## Alameda County Goods Movement Plan
### Needs Assessment Review

#### Technical Team
January 8, 2015

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**Alameda County Transportation Commission and Metropolitan Transportation Commission**

**Goods Movement Collaborative and Goods Movement Plans**

#### Task 1: Decision-Making and Outreach
- **2013**
  - Oct
  - Nov
  - Dec
  - Jan
  - Feb
  - Mar
  - Apr
  - May
  - Jun
  - Jul
  - Aug
  - Sep
  - Oct
  - Nov
  - Dec
  - Jan

#### Task 2: Baseline Assessment
- **2014**
  - Apr
  - Jun
  - Jul
  - May
  - Aug
  - Sep
  - Oct
  - Nov
  - Feb
  - Jan
  - Dec

#### Task 3: Needs Assessment
- **2015**
  - Feb
  - Jan
  - Dec

#### Task 4: Develop and Evaluate Strategies
- **2016**
  - A
  - B
  - C
  - D
  - E

#### Task 5: Goods Movement Plan
- **2017**
  - A
  - Vision and Goals
  - B
  - Performance Measures
  - C
  - Strategy Development
  - D
  - Strategy Evaluation Results
  - E
  - Final Plans

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### Alameda County Transportation Commission and Metropolitan Transportation Commission
**Goods Movement Collaborative and Goods Movement Plans**

<table>
<thead>
<tr>
<th>Task</th>
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<td>1. Decision-Making and Outreach</td>
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<td>2. Baseline Assessment</td>
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<td>4. Develop and Evaluate Strategies</td>
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<td>6. Coordination and Implementation</td>
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Purpose of Needs Assessment

- **Evaluate** the existing and future conditions of freight assets in Alameda County against goals and performance measures (established in prior tasks)
- **Identify** gaps, issues and opportunities for each functional element based on performance measure ratings
- **Assess** crossing cutting issues such as land use, community, and health impacts based on performance measure ratings
- **Set** the stage for defining projects, programs and policies
How Needs Assessment Will Be Used

- Develop strategies to meet goals for any functional elements that need improvement based on performance measure evaluation in needs assessment.
- Develop combinations of strategies to pursue opportunities.
- Strategies will be evaluated against **ALL** performance measures.
  - If a strategy makes performance better in one area but worse in another, additional strategies will be incorporated in plan to "balance portfolio."

Today’s Meeting and Next Steps

- Needs Assessment – Performance Measure Results
  - Cross-Cutting Issues
  - Local Streets and Roadway Issues (Local Truck Routes)
  - Interregional and Intraregional Corridor Issues (Highway and Rail)
  - Global Gateway Issues (Seaport and Airport)
  - Opportunities
- Interactive Discussion
- Next Meetings
  - February Meeting – Finish review of Needs Assessment and initiate strategy discussion
  - March Meeting – Recommend strategies for evaluation
Feedback Desired

• Are the opportunities presented well-characterized? Are there additional opportunities we should capture?

• Are the needs and issues presented well-characterized? Is there anything else we should look at?

• What ideas do you have for strategies that should be evaluated to address these needs?
  ▪ Projects (or types of projects)
  ▪ Programs (e.g., new funding categories)
  ▪ Policies and partnerships

Needs Assessment Summary
Cross-Cutting Issues
Context for Cross-Cutting Issues

- Crossing-cutting issues apply to multiple modes and functional elements. These include:
  - Environmental, public health issues
  - Issues related to external/non-transportation policy decisions (Hours of Service, Labor, Land-Use)
- Issues that are discussed under cross-cutting issues are often related to other performance issues that are discussed in the functional element sections but are covered with more focus in the cross-cutting issues section

Air Quality and Environmental Impacts - Emissions from Freight

Significant reductions but still major public health issue

Air Quality and Environmental Impacts – Localized Health Effects

Sea Level Rise Vulnerability

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<th>Vulnerability</th>
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<td>Hegenberger Road and Airport Drive</td>
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Source: Adapting to Rising Tides.
Industrial Land Supply

- Continuing loss of industrial land to commercial and residential development
  - Due to market pressures, and land use policies
- Increases conflicts around borders between industrial and residential developments threatens viability of goods movement corridors
- Past studies have demonstrated potential impacts
  - Job displacement, increased truck-related emissions, and goods movement costs
- ABAG beginning work on industrial land supply and policies in 2015

Needs Assessment Summary

Local Streets and Roads Issues
Truck Routes and Restrictions

Source: Cambridge Systematics Analysis; Truck Routes and restriction information collected from cities.

Truck Route Connectivity and Land Use Conflicts – East County

Source: Cambridge Systematics Analysis; Truck Routes and restriction information collected from cities; Land use information from MTC.
Truck Route Connectivity and Land Use Conflicts – South County

Source: Cambridge Systematics Analysis; Truck Routes and restriction information collected from cities; Land use information from MTC.

Truck Route Connectivity and Land Use Conflicts – Central County

Source: Cambridge Systematics Analysis; Truck Routes and restriction information collected from cities; Land use information from MTC.
### Truck Route Connectivity and Land Use Conflicts – North County

Source: Cambridge Systematics Analysis; Truck Routes and restriction information collected from cities; Land use information from MTC.

### Truck Routes and Modal Conflicts – High Frequency Bus Routes

- Overlap of major bus routes with truck routes on:
  - International Blvd
  - Hegenberger Rd
  - University Avenue
  - San Pablo Avenue
- Planned BRT on International Blvd

Source: Bus routes and frequency information from Parsons Brinkerhoff; Cambridge Systematics Analysis.

Note: Major bus lines include bus lines with daily weekday frequencies of more than 50 trips.
GOODS MOVEMENT COLLABORATIVE AND GOODS MOVEMENT PLAN

LOS Conditions on Truck Routes – AM Peak

Legend
Tier 2 and 3 Truck Routes
LOS (AM, 2014)


GOODS MOVEMENT COLLABORATIVE AND GOODS MOVEMENT PLAN

LOS Conditions on Truck Routes – PM Peak

Legend
Tier 2 and 3 Truck Routes
LOS (PM, 2014)

### Pavement Conditions on Truck Routes

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**Notes:**
- Area weighted PCI of sections belonging to truck routes.
- Area weighted PCI of sections belonging to non truck routes.
- Area weighted PCI of sections belonging to all routes.

**PCI Rating:**
- Green – Good or very good condition; Yellow – Fair condition; Red – At risk, poor, or failed condition.

**Source:** MTC.

### Local Roads Safety – Top Truck Crash Locations

Source: SWITRS, Cambridge Systematics Analysis.
Truck Parking Issues

• Port-related parking issues in West Oakland
  ▪ Location of truck services and truck-oriented businesses – Oakland Army Base plans and West Oakland Specific Plan
  ▪ New parking sites and requirements – Oakland Army Base EIR
  ▪ Parking and truck route enforcement issues

• Corridor parking needs- I-880
  ▪ Overnight parking – HOS rules

• Urban delivery issues
  ▪ Curbside management – Complete Streets
  ▪ Time-day-use

Needs Assessment Summary
Interregional and Intraregional Corridor Issues
Top 10 Truck Delay Locations in 2010

- AM

Top 10 Truck Delay Locations in 2010

- PM

Source: INRIX 2014; Alameda County Truck Travel Demand Model; PeMS time of day distribution, Cambridge Systematics analysis.
### Corridor Level Reliability, 2014

#### AM Peak

<table>
<thead>
<tr>
<th>Corridor</th>
<th>Length</th>
<th>AM Peak Truck VMT</th>
<th>Average BTI</th>
<th>AM Peak Truck Travel Time Budgeted (minutes)</th>
<th>Reliability Index (Excess Time/MIle)</th>
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#### PM Peak

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<th>PM Peak Truck VMT</th>
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Source: SWITRS, Cambridge Systematics Analysis.

### Truck Involved Crashes - Inter/Intraregional Corridors

![Map of Truck Involved Crashes - Inter/Intraregional Corridors](Image)

Source: SWITRS, Cambridge Systematics Analysis.
## Congestion/Capacity Needs – Rail

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<th>To:</th>
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<td>Daily Trains</td>
<td>Trains</td>
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Source: AECOM calculations.

## Operations and Access Issues - Rail

- Changing nature and use of Northern California rail system
  - Bulk unit trains and manifest traffic on Oakland/Niles to new terminals at Port of Oakland
  - Increasing domestic and international intermodal traffic on Martinez subdivision

- Passenger and freight conflicts a critical issue
  - Need to look for ways to separate and/or build in sidings and operational flexibility
  - Connections between UP Oakland subdivision and UP Niles subdivision through Niles Canyon – use of old Niles Railway
  - Capitol Corridor looking for separation through Emeryville, move from Niles to Coast Subdivision
Operations and Access Issues - Rail

- BNSF access to OIG intermodal terminal at Port of Oakland crosses UP yard
  - OAB north lead project planned to address this
- Need for grade separations/signal improvements/street closures and quiet zones to reduce impacts on communities along heavily-used rail corridors

Needs Assessment Summary
Global Gateway Issues
Congestion and Capacity Needs – Seaports and Airports

- Port of Oakland has sufficient intermodal terminal capacity but needs expansion of bulk terminal/cold storage facilities
  - Need to lengthen berths for large ships
  - Need to expand rail terminal capacity and access as markets develop
  - Need to strategically plan for reduction of impacts on neighboring communities
- Bay Area airports have sufficient capacity for growth – Highway congestion is key constraint for air cargo growth and reliability

Operations and Access Issues – Global Gateways

- Port of Oakland
  - Improve ability to process large ships and control gate access (gate queues sometimes backing up to freeway ramps)
  - Eliminate access bottleneck caused by 7th Street grade crossing
  - Address bike and pedestrian access issues
- OAK
  - Address congestion issues on Hegenberger, 98th, and Doolittle
Opportunities

Context-Setting Opportunities

- **Goods Movement to Support Emerging Industries**
  - These includes biotech, artisanal foods, clean energy & transportation, advanced manufacturing, recycled materials
  - Coordinate industrial land use plans and goods movement infrastructure investment in I-880/I-80 corridor
  - Guidance for truck route and rail corridor planning and buffering

- **E-Commerce and Advanced Retail Distribution**
  - Capture value-added economic activity; neighborhood & commercial center impacts
  - Connections between Third-Party Logistics (3PL) warehouses, seaport, and airport
  - Off-peak deliveries, Complete Streets guidance in downtowns

- **Bulk Exports and Expanded Rail Services**
  - Growth in bulk exports (including ag and food products via interregional connections) at seaports; increased demand on rail corridors
  - Coordinated development of Martinez, Niles, and Oakland Subdivisions
  - At-grade crossing improvements, quiet zones
Wrap-Up

Discussion

• Are the opportunities presented well-characterized? Are there additional opportunities we should capture?
• Are the needs and issues presented well-characterized? Is there anything else we should look at?
• What ideas do you have for strategies that should be evaluated to address these needs?
  ▪ Projects (or types of projects)
  ▪ Programs (e.g., new funding categories)
  ▪ Policies and partnerships
Thank You!