CALIFORNIA HIGH SPEED RAIL
THE CASE FOR CONNECTIVITY

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Agenda

• Case study approach
• Describe High Speed Rail (HSR) background
• Review HSR project goals
• Assess current connectivity modes and planned expansions
• Explore current local transportation ridership
• Draw conclusions
High Speed Rail (HSR) Map

**Initial Operating Section (IOS)** - $10.6B
- Merced to Grapevine

**Phase 1** - $77.3-$98.1B (includes IOS)
- Bakersfield to Los Angeles
- Northern Central Valley to San Francisco (Partially blended)

**Phase 2** - Cost not projected
- Extension from LA east to Riverside, south to San Diego
- Extension from Merced to Sacramento
February 12, 2019

• Governor Gavin Newsom delivers State of the State address and scales back the HSR project

• Instead of two full phases, he dialed the project back to a Merced-Bakersfield only line, the majority of the Initial Operating System (IOS)

• Newsom cited mismanagement, cost, and practicality

• Claims the Central Valley needs HSR for economic stimulation
Revised Project Area

- Project ending after 119-mile Initial Operating System
- Tentative cost: $10.6B
- Tentatively four major stops (population):
  - Merced- 82,008 (Metro- 268,672)
  - Fresno- 519,037 (Metro- 979,915)
  - Kings/Tulare* (Hanford- 55,599)
    - Metro- 150,261; w/in 25 miles- 449,237
    - Bakersfield- 372,680 (Metro- 884,788)
Four Key HSR Project Goals

- **Increase Mobility** to prepare for growth—with the state’s population estimated to reach 51 million by 2060
- **Improve Air Quality** by shifting people from cars and planes to clean trains running on renewable energy
- **Cut Travel Times** and provide a faster, more convenient way to get around the state—and create new opportunities for business-to-business collaboration
- **Stimulate Job Growth** across the state—with construction jobs now and maintenance and operation jobs to come
Original Connectivity Projects- $917.8M

- Caltrain Signal Systems (Statewide)- $105.4M
- Capitol Corridor/Sacramento (Sacramento to SF)- $88.6M
- Metrolink/Los Angeles Area- $241.5M
- Pacific Surfliner/San Diego Area- $146.2M
- San Francisco/BART- $279.9M
- Northern Central Valley- $56.2M
  - San Joaquin Corridor Merced to Le Grand Double Track Project- $40.7M
  - San Joaquin Corridor Positive Train Control- $9.8M
  - San Joaquin Regional Rail Commission, Stockton Passenger Track Ext.- $5.7M
Station & Connectivity Plans - Merced

Location
- Downtown Merced
- 5.4 miles SW of UC Merced

Local Connectivity
- Local Roads & Major Highways
- Merced County Transit (Busses; 0.5 mi away)
- CatTracks (UC Merced students only)

Regional Connectivity
- Amtrak (0.75 mi away)
- YARTS (Yosemite)

Planned Connectivity
- CatTracks expansion
- Altamont Corridor Express (ACE)
ACE Expansion

- Altamont Corridor Express
- Regional rail system east of the Bay Area
- 60 mile southeastern expansion
- $46.4M currently earmarked
  **Phase 1** - expands to Ceres
    - As soon as 2020
    - No later than 2023
  **Phase 2** - expands to Merced
    - No later than 2025
Station Plans- Fresno

Location
- Downtown Fresno
- 6 miles SSW of CSU Fresno

Local Connectivity
- Local Roads & Major Highways
- Fresno Area Express (FAX-busses)
- FAX Bus Rapid Transit (0.25 mi away)

Regional Connectivity
- Amtrak (0.7 mi away)
- YARTS
- Greyhound

Planned Connectivity
- Modified FAX routes
Station Plans- Kings/Tulare

**Location**
- City of Hanford

**Local Connectivity**
- Local Roads & Major Highways
- Kings Area Rural Transit (KART)

**Regional Connectivity**
- Amtrak (1 mi away)
- Visalia Transit (15 mi away)
- Tulare InterModal Exp. (TIME; 15 mi away)
- Porterville Transit (50 mi away)
- Greyhound/Orange Belt Stages
- Sequoia Shuttle

**Planned Connectivity**
- Cross Valley Corridor
Cross Valley Corridor

- Planned diesel multiple unit (DMU) system
  - Light rail-like system
  - Connects communities of 10-100K
  - No state/federal connectivity funding

**Phase 1**
- Coordinated bussing planned within 10 years

**Phase 2**
- Initial DMU within 20 years

**Phase 3**
- Full DMU in more than 20 years
  - Projecting $350M-$489M outlay
Station Plans - Bakersfield

Location
• Downtown Bakersfield; 2 proposed sites

Local Connectivity
• Local Roads & Major Highways
• Golden Empire Transit (GET)
  • Traditional busses

Regional Connectivity
• Amtrak (0-2 mi away)
• Kern Transit (shuttles)
• Greyhound/Orange Belt Stages

Planned Connectivity
• None
Current Bus Ridership

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<td>+24,372 (+4.92%)</td>
<td>870,000</td>
<td>1.68</td>
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<td>Bakersfield (372,680)</td>
<td>+25,197 (+7.25%)</td>
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<td>1.09</td>
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<td>Visalia** (130,047)</td>
<td>+5,605 (+4.50%)</td>
<td>147,000</td>
<td>1.13</td>
<td>-7.41%</td>
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* Modesto is 40 miles north of Merced and will be connected via the ACE Expansion connectivity project.
** Visalia is 15 miles east of Hanford and will be connected via the Cross Valley Corridor bus/DMU project.
† Data from American Public Transportation Association (APTA) 2018-Q1 quarterly data and local 2018 study.
†† Data from US Census Bureau and DataUSA
Magnified Last Mile

- Because Central Valley residents do not use public transportation, they will drive to HSR stations instead of ride to them
  - HSR will create a magnified “last mile” issue
- Central Valley cities are too small, too far apart, and too sprawled to sustain a carless society
Four Key HSR Project Goals

• **Increase Mobility** to prepare for growth—with the state’s population estimated to reach 51 million by 2060

• **Improve Air Quality** by shifting people from cars and planes to clean trains running on renewable energy

• **Cut Travel Times** and provide a faster, more convenient way to get around the state—and create new opportunities for business-to-business collaboration

• **Stimulate Job Growth** across the state—with construction jobs now and maintenance and operation jobs to come
Conclusions

• Gov. Newsom’s decision to scale back HSR was fiscally responsible
• Central Californians do not use public transportation
• Until HSR connects to the Bay Area and/or Southern California, it will not be fully utilized
  • A Central Valley-only HSR system will negligibly improve connectivity
• HSR riders will likely drive to stations instead of becoming multi-modal transportation users
  • HSR will not completely shift Californians away from cars to clean transit
• Other multi-regional transportation systems will need to consider local connectivity and transit-orientedness in planning processes
Next Steps

• Identify strategies to improve transit ridership in the Central Valley
• Explore/gather data about commuting distances and directions
• Explore/gather data about demographics and transit ridership
• Strategize and execute cost-benefit analysis
• Compare HSR to other multi-regional systems like east coast Amtrak line connecting Boston, NYC, Philadelphia, and D.C.
• Explore preference/aversion to diversity of transportation modes
• Once HSR is live, observe changes in local transportation ridership
Questions and Comments

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Sources

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