Appendix A. 2014 CFMP Goals, Objectives, Strategies, and Accomplishments

The following are the six goals, objectives, and strategies from the 2014 CFMP. The projects and achievements to accomplish each goal are also presented.

Goal 1: Economic Competitiveness

Improve the contribution of the California freight transportation system to economic efficiency, productivity, and competitiveness.

OBJECTIVES

- Build on California's history of investments to seek sustainable and flexible funding solutions with federal, private, and green partners
- Invest in freight projects that enhance economic activity, freight mobility, reliability, and global competitiveness

STRATEGIES

- Conduct a cost-benefit analysis for each freight project proposed for programming
- Reduce transportation costs by eliminating bottlenecks and recurrent delay, making operational improvements, and accelerating rapid incident response on priority freight corridors
- Seek creation of national, state, and regional dedicated freight funding programs
- Expand capacity of freight corridors or subsections through infrastructure or operational improvements
- Eliminate unnecessary freight lifts or handling
- Improve system condition and performance on priority freight corridors
- Coordinate with other states and regions to improve multi-jurisdictional freight corridors to reduce delay, increase speed, improve reliability, and improve safety

Accomplishments Since 2014

- Investments in freight infrastructure and mobility to enhance the State's economic activity, freight mobility, reliability, and global competitiveness
- The creation of new federal and state dedicated freight funding sources, such as:
    - The federal Fixing Americans Surface Transportation (FAST) Act that established the National Highway Freight Program (NHFP), providing California with approximately $535 million to fund projects that improve the efficient movement of freight on the National Highway Freight Network (NHFN) and support various federal freight goals
    - The State of California's Road Repair and Accountability Act of 2017, also known as Senate Bill (SB) 1, created a new Trade Corridor Enhancement Program (TCEP)

providing approximately $300 million per year in state funding for projects which more efficiently enhance the movement of goods along corridors

Goal 2: Safety & Resiliency

Improve the safety, security, and resilience of the freight transportation system.

OBJECTIVES

- Reduce rates of incidents, collisions, fatalities, and serious injuries associated with freight movements
- Utilize technology to increase the resilience and security of the freight transportation system

STRATEGIES

- Reduce points of conflict on the freight system by constructing railroad grade crossings where there is a history of crashes and at crossings that have a high volume of vehicle and train traffic
- Create truck-only lanes and facilities, and encourage off-peak usage
- Fully implement positive train control (PTC)
- Expand number and scope of cargo security screenings
- Expand the system of truck parking facilities
- Ensure consistent and effective safety and security requirements at all California ports
- Identify alternate freight routes to maintain freight movement at times of disruption by disaster or other causes
- Inventory and assess risks for freight facilities vulnerable to sea level rise and other natural disasters and prioritize for abandoning, armoring, adapting, moving, or replacing

Accomplishments Since 2014

- The State of California's 2020-2024 Strategic Highway Safety Plan (SHSP), a data-driven plan reducing traffic-related fatalities and severe injuries on all public roads through:
    - Strategies and actions identified as having the greatest impact on road safety for all modes of travel and guidance for the investment of the Federal Highway Administration (FHWA) and the National Highway Traffic Safety Administration (NHTSA) safety funding across multiple state departments
    - Actions identified and delivered through public and private industries representing the 4 Es of safety (Education, Enforcement, Emergency Services, and Engineering)
- Implementation of PTC on all California Class I Railways

Programmed and Constructed Projects

- Lake County SR 29 Expressway Project (SHOPP) – Caltrans District 1
  Facilitate the efficient flow of goods and service through Lake County, provide a facility with the potential for diverting through traffic (including through truck traffic) from north shore SR 20, and improve the safety and operation of SR 29
- Yuba County SR 20 at Timbuctoo Improvements – Caltrans District 3
  Improve safety by reducing the number of run-off-road collisions on a section of SR 20 in Yuba County; provide a truck climbing lane

- Etiwanda Avenue Grade Separation – Rancho Cucamonga
  Widen and construct Etiwanda Avenue as a grade-separated roadway over the SCRRA/BNSF San Gabriel subdivision, currently an at-grade crossing; a grade separation reduces vehicles and truck delays and queuing along Etiwanda Avenue and improves mobility, safety, and level of service at the crossing
- Fyffe Grade Separation – Port of Stockton
  Improve safety by removing the at-grade crossing and eliminating the potential for vehicle/rail conflicts. Provides a critical, reliable emergency evacuation route for the employees, tenants, visitors, and emergency response vehicles at the Port of Stockton West Complex
- Rice Avenue and 5 Street Grade Separation – Caltrans District 7
  Eliminate conflicts between vehicles and trains at the rail-highway crossing
- 7th Street Grade Separation (East) – Alameda County Transportation Commission
  Realign and reconstruct the existing railroad underpass and multi-use path along 7th Street between west of I-880 and Maritime Street to increase vertical and horizontal clearances for trucks to current standards and improves the shared pedestrian/bicycle pathway
- SR 60 Truck Safety and Efficiency (Phase 1A) – Riverside County Transportation Commission
  Construct new eastbound climbing and westbound descending truck lanes from Gilman Springs Rd to approximately 1.47 miles west of Jack Rabbit Trail and upgrade existing inside and outside shoulders to standard width
- Quiet Zone Safety Engineering Measures

Goal 3: Freight System Infrastructure Preservation

Improve the state of good repair of the freight transportation system.

OBJECTIVES

- Apply sustainable preventive maintenance and rehabilitation strategies

STRATEGIES

- Ensure adequate and sustainable funding for preservation of the freight system
- Expand scope of freight system rehabilitation projects to include facility modernization, where possible and merited, to increase range of available funding sources
- Make preservation projects multi-purpose
- Identify maintenance and preservation needs on priority freight corridors

Programmed and Constructed Projects

- District 1 - Del Norte - Highway 101 Hunter/Panther Creek Bridge Replacement
  - Upgrade Hunter Creek and Panther Creek Bridges to meet current seismic and design standards; the existing structures are over 50 years old and do not meet Caltrans requirements for seismic safety
- District 1 - Humboldt - Highway 101 Redcrest Capital Pavement Maintenance (CPAM)
  - Preserve and extend the service life of the existing distressed pavement on US 101, a critical north/ south interregional freight corridor

- District 3 - Placer – I-80 Bridge Rehabilitation
    - Rehabilitate or replace deficient structural components at four over-crossings located at various locations along I-80 in Placer County. Interstate I-80 is a critical interregional east-west freight corridor which serves freight traffic moving from the Ports of Oakland and West Sacramento across the state, into Nevada, and beyond. Within the project limits, I-80 is a four-lane freeway with intermittent truck climbing lanes
- District 3 - Sacramento - SR 99 Rubberized Hot Mix Asphalt (RHMA) Overlay
    - Preserve and extend this section of the pavement life on SR 99, a critical north/south interregional freight corridor travel by high volumes of heavy trucks
- District 4 - Solano - Interstate 80 -Bridge Rehabilitation
    - Increase the vertical clearance of the six over-crossings over I-80 to standard 16'-6" to allow over-height and commercial permit vehicles to travel continuously along I-80 under these over-crossings
- District 6 - Fresno - SR 99 Roadway Rehabilitation (R2)
    - Extend the service life of the pavement structure for a minimum of 40 years on a critical north/ south interregional freight corridor travel with high volumes of heavy trucks
- District 6 - Kings - SR 99 Kingsburg Rehabilitation Overlay
    - Preserve and extend the pavement life on SR 99, a critical north/south interregional freight corridor travel by high volumes of heavy trucks
- District 6 - Kern - SR 99 Roadway Rehabilitation (R2)
    - Resolve structure pavement failure on SR 99, a critical north/south interregional freight corridor, caused by high volumes of heavy trucks and restore the structural integrity by rehabilitating the roadbed
- District 7 - Los Angeles – I-5 Pavement Rehabilitation
    - Preserve and extend the pavement life on I-5, a critical north/south interregional freight corridor traveled by high volumes of heavy trucks

Goal 4: Environmental Stewardship

Avoid and reduce adverse environmental and community impacts of the freight transportation system.

OBJECTIVES

- Integrate environmental, health, and social equity considerations into all stages of freight planning and implementation, including considering impacts and mitigation relative to the context of the project location
- Conserve and enhance natural and cultural resources
- Avoid and reduce air and water pollution, greenhouse gas (GHG) emissions, and other negative impacts associated with freight transportation by transitioning to a lower-carbon and more efficient freight transportation system
- Implement freight projects that demonstrate, enable, implement or incentivize use of advanced, clean technologies (including zero- and near-zero-emissions technologies) and efficiency measures needed to attain ambient air quality standards and achieve needed air toxics and GHG emission reductions

STRATEGIES

- Establish corridor specific-impact reduction goals and projects
- Incentivize and prioritize freight projects that maximize GHG, criteria pollutant, and air toxin emission reductions
- Incentivize impact reduction
- Implement projects in freight corridors that are specifically targeted to avoid, reduce, or mitigate freight impacts on the environment and community
- Support and fund research focused on impact reductions and mitigation
- Ensure coordination and alignment of the Plan with State GHG reduction goals and requirements and State and federal air quality standards
- Develop an efficiency metric that captures the intensity of pollutants per unit of freight moved

Accomplishments Since 2014

- Adoption of the California Sustainable Freight Action Plan (CSFAP), freight targets, and pilot projects in 2016.
- Significant investments in all three CSFAP Pilot Projects:
    - Dairy Biomethane for Freight Vehicles: approximately $3 million from the California Energy Commission (CEC) for a community-scale advanced biofuels production project, and a minimum of five more projects to soon launch
    - Advanced Technology Corridors at Border Ports of Entry: Phases I and II, which includes 15 air quality monitors, funded through the TCEP and other Caltrans funds
    - Advanced Technology for Truck Corridors in Southern California: significant investments by the South Coast Air Quality Management District in zero-emission freight vehicles and equipment, and the I-10 Truck Parking Availability System fully funded through California, Arizona, New Mexico, and Texas
- Adoption of the Zero-Emission Vehicle (ZEV) Action Plan
- Deployment of an estimate of over 10,000 freight ZEV and equipment, with a goal of 100,000 deployed by 2030
- 60-98% reduction of criteria pollutants and 13% reduction of carbon dioxide emitted at the San Pedro Ports from 2005 to 2017, 98% reduction in truck emissions, and 76% reduction in vessel emissions at the Port of Oakland from 2009 to 2018
- Establishment of the Community Air Protection Program (pursuant to Assembly Bill (AB) 617) to reduce exposure in communities most impacted by air pollution
- Commitment to the Clean Transportation Program, the Cap and Trade system, and the Low Carbon Transportation Investments and the Air Quality Improvement Program, which includes freight-specific funding

Goal 5: Congestion Relief

Reduce costs to users by minimizing congestion on the freight transportation system.

OBJECTIVES

- Develop, manage, and operate an efficient, integrated freight system
- Identify causes and solutions to freight bottlenecks
- Invest strategically to optimize system performance

STRATEGIES

- Create a multimodal freight bottleneck list for priority corridors and prioritize for correction
- Identify the most congested freight corridors and facilities and prioritize these for improvement
- Implement vehicle detection on priority corridors to identify problem areas across modes, particularly targeted to truck data
- Construct railroad grade separations at high volume roadway crossings
- Add mainline track and sidings to accommodate demand for freight and passenger rail services
- Implement system management and expand the freight travel information availability with the focus on freight corridors
- Expand freight travel information availability to the entire truck fleet

Accomplishments Since 2014

- Caltrans' collaboration with Metropolitan Planning Organizations and Regional Transportation Planning Agencies in the development of a performance target for truck travel time reliability on the interstate system
- Caltrans' continued analysis and reporting of the state's progress in reaching the FHWA's travel truck time reliability targets
- Caltrans' identification of major freight bottleneck locations, inclusion of those locations in the 2018 California Freight Mobility Plan Addendum, and the monitoring of the State's progress in reducing the congestion at those locations
- District 7: I-605 / SR 91 Interchange Improvement Gateways Cities Freight Crossroads
    - This project reduces congestion, improves freeway operations on the mainline and ramps, and enhances safety on local and system interchange operations
- District 8: US 395 Widening from SR 18 to Chamberlain Way
    - The widening improvements will reduce congestion and enhance the operational efficiencies on this critical north/south interregional freight corridor that carries a large volume of traffic with a high percentage of heavy trucks
- District 12: ORA-SR 57/ SR 91/ I-5 Install and Modify Intelligent Transportation System (ITS) Elements
    - This project upgrades existing elements, facilitates heavy truck traffic flow, and deploys new elements to enhance the fail-safe system through redundancy in managing incidents and congestion during normal operations and special events

Goal 6: Innovative Technologies and Practices

Use innovative technology and practices to operate, maintain, and optimize the efficiency of the freight transportation system while reducing environmental and community impacts.

OBJECTIVES

- Support research, demonstration, development, and deployment of innovative technologies

- Promote the use of zero- and near-zero-emissions technologies within the freight industry to support the State Implementation Plan (SIP), attainment of California greenhouse gas reduction targets, and reduction of local air toxics
- Support and incorporate the use of low-carbon renewable fuels
- Promote innovative technologies and practices that utilize real-time information to move freight on all modes more efficiently

STRATEGIES

- Prioritize Freight Plan projects implementing state-of-the-art and demonstration technologies
- Support deployment of new, non-fossil fuel distribution, recharging facilities, and shore-side power on the freight system, focusing on particular regions and corridors
- Support implementation of cleaner, quieter engine technologies
- Research opportunities for automation of certain freight movements

Accomplishments Since 2014

- Port Optimizer software at the Ports of Los Angeles and Long Beach is being implemented and is anticipated to significantly reduce port congestion
- The Port of Long Beach has been involved in the Freight Logistics Optimization Works (FLOW). Led by the U.S. Department of Transportation, the project aims to pilot an exchange of key freight information among members of the goods movement supply chain
- $82.5M awarded through TCEP to border projects, which includes funding for Phases I and II of the Advanced Technology Corridors at Border Ports of Entry, a CSFAP Pilot Project on the Caltrans District 11 Border
- Continuation of the CEC's Clean Transportation Program, formerly known as the Alternative and Renewable Fuel and Vehicle Technology Program, to fund over $100 million per year to promote accelerated development and deployment of advanced transportation and fuel technologies
- Investments in zero-emission truck technologies leading to advancements in engine torque to reduce speed differentials and system mechanics that help reduce wear and tear on roadways
- Implementation of PTC to make freight rail transportation safer on the major freight rail corridors by automatically stopping a train before certain types of collisions occur
- Formation of workgroups to establish formal standards for medium- and heavy-duty charging
- Testing and deployment of truck platooning technologies
- Commitment to alleviating truck parking issues through:
    - The launch of americantruckparking.com
    - Testing and soon deploying truck parking availability systems
    - Forming the Truck Parking Technical Advisory Committee
- Establishment of the San Diego Unmanned Aircraft System (UAS) Integration Pilot Program to accelerate safe UAS integration and innovation, including freight deliveries