An Integrated System

- Our focus has been on passenger service.
- The freight container logistics opportunity is a significant source of revenue to support next generation transportation.
- This next generation system will carry both passengers and freight.
Operating Costs

- Half power, half people
- Cruise for 80KW ($9 / hour)
- Zero to 60MPH for a quarter net.
- Energy cost per month is $9000 per car based on 10 minute headways and 20 hour days.

Operating cost can be covered by the freight charges, which is unique!
Safety Standards

- **Safety Certification**
  - US Department of Transportation/Federal Transit Administration (USDOT/FTA) Standards

- **Standards**
  - American Society of Civil Engineers/Automated People Mover Standards (ASCE/APMS)
  - American Association of State Highway and Transportation Officials (AASTHO)
  - American National Standards Institute (ANSI)
  - Institute of Electrical (IEEE)
  - National Fire Protection Association (NFPA)
  - Americans with Disabilities Act (ADA)
Environmental Mitigation and Mobility Initiative (EMMI)

Goods Movement

Passenger Transportation
The EMMI Vision

EMMI will be the leading provider in the movement of goods and passenger transportation services in the region.

EMMI will be a new California based company that will play an important role in promoting sustainable growth in the movement of goods and passengers throughout the region with environmental through the implementation of novel electric transportation technology.

EMMI will cater to the immediate and long-term mobility and logistics needs of the region.
Los Angeles EMMI Project

- Huge growth in containers at SPB Ports.
- 17M to 44M by 2030.
- Environmental Alarm has been sounded.
- Population growth of 6M during this time.

Sustainability is a HUGE challenge.
Sustainability is the Challenge

- Growth Sustainability.
- Health Sustainability.
- Economic Sustainability.
EMMI Cargo Routes
An Aggressive Development Plan

Phase A: SPB Ports to ICTF
Ship/Maglev facilities at Port of LA/LB & ICTF
5 miles of elevated track from SPB Ports to ICTF
Top Speed: 60 mph
26 Maglev vehicles
12-minute round trip
Process all near-dock & off-dock containers
In-Service Date: 7/1/09

Phase B: SPB Ports to Bell
Ship/Maglev facilities at Port of LA/LB & Bell
2.1 miles of elevated track from SPB Ports to Bell
Top Speed: 80 mph
121 Maglev vehicles
40-minute round trip
Process all transloaded, intermodal & regional truck cargo
In-Service Date: 7/1/11

Phase C: SPB Ports to Inland Empire
Ship/Maglev facilities at Inland Empire
71 miles of elevated track from SPB Ports to Inland Empire
Top Speed: 100 mph
541 Maglev vehicles
90-minute round trip
Process all non-regional truck-based cargo, with incremental growth in regional truck-based cargo
In-Service Date: 1/1/13

Phase D: SPB Ports to High Desert
Ship/Maglev facilities at Bell
105 miles of elevated track from SPB Ports to High Desert
Top Speed: 120 mph
300 Maglev vehicles
120-minute round trip
Process incremental growth in near-dock containers, transloaded intermodal and regional truck-based and non-regional cargo
In-Service Date: 1/1/13
## EMMI - Cargo System

<table>
<thead>
<tr>
<th>PROJECT PHASE</th>
<th>CAPITAL COST</th>
</tr>
</thead>
<tbody>
<tr>
<td>Phase A – SPB to ICTF</td>
<td>$161,207,610</td>
</tr>
<tr>
<td>Phase B – SPB to Bell</td>
<td>700,700,204</td>
</tr>
<tr>
<td>Phase C – SPB to Inland Empire</td>
<td>2,742,873,308</td>
</tr>
<tr>
<td>Phase D – SPB to High Desert</td>
<td>834,853,294</td>
</tr>
<tr>
<td>TOTAL</td>
<td>$4,439,634,415</td>
</tr>
</tbody>
</table>

Total Cost - $ 4.4 Billion
# EMMI Initial Costs

<table>
<thead>
<tr>
<th>Capital Cost</th>
<th>Phase A</th>
<th>Phase B</th>
<th>Phase C</th>
<th>Phase D</th>
</tr>
</thead>
<tbody>
<tr>
<td>Guideway</td>
<td>$31,639,537</td>
<td>$138,932,989</td>
<td>$469,725,819</td>
<td>$297,713,547</td>
</tr>
<tr>
<td>G,S, &amp; C*</td>
<td>19,400,640</td>
<td>65,875,200</td>
<td>208,435,200</td>
<td>134,304,000</td>
</tr>
<tr>
<td>Facilities</td>
<td>20,000,000</td>
<td>84,000,000</td>
<td>284,000,000</td>
<td>180,000,000</td>
</tr>
<tr>
<td>Vehicles</td>
<td>65,000,000</td>
<td>302,500,000</td>
<td>1,352,500,000</td>
<td>92,500,000</td>
</tr>
<tr>
<td>Fees</td>
<td>25,167,433</td>
<td>109,392,015</td>
<td>428,212,289</td>
<td>130,335,746</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>$161,207,610</strong></td>
<td><strong>$700,700,204</strong></td>
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</tr>
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Project CAPEX - $4.4 Billion
Intermodal Trains

- Phase A
- Phase B
- Phase C
- Phase D

100% of Port Traffic

TEUs by EMMI Phase

- Intermodal Trains
EMMI Decongests the Ports

Truck trip efficiencies are enhanced.
Pricing is Competitive

<table>
<thead>
<tr>
<th>Phase: Destination</th>
<th>2007 RT Price</th>
<th>2011 RT Price</th>
</tr>
</thead>
<tbody>
<tr>
<td>A: ICTF</td>
<td>$150</td>
<td>$122</td>
</tr>
<tr>
<td>B: Bell</td>
<td>$225</td>
<td>$133</td>
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<tr>
<td>C: Inland Empire</td>
<td>$275</td>
<td>$197</td>
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<tr>
<td>D: High Desert</td>
<td>$300</td>
<td>$233</td>
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</table>
Phase A: Profit Analysis
Minimum Case Guarantee

- Interest Expense: 25%
- Depreciation: 14%
- Mkt, G&A, Other: 6%
- Insurance: 10%
- Utilities: 5%
- Materials: 1%
- Labor: 11%
- Taxes: 11%
- Net Income: 17%
## Goods Movement Rates and Revenues

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### Revenues (millions)

- **2015**: $500
- **2020**: $1,500
- **2025**: $2,500

*AMT - Mass Transit for the future*
EMMI Project Revenues

Revenues (in millions)

![Graph showing revenue growth from 2011 to 2028]
Phase A Benefits

- 1.7M containers off the roads! 17M less truck miles in a very heavily congested area.
- Saves $550M+ in tax dollars.
- 150,000 MT+ reduced emissions per year.
- 1.5M+ gallons of gasoline per year saved.
- 10+ lives lost to traffic accidents per year.
- Room for growth tomorrow.

**Instant gratification.**

**Construction can start next year.**
EMMI Project Summary

- Fully Operational in 2013
- Total Build-Out is $4.4 Billion.
- Total System is 150 miles of double track.
- Cost/Mile is approximately $29 million.
- 1000 vehicles moving in an automated system.
Areas of Strategic Partnership

- Intermodal Rail “Just in time” System
- “Just in time” logistics system.
- Automated transloading system.
EMMI Passenger Service
EMMI – Passenger System

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<tr>
<td>Phase E – LAX to LAX Intermodal Station</td>
<td>$253,023,878</td>
</tr>
<tr>
<td>Phase F – LAX Intermodal to Union Station</td>
<td>$618,600,715</td>
</tr>
<tr>
<td>Phase G – Union Station to Ontario Airport</td>
<td>$1,157,914,590</td>
</tr>
<tr>
<td><strong>TOTAL</strong></td>
<td><strong>$2,029,539,183</strong></td>
</tr>
</tbody>
</table>

Total Cost - $2 Billion
EMMI Passenger Summary

- Initial System carries 65,000 to 100,000 passengers per day.
- Passenger System is profitable as stand alone system.
- The most important real estate opportunities in the US in this century. This is *additive* to the financial model.
- Growth segments in all directions.
EMMI Benefits Summary

- New, multi-billion dollar solutions provider located in Los Angeles, CA
- Zero carbon footprint solution for one of the busiest, most polluted areas of the world
- **Savings**: tax dollars, fuel, emissions, lives
- **Growth**: economy, ports/airports, activity centers
We have a shared vision.