Reflecting on the High Road Framework
Paradigm Shifts and Opportunities

August 10, 2020

Presented by:
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Los Angeles County Metropolitan Transportation Authority
Los Angeles County – The Largest US Economy

- 88 incorporated cities
- Large area – 4,752 mi² (12,307 km²)
- Larger than the states of Rhode Island and Delaware combined
- Large Population
  - Over 10 million people
  - 17.6 million in surrounding counties
  - More than 42 states
- Diverse – More than 40% foreign-born, over 220 languages spoken
- The 21st largest economy in the world; 16th if four surrounding counties are included (Various Sources)
LA Metro is Los Angeles County’s...

Regional Transit Planner/Funder

Regional Transit System Builder

Regional Transit Operator
Transit Program (Existing and Future)

Existing + Measure R:
Total: 197-205 stations, 236+ miles
390,000+ New Boardings

Existing Lines:
96 stations
105 miles
370,000 Daily Boardings

$120B Measure M:
Voter approved in November 2016

Getting Ready for the 2028 Olympics and 2026 World Cup

Existing + Measure R:
Model Predicted 314,000 Daily Boardings

118
101
170
178
210
124
10
110
105
105
710
71
710
605
605
605
57
60
71
210
5
118
101
170
178
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Ventura County

Los Angeles County

San Bernardino County

Orange County

PACIFIC OCEAN
Metro Transit Program (Existing and Future)

Metro Transit & Highway Projects:
The 40-Year Plan

Map showing transit and highway projects in Los Angeles County.
Critical and At Risk Facilities

Stressors
- High heat days
- Precipitation
- Flooding
- Wind
- Wildfire
- Earthquake
- Sea Level Rise
vs. Vulnerable Populations
Then the pandemic hit...
COVID 19 Impact 1: Ridership

http://isotp.metro.net/MetroRidership/Index.aspx
COVID 19 Impact 1: Revenue

❖ LA Metro Sources of Revenue
  ❖ Sales Tax
  ❖ Fare box recovery
  ❖ Toll Revenue
  ❖ Loans and Grants
  ❖ Others

https://boardagendas.metro.net/board-report/2020-0310/
We refuse to fail...
Our Next LA* is better transit.
- Transit Investment
- Strategies & Actions
- Performance Measures

Our Next LA* is less congestion.
- Highway Investment
- Strategies & Actions
- Performance Measures

Our Next LA* is complete streets.
- Active Transportation Investment
- Strategies & Actions
- Performance Measures

Our Next LA* is access to opportunity.
- Joint Development Projects
- Strategies & Actions
- Performance Measures

Funding a Transportation Revolution
- Supporting Our Partners
- Operations & Maintenance

Bold New Policies & Programs
- Plans for today, and the decades to come.
Sustainability Accomplishments Timeline

Metro’s Environmental Accomplishments

- Learn more at metro.net/projects/sustainability.

1. 2007: The Metro Board adopts the Metro Energy and Sustainability Policy.
2. 2008: Metro implements the Metro Sustainability Implementation Plan (MSIP).
3. 2009: The Metro Environmental Policy committing to the use of the ISO 14001 standard is adopted.
4. 2010: The Metro Construction Policy (CCP) is adopted.
5. 2011: The Complete Streets Policy is adopted.
7. 2013: The First/Last Mile Strategic Plan is adopted.
9. 2015: The Metro is the first transit agency in the nation to achieve the ISO 14001 certification.
10. 2016: Metro aims to achieve a 2.4 MW renewable energy capacity from solar panels at seven facilities.
12. 2018: Metro develops a Sustainable Construction Awareness (MEGA) Program.
13. 2019: Metro installs its 100th EV Charger.
14. 2020: Metro develops a Sustainable Acquisition Program.
15. 2021: Metro is developing a Sustainable Acquisition Program.
17. 2023: Metro adopts the WSDOT Transit-Oriented Development Strategic Implementation Plan.
18. 2024: Metro adopts the Systemwide Station Design Standards Policy.
19. 2025: Metro works with its partners regionally and strategically to create a more resilient LA.
20. 2026: Metro has 11 LEED certified buildings, including 3 Gold and 3 Silver ratings, as well as 2 Envision awarded projects.
21. 2027: Metro rolls out Growing a Greener Workforce awareness and training program.
22. 2028: The Urban Greening Plan is adopted.
23. 2029: The Complete Streets Policy is adopted.
24. 2030: Motion 14.1 First/Last Mile implementation planning for 254 station areas.
25. 2031: Motion 14.2 “3% local contribution for rail projects.”
26. 2032: The Complete Streets Policy is adopted.
Everything has changed

- Assumptions
- Baseline conditions

LA Metro Recovery Task Force

What happens to the things that we are already doing?
Are we using adequate and correct tools?
Sustainability Accomplishments Timeline

Metro’s Environmental Accomplishments

Learn more at metro.net/projects/sustainability.

Investing in people.
Sustainability Accomplishments Timeline

Partnerships are key.
Sustainability Accomplishments Timeline

Metro's Environmental Accomplishments

Learn more at metro.net/projects/sustainability.

Metro is the first transit agency in the nation to install and operate electric vehicle chargers.

Metro has 11 LEED certified buildings, including 3 Gold and 3 Silver ratings, as well as a 2 Envision awarded projects.

Metro has a Sustainability Implementation Plan (MSIP).

Metro begins the first transportation strategic plan.

Metro makes progress on climate action and adaptation plan.

Metro launches the Green Places Plan.

Metro creates the Complete Streets Policy.

Metro implements the Metro Sustainability Implementation Plan (MSIP).

Metro achieves ISO 14001 certified Environmental Management System (EMS) certification, the world's most recognized environmental management standard.

Metro is the first transit agency in the nation to achieve the ISO 50001 energy certification.

Metro is developing a Sustainable Communities Strategic Plan.

Metro completes its 15th sustainability initiative.

Metro installs its 100th EV Charger.

Metro initiates its Climate Action and Adaptation Plan.

Metro develops a Sustainable Community Program.

Metro Launches LA Metro Bikeshare.

Metro adapts the WSDOT Transit Oriented Development Strategic Implementation Plan.

Metro adapts the WSDAB Transit Oriented Development Strategic Implementation Plan.

Metro rolls out Growing a Greener Workforce awareness and training program.

Metro develops the Systemwide Station Design Standards Policy.

Metro adopts the WSDAB Transit Oriented Development Strategic Implementation Plan.

Metro develops the Active Transportation Strategic Plan.

Metro Launches LA Metro Bikeshare.

Metro adapts the WSDAB Transit Oriented Development Strategic Implementation Plan.

Metro Launches LA Metro Bikeshare.

Procurement innovations.
Mitigating GHG Emissions

Goals
- 2030: 79% reduction relative to 2017 levels
- 2050: 100% (zero emissions) relative to 2017

GHG Mitigation Measures
- Zero emission fleets
- Renewable energy supply
- Green buildings
- EV employee commuting

Forecasted emissions with Metro’s 13 reduction measures versus Business as Usual (BAU) emissions.

How do we make adjustments to these investments while we are faced with fiscal deficits?
Leveraging Green Revenues

- Carbon Credits
  - Federal: RINs Credits
  - California: LCFS Credits

- Electric Vehicle Chargers
  - Operating Profit
  - Carbon Credits

- Green Bonds
  - ~$850M since 2017
  - New Offering In 2020
❖ Convened and Chaired by the CA State Treasurer

❖ Purpose: Expand financing for climate-friendly infrastructure through green bonds

❖ Consists of 27 academics, engineers, investors, public policy experts, attorneys, and climate scientists

❖ Outcomes
  ❖ Facilitate and educate investors and public on the power of green bonds and similar
  ❖ Develop a green bonds framework in CA
Climate Safe Infrastructure, AB2800 (Quirk, 2016)

- Climate Safe Infrastructure as Policy
- Permanent Funding for Science & Infrastructure
- Reinvent Engineering Process
- Training: All Phases of Infrastructure
- Development of Standards/MOPs
- Changes in Procurement
- Climate Safe Commission

*AB2800 (Quirk/Gonzales: June 4, 2020): Making the provisions of the original bill extended indefinitely.*
Efforts on the ASCE Sustainability Roadmap
- Standards
- Incorporating Climate Data into Practice
- Developing Procurement Documents
- Certification

International Coalition on Sustainable Infrastructure
- Guidance, Tools and Standards
- Finance and Funding
- Innovation
- Leadership and Life-Cycle
❖ Environmental Management System (EMS)

❖ ISO 14001:2015 Certified EMS

❖ Covers Construction and Operations Activities
Adaptive Design/Flexible Adaptation Pathway Model

Legend
- Adaptation action
- Adaptation action no longer viable
- Transfer point
- Adaptation action potentially viable
Comprehensive Planning

- LRTP
- Equity Platform
- Metro Plans & Policies
- Board Motions
- Stakeholder Input
- Vision 2028

Self-funding!!!
The New Reality?
The New Reality?
The New Reality?
The New Reality?

Mariachi Plaza, Metro Gold Line

COVID-19 Test Location
How to Do High Road Infrastructure: 10 Lessons from LA

May 15, 2019 | Douglass Sims

Editor’s Note: In honor of Infrastructure Week, I have invited Dena Belzer, president of Strategic Economics, to author a guest post on High Road Infrastructure in action based on her conversation with Cris B. Liban, Executive Officer for Environmental Compliance and Sustainability at Los Angeles County Metropolitan Transportation Authority (LA Metro).

To go to the article, please click here.
Why Are Really Doing These...
Questions/Discussion

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Thirteen Measures to Achieve Zero Emissions by 2050

1. Switch directly operated buses to battery-powered technologies
2. Deploy battery-powered buses in the contracted fleet
3. Switch vanpool vehicles to battery-powered vehicles
4. Replace non-revenue vehicles with battery-powered vehicles
5. Install systems to store energy captured from trains
6. Buy 100% renewable energy
7. Install photovoltaic systems
8. Install water-saving fixtures
9. Install non-potable recycled water systems
10. Install LED lights at facilities
11. Install electric heating systems
12. Replace facility appliances with more efficient electric appliances
13. Install electric vehicle charging at Metro facilities and implement an employee electric vehicle outreach plan