

Countywide ExpressLanes Strategic Plan

Ad Hoc Congestion, Highway, and Roads Committee
January 18, 2017



Metro

Background and Study Assumptions

- In November 2014, the Metro Board directed staff to prepare an ExpressLanes Strategic Plan
- Key Features:
 - Consistent with SCAG Regional ExpressLanes Study
 - Developed in conjunction with Caltrans District 7
 - Freeways with existing, in construction, or planned HOV (High Occupancy Vehicle) lanes were considered for conversion into ExpressLanes

Methodology

- Corridor Screening
- Financial Screening
- Refinement

Corridor Screening

- Two step process –
 - SCAG regional travel demand model used to forecast traffic volume in 2020 and 2035
 - RapidTOM (Toll Optimization Model) takes SCAG model output and calculates the number of vehicles and amount they are willing to pay to use the ExpressLanes
 - Evaluation Metrics :
 - 1) Value of travel time savings
 - 2) HOT lane person throughput
 - 3) Average peak period vehicle speeds in the general purpose lanes

Financial Screening

Two step process:

- 1) Estimate gross revenue generation for each corridor
- 2) Estimate Net revenue, calculated by subtracting projected gross revenue from construction and operations costs based on actual costs incurred on the I-10 and I-110 ExpressLanes

Composite Score

- Each corridor was ranked into quintiles (top 20%, second 20%, third 20%, fourth 20%, and fifth 20%) for the three corridor screening metrics and financial screening
- The ranks were averaged to get a composite score. For example, if a project scored in the top 20% in each criteria then the composite ranking would be in the first quintile.

Refinement

Four qualitative criteria were used to refine the results of the corridor and financial screening:

- Connectivity with other existing and potential express lane corridors;
- Transit benefits;
- Funding availability;
- Ability to provide two ExpressLanes in each direction.

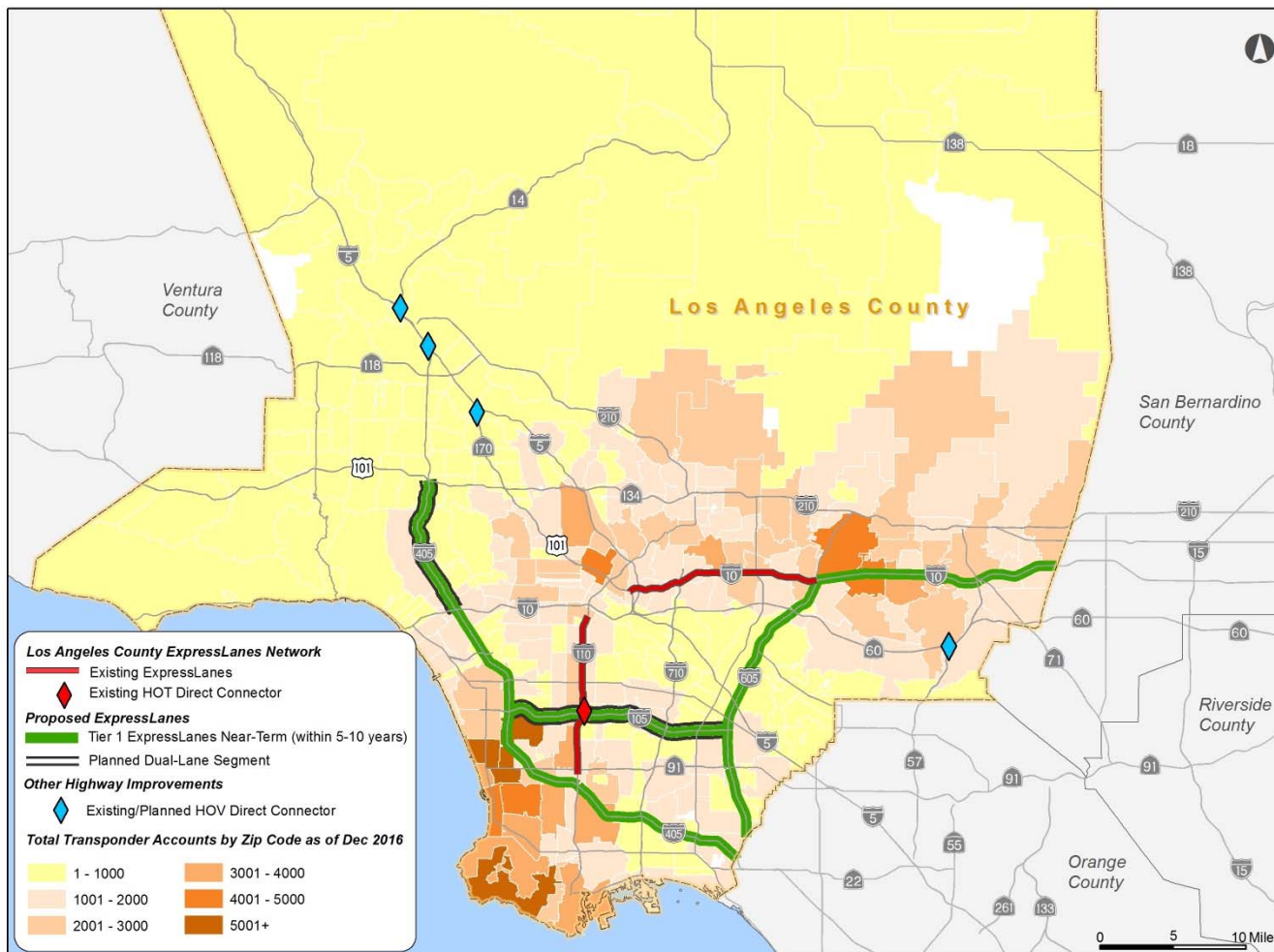
Project Tiers

- Based on the corridor financial screening metrics and the refinement criteria, projects were placed into three tiers:
 - Tier 1 – near-term (within 5-10 years)
 - Tier 2 – mid-term (within 15 years)
 - Tier 3 – longer-term (within 25 years)

Recommended Tier 1 Projects (5 to 10 Years)

Project	Measure M Funding	Funding Availability
I-405 from I-10 to US-101	\$260,000,000	2024
I-105 ExpressLanes from I-405 to I-605	\$175,000,000	2027
I-405/I-110 Int. HOV Connect Ramps and Interchange Improvements	\$250,000,000	2042
I-605/SR-60 Interchange HOV Direct Connectors	\$130,000,000	2043
I-110 ExpressLane extension south to I-405/I-110 interchange	\$51,500,000	2044
I-605 from I-10 to I-405	None	N/A
I-405 from I-10 to LA/Orange County line	None	N/A
I-10 from I-605 to LA/San Bernardino County line	None	N/A

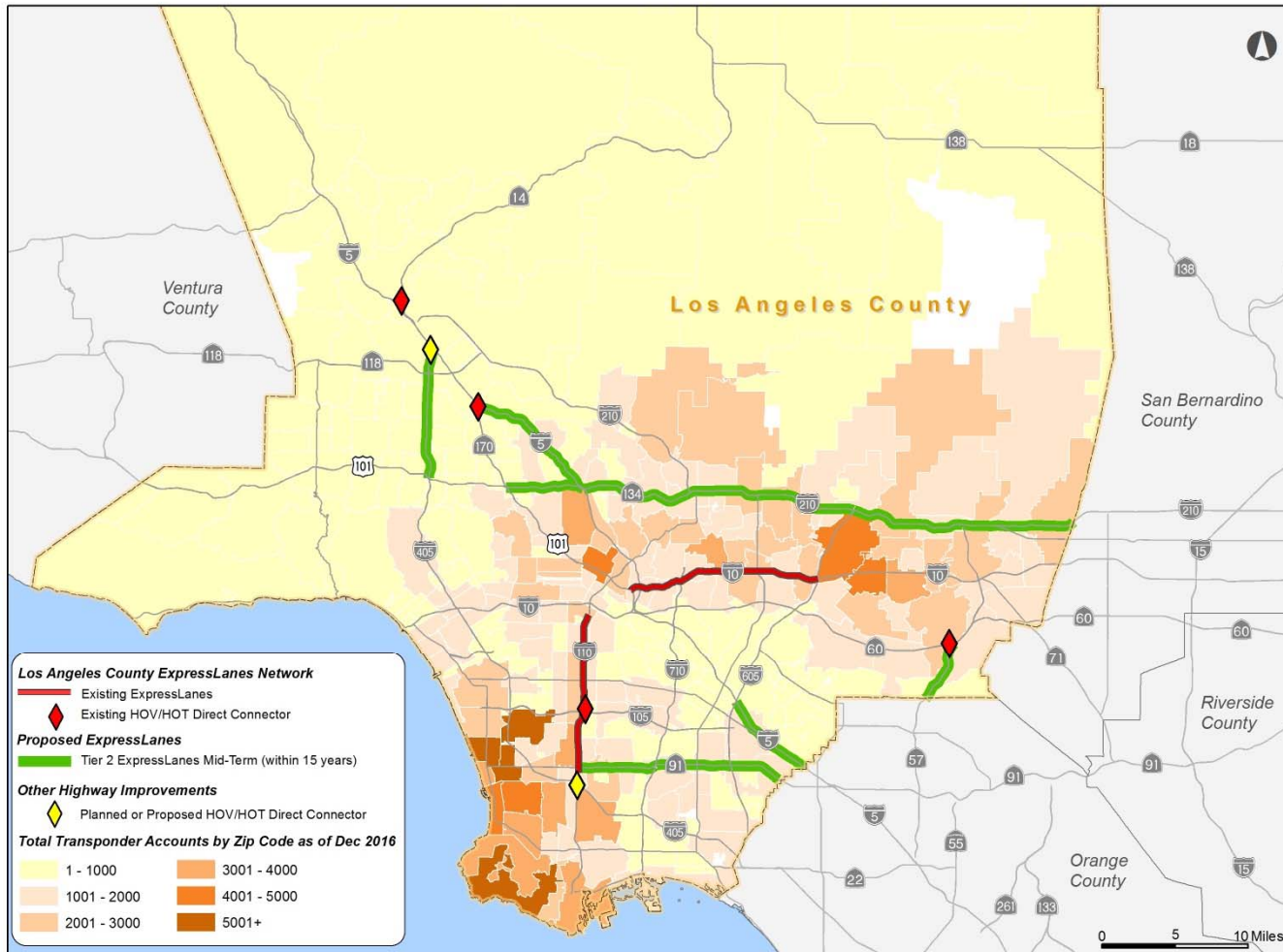
Recommended Tier 1 Projects (5 to 10 Years)



Recommended Tier 2 Projects (15 Years)

Project	Measure M Funding	Funding Availability
I-5 from I-605 to LA/Orange County line	None	N/A
I-5 from SR-134 to SR-170	None	N/A
SR-57 from SR-60 to LA/Orange County line	None	N/A
SR-91 from I-110 to LA/Orange County line	None	N/A
SR-134 from SR-170 to I-210	None	N/A
I-210 from SR-134 to LA/San Bernardino County line	None	N/A
I-405 from I-101 to I-5	None	N/A

Recommended Tier 2 Projects (15 Years)



Recommended Tier 3 Projects (25+ Years)

Project	Measure M Funding	Funding Availability
I-5 from SR-170 to SR-14	None	N/A
SR-60 from I-605 to LA/San Bernardino County line	None	N/A
SR-170 from I-5 to SR-134	None	N/A
I-5 from SR-14 to Parker Road	None	N/A
SR-14 from I-5 to Avenue P8	None	N/A
SR-118 from I-5 to LA/Ventura County line	None	N/A

Funding Options

- Measure M
- Bonding
- TIFIA loans
- Grants
- Net toll revenue loans from other ExpressLanes

Recommendations/Board Actions

Request the Board to:

- Receive and file the report; and,
- Authorize the CEO to:
 - Initiate planning studies including a comprehensive financial plan for Tier 1 projects and submit those projects as a network to the California Transportation Commission to request tolling authority