



# CHSRA and PCJPB Boarding Heights Presentation

October 14, 2014

# Transbay Transit Center

**TJPA**



# Current TTC Platform Layout/Boarding Heights



CHSRA Platforms

Caltrain Platform

# Worldwide HSR Platform Heights

Country	HSR System	Platform Height
Europe France, Spain, Germany, England, Belgium	TGV, AVE, ICE, Eurostar	30"
Japan	Shinkansen	49"
United States	Acela Express	48"

Typical vehicle floor heights : 42" – 51"



# Benefits of Common Boarding Heights at TTC



- Storage for start-up staging
- Greater benefit for Caltrain
- Operational flexibility



# Limitations on Capacity

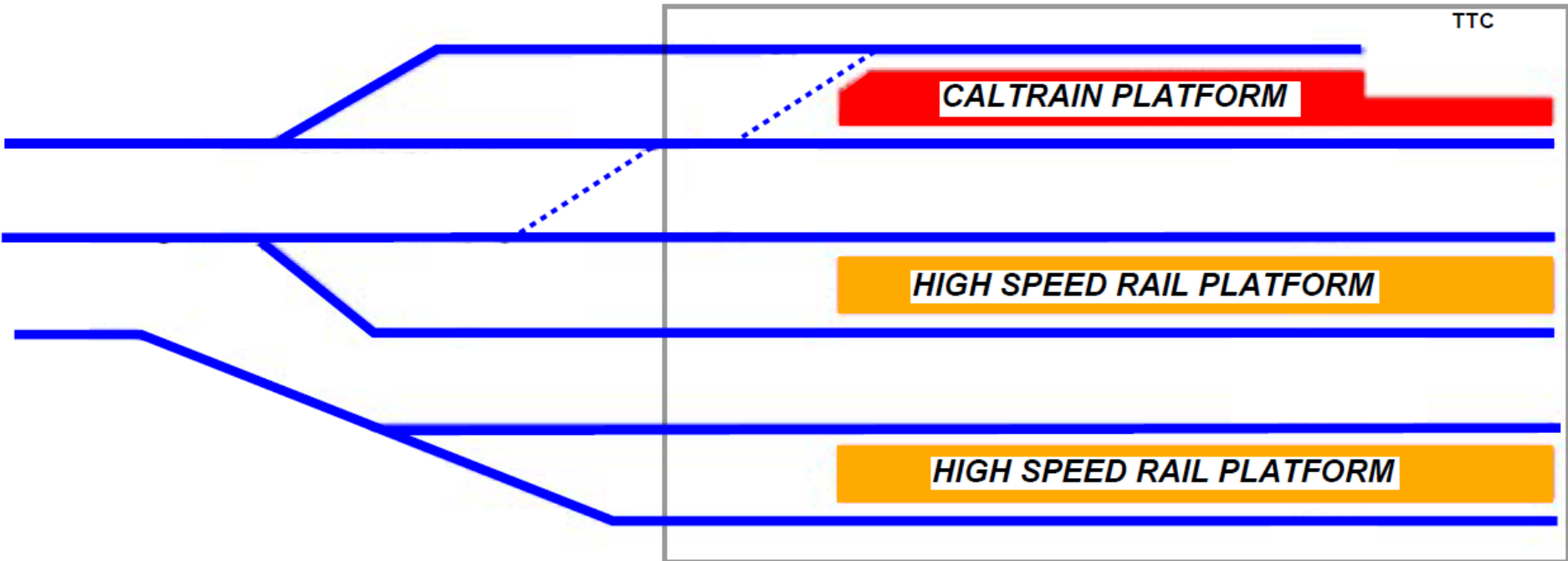
## Scheduled Minimum Turn Times

- Caltrain – 15 minutes  
(12 minutes if late)
- CHSRA – 40 minutes  
(30 minutes if late)





# Operational Benefits





# Recommendations

- **Continue negotiation on vehicle procurement and station operations**
- **Reach agreement on common, level, ADA-compliant boarding height and width**



TRAIN PLATFORM





# Peninsula Corridor Electrification Project

TJPA CAC  
October 14, 2014



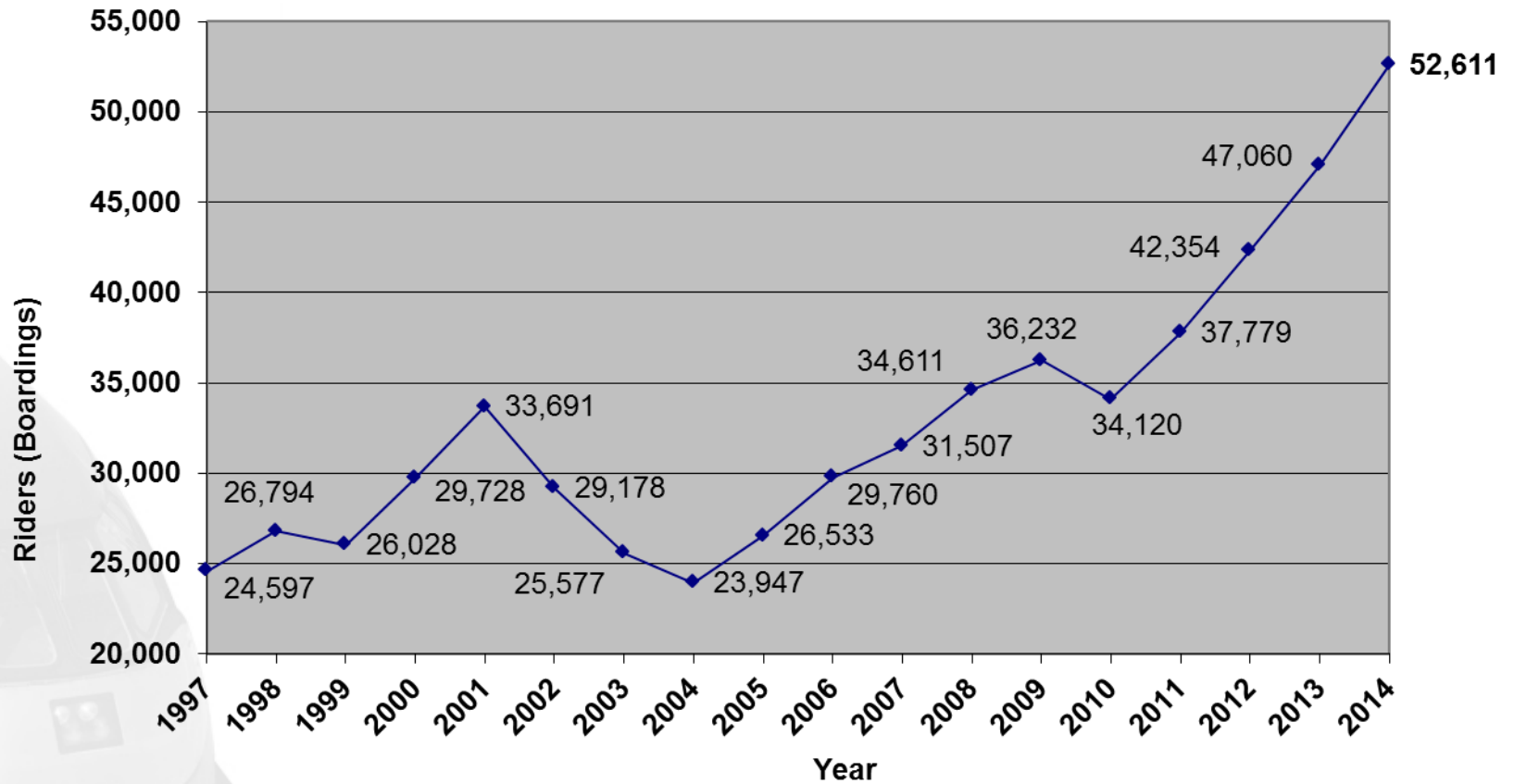
# Key Facts

- Diesel commuter rail system
- SF to SJ area
- 77 mile corridor, 32 stations
- 92 trains / weekday
- Ridership: ~ 60,000+ weekday





# Caltrain Ridership



Note: Bike Ridership 11 % increase (FY14)



# 2014 Top Ridership Trains

Northbound			
Train Number	Depart SJ	Max Load	Percent of Seated Capacity
319	7:03 AM	796	123%
323	7:45 AM	746	115%
329	8:03 AM	738	114%
375	5:23 PM	689	106%
217	6:57 AM	675	104%
225	7:50 AM	674	104%
233	8:40 AM	641	99%
313	6:45 AM	632	97%

Southbound			
Train Number	Depart SF	Max Load	Percent of Seated Capacity
376	5:33 PM	813	125%
370	5:14 PM	706	109%
366	4:33 PM	690	106%
268	4:56 PM	670	103%
278	5:56 PM	648	100%
324	8:14 AM	622	96%
322	7:57 AM	622	96%

*Note: February 2014 counts (lower ridership season)*





# Caltrain Modernization



# Caltrain Modernization Program

- Early Investment Program
  - Advanced Signal System: CBOSS PTC (2015)
  - Peninsula Corridor Electrification Project (2019)
- Caltrain/HSR Blended System

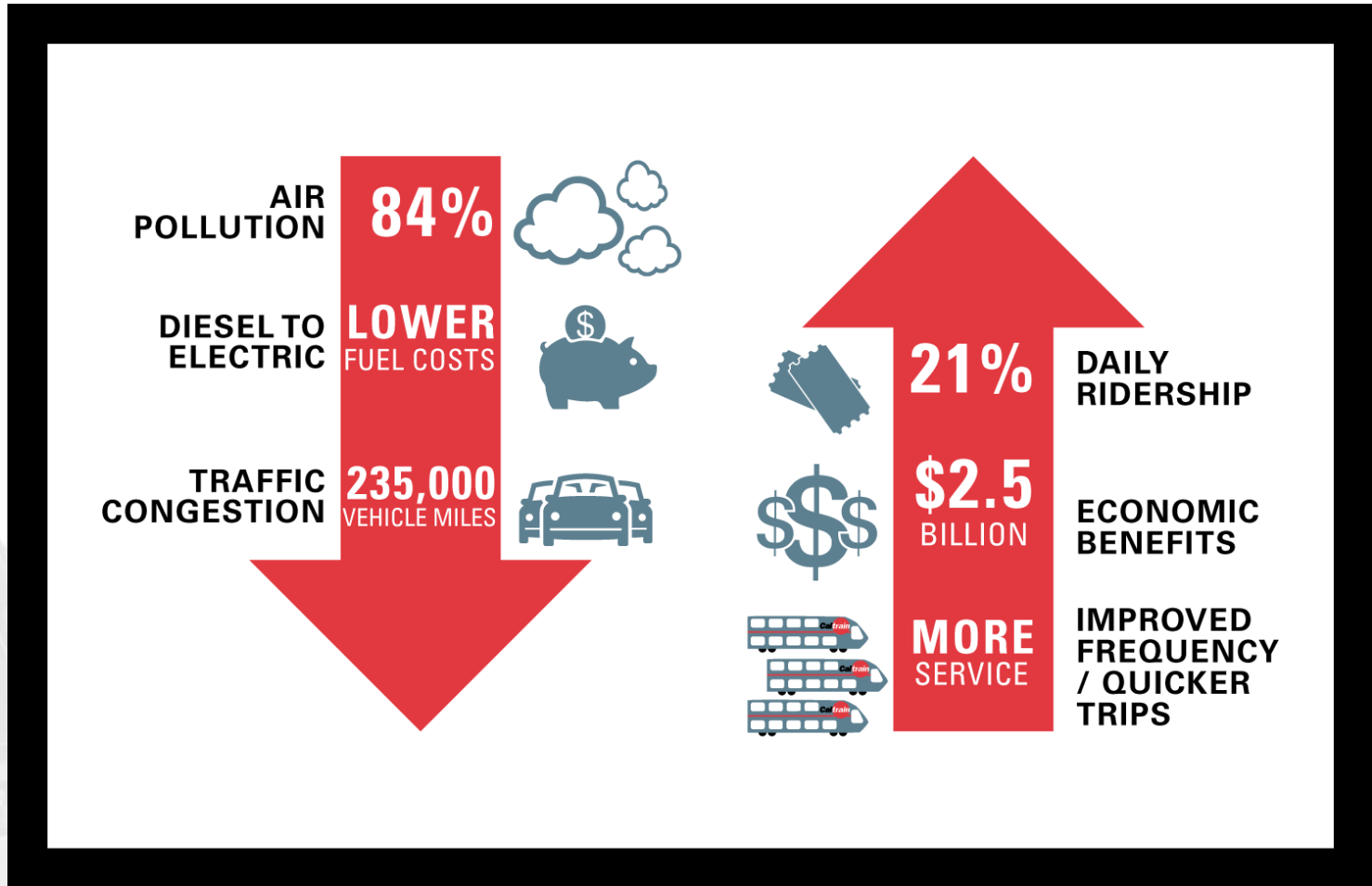


# PCEP Project Description\*

Area	Project	Service
51+ miles  San Francisco to San Jose (Tamien Station)	Electrification: <ul style="list-style-type: none"> <li>• Overhead Contact System (OCS)</li> <li>• Traction Power Facilities</li> </ul> Electric Multiple Units (EMUs)	Up to 79 mph  Service Increase <ul style="list-style-type: none"> <li>• 6 trains / hour / direction</li> <li>• More station stops / reduced travel time</li> <li>• Restore Atherton &amp; Broadway service</li> </ul> Mixed-fleet service (interim period)  Cont. tenant service

\*Proposed project not yet approved, pending environmental clearance

# Key Regional Benefits







# **Electric Multiple Unit (EMU) Procurement**



# Status

<b>April 2014</b>	JPB update on EMU procurement process
<b>May 2014</b>	RFI issued <ul style="list-style-type: none"><li>• Q &amp; A to support stakeholder dialogue</li><li>• Inform RFP (early 2015)</li></ul>
<b>June 2014*</b>	Industry responses / meetings with car builders <ul style="list-style-type: none"><li>• 11 car builders contacted</li><li>• 4 have "Off-the Shelf" models</li><li>• 3 participated in June meetings</li><li>• Anticipate 2 – 4 car builders to propose on RFP</li></ul>

\* First industry scan conducted 2008



# Meetings with Car Builders



# Maximize Car Capacity

- Growing Demand
  - Ridership today: 50,000+
  - Ridership future: 100,000+
- Today
  - 20+ mile trips
  - 95%-125% peak weekday seat capacity
- Future
  - Share train slots with HSR (6 Caltrain / 4 HSR)
  - Caltrain needs to maximize car capacity / service frequency



# Industry Confirmation

Maximize Capacity	Bi-level (verse single level)
“Off the Shelf” Available	Service proven Saves costs / time
US Regulation Compliance	ADA Buy America FRA Waiver / Alternative Compliant Vehicles Criteria Will meet Caltrain Technical and Quality Standards
Floor Threshold	22” – 24” most common

# Floor Threshold

- All Agencies Favor Level Boarding
- Current Status
  - No level boarding – impacts dwell time
  - 8” ATOR platforms
  - Passenger trains 1<sup>st</sup> step at 18” ATOR
  - Use mini-highs and lifts
  - Effects accidents and operations

# Caltrain Level Boarding Plan

- Short term (electrification project)
  - Use current platforms : 8"
  - Bi-level EMU off the shelf: 22" – 24" floor
  - Interoperable with current diesel fleet
- Long-term (no funding)
  - Level boarding / longer platforms at 25"
  - Conflicting CPUC and ADA requirements at both 25" and 50"
  - Dedicated platforms for tenants at 4 stations

# Stakeholder Concerns/Interest

- Desire common Caltrain and HSR platforms
- Caltrain EMU 25" floor
- HSR 50" floor
- Currently effects 2 stations (2 additional TBD)
- Working to identify reasonable solution for not precluding common platforms in the future





# Discussion Topics



# Outreach – 2 Phases

<b>Phase I (Inform RFP)</b>	<b>Phase II (Inform Selected Builder)</b>
<p data-bbox="258 572 938 618">Shell: Structural Size / Capacity</p> <ul data-bbox="258 679 967 925" style="list-style-type: none"><li data-bbox="258 679 639 715">• Seats / Standees</li><li data-bbox="258 782 967 818">• Bikes on Board (displaces 2 seats)</li><li data-bbox="258 882 909 918">• Bathrooms (displaces 8+ seats)</li></ul>	<p data-bbox="1031 572 1619 618">Interior: Aesthetic / Comfort</p> <ul data-bbox="1031 679 1663 1125" style="list-style-type: none"><li data-bbox="1031 679 1460 715">• Seat size / Spacing</li><li data-bbox="1031 782 1387 818">• Internal Material</li><li data-bbox="1031 882 1561 918">• External Color / Branding</li><li data-bbox="1031 982 1663 1018">• Bikes on Board Configurations</li><li data-bbox="1031 1082 1483 1118">• Passenger Amenities</li></ul>

# Key Questions

- What are your riding habits?
  - How often get seat, use luggage rack, bring bike onboard, etc.
- Is it important to increase, decrease or maintain the same capacity elements in the new train?
  - Bathrooms onboard (0-5), seats etc.
- How would you prioritize the train capacity?
  - Seats, standees, bike storage, bathrooms, luggage etc.



# Policy Decision

- Customers / Stakeholder Feedback
    - Meetings, station outreach
    - Survey\*
    - Website, social media, project email and phone
  - Technical Analysis
    - “Off the shelf” constraints and customer convenience opportunities for both Caltrain and HSR
  - Staff Recommendation
    - Balance feedback and analysis
- \*Opt-in Survey

# Next Steps

- Continue to solicit comments from stakeholders
- Continue series of technical workshops with HSR and partner agencies
- Advertise RFP early 2015; award fall 2015





# Questions





CALIFORNIA  
High-Speed Rail Authority

# California High-Speed Rail REOI for Tier III Trainsets

October 2014





## Request for Expressions of Interest

- The REOI is being used to identify and receive feedback from firms interested in competing to design, build, and maintain the high-speed rail trainsets for use on the California High-Speed Rail System.
- The Authority's order will include a base order and options up to 95 trainsets.



## Technical Requirements - Trainsets

- Single level EMU:
  - Capable of operating in revenue service at speeds up to 354 km/h (220 mph), and
  - Based on a service-proven trainset in use in commercial high speed passenger service at least 300 km/h (186 mph) for a minimum of five years.



**CALIFORNIA**  
High-Speed Rail Authority

## Technical Requirements - Trainsets

- Width between 3.2 m (10.5 feet) to 3.4 m (11.17 feet)
- Maximum Length of 205 m (672.6 feet).
- Static axle loads that do not exceed 17 tonnes as shown in 2008 HS RST TSI.
- Nominal Vehicle floor height above top-of-rail (TOR) of 1295mm (51 inches) under all loading conditions.



## Technical Requirements - Trainsets

- Minimum of 450 passenger seats:
  - First class space: Equivalent of 1067 mm (42 inches) of Pitch
  - Business class space: 991 mm (39 inches) of Pitch
- Compliant with all applicable U.S. laws and regulations, including ETF\_001-03 – Proposed Rule text for NPRM (Notice of Proposed Rule Making).





## Technical Requirements - Maintenance

- Long term technical support, provision of spares and maintenance (30 years) for the trainsets.
- The design, construction, operation and maintenance of a Heavy Maintenance Facility (HMF) for trainsets overhaul and 3 running repair/inspection shop, stabling facilities.
- The Authority shall make three properties available to the Contractor for the facilities. The HMF facility should be co-located with one of the stabling facilities.



## Submittal Information

- Expressions of Interest (EOI) are requested by October 17, 2014.
- EOIs will be accepted after that date.
- Submitting an EOI is not a requirement. Firms that do not submit an EOI may still submit a Proposal in response to the RFP.



## The Procurement Process

- The REOI does not begin the procurement process.
- The Authority will issue an RFP to begin the procurement process.
- Firms that submit EOIs will be given credentials to ask questions and participate in one-on-ones during the RFP process.