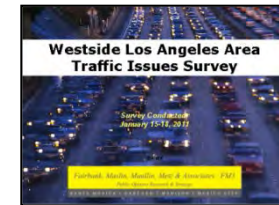
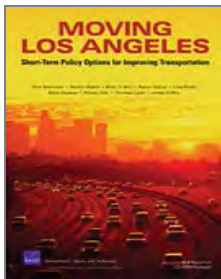




**Exercise Your Urban IQ:  
How to Achieve Smart Cities at Home**

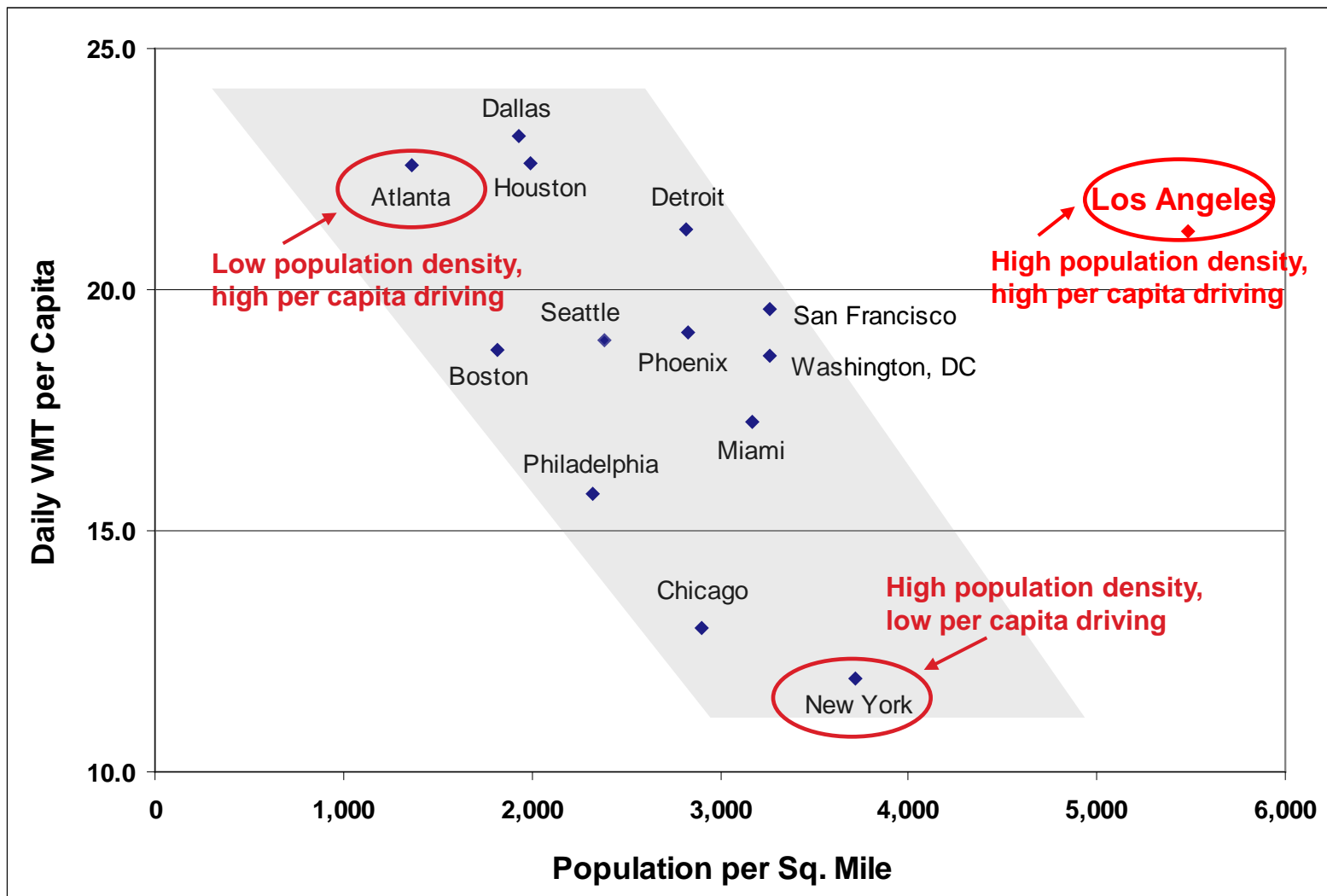
# **Mobility Hubs & Express Lanes: How Inter-Mobility is Improving Highways & Arterials**

**Hilary Norton, Executive Director  
FAST – Fixing Angelenos Stuck in Traffic  
September 21, 2015**





# Why are We Stuck in Traffic?



Source: RAND Corporation "Moving Los Angeles: Short-Term Policy Options for Improving Transportation, 2008"

# Why are We Stuck in Traffic?



LA Mobility Plan 2035 statistics:

- 65.7% of Angelenos drive alone
- 14.7% carpool
- 11% take transit
- 2% use bicycles

We need to increase carpooling, biking and transit in our daily travel.

But bus stops and rail stations can be inhospitable, with station parking lots filled by 8am, few nearby amenities and poorly lit at night



# Mobility Hubs: Combining Inter-Mobility, Technology, Sustainability and Community



# Mobility Hub Concierge Model



New and Happier Transit Riders!

Bike Share  
Car Share  
Lyft / Uber drop off  
Bike Parking



Food/Drink  
Bathrooms  
Transit Services  
Package Delivery



Safety and Security for Layovers and Stops  
WiFi / Seating



Public kiosks  
TV Screens  
Traveler Information  
Travel Apps



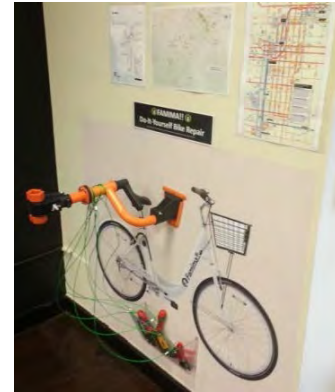
# Mobility Hub Modular Version



- 24/7 Security – facing Metro station
- Restrooms and air conditioning inside Famima store, maintained by Famima
- Carshare, bikeshare, bike parking, Uber/Lyft/Bus pick up and drop off
- Community wayfinding signage, staff for TAP purchases
- Solar panels, EV charging, Wi-Fi, “net-zero” building made of recycled materials
- “Ready to go” healthy meals, fruit, water, coffee, etc.



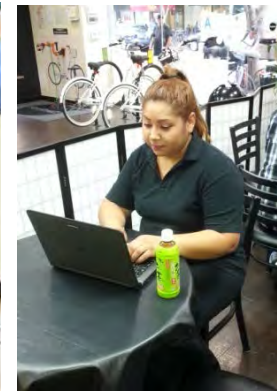
# Mobility Hubs as Ground Floor Retail



Bike Repair, TAP Card Sales & Transit Info



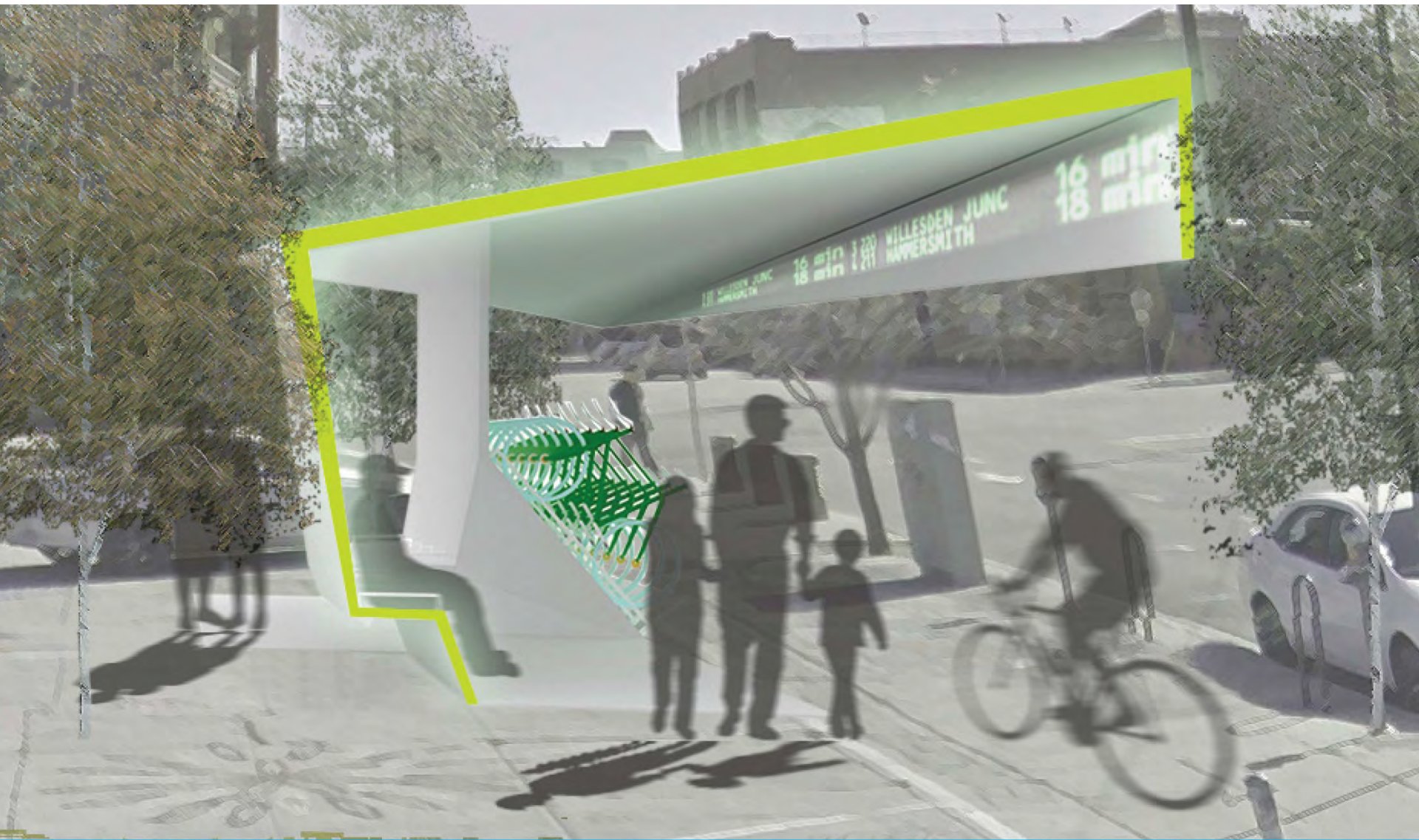
Rental Bikes



24/7 Wi-Fi



6 Zipcars

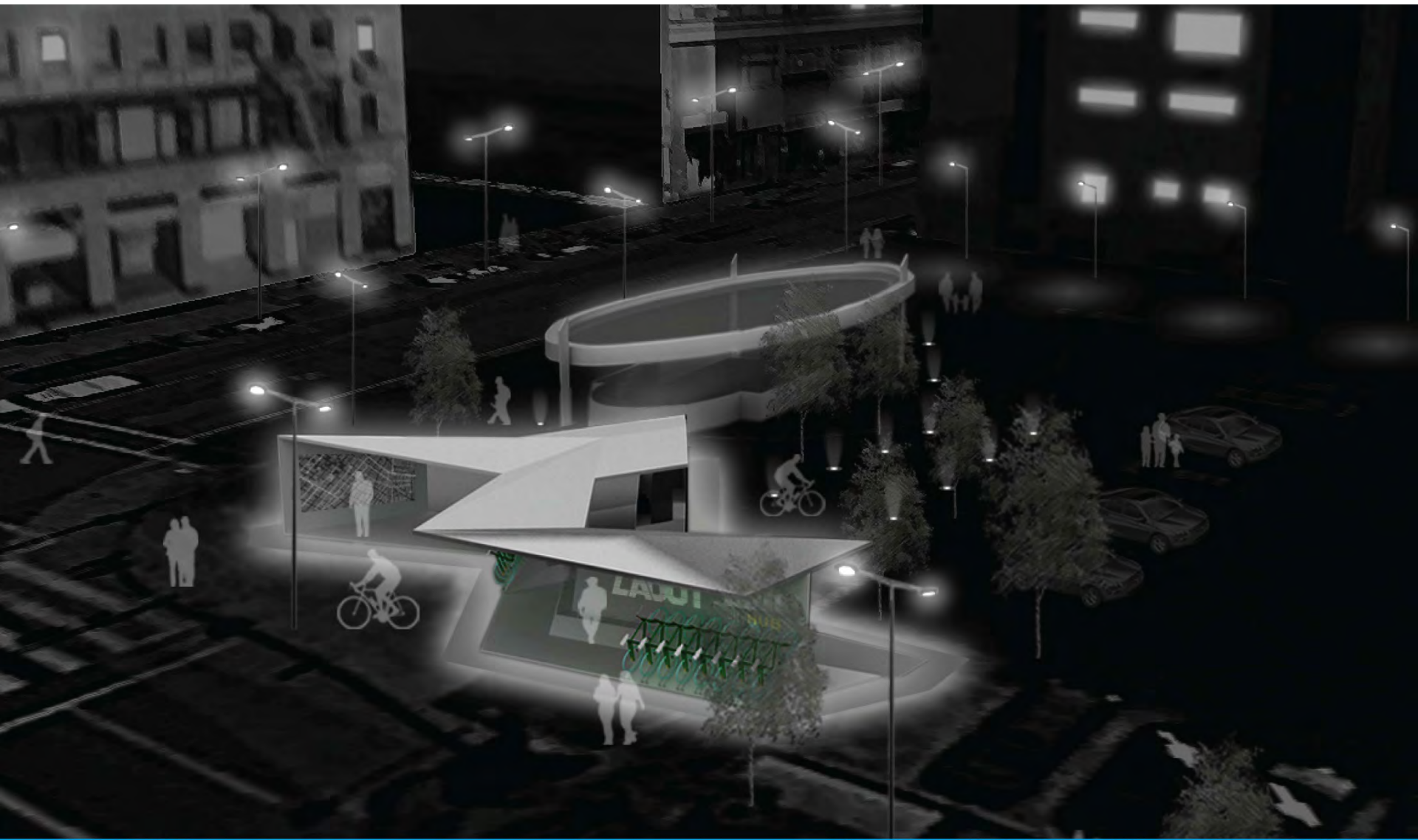


## Mobility Hubs

Annie Leanse, Thanassorn (Belle) Techaarpornkul, Byongjun Lee, Josh Rubbelke

**Gensler + LADOT**

Gensler Los Angeles Summer Intern Program  
Research Project in partnership with LADOT  
August 13, 2015 Page 227



## Mobility Hubs

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# Mobility Hub-sters Create Personal Portals



The screenshot shows a user profile for "John Doe" with a "Log Out" link. The navigation menu includes "My Dashboard", "Commute Tracker", "Commute Calculator", "Message Center", "Rideshare", and "Help". Under "Where do I start?", there are links for "Update My Profile", "Commute Tracker", "Commute Calculator", "Message Center", and "Rideshare".

**Savings Statistics**

Settings: My Individual Savings (dropdown)  
 Timeline: Past 30 Days (dropdown)

Reduced Vehicle Miles Traveled	1,576 miles
Vehicle Savings	\$1,017.56
Number of Reduced Trips	182
Reduced Emissions	2,173 lbs.

**Travel Modes Used**

Walk	1%	<input type="text"/>
Bicycle	12%	<input type="text"/>
Motorcycle	0%	<input type="text"/>
Carpool	60%	<input type="text"/>
Vanpool	5%	<input type="text"/>
Public Transit		<input type="text"/>

- Connect “FitBit” data
- Rideshare Options
- Metro / NextBus routes
- Traveler alerts
- Community calendar

- Job Listings
- Apartment / Housing Listings
- Family event info
- College class offerings

The website features a header with "commute hub" and a "LOG IN" button. A navigation bar includes "FEATURES", "SOLUTIONS", "CONTACT", and "SIGN UP". The main banner displays a green footprint graphic with the text "Track Your Carbon Footprint" and a "Learn More About Commute Hub" link.

Below the banner are several service tiles:

- Track Your Carbon Footprint**
- Multi-Modal Tracking**
- Calculate Your Emissions Savings**
- Manage Your Incentive Programs**
- Trip Planning**

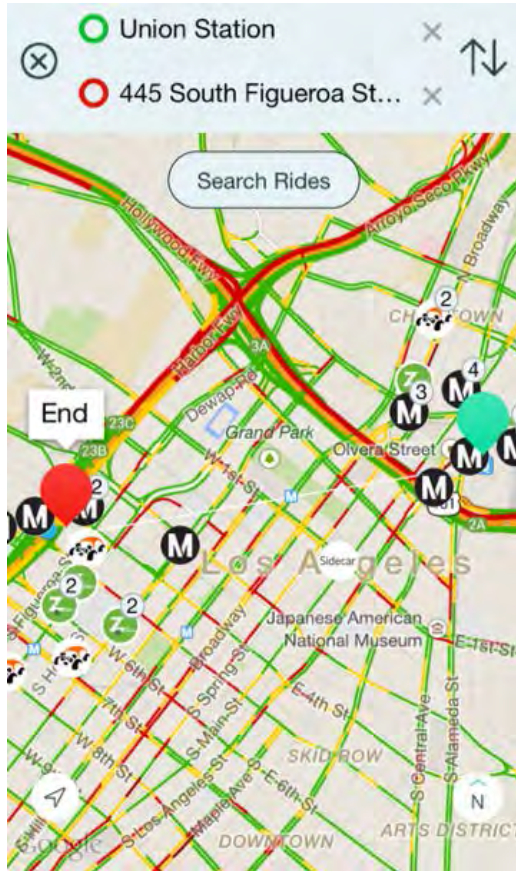
Additional service tiles include:

- Bike Management**: Features secure bike parking, bike lockers with e-locker management, bike share and Car Share. [Learn More >](#)
- Commute Tracker**: You can track your commute and calculates your emission savings. [Learn More >](#)
- Rideshare**: Text for Rideshare... [Learn More >](#)
- Commute Calculator**: Text for Calculator. [Learn More >](#)
- Travel Smart**: Manage your commute with TrafficBee's customized real-time traffic reports. [Learn More >](#)
- My Vanpool**: Vanpool program management system to assist with administering your vanpools and subsidies. [Learn More >](#)

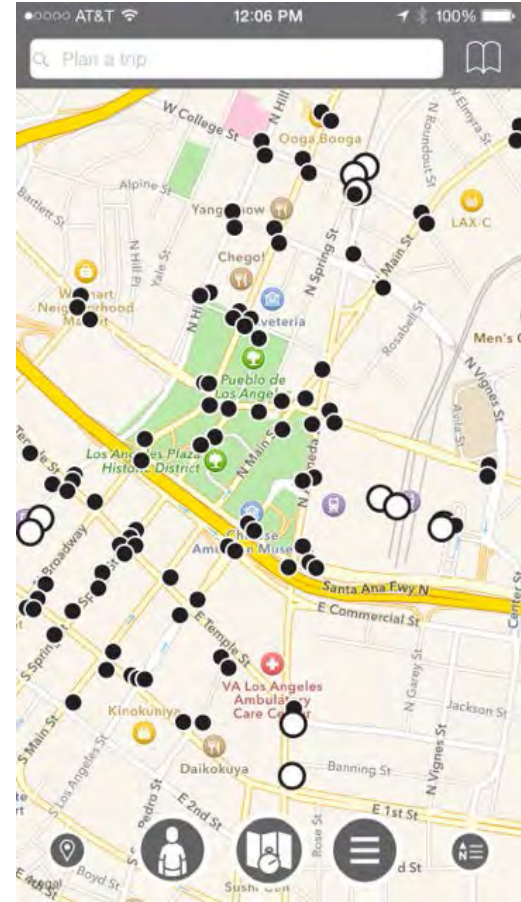
# Mobility Hubs and Technology



RideScout



Go Metro



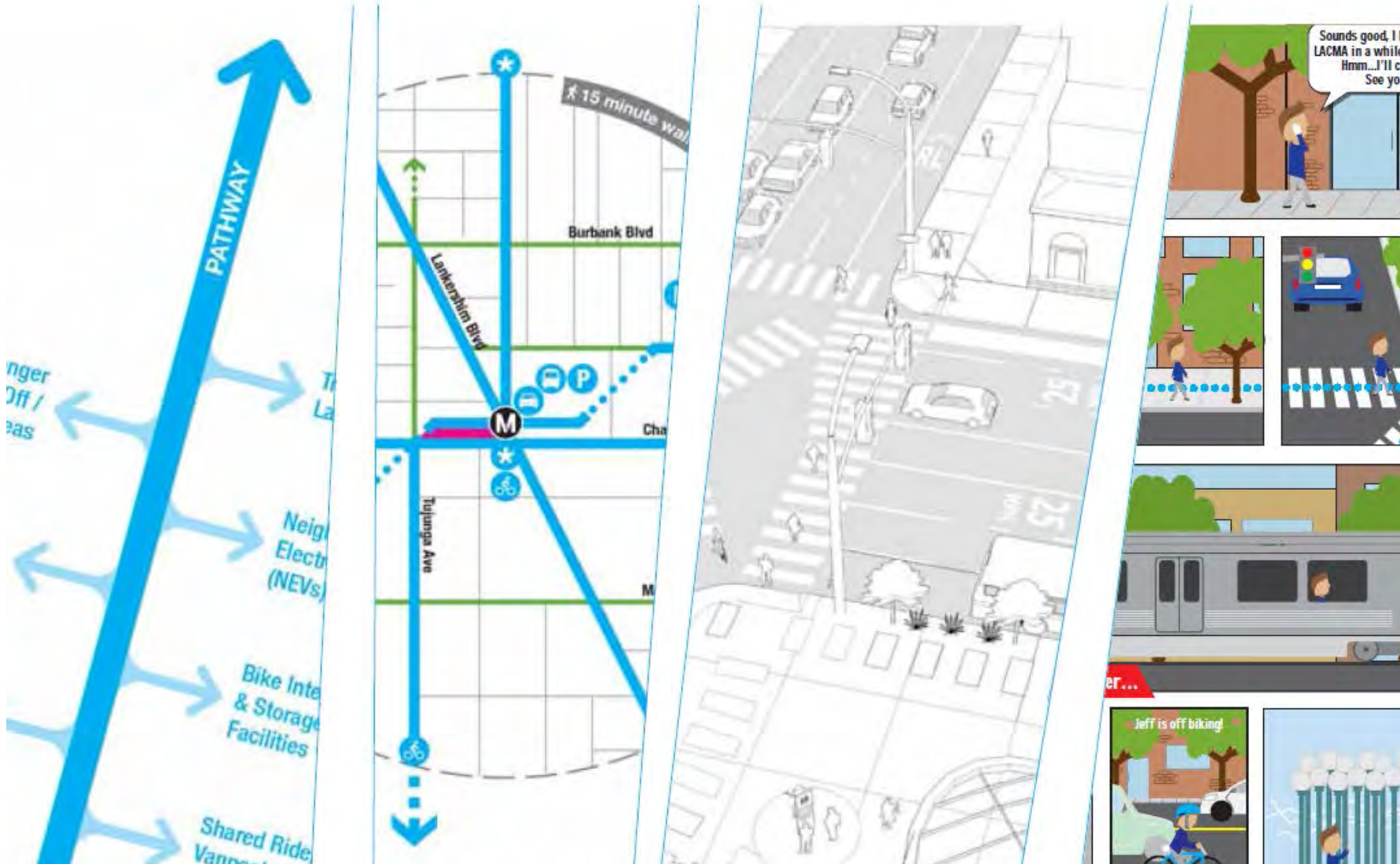
Create Mobility Hub Icon to identify Hubs on popular transit wayfinding apps.

Include kiosks at Mobility Hubs for travelers who don't have smartphones.

Kiosks would provide info in multiple languages.



# First Last Mile Strategic Plan & PLANNING GUIDELINES



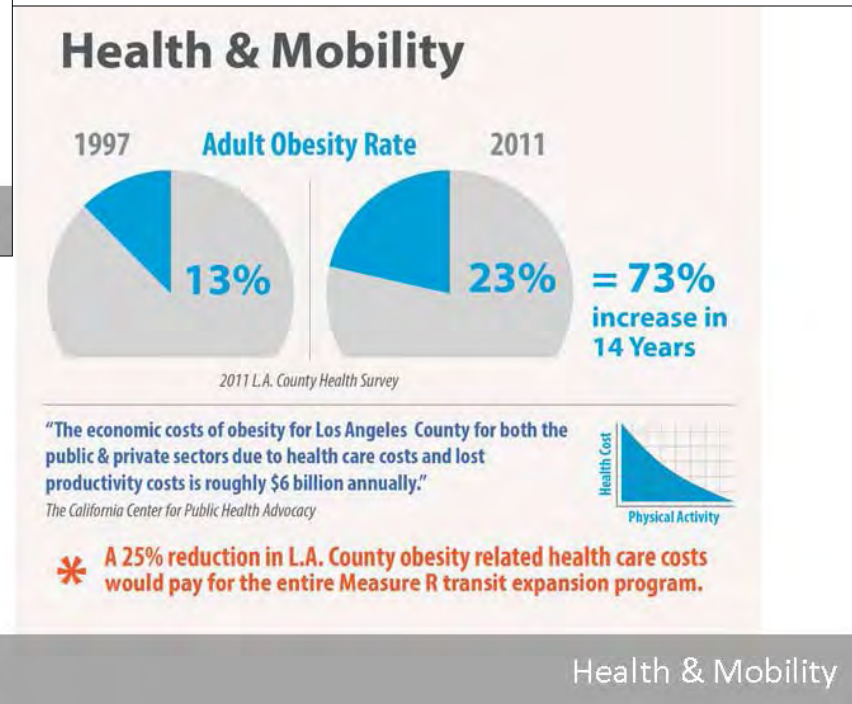
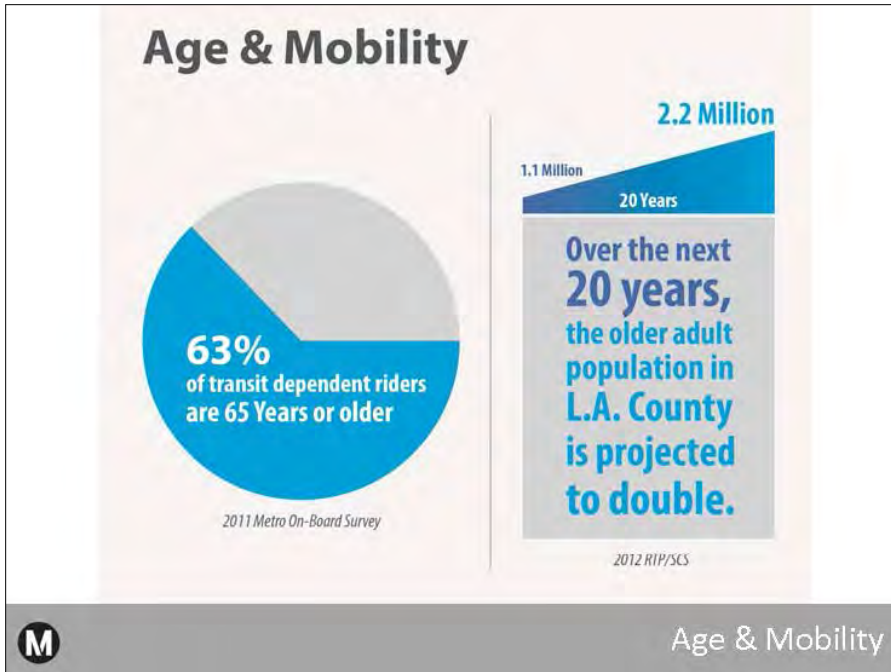
# First/Last Mile Plans Extend Metro Network



A Prototype Pathway Network Map...



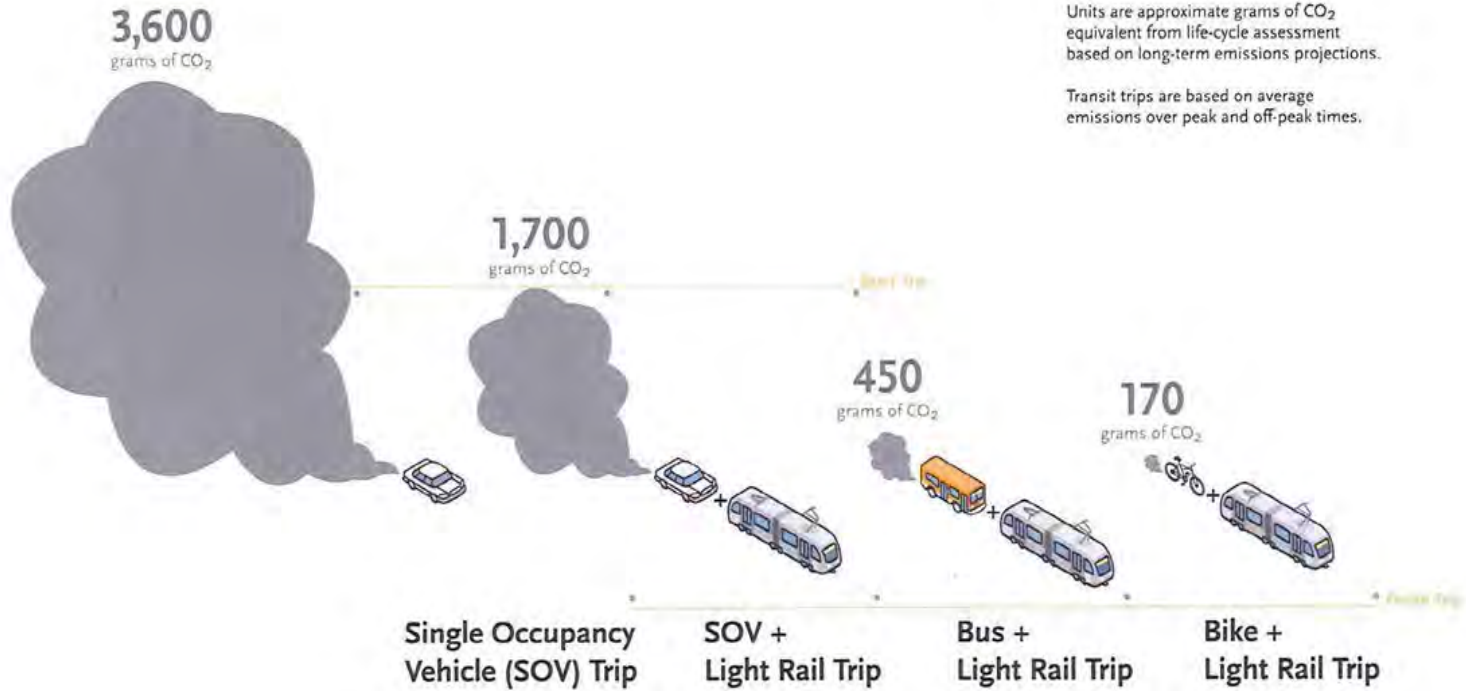
# Mobility Hubs and Multi-Modal Trips Add Healthy, Safe, Economical Travel Options



# Multi-Modal Trips Improve our Air Quality



## Greenhouse Gas Emissions Per Person Per Trip



Mikhail Chester et al, "Infrastructure and Automobile Shifts: Positioning Transit to Reduce Life-Cycle Environmental Impacts for Urban Sustainability Goals", *Environmental Research Letters* 8, no. 1 (2013). doi:10.1088/1748-9326/8/1/015041

Source: SCAG, Metro First Mile Last Mile Strategic Plan, April 2014, IBI Group

# Mobility Hubs Extend Access to Transit, Affordable Housing and Jobs

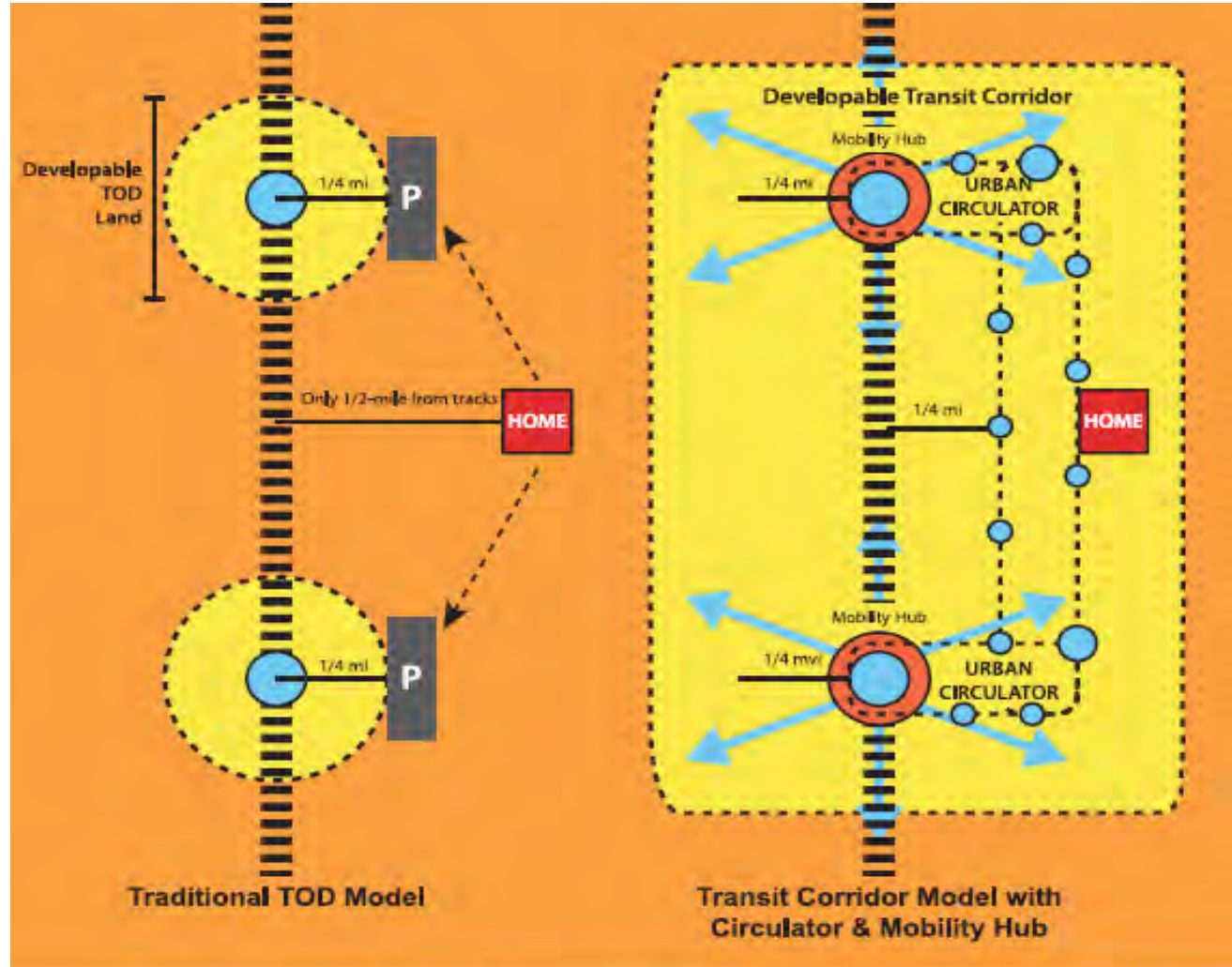
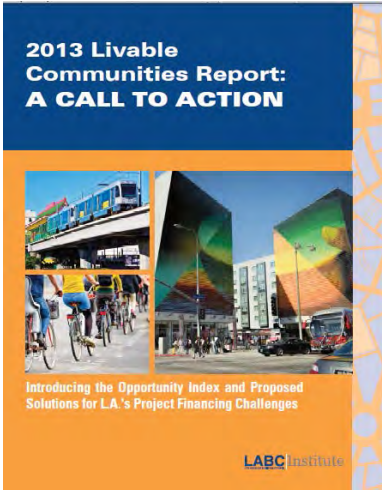
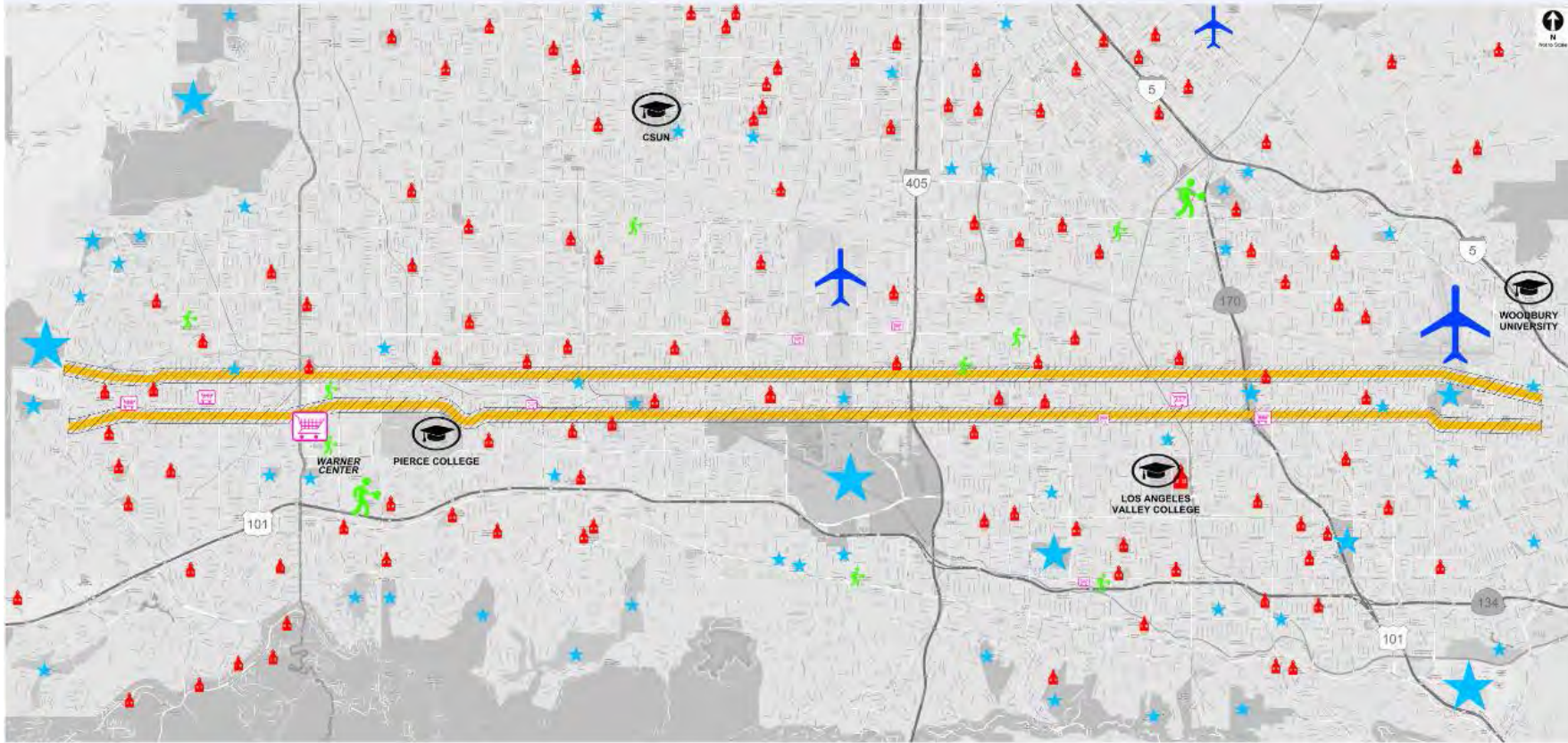


Figure 1: From the 2012 Report: Illustrating the difference between traditional TOD and Transit Corridor Development

# Improving Victory and Vanowen Improves Travel Time

## to Valley Jobs, Education, Entertainment, and Airports

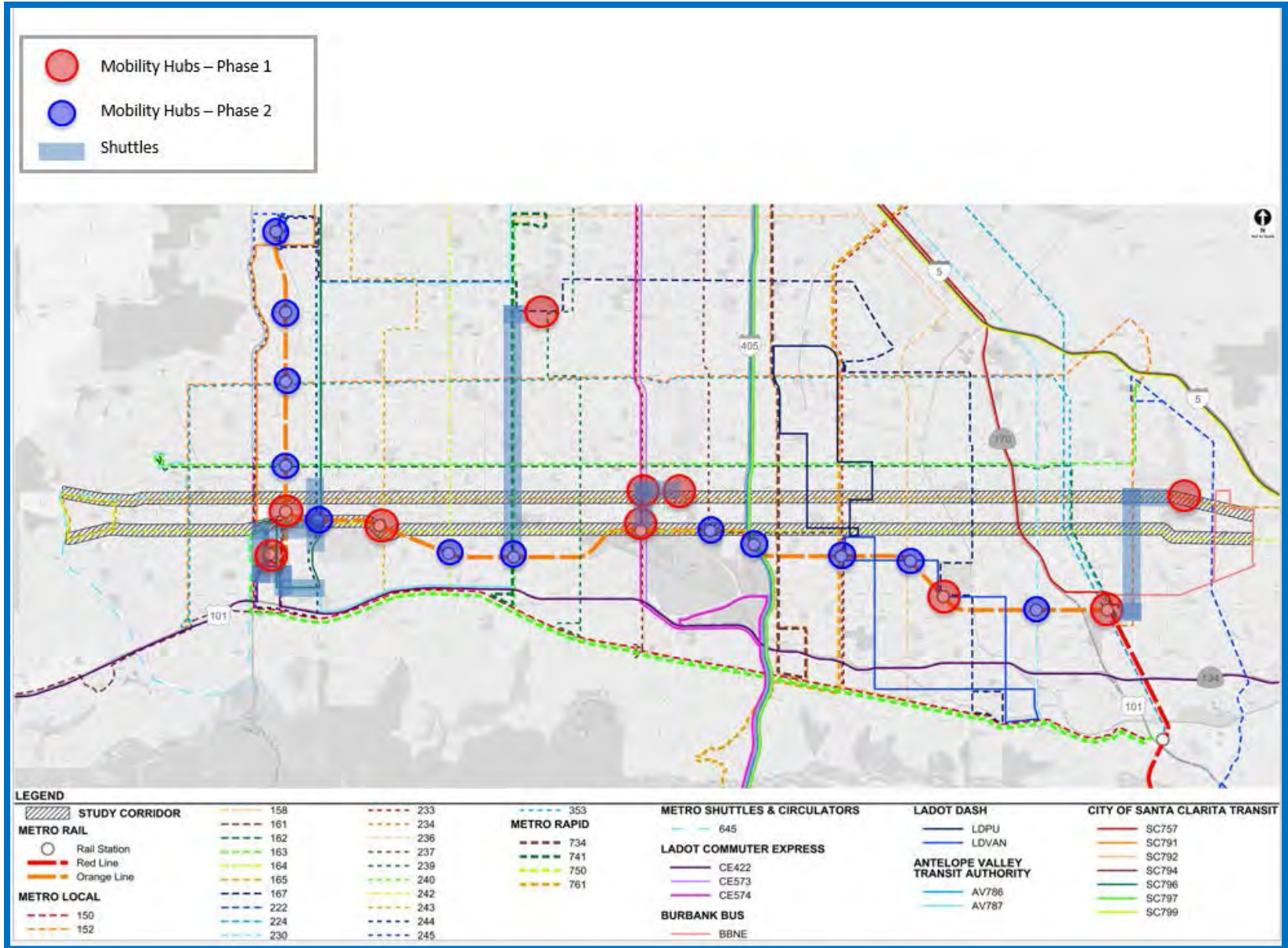


LEGEND

- |  |   |
|--|---|
|  STUDY CORRIDOR             |  AIRPORT           |
|  ENTERTAINMENT / RECREATION |  EMPLOYMENT CENTER |
|  UNIVERSITY                 |  RETAIL            |
|  SCHOOL                     |   |



# Mobility Hubs – Improving Arterials through new Connectivity to Transit, Job Centers and Universities





# Mobility

## Plan

### 2035

DRAFT FOR PUBLIC REVIEW  
FEBRUARY 2014

SF.12

**Mobility Hubs/Multi-Modal Transit Plaza.** Facilitate the implementation of multi-modal transportation support activities and services in proximity to transit stations and major bus stops, including but not limited to: adequate bus stop and layover space, transit shelters with real-time bus arrival information, bike share docking stations, car share facilities, taxi-waiting/call areas, Wi-Fi service, public showers/toilets, bicycle storage and repair facilities, and food and beverage providers. Develop a coordinated permitting process for the installation of the support features identified above.

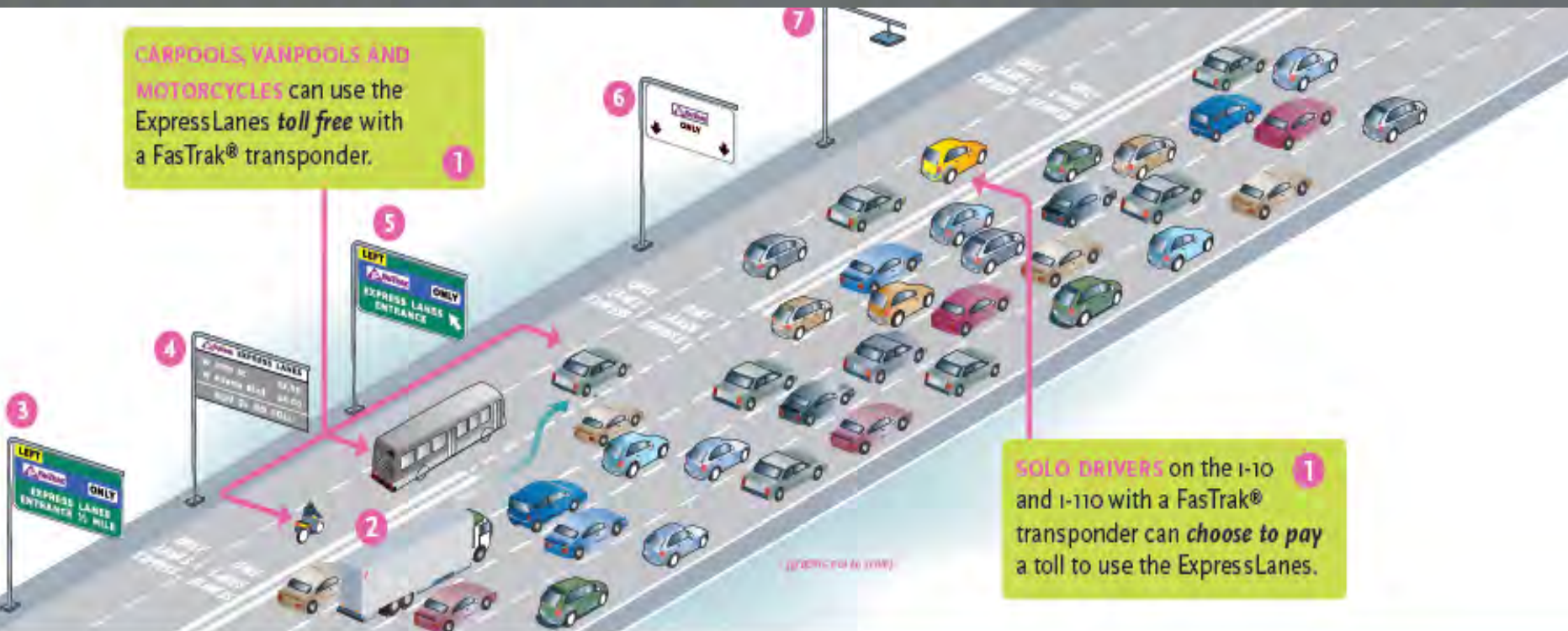
DOT/Metro,  
City Council, DCP, Office of the Mayor, DPW



# METRO EXPRESSLANES

CARPOOLS, VANPOOLS AND MOTORCYCLES can use the ExpressLanes **toll free** with a FasTrak® transponder.

1



SOLO DRIVERS on the I-10 and I-110 with a FasTrak® transponder can **choose to pay** a toll to use the ExpressLanes.

1

The I-110 and I-10 Metro ExpressLanes regulations will be enforced by the California Highway Patrol using visual and electronic means.

- 1 Prior to starting your trip, you will indicate the number of occupants in your vehicle by moving the switch on the transponder to the appropriate setting (1, 2, 3+).
- 2 The I-10 and I-110 Metro Express Lanes will operate 24/7 and will be separated from the general purpose lanes by double solid white lines.
- 3 The first sign will be a FasTrak only ExpressLanes sign approximately 1/2 mile away from the entrance to signify the distance remaining to enter the ExpressLanes. Entry to and exit from the Express Lanes will be indicated by a single dashed white line.
- 4 Tolls on the ExpressLanes are based on the current congestion level and the length of your trip. Approximately 1/4 mile away from the entrance to the Express Lanes, the second overhead electronic sign displays two toll amounts: 1) The current toll from this entrance to the next major exit; and 2) the current toll from this entrance to the end of the Express Lanes.
- 5 The third sign indicates the entry point to the ExpressLanes and informs drivers that FasTrak is required to use the Express Lanes.
- 6 The fourth sign marks the start of the ExpressLanes toll segment and is the final reminder to the driver that FasTrak is required beyond this point.
- 7 Once you are beyond the ExpressLanes entry/exit point, where the dashed white line ends and the double solid white lines begin again, an overhead antenna will read the FasTrak transponder, and for solo drivers who choose to use the ExpressLanes, the correct toll amount will be automatically deducted from your FasTrak account based upon the toll amounts displayed to you on the second sign. Those vehicles that are carpooling and meet the minimum occupancy requirements will not have a toll deducted from their account.



# Enticing new Transit Riders / Hub Users as Conscientious Mobility Investors



***Mobility Hub-sters are Going Places!  
Saving Money. Saving Time.  
Saving our Community.***





# www.FASTLA.org



## Join FAST - Help Us Get Los Angeles Moving Again!

Hilary Norton, FAST Executive Director (213) 233-2542 [hnorton@tpgre.com](mailto:hnorton@tpgre.com)

 FAST – Fixing Angelenos Stuck in Traffic

 FASTLOSANGELES