in prior performance calculations.

Performance Measure: TMS Elements		Good	Poor	
<u>Unit</u>		<u>(Operational)</u>	<u>(Not Operational)</u>	<u>Quantity</u>
Existing Condition	Field element(s)	0.0%	100.0%	52.0
Post Condition	Field element(s)	100.0%	0.0%	78.0

**List of 2022 SHOPP Amendments
 (Cost, Scope, Schedule and Technical Changes. Includes Federal Emergency Relief.)
 for Senate Bill 1 Projects**

Project No. Dist-Co-Rte PM PPNO Project ID EA	Project Location and Description of Work Performance Measure	FY Program Code		Project Costs (\$1,000)	
1 03-Sac-51 2.0/3.5 6402B 0322000010 3F072	In the city of Sacramento, from north of B Street Underpass to north of Exposition Boulevard Overcrossing at the American River Bridge No. 24-0003 and Cal Expo Undercrossing No. 24-0133. Early Work Package No. 2 for Construction Manager/General Contractor (CMGC) parent project EA 3F070. Procure steel girders.	21-22 201.110	PA&ED PS&E R/W Sup Con Sup R/W Cap <u>Const Cap</u> Total	\$0 \$0 \$0 \$50 \$0 <u>\$13,560</u> \$13,610	 <u>21-22</u> <u>21-22</u>

Performance Measure
0 Bridge(s)

(Concurrent CONST and CON ENG allocation under
 Resolution FP-21-60; March 2022.)

Note: Split the Construction Manager/General Contractor (CMGC) parent project EA 3F070/PPNO 03-6402 into this
 project to be constructed as an independent construction contract-Early Work Package No. 2.

List of 2022 SHOPP Long Lead Project Amendments

Resolution G-00-13, established in June 2000, provides the Department with the means to develop SHOPP projects which require periods longer than the four-year SHOPP cycle. The Commission authorized the Department to program projects for development only when appropriate. Long lead projects must identify challenges that require additional time beyond the typical four years to complete.

Project No.
Dist-Co-Rte
PM
PPNO
Project ID
EA

Project Location and Description of Work
Performance Measure

FY
Program Code

Project Costs
(\$1,000)

1	Near Albion, from 3.0 miles north of Route 128	22-23	PA&ED	\$5,500	Prior	\$5,500	Prior
01-Men-1	Junction to 0.2 mile north of Albion River Bridge No.	26-27	* PS&E	\$6,250	24-22	\$7,885	24-25
43.3/44.2	10-0136. Bridge replacement. This is a	201.110	* R/W Sup	\$987	24-22	\$1,111	24-25
4490	Construction Manager/General Contractor		* Con Sup	\$7,750	22-23	\$8,723	26-27
0100000154	(CMGC) project.		* R/W Cap	\$7,748	22-23	\$8,465	26-27
40110	(Long Lead Project)		* <u>Const Cap</u>	<u>\$65,673</u>	22-23	<u>\$65,673</u>	26-27
			Total	\$93,908		\$97,357	
			* Phase not authorized				
	<u>Performance Measure</u>						
	1 Bridge(s)						

Note: The project is being delayed because a higher level environmental document is being pursued. Increase in costs is for escalation due to longer schedules, changes to delivery method, increased working days due to permit conditions, and permit fees. Construction capital costs will be reassessed when more design details are known. Change the delivery method to CMGC to generate innovative solutions and efficiencies for this complex project.

Performance Measure: Bridges (1 Bridge(s))					
	<u>Unit</u>	<u>Good</u>	<u>Fair</u>	<u>Poor</u>	<u>Quantity</u>
Existing Condition	Square feet	0.0	0.0	27,340.0	27,340.0
Post Condition	Square feet	56,440.0	0.0	0.0	56,440.0

2	In and near Ukiah, from north of Robinson Creek	24-25	PA&ED	\$473	Prior	\$473	Prior
01-Men-101	Bridge to Pomo Road Lane Undercrossing.	201.122	* PS&E	\$867	24-22	\$1,150	22-23
21.0/28.6	Rehabilitate roadway, upgrade guardrail, lighting,		* R/W Sup	\$48	24-22	\$48	22-23
4695	and Transportation Management System (TMS)		* Con Sup	\$2,846	24-25	\$2,846	24-25
0117000237	elements, and apply High Friction Surface Treatment		* R/W Cap	\$100	24-25	\$46	24-25
0H570	(HFST).		* <u>Const Cap</u>	<u>\$44,236</u>	24-25	<u>\$44,236</u>	24-25
			Total	\$48,570		\$48,799	
	(Long Lead Project)		* Phase not authorized				
	<u>Performance Measure</u>						
	24.9 Lane mile(s)						
	25.0 Lane mile(s)						

Note: Update PS&E and R/W support fiscal years to align with the completion of PA&ED. Increase PS&E cost because 20 curb ramps and 29 mainline conforms need to be designed that were not considered during the planning phase. Decrease R/W capital as utility relocation is no longer needed. Update performance due to a minor correction in postmiles for the southbound direction.

Performance Measure: Pavement					
	<u>Unit</u>	<u>Good</u>	<u>Fair</u>	<u>Poor</u>	<u>Quantity</u>
Existing Condition	Lane mile(s)	0.0	22.9	2.1	25.0
Post Condition	Lane mile(s)	25.0	0.0	0.0	25.0

List of 2022 SHOPP Long Lead Project Amendments

Resolution G-00-13, established in June 2000, provides the Department with the means to develop SHOPP projects which require periods longer than the four-year SHOPP cycle. The Commission authorized the Department to program projects for development only when appropriate. Long lead projects must identify challenges that require additional time beyond the typical four years to complete.

Project No.
 Dist-Co-Rte
 PM
 PPNO
 Project ID
 EA

Project Location and Description of Work
 Performance Measure

FY
 Program Code

Project Costs
 (\$1,000)

3	Near Floriston, at Truckee River Bridge No.	26-27	PA&ED	\$3,500	Prior	\$3,500	Prior
03-Nev-80	17-0063R/L. Replace two bridges with a single	201.110	* PS&E	\$4,230	23-24	\$4,230	24-25
27.6/28.5	bridge.		* R/W Sup	\$455	23-24	\$455	24-25
4306			* Con Sup	\$7,080	26-27	\$7,080	26-27
0318000016	(Long Lead Project)		* R/W Cap	\$870	26-27	\$1,310	26-27
3H580			* <u>Const Cap</u>	<u>\$58,400</u>	26-27	<u>\$58,400</u>	26-27
	<u>Performance Measure</u>		Total	\$74,535		\$74,975	
	2 Bridge(s)		* Phase not authorized				

Note: Update PS&E and R/W support fiscal years to align with the completion of PA&ED in May 2024 on this environmentally complex long lead project. Increase R/W capital as additional area is required from the railroad company for temporary construction easements.

Performance Measure: Bridges (2 Bridge(s))					
	<u>Unit</u>	<u>Good</u>	<u>Fair</u>	<u>Poor</u>	<u>Quantity</u>
Existing Condition	Square feet	0.0	32,076.0	0.0	32,076.0
Post Condition	Square feet	45,548.0	0.0	0.0	45,548.0

4	In the city of Sacramento, at the West End Viaduct	26-27	PA&ED	\$5,700	Prior	\$5,700	Prior
03-Sac-5	No. 24-0069L/R. Improve to standard truck capacity.	201.322	* PS&E	\$4,900	23-24	\$4,900	24-25
23.6/24.3			* R/W Sup	\$400	23-24	\$400	24-25
5863	(Long Lead Project)		* Con Sup	\$3,700	26-27	\$3,700	26-27
0316000190			* R/W Cap	\$674	26-27	\$674	26-27
1H610			* <u>Const Cap</u>	<u>\$36,060</u>	26-27	<u>\$36,060</u>	26-27
	<u>Performance Measure</u>		Total	\$51,434		\$51,434	
	2 Bridge(s)		* Phase not authorized				

Note: Update PS&E and R/W support fiscal years to align with the completion of PA&ED.

Performance Measure: Bridges (2 Bridge(s))					
	<u>Unit</u>	<u>Good</u>	<u>Fair</u>	<u>Poor</u>	<u>Quantity</u>
Existing Condition	Square feet	0.0	584,286.0	0.0	584,286.0
Post Condition	Square feet	584,286.0	0.0	0.0	584,286.0

List of 2022 SHOPP Long Lead Project Amendments

Resolution G-00-13, established in June 2000, provides the Department with the means to develop SHOPP projects which require periods longer than the four-year SHOPP cycle. The Commission authorized the Department to program projects for development only when appropriate. Long lead projects must identify challenges that require additional time beyond the typical four years to complete.

Project No.
 Dist-Co-Rte
 PM
 PPNO
 Project ID
 EA

Project Location and Description of Work
 Performance Measure

FY
 Program Code

Project Costs
 (\$1,000)

5	In the city of San Diego and Coronado, from San	26-27	PA&ED	\$2,593	Prior	\$2,593	Prior
11-SD-75	Diego-Coronado Bay Bridge to the Route 75/5	34-35	* PS&E	\$0		\$0	
R20.5/R22	Connector Overcrossing. Bridge rehabilitation.	201.110	* R/W Sup	\$0		\$0	
1065			* Con Sup	\$0		\$0	
1112000071	(Long Lead Project)		* R/W Cap	\$0		\$0	
40940			* <u>Const Cap</u>	<u>\$0</u>		<u>\$0</u>	
	<u>Performance Measure</u>		Total	\$2,593		\$2,593	
	1 Bridge(s)		* Phase not authorized				

Note: Change delivery year because initial studies are still being performed, and an Environmental Impact Statement/Environmental Impact Report may be required that could take up to six years to complete.

Performance Measure: Bridges (1 Bridge(s))					
	<u>Unit</u>	<u>Good</u>	<u>Fair</u>	<u>Poor</u>	<u>Quantity</u>
Existing Condition	Square feet	0.0	489,499.0	0.0	489,499.0
Post Condition	Square feet	489,499.0	0.0	0.0	489,499.0

List of 2022 SHOPP Milestone Updates

Dist	County	Route	EA	Project ID	PPNO	2022 SHOPP Updated Milestone Dates
01	Mendocino	1	40110	0100000154	4490	PA&ED: 4/12/2024 R/W Cert.: 4/1/2025 8/5/2026 RTL: 4/17/2025 8/20/2026 Begin Con: 10/7/2025 2/2/2027
03	Placer	89	4H980	0319000129	5290	PA&ED: 6/15/2022 11/15/2022 R/W Cert.: 3/1/2023 12/4/2023 RTL: 3/15/2023 12/12/2023 Begin Con: 6/30/2023 3/21/2024
04	Santa Clara	101	0K110	0416000053	1495A	PA&ED: 2/2/2022 R/W Cert.: 11/2/2023 6/1/2023 RTL: 12/1/2023 6/15/2023 Begin Con: 8/2/2024 3/15/2024
07	Los Angeles	605	35660	0719000026	5521	PA&ED: 11/30/2021 12/02/2021 R/W Cert.: 4/14/2023 5/15/2023 RTL: 5/31/2023 Begin Con: 10/31/2023 1/29/2024
08	Riverside	215	1J290	0818000015	3011H	PA&ED: 5/2/2022 12/23/2021 R/W Cert.: 3/1/2024 11/2/2023 RTL: 4/2/2024 12/4/2023 Begin Con: 10/15/2024 8/1/2024
08	San Bernardino	40	1K490	0819000050	3013K	PA&ED: 11/30/2021 12/23/2021 R/W Cert.: 3/1/2023 RTL: 5/1/2023 5/19/2023 Begin Con: 12/6/2023 12/27/2023
09	Inyo	395	37900	0919000004	2671	PA&ED: 01/01/2022 12/29/2021 R/W Cert.: 11/1/2023 RTL: 12/1/2023 Begin Con: 5/8/2024
10	Stanislaus	99	1H600	1017000187	3475	PA&ED: 8/2/2021 R/W Cert.: 7/3/2023 3/1/2023 RTL: 8/1/2023 4/14/2023 Begin Con: 2/19/2024 12/15/2023
11	San Diego	75	40940	1112000071	1065	PA&ED: 2/10/2026 3/30/2028 R/W Cert.: 1/7/2031 2/21/2035 RTL: 6/18/2031 5/23/2035 Begin Con: 1/26/2032 12/19/2035

INTRODUCTION

The California Department of Transportation (Caltrans) prepared the 2022 State Highway Operation and Protection Program (SHOPP) per Government Code section 14526.5, Streets and Highways Code section 164.6, Senate Bill 486 (Chapter 917, Statutes of 2014), Senate Bill 1 (SB 1) (Chapter 5, Statutes of 2017), California Transportation Commission (Commission) SHOPP Guidelines (June 2020) (**EXHIBIT D**: Commission SHOPP Guidelines (June 2020)), the State Highway System Management Plan (SHSMP), and the California Transportation Asset Management Plan (TAMP). The 2022 SHOPP also addresses related statutes, executive orders, and policies focusing on climate change considerations (reduction of transportation-related greenhouse gas (GHG) emissions and measures to enhance the resilience of transportation assets to future climate stressors), complete streets, wildlife habitat connectivity, environmental stewardship, freight, system resiliency, and other topics. All statutory requirements were addressed in the development of the 2022 SHOPP.

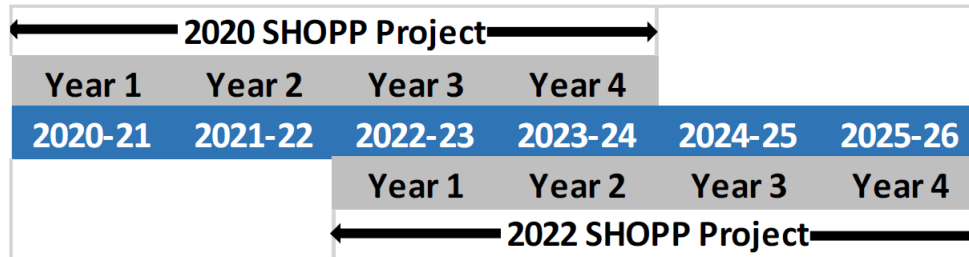
The SHOPP is the State's "fix-it-first" funding mechanism for the rehabilitation and reconstruction of all state highways and bridges, including Interstate highways; the supporting infrastructure for those facilities such as culverts, traffic management centers, safety roadside rest areas, and maintenance stations; and most importantly, to address safety and emergency repair needs. The 2022 SHOPP is a four-year program of projects that addresses needs for fiscal years 2022-23 through 2025-26. Though specified auxiliary lanes are eligible for SHOPP funding as operational improvements, SHOPP projects are prohibited from adding additional roadway or highway lanes. The 2022 SHOPP is built entirely through the performance-driven asset management process.

SHOPP PROCESS

The SHOPP portfolio of projects is updated every two years, carrying forward projects programmed in the last two years of the preceding SHOPP and making those last two years of projects the first two years of projects in the new SHOPP illustrated in **Figure 2**. New projects are programmed in the year Caltrans estimates the projects can be delivered. All projects have a Project Initiation Document (PID) identifying the project's scope, outputs, estimated capital and support costs, and delivery schedule.

Figure 2 - Relationship between 2020 and 2022 SHOPP Cycles

Figure 2 - Relationship between 2020 and 2022 SHOPP Cycles



The SHOPP programming cycle has four major elements:

- **SHSMP** - The SHSMP is updated by Caltrans every two years to describe and quantify the rehabilitation and reconstruction needs on the State Highway System (SHS) for ten years. The draft SHSMP is submitted to the Commission by February 15, and the final SHSMP to the Governor and Legislature by June 1 of odd-numbered years.
- **TAMP** - The TAMP presents the existing inventory and condition of current state highway infrastructure, asset performance targets, financial plans, investment strategies, a risk mitigation plan, life-cycle planning documentation, and identified areas of improvement. The TAMP is updated every 4 years beginning in 2018.
- **Fund Estimate** - The programming cycle's fiscal capacity is developed by Caltrans and approved by the Commission to issue the 2022 State Transportation Improvement Program Fund Estimate (Fund Estimate) that forecasts the amount of funding available each year for the four-year estimate period of the SHOPP. The Commission-adopted 2022 Fund Estimate (adopted August 2021) provides a total available programming capacity of approximately \$4.3 billion per year for the 2022 SHOPP four-year period.
- **2022 SHOPP** - Identifying a four-year program of capital projects that respond to the goals/targets identified in the 2019 SHSMP, are within the fiscal constraints specified in the Fund Estimate, and are selected to achieve the asset performance target outcomes identified in the adopted 2018 TAMP. This set of projects constitutes the four-year SHOPP.

Caltrans provides a draft of the SHOPP project list to Regional Transportation Planning Agencies (RTPA's) for review and comment before submitting the proposed SHOPP to the Commission. The Commission reviews the submitted SHOPP, holds at least two hearings, and may request clarifications or modifications to the document, program, or projects. Caltrans addresses comments received from the RTPA's and others regarding the SHOPP. The Commission ultimately adopts the SHOPP upon a finding of consistency with the TAMP and then submits the adopted SHOPP to the Governor and the Legislature. Caltrans develops and implements the projects identified in the adopted SHOPP consistent with the respective programming documents' scope, schedule, and cost.

CONSISTENCY WITH TRANSPORTATION ASSET MANAGEMENT

The 2022 SHOPP is comprised of a portfolio of 726 projects (206 new and 520 “carryover” projects from the 2020 SHOPP), spanning the four fiscal years 2022-23 through 2025-26. More than half of these projects focus on condition improvements across four primary asset classes (i.e., pavement, bridge, drainage, and Transportation Management Systems) (TMS), supporting Caltrans's progress in meeting the required 2027 performance targets set forth by the Commission and outlined in SB 1.

Projects in the 2022 SHOPP were nominated and developed under an asset management framework established through the [California 2018 TAMP](#)² and implemented with the [2019 SHSMP](#)³. The SHSMP operationalizes the TAMP using Commission-adopted asset classes, performance measures and targets under SB 486.

The portfolio of projects in the 2022 SHOPP makes progress towards meeting the SB 1 targets. The TAMP identifies federal asset management targets for pavement and bridges on the National Highway System (NHS). The TAMP also puts forth performance targets for eight supplementary asset classes in addition to the four primary asset classes on the SHS in alignment with the Commission's 2017 TAMP Guidelines.

² <https://dot.ca.gov/programs/asset-management/california-transportation-asset-management-plan>

³ <https://dot.ca.gov/programs/asset-management/state-highway-system-plan>

The SHSMP integrates both federal and state-mandated targets and further expands the scope of asset management to 32 total performance objectives and targets. The local Caltrans districts develop project portfolios spanning the 10-year plan period to achieve the required performance within fiscal constraints. The districts manage these project portfolios to adapt to project-level scope changes, schedule adjustments, and other factors to ensure that 10-year performance targets can be achieved. Complete project lists and details are published and updated quarterly in the [SHOPP Ten-Year Project Book](#). All proposed new 2022 SHOPP projects have been listed in the publicly available Project Book for a minimum of six months and up to 2.5 years, depending on the project.

To measure progress toward meeting the defined performance targets, Caltrans develops an Annual Performance Benchmarks Report to measure progress made for each of the four primary assets towards achieving the 2027 targets.

Caltrans has confidence that the 2022 SHOPP is fully aligned and consistent with the TAMP through this strategic asset management process.

[2022 SHOPP COMPARISON TO STATE HIGHWAY SYSTEM MANAGEMENT PLAN](#)

Table 2 summarizes 2022 SHOPP projects and planned reservations against the 2019 SHSMP targets. A greater detailed summary of the 2022 SHOPP, by fiscal year, is shown in **EXHIBIT A: 2022 SHOPP Funding Summary**.

**Table 2 - Comparison of 2022 SHOPP Programming to the 2019 SHSMP
Fiscal Years 2022-23 through 2025-26***

Program Categories	2022 SHOPP Projects & Reservations (in Millions)	40% of 10 yr Constrained 2019 SHSMP* (in Millions)
Primary Assets		
Pavement	\$5,830	\$7,160
Bridge	\$2,202	\$2,791
Culvert(s)	\$809	\$962
TMS	\$945	\$863
Supplementary Assets	\$1,066	\$1,264
Project Objectives		
Major Damage (Emergency Opening)	\$1,819	\$955
Major Damage (Permanent Restoration)	\$769	\$700
Collision Reduction	\$2,621	\$2,031
Mandates	\$340	\$527
Mobility	\$267	\$320
Roadside Preservation	\$69	\$141
Protective Betterments	\$13	\$60
Multiple Objective	\$56	\$0
Minor Program	\$1,000	\$960
Long Lead (New)	\$54	\$115
Total:	\$17,860	\$18,848
*Excludes Proposition 1B bond funds. Totals shown reflect programmed amounts and not the total project cost. Not all projects are fully funded.		
Note: The SHOPP is developed in thousands and rounded for this table. Numbers may not add due to rounding.		

Each project in the 2022 SHOPP contains a primary asset or “anchor” asset and associated performance measure. The anchor performance measure represents the project output and is included in a project’s individual listing “box” (**EXHIBIT E**: 2022 SHOPP County Listing of Projects). Performance measures range from lane-miles of distressed pavement restored for roadway preservation projects to collisions reduced for safety projects.

However, secondary “satellite” project performance measures are often part of a project’s scope and are captured but not reported in the project listing. Satellite asset performance is available through the project book dashboard. **Table 3** summarizes the 2022 SHOPP investment by Anchor performance measure objective, although each of these anchor objectives will include costs for satellite objectives as well.

Table 3 - 2022 SHOPP Investments by Objective

Anchor Objective	Programmed Project Cost & Reservations* (in Billions)	Percent of SHOPP
Pavement	\$5.8	34.7%
Bridge	\$2.2	13.1%
Culvert(s)	\$0.8	4.8%
TMS	\$0.9	5.6%
Major Damage (Emergency Opening)	\$1.8	10.8%
Major Damage (Permanent Restoration)	\$0.8	4.6%
Safety	\$2.2	12.9%
All Others	\$2.3	13.5%
Grand Total*	\$16.8	100.0%
*Totals shown reflect programmed amounts and not the total project cost. Not all projects are fully funded. Grand Total excludes the Minor Reservation and New Long Lead PA&ED cost.		
Note: The SHOPP is developed in thousands and rounded for this table. Numbers may not add due to rounding.		

PRIMARY ASSET CLASS IMPROVEMENTS IN THE 2022 SHOPP

The 2022 SHOPP will deliver condition improvements across the four primary asset classes aligned with state and federal mandated performance targets. Notably, these projects will address the following:

- 6,347 lane miles of fair and poor condition pavement
- Fair and poor condition bridges representing 9.2 million square feet of deck area
- Rehabilitate 397,724 linear feet of culverts
- 2,803 poor condition TMS elements

SHOPP DEVELOPMENT AND PLANNING CYCLES

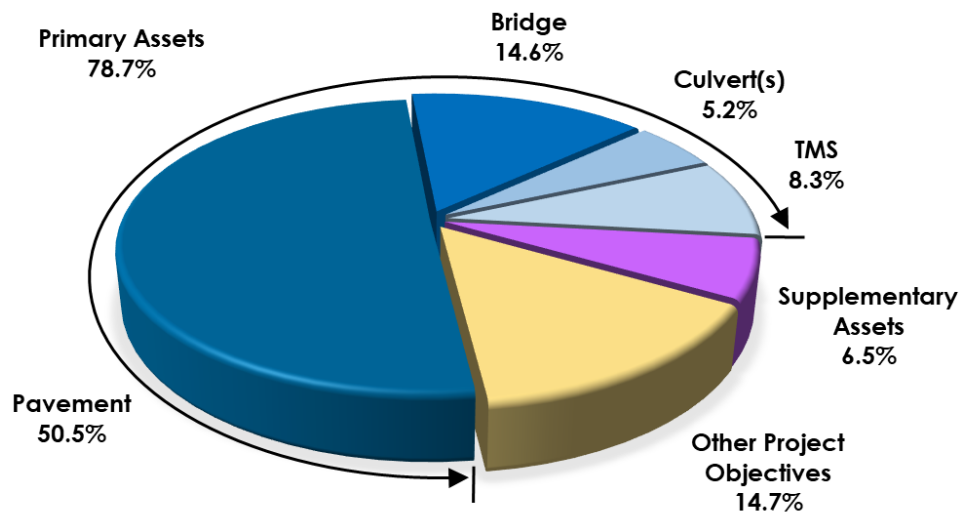
Caltrans engages in a comprehensive planning process to select projects for the SHOPP Program. Transportation needs such as pavement, bridge, TMS, and culvert repairs are bundled into projects to utilize SHOPP funding efficiently. Proposed project portfolios are aligned to meet performance targets and financial constraints. Projects within the portfolio begin with planning and the development of a PID.

The PID identifies the scope, schedule, and cost for each capital project and is the basis for determining the amount of funding being requested for programming each project in the SHOPP. During PID development, various components and analyses are integrated into the project, such as active transportation, risk management, and other topics. Caltrans also coordinates with regional and local partners. Coordination with partners contributes to the identification of opportunities or potential risks. This coordination considers local capital improvement programs, active transportation programs, and other potential areas to collaborate through scope, cost, or schedule.

SHOPP FUNDING

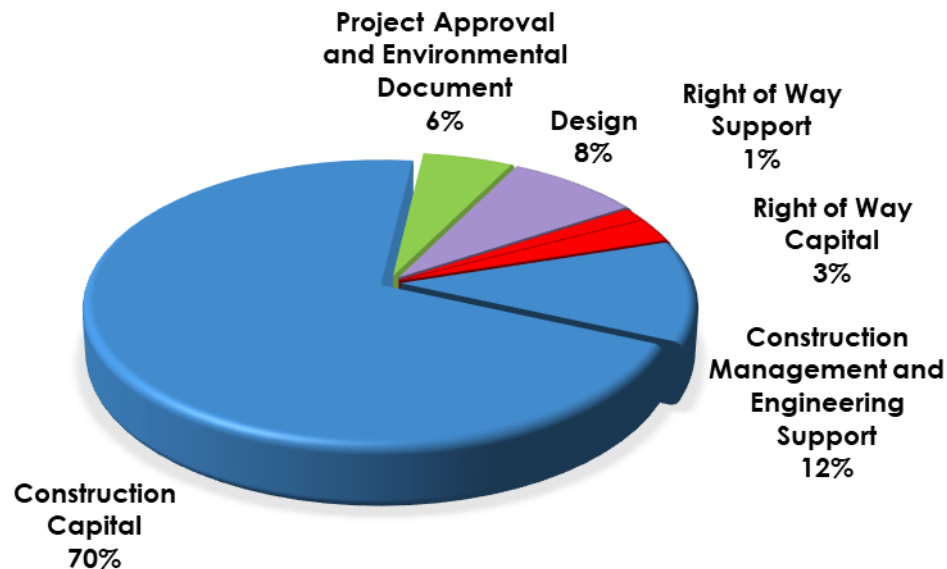
The State Highway Account (SHA), Federal Highway Trust Fund (HTF), and Road Maintenance and Rehabilitation Account (RMRA) are the funding sources for the SHOPP. The Commission SHOPP Guidelines (June 2020) ensure the accountability and transparency outlined in SB 1. Furthermore, project outputs were incorporated into the Commission SHOPP Guidelines to promote efficiency, accountability, and performance for invested funding. **Figure 3** displays the percent of projects in the primary and supplementary asset classes based on total project cost.

Figure 3 – Percent of Projects in Asset Management Classes



CAPITAL OUTLAY AND CAPITAL OUTLAY SUPPORT

Capital Outlay Support (COS) represents staff time associated with the development, delivery, and oversight of Caltrans' capital outlay SHOPP projects. COS is divided into the following component phases: Project Approval and Environmental Document (PA&ED); Plans, Specifications, and Estimate (PS&E); right-of-way support; and construction support. Per Government Code 14526.5 (g) (effective July 1, 2017) and per the current Commission SHOPP Guidelines, Caltrans must request individual allocations by component from the Commission for each individual COS phase and construction capital. **Figure 4** shows the percentage distribution of the 2022 SHOPP among COS component phases.

Figure 4 – 2022 SHOPP Distributed Among Project Components

LONG LEAD AND CONTINGENCY PROGRAMMING

Long Lead and Contingency projects help ensure that the State fully utilizes its available federal transportation funding. On June 15, 2000, Commission resolution G-00-13 provided Caltrans with a means to commence project delivery efforts on SHOPP Long Lead projects, which require more than four years to develop due to complex environmental and preliminary engineering work. The 2022 SHOPP contains 34 Long Lead projects valued at \$1.49 billion. These projects are authorized to start work on the Project Approval and Environmental Document (PA&ED) phase, as shown in **EXHIBIT F: 2022 SHOPP Long Lead Projects**.

The Commission further authorized Caltrans to program Contingency Projects for preliminary engineering development only, when appropriate, thus creating projects that address performance goals without committing SHOPP resources to construction capital and support prematurely before the resources are needed. Programming Contingency Projects enable the maximum currently available capital funding to be dedicated to projects ready for construction rather than having funding held aside for years as complex projects get ready for construction. The 2022 SHOPP contains 65 contingency projects valued at \$4.4 billion included within the 2022 SHOPP project listing in **EXHIBIT E: 2022 SHOPP County Listing of Projects**. A “shovel-ready” contingency project can quickly be proposed

for funding should additional transportation revenues be provided or to replace a project that is delayed or otherwise reduced in cost, making funding available within the fiscally constrained Fund Estimate period.

INNOVATION AND SUSTAINABILITY

SB 1 contains provisions for sustainability, innovation, resiliency, and Complete Streets on SHOPP projects. These provisions in Streets and Highways Code Section 2030 Subdivision (c)-(f) require Caltrans to use advanced construction technologies and material recycling techniques, and to include technology and communications systems to accommodate zero-emission and autonomous vehicles, wherever feasible and cost-effective. In addition, the provisions require SHOPP projects, where feasible, to include Complete Streets elements, such as bicycle lanes and sidewalks, that improve safety for all users of the highway system. Also, SB 1 requires Caltrans to ensure that transportation assets are protected and better adapted to future extreme weather and other climate impacts.

Taken together, these new SB 1 requirements of the SHOPP will result in a highway system that is more reliable and safer for all users of the system, including bicyclists, pedestrians, and transit riders as well as automobile and truck travelers. At the same time, the methods and materials utilized when rehabilitating the highway system will be less impactful than traditional practices and will create more resilient and sustainable facilities as necessary repairs are made. The highway system is being remodeled to meet modern needs as essential repairs are made.

In addressing these provisions from SB 1, Caltrans is building on many activities already in practice to utilize sustainable approaches and innovative processes on SHOPP projects. Below are some of the current sustainability and innovation activities underway through SHOPP projects.

- Making multimodal transportation accessible for all Californians by providing safe, efficient, and cost effective, pedestrian, bicycle, and transit infrastructure and services.
- Minimize transportation impacts on climate, air quality, water quality, and wildlife.
- Incorporating recycled materials into the asphalt and concrete mixes to extend the life of the pavement and reduce the emissions generated in manufacturing the materials, including the pilot use of Environmental

Product Declarations to evaluate emissions from construction materials and current research on limestone constituents in pavement mixes.

- Recycling pavement on the job site minimizes GHG from trucking materials to and from the job site and eliminates waste.
- Using reflective sign sheeting to eliminate the need for lighting.
- Specifying Light Emitting Diode (LED) traffic signals and highway lighting can reduce energy consumption by up to 50 percent.
- Deploying SMART Irrigation Controllers to tailor water usage for landscaping based on weather conditions to conserve water.
- Using recycled water for roadside landscape watering where possible.
- Designing projects with functional landscaping features that collect stormwater and reduce urban heat island effects.
- Installing electric vehicle fast-charging stations at Caltrans-owned sites.
- Updating the project development process to track progress toward designing projects that include pedestrian and bicycle facilities.
- Reducing the energy, water, and materials consumed in some of Caltrans' buildings and facility operations.

FISH PASSAGE

Caltrans is required to remediate Salmon and Steelhead Trout barriers on the State Highway System per California Streets and Highway Code 156.1-156.5. The 2022 SHOPP includes identified maintenance and replacement needs at culverts and bridges that provide opportunities to remediate existing barriers as the transportation improvement work is done. Caltrans has included a new inventory of priority Salmon and Steelhead Trout barriers in the Asset Management Tool (AMT), which improves opportunities to identify overlapping transportation and barrier remediation needs. This new fish passage priority AMT inventory helps to ensure that transportation projects adequately scope needs and requirements of fish passage barrier improvements as the projects move through the planning and project delivery process.

CLIMATE CHANGE

The State of California has been proactive regarding climate change policy and legislation. Several bills and executive orders have been enacted that have established and required consideration of the state's climate goals to reduce GHG emissions and adapt the transportation system to be more resilient to climate impacts such as extreme weather events. The California Transportation Agency has emphasized the importance of climate considerations with developing the Climate Action Plan for Transportation Infrastructure (CAPTI), which will guide transportation investment decisions moving forward.

Under Executive Order EO N-19-19 and the Sustainability provisions of The Road Repair and Accountability Act of 2017 (Senate Bill 1) Section 2030 (e), Caltrans must consider climate change in all investment decisions. Caltrans addresses this by considering future climate conditions throughout the project development process.

In coordination with state and federal agencies and research institutions, Caltrans has completed Vulnerability Assessments and associated Adaptation Priority Reports for each Caltrans District. These assessments focus on the SHS and help identify vulnerabilities due to climate change impacts, including precipitation, temperature, wildfire, storm surge, and sea-level rise.

Caltrans considers the potential long-term impacts of climate changes when evaluating the design and or alignment alternatives. SHOPP projects incorporate more resilient designs for long-life projects in anticipation of increased future climate stressors.

Furthermore, implementing climate change elements into asset management performance objectives will ensure consistent inclusion of risk-based climate concerns in multi-objective SHOPP projects. These actions will help Caltrans reduce maintenance costs and keep the SHS functioning effectively and efficiently.

EQUITY AND LIVEABILITY

The Asset Management approach utilized for the SHOPP is driven by performance. The performance targets are consistent from one location to the next within California. This performance-driven approach will drive investment to

the areas with the greatest need. Following the performance approach will ultimately lead to equal condition levels in all locations over time.

Caltrans works towards advancing equity and livability goals through activities in SHOPP projects under the Americans with Disabilities Act (ADA) Pedestrian Infrastructure and Complete Streets performance objectives. These objectives shape transportation investment decisions to ensure that the SHS is accessible, safe, and efficient for all users, particularly disadvantaged and under-served communities, across an integrated multimodal transportation system that includes vehicle, bike, and pedestrian facilities.

Caltrans also proactively engages with affected community groups focusing on those in disadvantaged and under-served communities so that their transportation-related needs and concerns are addressed. By Caltrans recognizing disparities and addressing them in transportation investments and new projects, vibrant and livable places are developed for all Californians.

This strategic goal focuses the department's efforts to:

- Avoid and work to address transportation-related disparities in underserved communities on all new projects.
- Plan and design transportation facilities to support vibrant, livable places, focusing on addressing the needs and concerns of underserved communities.
- Collaborate with partner agencies to make equity and inclusion central in funding decisions.

[COMPLETE STREETS – MEETING THE NEEDS OF ALL MODES](#)


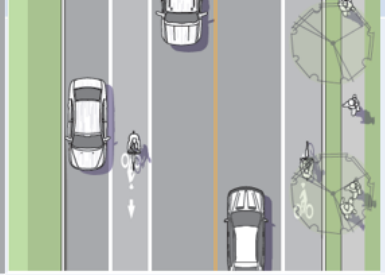

Caltrans implemented project level complete streets assessments during project scoping on all candidate projects. The current project initiation guidance requires that all SHOPP projects, except for Major Damage - Permanent Restoration (131) and SHOPP Safety (010) projects, are evaluated for the need and practicality of including bicycle, pedestrian, and transit features. This evaluation is documented in the PID and revisited at every major milestone. In addition, Caltrans has developed further initiatives with the new Caltrans Director's Policy 37 - Complete Streets that support the incorporation of complete streets components into all phases of project planning and development. This policy will be implemented into all future SHOPP projects, where feasible.

Caltrans' new Director's Policy 37 (DP-37) recognizes that walking, biking, transit, and passenger rail are integral to the Caltrans vision of delivering a brighter future for all through a world-class transportation network. Additionally, Caltrans recognizes that streets are not only used for transportation but are also valuable community spaces. Accordingly, in locations with current and or future pedestrian, bicycle, or transit needs, all transportation projects funded or overseen by Caltrans will provide comfortable, convenient, and connected complete streets facilities for people walking, biking, and taking transit or passenger rail unless an exception is documented and approved. This policy establishes Caltrans' organizational priority to encourage and maximize walking, biking, transit, and passenger rail as a strategy to meet state climate, health, equity, and environmental goals and foster socially and economically vibrant, thriving, and resilient communities. To achieve this vision, Caltrans will maximize design flexibility to provide context-sensitive solutions and networks for travelers of all ages and abilities.

Caltrans uses an asset management tool to track project-level accomplishments included in all SHOPP projects. This tool allows project-level improvements to be summarized across the SHOPP, including complete streets features. Furthermore, a publicly posted virtual project book is updated quarterly and includes all SHOPP projects. Many of the complete streets elements on individual projects are made part of the virtual project book for public review.

Within the 2022 SHOPP, Caltrans strengthens its commitment to integrate bicycle, pedestrian, and transit improvements into the transportation network. 47 percent of all 2022 SHOPP projects include one or more complete streets features. The 2022 SHOPP comprises more than 52 miles of sidewalks and crosswalks and over 288 transit features such as transit stop improvements, bulb-outs, and pull-outs.

Figure 5 – Expected 2022 SHOPP Complete Streets Improvements

Bike Facilities		
Class 1	Class 2	Class 4
		
8 miles	209 miles	7.2 miles
Pedestrian Features		Transit Features
Over 50,000 LF of Cross walks		Transit Stop Improvements – 121 Locations
224,100 LF of Sidewalks		Bus Bulb-out/ Pull outs – 167 Locations

LIFE CYCLE PLANNING

The continuing expansion of Asset Management implementation includes developing tools to provide life-cycle planning capabilities for SHOPP projects. Project life cycle planning considers the expected treatment schedules of Caltrans' assets to guide long-term strategic decision making. The process includes identifying typical treatments for each primary asset class and defining the expectations of a given typical treatment life in years. The analysis helps determine the most cost-effective long-term actions when paired with costs over time.

Table 4 provides a listing of the common treatments that are utilized for pavement, bridges, culverts, and TMS elements and their respective useful life ranges:

Table 4 - Core-Asset Treatment Useful Life Estimates

Asset Classes	Treatment	Typical Treatment Life (Years)
Pavement		
	Thick Asphalt Overlay	4-10
	Slabs Replacement	5-10
	Medium Asphalt Overlay	10-20
	Thick Asphalt Overlay	20-40
	Asphalt Lane Replacement	20-40
	Concrete Lane Replacement	40-55
Bridges		
	Deck Overlay	15-30
	Deck Rehabilitation	20-30
	Replacement	60-80
	Rail Upgrade	30-50
	Scour Mitigation	30-50
	Seismic Mitigation	30-50
Culverts/Drainage		
	Culvert Lining	30-50
	Replacement	40-60
	Pump Replacement	30-50
Transportation Management System Elements		
	Replace Loop Detectors	8-10
	Replace Electrical Controllers	10-15
	Install Changeable Message Sign Panel	10-15
	Install New CCTV	8-12

RESERVATIONS

The 2022 SHOPP includes reservations that fund both Capital Outlay and COS based on historical expenditures for emergency repairs, safety projects, and other unforeseen immediate needs. These needs occur between programming cycles, and these reservations allow Caltrans to bring the projects to the Commission for amendment into the SHOPP between bi-annual programming cycles.

The following funding reservations, as shown in **EXHIBIT A: 2022 SHOPP Funding Summary**, are being held to provide funding to achieve anticipated future needs that will require action, but where specific projects have not yet been defined.

- **Major Damage (Emergency Opening):** Reservations are for unforeseen Major Damage Emergency (201.130) projects.
- **Major Damage (Permanent Restoration):** Reservations are for unforeseen Major Damage Restoration (201.131) projects.
- **Collision Reduction:** Reservations are for Safety Improvement (201.010) projects.
- **Mandates:** Reservations are for Relinquishment (201.160) projects to transfer ownership of state highways primarily serving local jurisdictions to those local jurisdictions.
- **Minor Program:** An annual reservation is held for the Minor program. The SHOPP Minor Program is an annual program to address short-term, low-cost project needs. In developing their annual portfolio of minor projects, each Caltrans District sets priorities and selects projects appropriate to the region's needs.

REGIONAL TRANSPORTATION PLANNING AGENCY COORDINATION

In 2013, the Self-Help Counties Coalition suggested enhanced communication and coordination in the SHOPP program development process. Specifically, the focus was on earlier information regarding what SHOPP projects are being proposed, programmed, and ultimately delivered. Caltrans developed three specific action steps to enhance earlier communications, covering planning, programming, and delivery. These steps are in addition to statutory requirements that direct Caltrans to provide the draft SHOPP to transportation agencies for an opportunity to review and comment.

- **Planning Process:** Caltrans Districts share their two-year PID work plan list of projects candidates for the next SHOPP programming cycle. This is the opportunity to coordinate proposed SHOPP projects with regionally-funded projects to synchronize timeframes, maximize benefits, and minimize impacts to the traveling public.
- **Programming Process:** Districts share with the regions which projects they will be submitting as candidate projects for the upcoming SHOPP. This is a second opportunity to coordinate and confer with local partners to synchronize timeframes, maximize benefits, and minimize impacts to the traveling public. The Division of Financial Programming will circulate the proposed four-year program of projects to the RTPAs for review and comment. Comments received will be incorporated into the final SHOPP programming document.
- **Status Updates:** Districts will update the RTPA's on a quarterly or semi-annual basis on (1) the list and status of PID projects being developed as well as (2) the status of funded SHOPP projects currently in delivery. At a minimum, Districts will provide a summary-level project delivery status on all currently programmed SHOPP projects semiannually.

With the implementation of asset management, complete project lists and details are published and updated quarterly in the SHOPP Ten-Year Project Book. All proposed new 2022 SHOPP projects that are not funded by reservations, such as emergency opening projects or safety improvements, have been listed in the publicly available Project Book for a minimum of six months and up to 2.5 years, depending on the project.

On December 22, 2021, the Proposed 2022 SHOPP project listing was provided to regional transportation partners for review and comment. Caltrans will further expand its SHOPP engagement efforts to develop subsequent SHSMP and SHOPP documents. Formal comments received regarding the draft 2020 SHOPP and Caltrans responses are provided in **EXHIBIT C: 2022 SHOPP Regional Transportation Planning Agency Comments**.

EXHIBIT A: 2022 SHOPP Funding Summary

**2022 State Highway Operation and Protection Program
Funding Summary for Fiscal Years 2022-23 through 2025-26*
(in Millions)**

Program Funding	2022 23	2023 24	2024 25	2025 26	Total
2022 Fund Estimate	\$4,300	\$4,300	\$4,300	\$4,400	\$17,300
ER Reimbursement	\$140	\$140	\$140	\$140	\$560
Programmed	2022 23	2023 24	2024 25	2025 26	Total
Pavement	\$1,469	\$1,164	\$1,345	\$1,853	\$5,830
Bridge	\$683	\$631	\$558	\$330	\$2,202
Culvert(s)	\$110	\$394	\$139	\$167	\$809
TMS	\$442	\$187	\$219	\$97	\$945
Supplementary Assets	\$199	\$361	\$232	\$273	\$1,066
Major Damage (Emergency Opening)	\$0	\$0	\$0	\$0	\$0
Major Damage (Permanent Restoration)	\$186	\$74	\$149	\$0	\$409
Collision Reduction	\$401	\$784	\$106	\$122	\$1,413
Mandates	\$106	\$81	\$49	\$56	\$292
Mobility	\$77	\$109	\$53	\$27	\$267
Roadside Preservation	\$49	\$0	\$9	\$10	\$69
Protective Betterments	\$0	\$0	\$10	\$4	\$13
Multiple Objective	\$43	\$13	\$0	\$0	\$56
Subtotal	\$3,766	\$3,800	\$2,868	\$2,938	\$13,371
Reserved	2022 23	2023 24	2024 25	2025 26	Total
Pavement	\$0	\$0	\$0	\$0	\$0
Bridge	\$0	\$0	\$0	\$0	\$0
Culvert(s)	\$0	\$0	\$0	\$0	\$0
TMS	\$0	\$0	\$0	\$0	\$0
Supplementary Assets	\$0	\$0	\$0	\$0	\$0
Major Damage (Emergency Opening)	\$245	\$248	\$655	\$670	\$1,819
Major Damage (Permanent Restoration)	\$40	\$40	\$140	\$140	\$360
Collision Reduction	\$73	\$90	\$515	\$530	\$1,208
Mandates	\$12	\$12	\$12	\$12	\$48
Mobility	\$0	\$0	\$0	\$0	\$0
Roadside Preservation	\$0	\$0	\$0	\$0	\$0
Protective Betterments	\$0	\$0	\$0	\$0	\$0
Multiple Objective	\$0	\$0	\$0	\$0	\$0
Subtotal	\$370	\$390	\$1,322	\$1,352	\$3,435

Programmed and Reserved	2022 23	2023 24	2024 25	2025 26	Total
Pavement	\$1,469	\$1,164	\$1,345	\$1,853	\$5,830
Bridge	\$683	\$631	\$558	\$330	\$2,202
Culvert(s)	\$110	\$394	\$139	\$167	\$809
TMS	\$442	\$187	\$219	\$97	\$945
Supplementary Assets	\$199	\$361	\$232	\$273	\$1,066
Major Damage (Emergency Opening)	\$245	\$248	\$655	\$670	\$1,819
Major Damage (Permanent Restoration)	\$226	\$114	\$289	\$140	\$769
Collision Reduction	\$474	\$874	\$621	\$652	\$2,621
Mandates	\$118	\$93	\$61	\$68	\$340
Mobility	\$77	\$109	\$53	\$27	\$267
Roadside Preservation	\$49	\$0	\$9	\$10	\$69
Protective Betterments	\$0	\$0	\$10	\$4	\$13
Multiple Objective	\$43	\$13	\$0	\$0	\$56
Minor Program Reservation	\$250	\$250	\$250	\$250	\$1,000
Long Lead (New)	\$54				\$54
Grand Total	\$4,440	\$4,440	\$4,440	\$4,540	\$17,860

*Excludes Proposition 1B bond funds.

Totals shown reflect programmed amounts and not the total project cost. Not all projects are fully funded.

Note: The SHOPP is developed in thousands and rounded for this table. Numbers may not add due to rounding.