

Opportunity Package 1: Sustainable Global Competitiveness

Improving global competitiveness through sustainable investments that create local jobs, protect the community and attract international commerce.

Creating Local Jobs

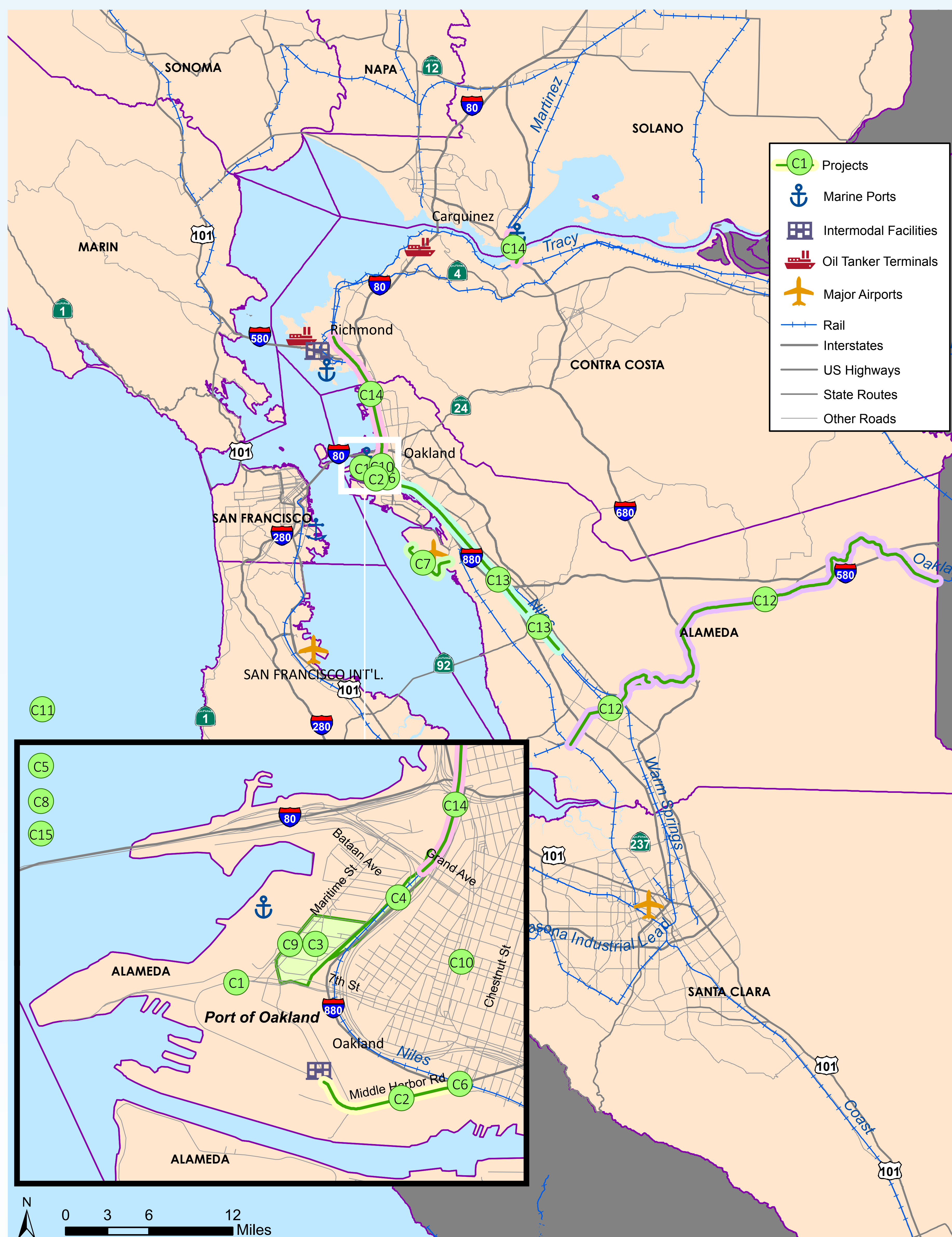
- 73,000 middle-wage jobs supported throughout Northern California.
- More local, middle-wage jobs and job diversity through the Oakland Army Base Redevelopment/Port of Oakland facilities.

Supporting Local Community

- Proactive reduction of public health effects associated with diesel pollution, noise pollution, and nuisance and safety effects.
- Public and private investments to adopt a wide range of emerging technologies and operating practices that reduce emissions.

Improving Rail Access

- Strategic improvements to the freight rail system to and from the Port of Oakland.
- Reduced truck trips between Port and Central Valley by expanding intermodal terminal capacity at the Oakland Army Base and working with the Class I railroads.
- Investments in transloading facilities to further attract shippers and create local jobs.




Opportunity 1: Sustainable Global Competitiveness

Relevance of Sustainable Global Competitiveness to each Goods Movement Functional Element

Goods Movement Function	Relevance	Description of Relevance
Global Gateways	✓	A focus on investments in the major global gateways such as the Port of Oakland and its associated infrastructure.
Interregional and Intraregional Corridors	✓	Interregional rail corridor improvement projects that provide an alternative to trucking.
Urban Goods Movement System	✓	Projects that improve last-miles connectivity to the global gateways which are part of the Urban Goods Movement System.

Performance of each Project, Program and Policy recommended for Sustainable Global Competitiveness

ID	Project Description					
		INTERCONNECTED / MULTIMODAL	SAFE & RELIABLE	INNOVATIVE	ECONOMIC PROSPERITY	IMPROVED QUALITY OF LIFE
C1	7th Street Grade Separation projects (East and West)	●	○		●	○
C2	Middle Harbor Road improvements	◐			●	○
C3	Oakland Army Base Phase 2 improvements (Port development)	◐			●	
C4	Oakland Army Base Phase 2 Intermodal Rail Improvements	◐			●	○
C5	Improved truck services and parking at Port of Oakland/Oakland Army Base	○			○	●
C6	Truck circulation improvements to reduce queuing at freeway ramps and around marine terminal gates (includes Adeline/3rd Street overpass improvements)	●	◐		○	○
C7	Airport Perimeter Dike	○	●		○	○
C8	An initial demonstration followed by targeted incentives to promote adoption of zero and near-zero emissions truck technology for port drayage			●		●
C9	Incorporation of zero or near-zero emission cargo handling equipment at the expanded Oakland Army Base Phase 2 Intermodal Rail terminal			●		●
C10	Support for enforcement of truck parking and truck route designations in neighborhoods adjacent to the Port complex	◐	○			●
C11	Rail grade crossing improvements and quiet zone improvements as necessitated by expanded rail access to the Port of Oakland	◐	●	○		●
C12	A program of track additions, sidings, and new connections (e.g., a Niles Junction Bypass to connect the UP Oakland Subdivision and Niles Subdivision) to provide an improved continuous route through Niles Canyon and north to Oakland	●	○		●	○
C13	Track addition projects along the East Bay Industrial Corridors including Hayward double track, Jack London to Elmhurst triple track, and Jack London to Embarcadero triple track	●	◐		●	○
C14	Potential improvements to the Martinez Subdivision from Oakland to Richmond and high-level Benicia-Martinez Rail Crossing and Viaduct to expand capacity and separate passenger and freight trains	●	◐		●	○
C15	Rail and Terminal Emission Reduction Program			◐		●
Overall Package Performance		●	◐	◐	●	●

Key: ● High Positive Impact ◐ Medium Positive Impact ○ Low Positive Impact

Opportunity Package 2: Smart Operations and Deliveries

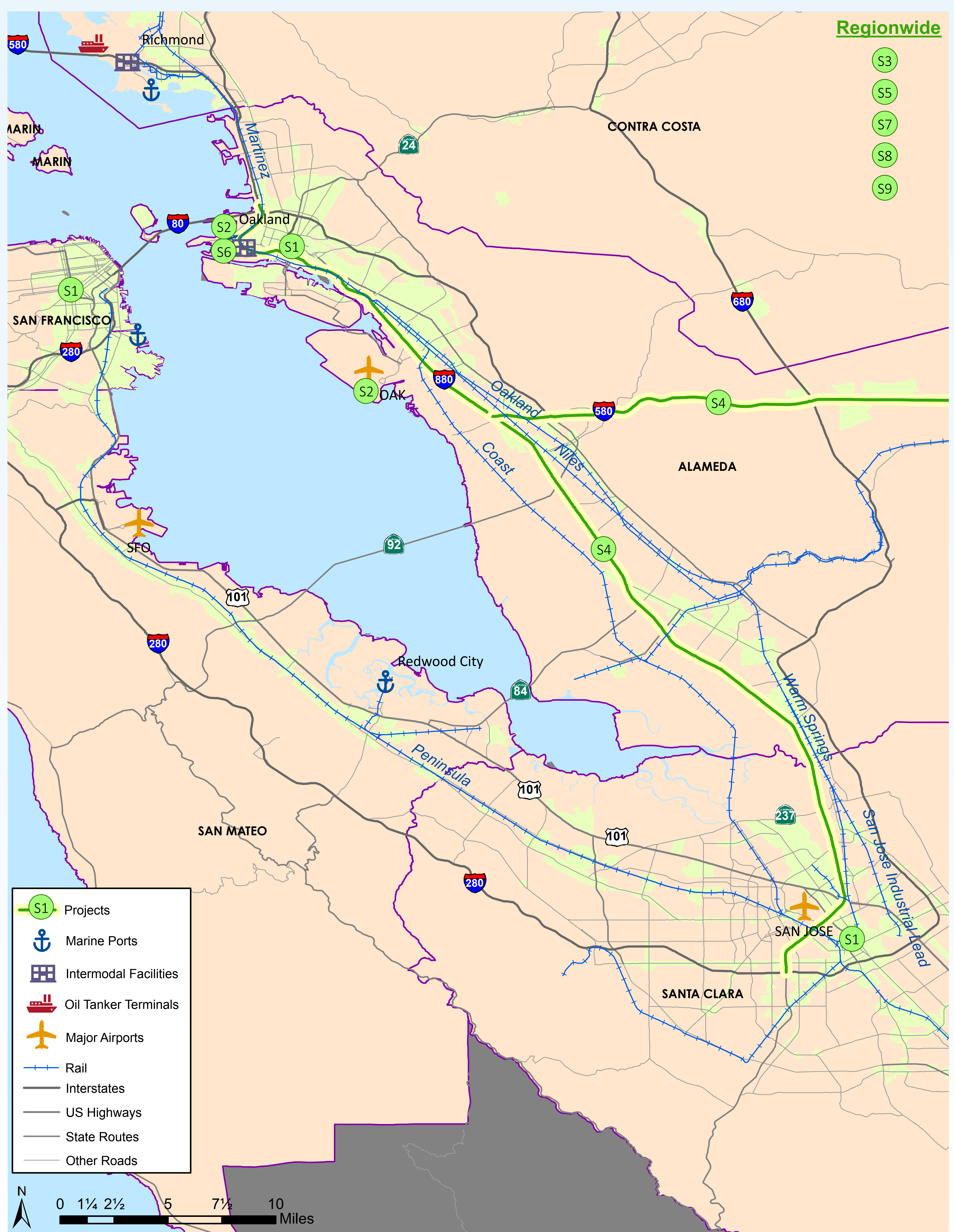
Supporting technology to improve goods movement operations, reduce congestion, and increase safety on urban and rural roads.

Smart Solutions That Utilize Existing Capacity

- Intelligent Transportation Systems (ITS), connective vehicles, and other technology solutions that use existing roadway capacity more efficiently and improve safety.
- Leveraging the region's technology industry strengths through proactive partnerships between technology developers, freight system users, and local communities.
- New technology and practices for sustainable freight.

Managing Local Traffic

- Innovative solutions to address congestion and roadway conflicts due to increasing local traffic as a result of the growth of e-commerce.



Opportunity 2: Smart Operations and Deliveries

Relevance of Smart Operations and Deliveries to each Goods Movement Functional Element

Goods Movement Function	Relevance	Description of Relevance
Global Gateways		ITS focused projects to improve operations at the Port of Oakland and the Oakland International Airport.
Interregional and Intra-regional Corridors		Interregional corridor improvement projects that involve ITS.
Urban Goods Movement System		Projects, programs and policies that directly improve safety and reduce congestion on urban and rural roads using a variety of technology and innovative approaches.

Performance of each Project, Program and Policy recommended for Smart Operations and Deliveries

ID	Project Description					
		INTERCONNECTED / MULTIMODAL	SAFE & RELIABLE	INNOVATIVE	ECONOMIC PROSPERITY	IMPROVED QUALITY OF LIFE
S1	Demonstration pilot for nighttime delivery programs in downtown centers throughout the region (e.g. downtown San Francisco, Oakland, San Jose)	●	◐	●	○	●
S2	Freight Intelligent Transportation System (FRATIS) demonstration at Port of Oakland and potential ITS application linked to airport access at Oakland International Airport	●	◐	●	◐	◐
S3	Freight guidelines for incorporation in Complete Streets policy and programs and funding for implementation through state and regional programs	●	○	●	○	○
S4	Integrated Corridor Management programs for I-880 and I-580	●	●	●	◐	◐
S5	Arterial smart corridor program	◐	◐	●	◐	○
S6	Night gate and/or extended hours program at Port of Oakland	◐	○	◐	◐	○
S7	Develop a Clean Truck Policy and Program Collaborative to identify opportunities to demonstrate new clean truck technologies and seek state and federal funding			●		●
S8	Freight Corridors Community and Impact Mitigation Initiative			◐		●
S9	Near-Zero and Zero-Emission Goods Movement Technology Advancement Program			●	◐	●
Overall Package Performance		●	◐	●	◐	●

Key: ● High Positive Impact ◐ Medium Positive Impact ○ Low Positive Impact

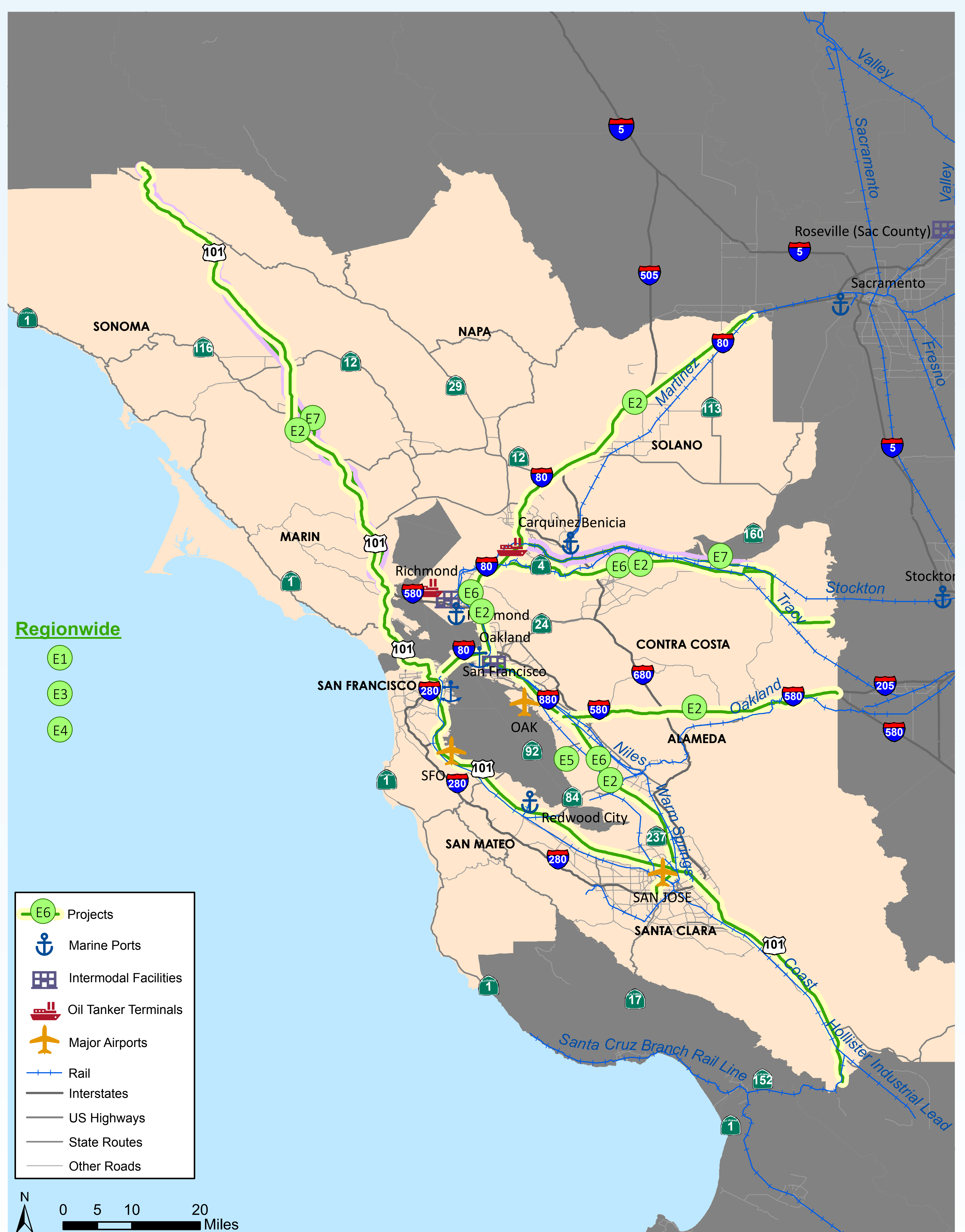
Opportunity Package 3: Modernized Infrastructure for Emerging Industries

Supporting growing sectors of the Bay Area economy by modernizing the road network, improving safe access, reducing land use conflicts and improving last-mile truck routes and rail connections.

Industries such as biotechnology, artisanal food manufacturing, precision instrument manufacturing, and clean energy technology are all expanding in the Bay Area.

Expanding Bay Area Industry Sectors and Jobs

- Transportation infrastructure improvements to existing industrial corridors that support the Bay Area's growing industries.
- Multimodal transportation options to meet a wide variety of supply chain needs
- Access improvements to inter-regional highway and rail corridors to improve safety.
- Short line and industrial rail access improvements to supplement trucking and connect to the Class I system.
- Upgrade dated, non-standard interchanges to improve truck safety.





Opportunity 3: Modernized Infrastructure for Emerging Industries

Relevance of Modernized Infrastructure for Emerging Industries to each Goods Movement Functional Element

Goods Movement Function	Relevance	Description of Relevance
Global Gateways		This opportunity is not focused on global gateways, though improvements to interregional/intraregional corridors and local urban goods movement system that connect to global gateways will also benefit the operations at the global gateways.
Interregional and Intraregional Corridors		Significant focus on improvements of the interregional and intraregional highway corridors.
Urban Goods Movement System		Improvements to the urban goods movement systems that offer access to industrial areas as well as improvement of last-mile truck routes and rail connections.

Performance of each Project, Program and Policy recommended for Modernized Infrastructure for Emerging Industries

ID	Project Description					
		INTERCONNECTED / MULTIMODAL	SAFE & RELIABLE	INNOVATIVE	ECONOMIC PROSPERITY	IMPROVED QUALITY OF LIFE
E1	Land use guidelines and incentive programs for cities that reduce land use conflicts					
E2	A program of freeway modernization and interchange improvements on the region's primary industrial truck corridors (I-80, I-880, SR4, I-580, and US101) and including completion of the interchange improvements at I-80/I-680/SR12					
E3	Truck access and speed safety projects on rural roads with growing commute travel, such as Tesla Road in Alameda County					
E4	Truck route planning guidance based on the approaches taken in Alameda County					
E5	Development of public or public-private truck parking and full-service truck service facilities near major industrial centers (most likely in the Hayward, Union City, Fremont area)					
E6	Targeted programs to encourage use of zero-emission trucks and cargo handling equipment particularly in the I-80 (Alameda and Contra Costa County), I-880, I-580 and SR4 corridors					
E7	A regional program to assist with the development of industrial rail spurs to support connections to local shortlines and Class I carriers in industrial corridors					
Overall Package Performance						

Key: High Positive Impact Medium Positive Impact Low Positive Impact