

## **ATTACHMENT F**

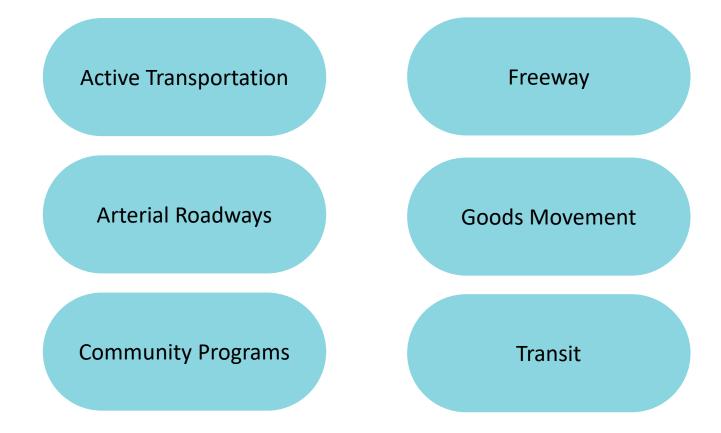
We're developing a new vision for the Long Beach-East Los Angeles Corridor Mobility Investment Plan



# **Initial List of Projects & Programs: Categories**

## Projects are organized by "improvement category":

All projects and programs should support a multimodal future for the Corridor. Project categories represent different modes:





## **Initial List of Projects & Programs: Sub-Categories**

**Active Transportation** 

**Arterial Roadways** 

**Community Programs** 

Freeway

**Goods Movement** 

**Transit** 

#### Active Transportation Sub-Categories:

- 1. Pedestrian & First/Last Mile Improvements
- 2. Bike Routes & Facilities
- 3. Safety & Amenities
- 4. Travel Demand Management

# Initial List of Projects & Programs: Active Transportation

## **Project Types Include:**

### **Pedestrian & First/Last Mile Improvements**

- New pedestrian/bike overcrossings
- New pedestrian/bike pathways
- New pedestrian/bike connections to rail, transit, LA River
- New Crosswalks, sidewalks

#### **Bike Routes & Facilities**

- New Bike Paths/Trails
- New Buffer/Barrier-Protected Bike Routes
- New Bike Lanes
- New, Signed Bike Routes

#### Safety & Amenities

- High visibility crosswalks
- Wider sidewalks
- Pedestrian/bike crossing enhancements
- Bike parking, lighting, repair stations
- Bike share programs
- Traffic controls for pedestrians/bikes
- ADA improvements
- Shade structures, trees, landscaping
- Security & lighting

#### **Travel Demand Management**

- Vanpools/carpool programs
- Telecommuting programs
- Promotional Campaigns to encourage Alternative Modes of Travel



## **Bicycle and Pedestrian Improvements**





# Bike Lanes

New bicycle lane on existing roadways, indicated by striping, signage, and physical barriers.

#### **Shared-Use Path**



New bicycle paths just for bicyclists and pedestrians.

#### **Pedestrian Safety and Amenities**



Wider sidewalks, lighting, benches, shade trees, landscaping, and trash receptacles to improve the safety and comfort of the pedestrian experience.

#### **Crossing Safety Enhancements**



High Visibility Paint, Flashing Signals, Pedestrian Safety Island, Curb Extensions, or Bulb-outs to create short crossing distances and increased awareness of crossing locations.

#### **Bike Share Programs**



Low-cost, short-term bike rental from strategically placed docks or stations.

#### **Bike/Ped Traffic Controls**



Leading Pedestrian Interval, Bike crossing signals, No turn on red signals, signals and controls to reduce conflicts between pedestrians, bicyclists, and drivers.

# **Initial List of Projects & Programs: Arterial Roadway**

**Active Transportation** 

**Arterial Roadways** 

**Community Programs** 

Freeway

**Goods Movement** 

Transit

## Arterial Roadways Sub-Categories:

- 1. Complete Streets
- 2. General Local / Regional Roadway
- 3. Signal Coordination / TSM / ITS
- 4. Traffic Calming



# **Initial List of Projects & Programs: Arterial Roadway**

## **Project Types Include:**

#### **Complete Streets**

- New green spaces, trees, bioswales
- Bike and pedestrian improvements
- Public art
- Signage
- Transit stop amenities (furniture, shelters)
- Operational / safety improvements
- ADA upgrades
- LED street lighting
- Stormwater retention

#### **Traffic Calming**

- Speed Reductions
- Speed Bumps
- Truck Restrictions in Neighborhoods
- Roundabouts
- Road Diets
- Stop Signs, Traffic Signals
- Speed Enforcement Cameras
- Flashing Crosswalks
- School Zone Warning Devices

# **Metro**

#### General Local / Regional Roadway

- Stormwater treatment
- Upgrade traffic signals, crosswalks, sidewalks, driveways, curb ramps, etc.
- New/improved bridges
- ADA upgrades
- Intersection Improvements
- Pedestrian circulation and safety
- Streetscape improvements
- Bike and pedestrian improvements
- Roadway widening/realignment

#### Signal Coordination / TSM / ITS

- Traffic / Ped signal upgrades
- Video camera installation
- Equipment upgrades
- Emergency vehicle priority
- Signage
- Signal Synchronization
- Advanced technologies to manage traffic and to inform traveling public

## **Local Roadway & Traffic Management Improvements**



#### **Intersection Improvements**



Turn lanes and other design features to reduce traffic queues at congested intersections.

#### **Added Roadway Lanes**



Roadway reconfiguration to add travel lanes, designate parking lanes for peak hour travel lanes, or establish bus only lanes

#### **Traffic Calming Features**



Roundabouts, speed humps, and other design features or signage to slow traffic on local streets or near schools.

#### **Visual Improvements**



Landscaping, hardscaping, public art, and other design features to improve the appearance of the roadway.

#### **Traffic Management Features**



Traffic signal coordination on major arterial corridors to maximize "green time" based on actual traffic conditions.

# Initial List of Projects & Programs: Community Programs

**Active Transportation** 

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#### Community Programs Sub-Categories:

- 1. Job Creation / Work Opportunities
- 2. Air Quality / Community Health
- 3. Environment
- 4. Housing Stabilization / Land Use



# Initial List of Projects & Programs: Community Programs & Policies

## **Program Types Include:**

#### **Job Creation / Work Opportunities**

- Targeted Local Hire
- Employment Recruitment Initiatives
- Vocational Educational Programs
- Economic Stabilization Policies
- Workforce Education & Development
- Partnerships with Employers
- Partnerships with Academic Institutions

#### **Environment**

- Greenhouse Gas Emissions Reduction
- Renewable Energy / Solar Power Project
- Urban Greening, Tree Canopy, Green Space
- Greenbelts, Drought Tolerant Planting Parklets
- Habitat Restoration and Connectivity
- Public Art / Aesthetics
- Zero Emissions Infrastructure for Autos

#### Air Quality / Community Health

- Zero Emission Infrastructure for Autos
- Bus Electrification
- Community Health Benefit Programs
- Air Filters for Schools & Community Facilities
- Environmental Building Improvements
- Health Education / Outreach
- Community Health Screening
- Vegetation Barriers/Buffer Landscaping

#### **Housing Stabilization / Land Use**

- Housing / Rent Stabilization Policies
- Anti-Displacement Programs
- Rental Assistance Programs
- Inclusionary Housing
- Transit Oriented Communities
- Homeless Programs
- Partnership with Community Orgs
- Density Bonus Programs
- Community Land Trusts
- Grant Writing Assistance



#### **Project & Program Examples**

## **Community Programs**



#### **Health Benefits Program**



Air filters for schools or vegetation buffers to reduce the harmful effects of air pollution.

#### **EV Car-Share & Charging**



Programs to provide short-term rental of electric vehicles and charging infrastructure for Zero-emission personal vehicles and trucks.

#### Local Hire and Workforce Development



Targeted and local hire programs to increase the share of public dollars that is devoted to creation of local jobs in the communities, and education/training of the local workforce.

#### **Anti-displacement Strategies**



Affordable housing policies, low-income rental assistance programs, tenants' rights education and legal representation to prevent unjust evictions.

#### **Community Development Programs**



Incentive programs to build affordable and mixed income housing, development of local parks, and other community resources

# **Initial List of Projects & Programs: Freeway**

**Active Transportation** 

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#### Freeway Sub-Categories:

- 1. Congestion Pricing Option
- 2. Freeway Amenities / ITS
- 3. Freeway Improvements
- 4. Zero Emissions Lanes on I-710



# **Initial List of Projects & Programs: Freeway**

## **Project Types Include:**

#### **Congestion Pricing Option**

 Congestion Pricing to charge single occupant vehicles while carpools, buses, zero emissions trucks and zero emissions autos would travel free.

#### **Freeway Improvements**

- Interchange Improvements
- Ramp Safety & Redesign
- Auxiliary & Operational Lanes
- Traffic Controls to Protect Bikes / Peds at Freeway Ramps
- Truck Bypass Lanes
- Freeway Lids, Caps, and Widened Bridge Decks to Provide "Greenbelt" Connections over I-710/LA River

#### Freeway Amenities / ITS

- Particulate Matter Reduction Pilot Project
- Freeway Repair & Safety projects
- Soundwalls
- Drought Tolerant Landscaping

#### **Zero Emissions Lanes on the I-710**

- Zero Emission Truck Travel Zone Restrictions
- Zero Emissions Truck Lanes



#### **Project & Program Summary**

# **Freeway Improvements**



#### **Interchange Improvements**



Introduce improvements that make it safer and easier for vehicles to get on and off the freeway.

## Zero-emission Truck Lane



Create a dedicated lane on the freeway just for zero emissions trucks.

#### **Traffic Signals**



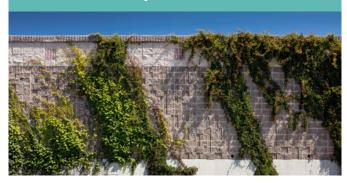
Control features, such as traffic signals, to protect bicyclists and pedestrians at the freeway ramps.

#### **Landscaping Features**



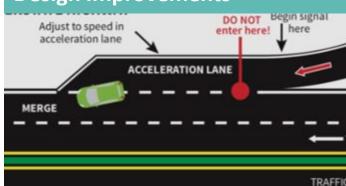
Incorporate landscaping, hardscaping, and other design features along the freeway to improve visual experience.

#### **Sound Wall Improvements**



Higher sound walls along the freeway to reduce noise.

## Design Improvements



Spot improvements, such as acceleration/deceleration lanes near interchanges, to relieve congestion bottlenecks.

# **Initial List of Projects & Programs: Goods Movement**

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## Goods Movement Sub-Categories:

- 1. Freight Rail / Goods Movement TDM
- 2. Ports
- 3. Truck Programs / ITS



# **Initial List of Projects & Programs: Goods Movement**

## **Project Types Include:**

## Freight Rail / Goods Movement Travel Demand Mgmt.

- On Dock Rail Expansion
- New Inland Port, Greater Use of Freight Rail
- Port Railyard Expansion & Modernization
- Freight Rail Grade Separations

#### **Ports**

- Interchange Improvements
- Grade Separations
- Roadway Realignments, Safety, and Landscape Improvements
- Wharf Expansions & Vessel Emission Reductions
- Cargo Operational Efficiencies

# Truck Programs / Intelligent Transportation Systems

- Zero Emissions Truck Programs
- Zero Emissions Infrastructure
- Empty Container Management
- Use of Advanced Technologies to Optimize Sequencing of Container Delivery and Pick-Ups to Reduce Congestion near Railyards & Ports



#### **Project & Program Examples**

## **Goods Movement**

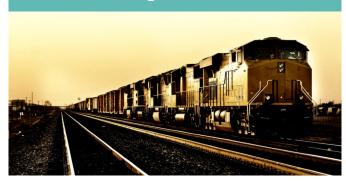


#### **On-Dock Freight Rail Facilities**



Freight rail infrastructure in port facilities to reduce truck trips associated with goods movement.

#### **Short-haul Freight Rail**



Inland port/implement short-haul freight rail service to encourage greater use of freight rail.

#### **Zero Emissions Trucks**



Program to reduce diesel trucks in favor of zero emissions trucks



# **Initial List of Projects & Programs: Transit**

**Active Transportation** 

Arterial Roadways

**Community Programs** 

Freeway

**Goods Movement** 

Transit

#### *Transit Sub-Categories:*

- 1. High-Capacity Transit (Rail/BRT)
- 2. Transit Amenities
- 3. Bus Transit
- 4. Rail Line / Station Improvements



# **Initial List of Projects & Programs: Transit**

## **Project Types Include:**

#### High-Capacity Transit (Rail/BRT)

- New light-rail stations/lines
- Light Rail line Extensions
- Bus Rapid Transit project

#### **Transit Amenities**

- Bus shelters and lighting
- Transit security features
- Web app for transit times
- Transit discounts / free passes
- Transit education program
- Customer experience program
- Real time displays
- Transit Cleaning & Maintenance
- Station furniture and shade
- ADA improvements
- Traffic control for pedestrians and bikes



#### **Bus Transit**

- Express Service
- Shuttles
- Electric bus charging
- On-demand bus (Micro-Transit)
- Improve bus speeds
- Increased bus frequencies
- Bus Priority Lanes
- Bus electrification projects

#### Rail Line / Station Improvements

- Station improvements
- Signal prioritization for trains
- Station maintenance
- Pedestrian safety improvements at stations
- Improved bike/ped connections
- Train reliability improvements
- Grade separations for trains

## **Transit (Bus or Rail) Improvements**



#### **Transit Service Improvements**



Additional transit routes or increase in frequency of existing services to reduce waiting times at bus stop and train stations.

## **Bus Priority Lanes**



Bus priority lanes on local streets to improve bus travel times and reliability.

#### **Improved Transit Amenities**



Improved amenities such as lighting, security cameras, shelters at bus stops and at train stations.

#### **Transit Fare Discounts**



Increased transit fare discounts for low-income riders, students, and seniors.

#### **Shuttle Services**



On-demand transit shuttles (shuttle rides by appointment) in more communities.

#### **Bus Boarding Improvements**



Improvements for more efficient bus stopping and boarding such as all-door boarding, and/or design features such as bus bulb-outs or boarding islands