Goods Movement Collaborative
Goods Movement Plan

Highlights on Infrastructure, Services, Demographics, and Freight Flow Trends

PTAC
September 15, 2014
Base Year Freight Flows Highlights
Freight Flows by Trade Type – Regional Overview

### Volume

- **Imports**: 40,658; 9%
- **Exports**: 25,154; 6%
- **Domestic**: 388,334; 85%
- **Total**: 454,146 Ktons

### Value

- **Imports**: 98,454; 15%
- **Exports**: 58,304; 9%
- **Domestic**: 487,078; 76%
- **Total**: $643,836 Million

Source: Cambridge Systematics FAF3 2012 Disaggregated Database.
Freight Flows by Mode – Regional Overview

Source: Cambridge Systematics FAF3 2012 Disaggregated Database.
Top Commodities Moved by Truck

Source: Cambridge Systematics FAF3 2012 Disaggregated Database.
Goods Movement Corridors
### List of Goods Movement Corridors

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I-880 Corridor – Overview

- Core N-S corridor in East Bay from San Jose to Oakland
- Supports industries in:
  - Manufacturing
  - Logistics
  - Other value-added industries
- Other Key Infrastructure:
  - UP rail lines from Oakland to San Jose
  - Port of Oakland
  - Railport and OIG
  - Oakland International Airport
  - Mineta San Jose Int’l Airport
I-880 Corridor – Trends and Needs

- Truck traffic on corridor highest in Oakland, reaching 20,000 trucks per day, truck volumes decreases southbound.

- Significant freight rail volumes (up to 50 trains/day on Oakland Sub), with additional shared passenger train service (ACE).

- In the future, truck traffic will grow due to:
  - Significant growth at Port of Oakland driven by exports
  - Moderate growth at OAK (at 1.6% annually from 2012 to 2040)

- Highway issues include:
  - Significant bottlenecks around interchanges, and high volume segment
  - Operational and safety constraints due to weaving, merging activities, and roadway configurations
  - Pavement damage

- Port of Oakland issues include:
  - Terminal congestion
  - Land constraints
  - Deficiencies in cargo-handling equipment
  - Dredging
I-80 Corridor – Overview

- Major interregional freight corridor
  - Connects the Bay Area to Sacramento and northern U.S. states
  - Serves several oil terminals that rely on it for distribution of petroleum products
- Other Key Infrastructure
  - UP rail connections along the Martinez Subdivision, Capitol corridor
  - Port of Richmond
  - Shore marine oil terminal at Carquinez, the Valero marine oil terminal at Benicia, and the Tesoro marine oil terminals in Martinez
I-80 Corridor – Trends and Needs

• Truck traffic highest from Emeryville to Richmond (12,000 trucks per day in 2012), mostly heavy trucks. Truck traffic will continue to grow in the future.

• Martinez Sub is the busiest rail segment, with 50+ trains per day (passenger and freight) in 2012.

• Significant growth in rail expected from:
  - Imported and domestic intermodal shipments
  - Import/domestic auto
  - Industrial shippers in Solano County
  - Crude oil from Canada

• Truck issues include:
  - Delay between Bay Bridge and Albany (major commuter corridor)
  - Significant operational issues

• Rail issues include:
  - Congestion along Martinez Subdivision
  - Grade crossing safety issues along Martinez Subdivision
  - Passenger rail conflicts (Amtrak corridors), Capitol corridor close to capacity
  - In the future, crude oil from Canada can affect rail traffic significant on Tracy Subdivision
The I-580 Corridor – Overview

- Most heavily used interregional truck corridor in the Bay Area
  - Connects to I-205 to distribution warehouses in Tracy
  - Primary route for agriculture exporters in the San Joaquin Valley

- Other Key Infrastructure
  - UP Oakland Subdivision
  - Port of Richmond
I-580 Corridor – Trends and Needs

- Truck traffic highest in the eastern portion, reaching 20,000+ trucks per day near Livermore
- Truck traffic will grow significantly in the future from
  - Continued relocation of DCs to inland locations
  - Expansion of export cargoes (ag products from Central Valley)
- Port of Richmond growth in the future will be driven by continued imports of automobile and bulk goods
- Worst areas of truck delay in the Bay Area experienced along the corridor at El Charro Road and SR 84
- Rail bottleneck between Elmhurst and Newark, and around Niles Junction
US 101 Corridor – Overview

• Main N-S corridor on the peninsula
  ▪ Used for distribution of products to major population centers in Santa Clara, San Mateo, and San Francisco Counties
  ▪ Only N-S connector in the North Bay serving Marin and Sonoma Counties (agriculture products)

• Other Key Infrastructure
  ▪ The Port of San Francisco
  ▪ The Port of Redwood City
  ▪ SFO
US 101 Corridor – Trends and Needs

- Truck volumes highest around San Jose, with 11,000+ trucks per day in 2012, mostly heavy
- Near SFO, more smaller trucks are used than heavy trucks
- Truck growth in the future will be driven mostly by
  - population demand
  - Agriculture product demands in North Bay
- Air cargo volumes at SFO projected to grow significantly (3.4% annually)
- Highway issues include significant truck delay around key population centers that are used by commuters in Santa Clara, San Mateo Counties – lack of alternatives
- Port of San Francisco can see increased rail volumes with planned rail improvements to handle waste, but will continue to be limited as a cargo port
- Port of Redwood City will see continue growth of construction materials and other bulk, which can strain the port’s capacity
The I-680 Corridor – Overview

• Intraregional corridor providing
  ▪ N-S connection of I-80 to more inland locations on the East Bay
  ▪ Connection between South Bay and I-580
  ▪ Connection to the wine regions of the North Bay to the Central Valley via I-580

• Other Key Infrastructure
  ▪ Port of Benicia
  ▪ Valero Oil Refinery
I-680 Corridor – Trends and Needs

• Truck volumes highest around I-580 (12,000 trucks per day) and Fremont and Pleasanton – clusters of industrial activities

• Heavy truck traffic will increase moderately in the future, driven primarily by local and domestic markets, as well as import and exports

• Growth in manufacturing activity in south Bay (e.g. Tesla Plant) will also place additional traffic on this corridor

• Highway issues include
  • Conflicts between trucks and autos
  • Pavement damage due to heavy materials such as autos, waste/scrap, construction materials
  • Lack of ROW availability in portions of I-680 in Solano County
SR 12/37 Corridors – Overview

• SR 12 is a mostly rural E-W intraregional corridor that connects agriculture products from North Bay and Delta region to market via I-80 and US 101

• SR 37 is an secondary corridor offering parallel connection to US 101, west of I-80
SR 12/37 Corridor – Trends and Needs

• Highest truck volumes at junctions with US101 and I-80 (5,000 trucks per day in 2012)

• SR 12 has moderate truck volumes east of I-80 (~2,000 truck per day in 2012)

• West of I-80, trucks mostly travels on SR 37

• SR 12 East issues include
  ▪ Congestion during peak commute times
  ▪ River bridge operational constraints (e.g. Rio Vista Bridge)

• SR 37 issues include
  ▪ Significant congestion and reliability issues during peak hours
SR 152 Corridor – Overview

- E-W corridor connecting the South Bay, North Central Coast and Central Valley regions
- Vital connection to SJV and Monterrey Peninsula, where 50% of the state’s agricultural activities take place
SR 152 Corridor – Trends and Needs

- Truck traffic on SR 152 vary significantly, highest near US101 with 5,000 trucks daily in 2012.
- Growing important as a E-W artery and auxiliary route to I-580 and SR 46 (the other two E-W routes in the)
- Truck volumes projected to nearly double by 2035*

- Truck issues include:
  - Delays at intersections
  - Overall congestion
  - Poor connectivity with adjoining state highways at some locations
  - Rural segments with 2 lanes not capable of moving anticipated traffic effectively in the future

*Route 152 Trade Corridor Summary Report, VTA, 2013
SR 4 Corridor – Overview

- E-W route connecting Central Valley and Bay Area
  - Serves local and intercity truck traffic
  - Provides connections between the oil refineries and other industrial producers along the CCC Northern Waterfront with the rest of the intraregional network

- Other Key Infrastructure
  - BNSF and UP Lines from Stege/Port Chicago to Stockton
  - UP MOCOCO line
SR 4 Corridor – Trends and Needs

• Truck Traffic highest around Port Chicago (7,000 trucks per day in 2012). Traffic decreases significantly going east.

• BNSF line to Stockton had up to 25 trains daily (passenger and freight) in 2012, which is expected to grow moderately in the future

• Highway issues along the route include bottlenecks around Port Chicago and several other areas.

• Lack of corridor wide traffic management is also an issue
Next Steps

• Finalize Infrastructure, Services, Demographics, and Freight Flow Trends

• Conduct Detailed Needs Assessment