



# Agenda

## Metro Sustainability Council

LA Metro HQ  
Mulholland Conference Room  
15<sup>th</sup> Floor  
One Gateway Plaza  
Los Angeles, CA

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### Agenda

- a. Welcome/Remarks: Chair (5 min)
  - b. Approval of Minutes: Chair (2 min)
  - c. Consider Adopting By-Laws: Chair (30 min)
  - d. ANSI/ASCE Sustainable Infrastructure Standards: Karen Kabbes (30 min)
  - e. Moving Beyond Sustainability Workshop Debrief: Alvin/Craig/Paul (15 min)
  - f. New Mobility Pilots: Marie Sullivan (15 min)
  - g. Working Group Discussion: Chair (15 min)
  - h. Action Items Log: Aaron (2 min)
  - i. General Public Comment (5 min)
- 





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- a. Welcome/Remarks: Chair (5 min)
  - b. Approval of Minutes: Chair (2 min)
  - c. Long Range Transportation Plan Update: Paul (15 min)
  - d. 2019 Energy and Resources Report: Craig (20 min)
  - e. Moving Beyond Sustainability: Alvin/Paul (20 min)
  - f. By-Laws Discussion: Chair (45 min)
    - Arc overview
    - Working Group Discussion
  - g. Action Items Log: Aaron (2 min)
  - h. General Public Comment (5 min)
- 



## A. Welcome/Remarks

**Joel Levin:** Tomorrow is the start of National Drive Electric Week. There will be events all around the nation, including a large event at Dodger Stadium where you can test drive EVs.

**Cris Liban:** Metro is also hosting an event at Union Station for Statewide Clean Air Day

**Michael Samulon:** City of LA has recently approved its largest solar storage project.

**Mark Kempton:** Toks Omishakin has been named director of Caltrans. He was formerly the Deputy for Sustainability and supports bringing transportation and housing together.

**Bryn Lindblad:** Climate resolve hosting a transit rider appreciation flash mob.

**Mehran Mazari:** Cal State LA is hosting the Urban Sustainability Symposium on Oct 24<sup>th</sup>.

## B. Approval of Minutes

No comments on minutes. Approved.

## C. Long Range Transportation Plan Update (Paul Backstrom)

**Paul Backstrom:** Presents an overview of the plan including:

- Reasons to prepare a plan such as federal and state regulations
- Key elements of the plan
- Reasons to update plans such as:
  - Changes in plan assumptions
  - Project costs and schedule
  - Opportunities for new projects
  - New revenue sources
  - Changes in state/federal requirements
  - Coordination with SCAG
- Relationship to other plans—the Long Range Transportation Plan is not meant to exclude other plans from coming into effect.
- Blended approach to develop complementary plans and policy to go along with L RTP

The plan is scheduled to come back to the Sustainability Council in May, and we will provide ample opportunity for feedback.

**Q (Roy Thun):** It is “Metro-centric” but it feels disconnected with the larger scene, which would be important to ensure a smoother overall experience.

**A (Paul):** Metro serves as an entity that functions on a coordination level already, we work with partners, but Metro as an entity captures that issue to make the system more connected.

**A (Thomas Small):** Metro is so interwoven into our lives already, it has many initiatives and plans, such as sustainable acquisitions—would Metro include a requirement for the contracts to submit a sustainability plan in the RFP?

**A (Paul):** Yes we have a lot of plans and policies that affect our work outside, maybe long range plan would not be the best way to approach this.

**A (Cris):** Brings up several points:

- There has been a proactive approach to update design criteria and technical requirements since 2009, including long range transportation plan and sustainability
- Sustainability is a principle of the whole organization so should already be endemic
- On a project level there is a requirement to have a sustainability plan for every single project—in whichever way it is applicable to the project
- Training Programs such as Metro’s Environmental Construction Awareness (MECA) and Growing a Greener Workforce (GGW)
- Sustainable acquisition is in process

**A (Robin Blair):** If you want to know how a policy moves through the projects—there are policies tied to money and it is affected by various funding sources, which are not super specific on highest level, this allows for flexibility to be guided by multiple policies.

**A (Mark):** Metro has been actively working with AGC to help contractors achieve Metro’s sustainability goals. AGC is in full cooperation.

#### **D. 2019 Energy and Resources Report (Craig Reiter)**

**Craig Reiter:** This is the 10<sup>th</sup> installment of the report, and Metro, ECSD, and the Council can celebrate many accomplishments.

- To be released online
- Currently in final stages of QA
- What is important of this report?
  - Enforces APTA sustainability reporting
  - Allows us to look at our performance and evaluate trends to continually improve
  - Can be transparent in everything we are doing
  - Under ISO14001 can go through process of plan do check act, this report is emphasis on the check part
- Overview of methodology
  - 10 key performance metrics
    - Unlinked passengers
    - Vehicle miles travels
    - GHG displacement
    - Energy
    - Water
    - Total solid waste

- Diversion from landfill
  - 6 indicators in 6 categories
    - Operation efficiency
    - Air quality
    - Climate
    - Energy
    - Water
    - Waste
    - Normalization factor- vehicle revenue miles
- Metro reduced total NOx emissions by 50% last year
- 10% GHG reduction and displacement
- 6.5% decrease in energy use, despite adding new efforts and projects, energy and water reduction strategies are working
- 39.3% diversion from landfill
- Circular economy opportunities are in serious consideration
- Key Takeaways:
  - “era of expansion” and “era of acceleration”
  - Environmental Training Institute, incorporating sustainability training
  - Many policies moving us--everything we are trying to achieve is accelerating
  - Continue to expand and work together

**Q (Bryn):** Looking for explanation of how displacement is higher with more ridership?

**A (Cris):** The equations capture several categories, including decrease in people driving. Although we are facilitating people moving away from emissions, we have our own emissions. Also consider congestion reduction, VMT reduction, and co-benefits of land use.

**A (Robin):** To combat overcrowding of buses, we release another bus, and then it is more emissions but less high density. Overall, we are dropping all emissions, but there may added services causing short term rise.

(NEXT TOPIC)

**Q (Thomas):** Where are the environmental goals?

**A (Cris):** Without even doing anything different, we will achieve 60% by 2030 gas emissions, and then we add all the CAPP reduction numbers and reduce even more significantly. Moving Beyond Sustainability (MBS) plan outlines detailed goals and metrics.

(NEXT TOPIC)

**Q (Thomas):** Can you expand on circular economy?

**A (Craig):** We are looking at opportunities in everything that we purchase to reuse, be sustainable, and create an environment where we analyze entire life cycle and really understand we are perching through use and reuse.

(NEXT TOPIC)

**Q (Peter Meng):** Has artificial intelligence been used?

**A (Cris):** Technology is a big part of the conversation; we are working with AI to see how we may have applications?

#### **E. Moving Beyond Sustainability (Alvin Kusumoto/Paul Backstrom)**

**Alvin Kusumoto:** Discusses the update to the 2008 Metro Sustainability Implementation Plan:

- Bringing ECSD and Countywide Planning together into agency wide sustainability program
- Updated plan will include many Motion 57 updates
- Takes into consideration some of the higher-level policies
- Have presented this to council before and several workshops
- Structured around 9 categories

**Q (Bryn):** You are coming to Council in January with a draft, can we expedite this?

**A (Christine Marez):** There will plenty of time to give input we are planning for that.

(NEW TOPIC)

**Q (Joel):** What is happening between now and January?

**A (Alvin):** Metro is holding small group meetings to develop goals, strategies, and actions. Also meeting internally with user departments to get their input.

**A (Christine):** We are also analyzing data on energy, water and solid waste, building data models for waste and diversion, then we vet all the data-- data management is a huge part of the work to be done on MBS.

(NEW TOPIC)

**Q (Joel):** Seems like Metro is falling behind on EV. Is that included in this plan?

**A (Christine):** More will be added to the plan later, but some details are discussed in the climate section of MBS.

**A (Cris):** Generally speaking, Metro is not behind in terms of EV. We can discuss further offline, but we have been expanding non-revenue EV vehicle fleet, and we are always adding chargers. Our EV charging is in line with the Green Building code, and in fact our EV chargers are underutilized.

(NEXT TOPIC)

**Q (Kimberly Colbert):** Can we see the results of the workshops?

**A (Christine):** Yes, we will provide an update that includes the ranking/alignments of the targets and goals.

(NEXT TOPIC)

**Q (Roy):** Suggestion to have a short agenda item about sustainable acquisition next month we have a meeting. Specifically, to discuss the “cradle to cradle” strategy

**A (Cris):** There is a trade mission from the Dutch Minister for the Environment that has reached out to us, we are awaiting further discussion with them and feedback on the plan. Goals of sustainable acquisition and the MBS are both ambitious, but achievable.

## **F. Bylaws Discussion**

**Thomas Small:** There were many comments on the bylaws so it is difficult to summarize, we can send them back to the ad hoc committee with some clear choices of the direction we would like to take.

**Bryn:** General recap:

- There is one set with minor edits, mainly cleanup, clearing up what quorum/voting means
- There was a proposition to eliminate alternate and add 45 members everyone can vote
- Need to have a feel of balance and voting, especially alternates not voting

**Q (Kat Janowicz):** Note that Robert’s Rules of order have been a general standard and have been used by various groups for years.

**A (Thomas):** This makes sense, but we may need a parliamentarian

(NEXT TOPIC)

**Q (Ghina Yamout):** I tried to capture the lessons learned in my comments to the bylaws. How are we going to address that alternates are not given opportunity to participate in the same way as primary, even though they are sometimes more present/vocal.

**A (Charles Favors):** Proposition to scrap alternates entirely.

**A (Thomas):** We all have common goals to help, lets continue the discussions in ad hoc working groups.

## **G. Action Items Log**

- Add sustainable acquisition and circular economy to the agenda for next meeting.

*Meeting adjourned.*

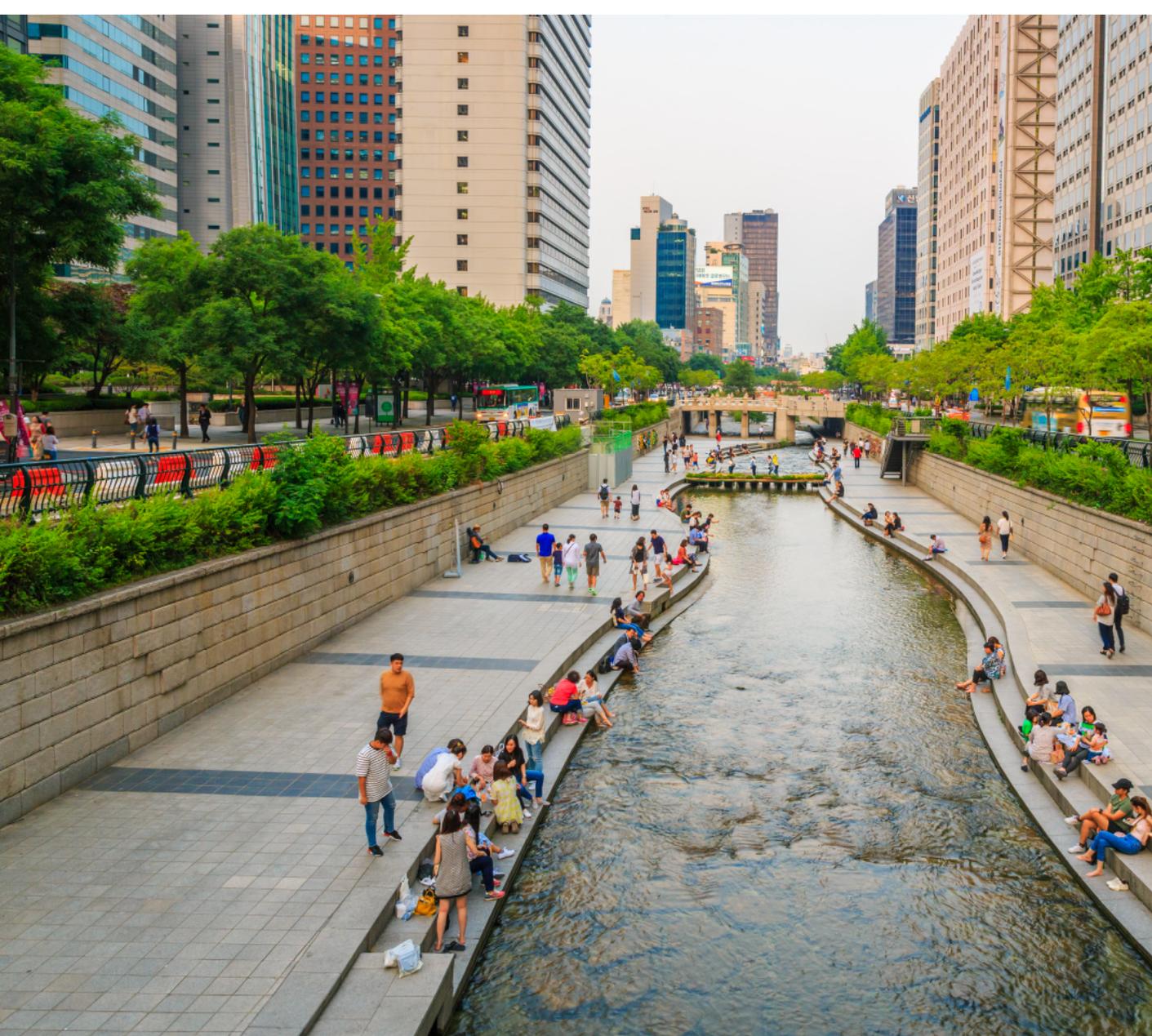
Metro Sustainability Council



Sustainability Council  
 FY20 DRAFT Meetings Arc  
 As of *October 22, 2019*

<b>Meeting</b>	<b>Agenda Topics</b>	<b>Outcomes</b>
July 12, 2019	<p>Executive Committee Elections</p> <p>Congestion Pricing Initiative</p>	<p>Selection of Metro Sustainability Council Executive Committee Members: Chair/Vice-Chair/Second Vice-Chair</p> <p>Get an Overview of the Metro Congestion Pricing Initiative</p>
September 13, 2019	<p>Update of Metro Sustainability Implementation Plan/Strategic Plan</p> <p>2019 Metro Energy and Resources Report</p> <p>Long Range Transportation Plan Scenario Findings</p>	<p>Discuss update on Metro Sustainability Implementation Plan/Strategic Plan</p> <p>How has LA Metro performed in its sustainability metrics and goals; discuss the transition to include other metrics that used to be reported in Planning</p> <p>Present the range of scenario findings that will be used in the development of the “preferred Plan”</p>
November 15, 2019	<p>Metro Microtransit Pilot</p> <p>ANSI/ASCE Sustainable Infrastructure Standards and Engineering Manual of Practice</p>	<p>Provide an overview of the LA Metro Microtransit Pilot</p> <p>Presentation on the Sustainable Infrastructure Standards and engineering Manual of Practice to incorporate climate change into the design and construction of projects; input from the Council as these</p>

		standards go through a global balloting process
January 10, 2020	<p>Update on Sustainable Acquisition Program Implementation</p> <p>Presentation on Circular Economy</p> <p>Present Draft Metro Sustainability Implementation Plan/Strategic Plan</p>	<p>It's been six months since the adoption of the SAP. Provide an overview of implementation, success, and challenges.</p> <p>Provide an overview of circular economy, how it's being used in the industry, and the challenges for implementation.</p> <p>Issue Draft Report and solicit comments on the Metro Sustainability Implementation Plan/Strategic Plan</p>
March 13, 2020	<p>Transportation Network Companies Study</p> <p>Goods Movement Master Plan</p>	<p>Provide an overview and seek input of the TNC study</p> <p>Provide an overview and seek input on the Goods Movement Master Plan</p>
May 8, 2020	Presentation of Draft Long Range Transportation Plan	Present draft Long Range Plan to solicit feedback from the SAC to prepare the final Plan



# ASCE/ANSI Sustainable Infrastructure Standard

*Rethink What's Possible*

Karen C. Kabbes, F. ASCE, D.WRE,  
ENV SP – ASCE Sustainable  
Infrastructure Standard Committee

L.A. Metro Sustainability Council  
Meeting, November 15<sup>th</sup>, 2019

**ASCE** | SUSTAINABILITY

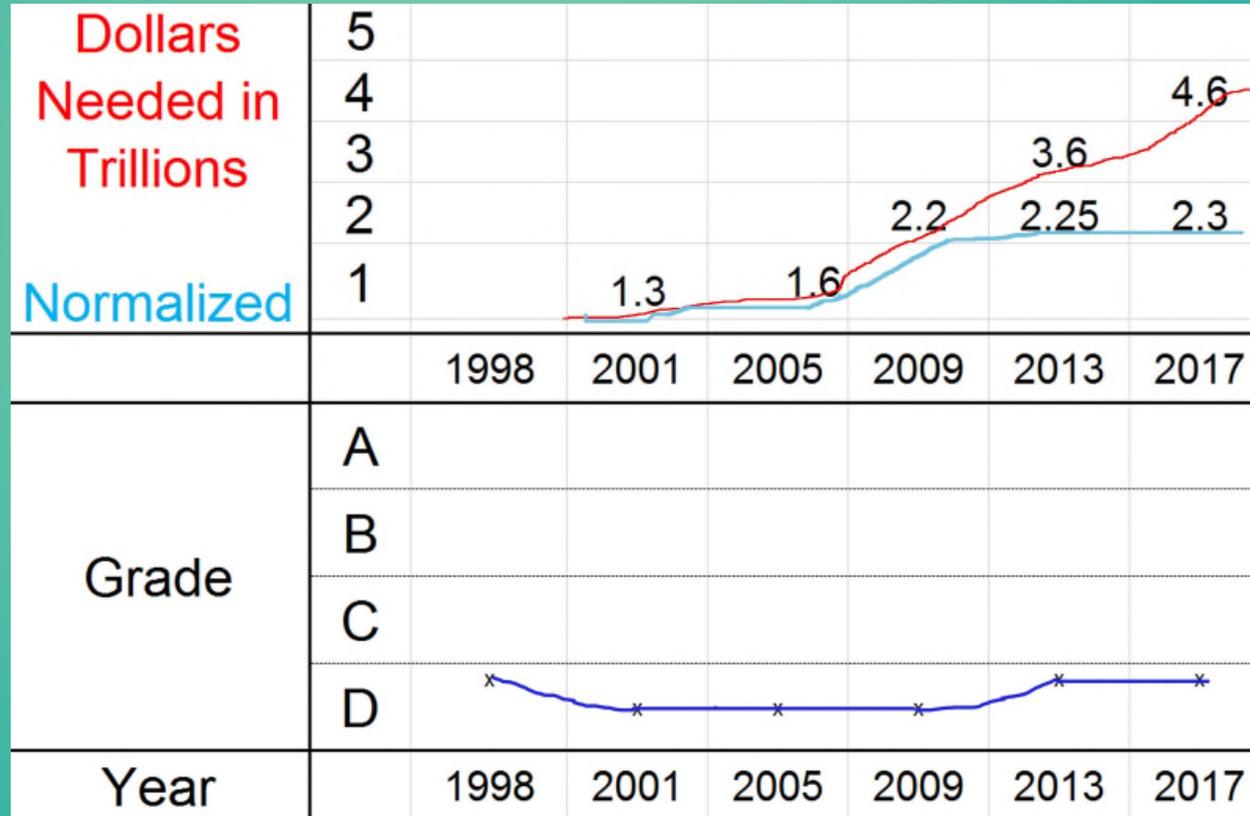
# The Vision for Civil Engineering

- By 2025, entrusted by society to create a sustainable world and enhance the global quality of life, Civil Engineers will serve as master builders, environmental stewards, innovators and integrators, managers of risk and uncertainty, and leaders in shaping public policy
- Civil Engineers will be inspired, engaged, and enabled to reform their practices to enhance the well-being of people and communities everywhere

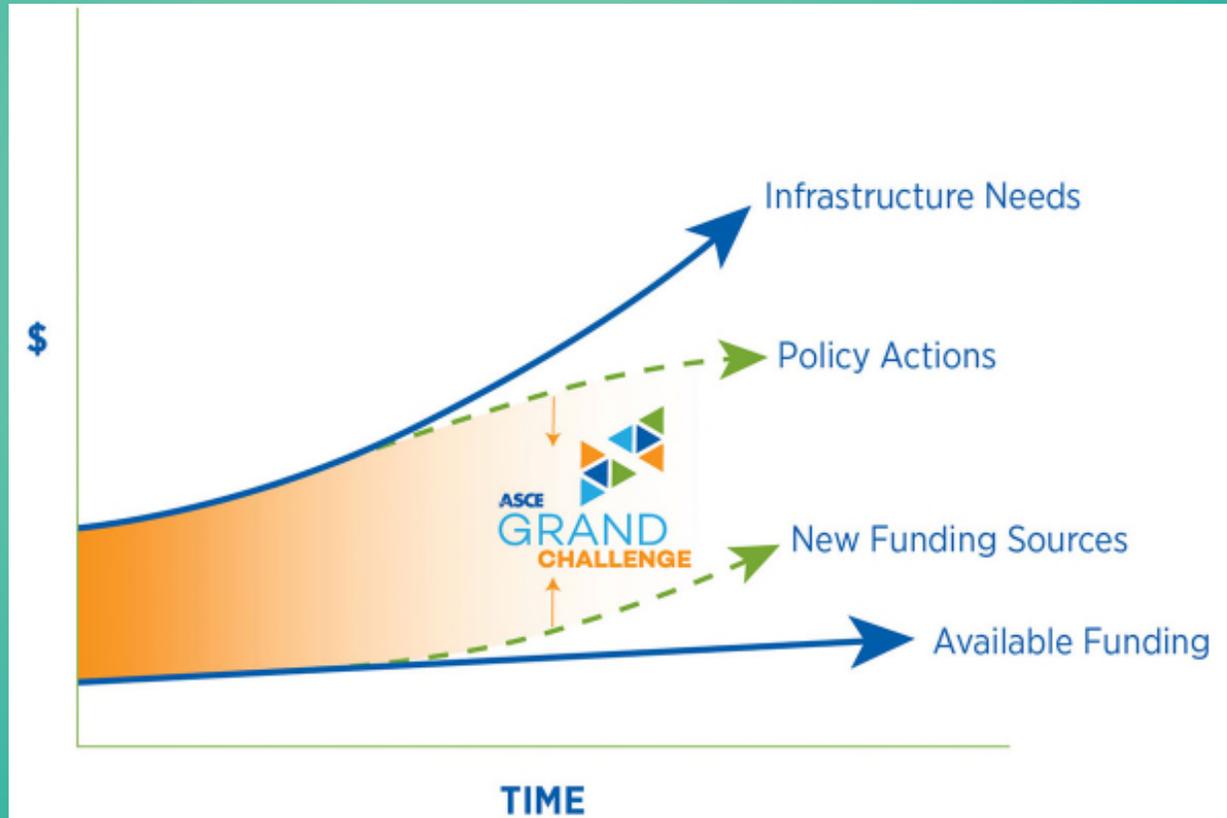
# Infrastructure Funding Gap

ASCE began issuing their “**Report Cards for America’s Infrastructure**” in 1998 and later, their “*Failure to Act Studies*” and “*Game Changers*” to help frame the problem, the urgency to act, and to help shape the National debate to close the Infrastructure Funding Gap

# Report Card on America's Infrastructure



# Closing the Infrastructure Gap

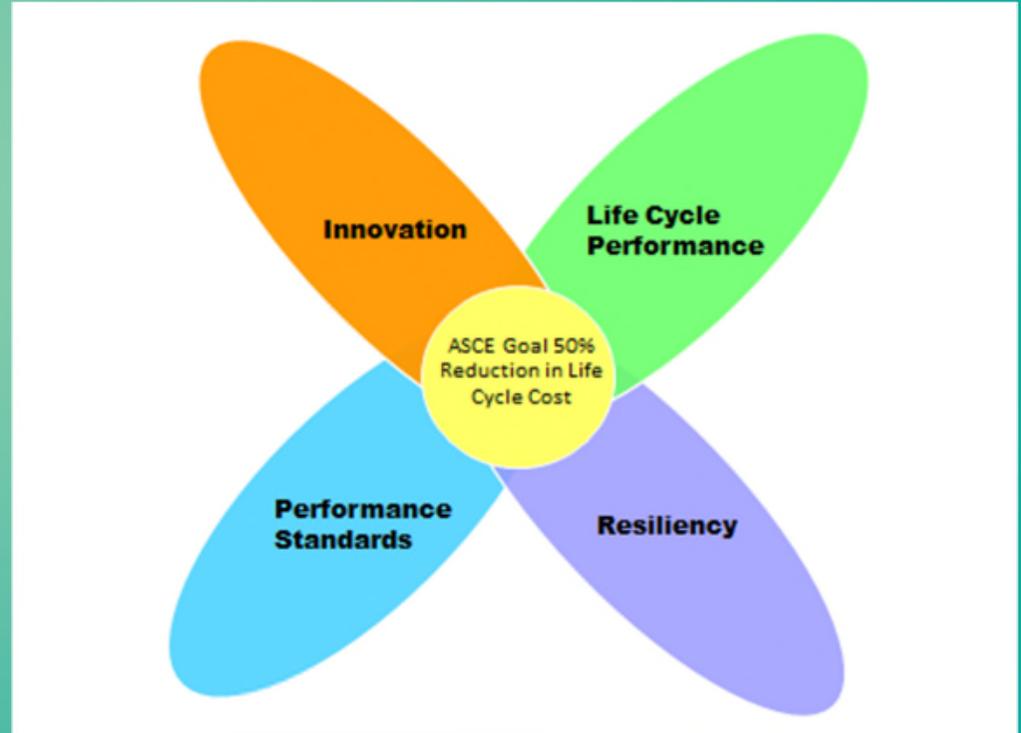


# Major Efforts to Close the Infrastructure Gap

- **Reduce the funding requirement** through legislative, regulatory, and major policy actions
- **Increase funding** to address the repair needs of existing infrastructure while adding new capacity to meet changing needs and demands
- **Improve the delivery** of sustainable infrastructure investments **through innovation, performance based standards, life cycle cost analyses, and enhanced resiliency** to significantly reduce the life cycle costs of new and refurbished infrastructure
- Design those standards to **enable improved infrastructure delivery** efficiency and effectiveness
- **Encourage innovations** through performance standards, accelerate their adoption in the community and industry, make performance standards the new status quo, and help create a culture of continuous innovation and improved outcomes

# Grand Challenge Areas to Transform Civil Engineering

- **Life Cycle Performance**
- **Performance Based Standards**
- **Resilience**
- **Innovation**



# Life Cycle Cost Analysis

- The **United States Department of Agriculture** (USDA) now requires municipalities and counties participating in its rural infrastructure investment programs to **consider life cycle costs** when applying for grant and loan funding
- The **United States Department of Energy** (DOE) **requires** analyses of alternatives including **independent life cycle cost** estimates, prior to selection
- **State legislators** across the country **consider life cycle cost analysis provisions** for a variety of infrastructure bills introduced in 2019

# Elements of the ASCE/ANSI Standard in Development

- Chapter 1 – **General**
- Chapter 2 – **Life Cycle Cost Analysis**
- Chapter 3 – **Natural Resources**
- Chapter 4 – **Resource Allocation**
- Chapter 5 – **Leadership**
- Chapter 6 – **Quality of Life**
- Chapter 7 – **Air Emissions** (includes Climate)
- Chapter 8 – **Resiliency**

# Elements of the ASCE/ANSI Standard in Development - Outline

## Leadership

- Fostering effective leadership, commitment to sustainability, and accountability
- Components include collaboration, teamwork, creativity, and stakeholder engagement aimed toward economic, environmental, and social quantifiable/non-quantifiable benefits

## Quality of Life

- The human aspects of civil engineering are defined
- Components include well-being, community needs, safety, noise, wayfinding, historic and cultural resources, and public space

## Resource Allocation

- Concentrates on material use, recycling, energy, and water

# Elements of the ASCE/ANSI Standard in Development - Outline

## Natural Resources

- Outcomes concentrate on preserving natural resources, reducing construction impacts, and abating pollution

## Air Emissions

- Net Embodied Energy and Greenhouse Gases are quantified and addressed

## Resiliency

- Vulnerability Assessments consider multiple causalities and dangers
- Risk Registers are central depositories for risks, impacts, and countermeasures

## Life Cycle Cost Analysis

- Alternatives will be evaluated over the project life cycle
- Components required to be considered include Initial Construction, Operations & Maintenance, Inspection and Monitoring, Energy and Water, Disposable Materials and Fuel, and Labor
- Eight Infrastructure Types have required minimum life cycle durations

# Elements of the ASCE/ANSI Standard in Development

## Current Thinking of the Committee:

- Attain 75% of the outcomes in Chapters 2 – 7
- Those attaining 75% will be considered “sustainable” and are eligible for the Life Cycle Cost Analysis application
- A Life Cycle Cost Analysis will be performed on those alternatives attaining that threshold
- Life Cycle Cost Analyses will be performed by an independent entity with qualified certified professionals (discussion pending – currently in commentary)
- Those alternatives within 8% of the lowest Life Cycle Cost will be considered equal, and eligible to be selected as the chosen alternative

# Elements of the ASCE/ANSI Standard in Development

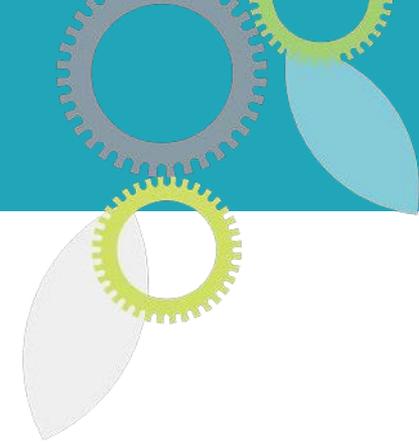
## Aspects of a Standard-Writing Committee:

- Must be a “balanced” committee with no less than 20%, and no more than 40% from any one industry sector
- Standard must meet publication standards as set by ASCE and ANSI
- Unlike other committees, majority does not necessarily rule. All chapters, and the full document, must undergo a formal ballot in which 100% of the committee must affirm, reject, or comment
- Following that, the document is released to the public which undergoes the same ballot process

# Public Balloting of Standard

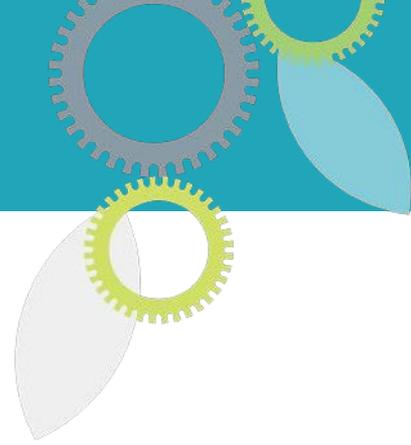
- Moving ahead quickly
- Public Balloting expected in 2020
- After public ballot Standards Committee has to address all comments
- If comments are extensive, additional balloting may be required

Discussion/Questions?



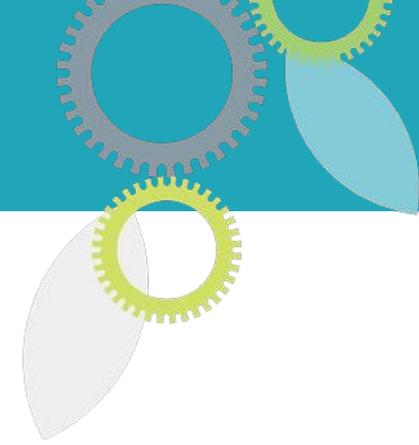
# **Moving Beyond Sustainability: 10-Year Sustainability Strategic Plan**

Recap of Sustainability Council Workshop  
November 15, 2019



## Purpose of the Workshop

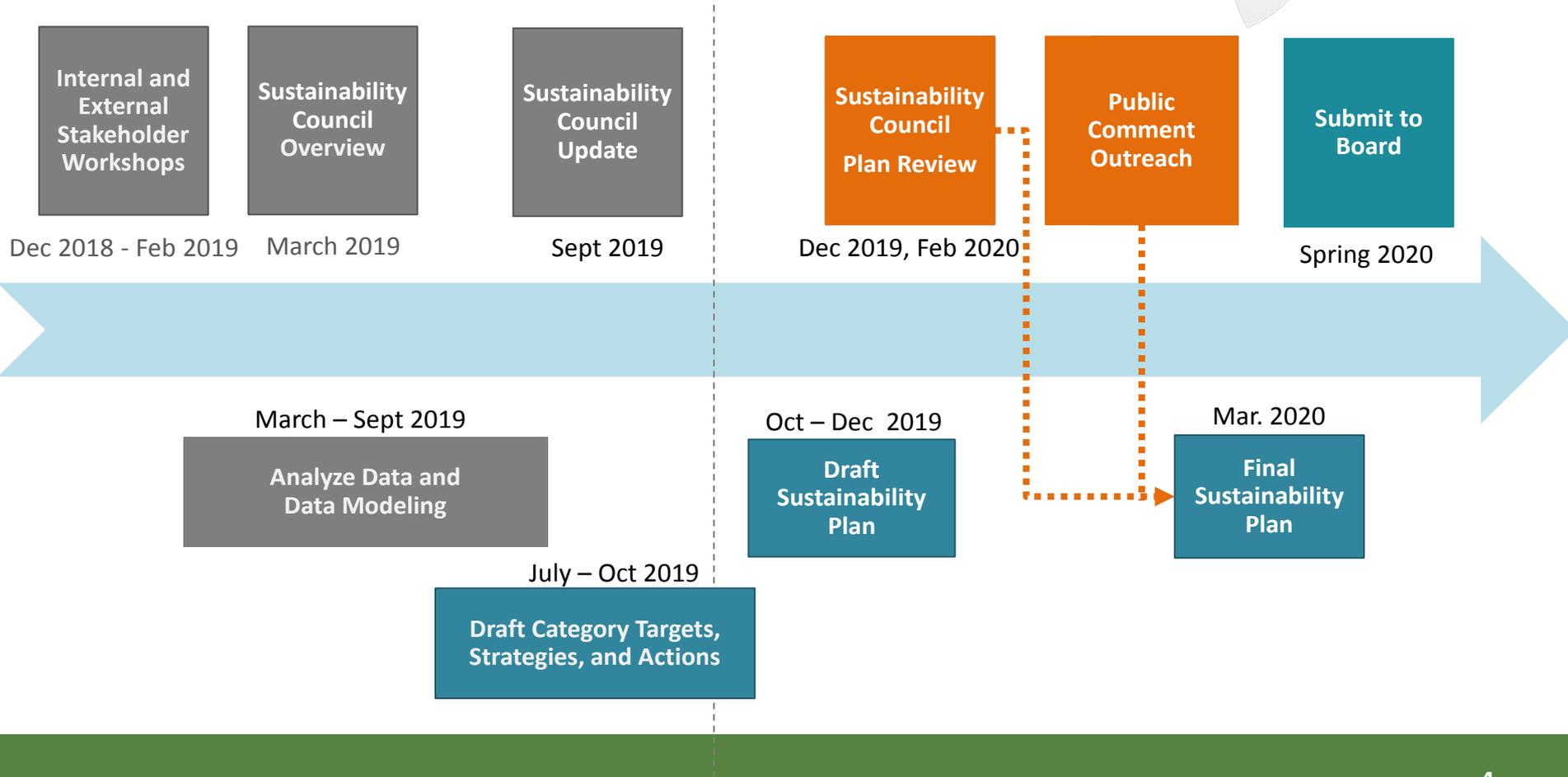
- Provide an overview of *Moving Beyond Sustainability*
- Discuss the scope and importance of each category
- Leverage Council expertise per category
- Obtain feedback based on category specific prompts

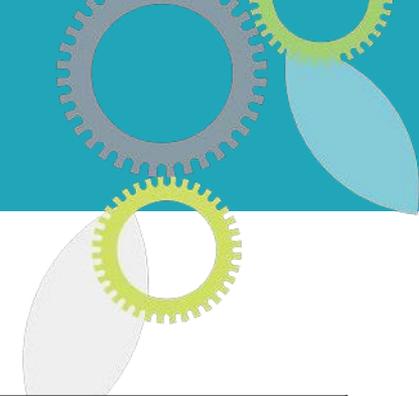


## Workshop Format

- Welcome/Introduction and Background
- Gallery Walk
- Two Breakout Sessions
- Input provided on all eight MBS categories
- Included over 40 Workshop participants

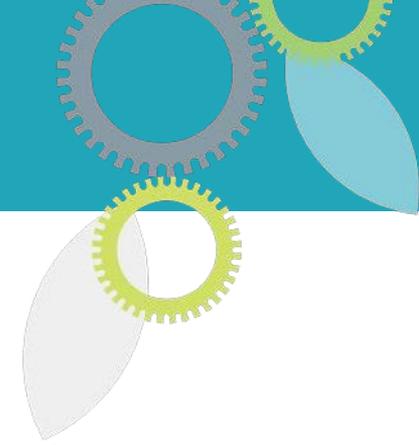
# Development Process and Engagement





## Next Steps

Target Date	Milestone
Nov. 2019	Present Workshop Key Themes to Council
Nov./Dec. 2019	Incorporate Council Feedback
Dec. 2019	Provide Draft Plan to Council for Comment
Jan. 2020	Present Draft Plan to Council
Feb. 2020	Final Draft Released for Public Comment
Mar. 2020	End Public Comment Period
Spring 2020	Board Approves Plan



## Points of Contact

**Alvin Kusumoto**, Metro Environmental Compliance and Sustainability

[KusumotoA@metro.net](mailto:KusumotoA@metro.net)

**Paul Backstrom**, Metro Countywide Planning and Development

[BackstromP@metro.net](mailto:BackstromP@metro.net)

**Halli Bovia**, Sustainability Consultant

[HBovia@ccorpusa.com](mailto:HBovia@ccorpusa.com)



# Mobility on Demand Update

*November 2019*

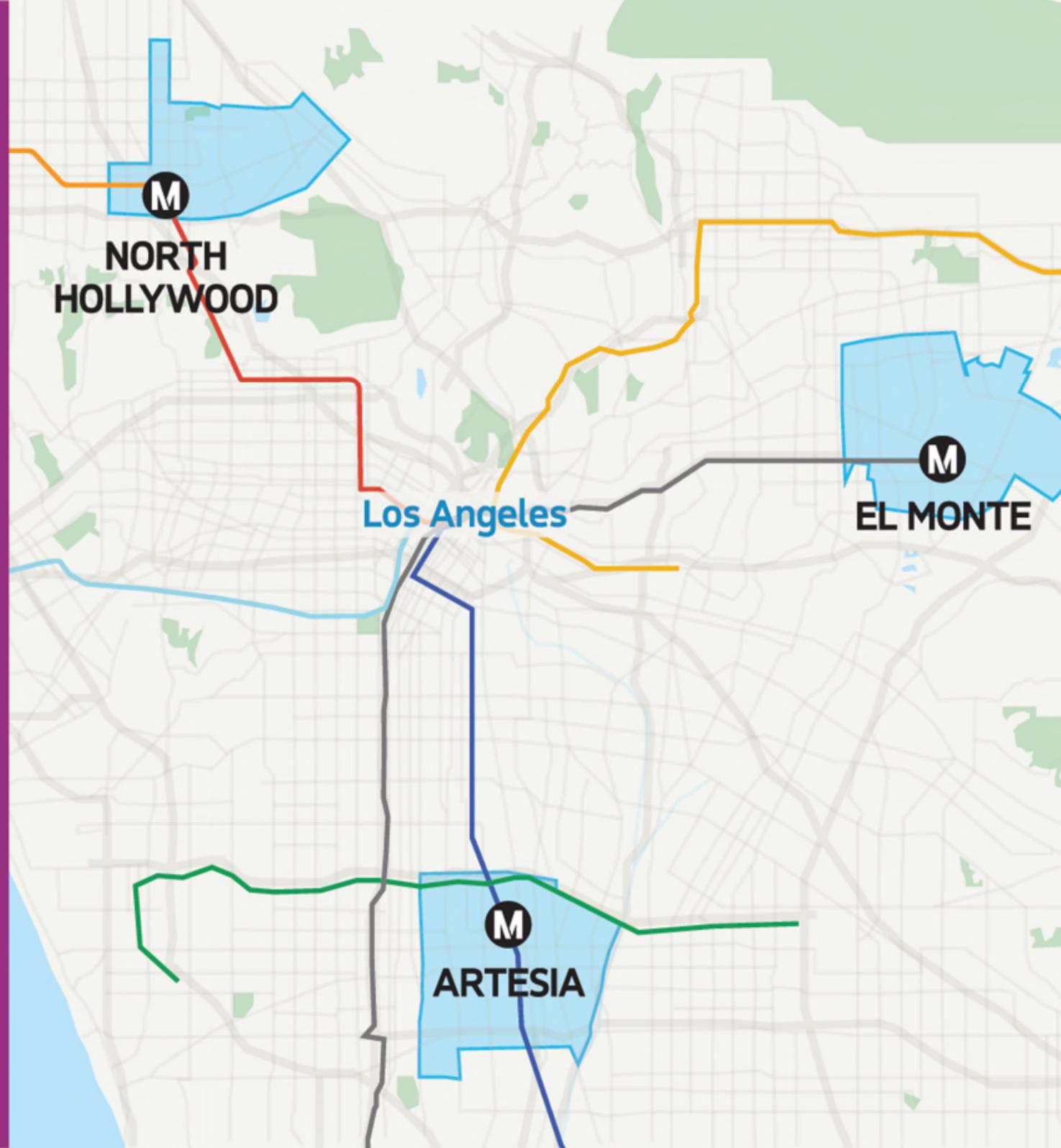
# Project Purpose

Provide an on-demand, first/last mile option to improve access to Metro stations for disadvantaged populations (low-income, disabled, and unphoned) for whom existing options are inadequate.

The goal is to increase transit ridership and improve customer experience.

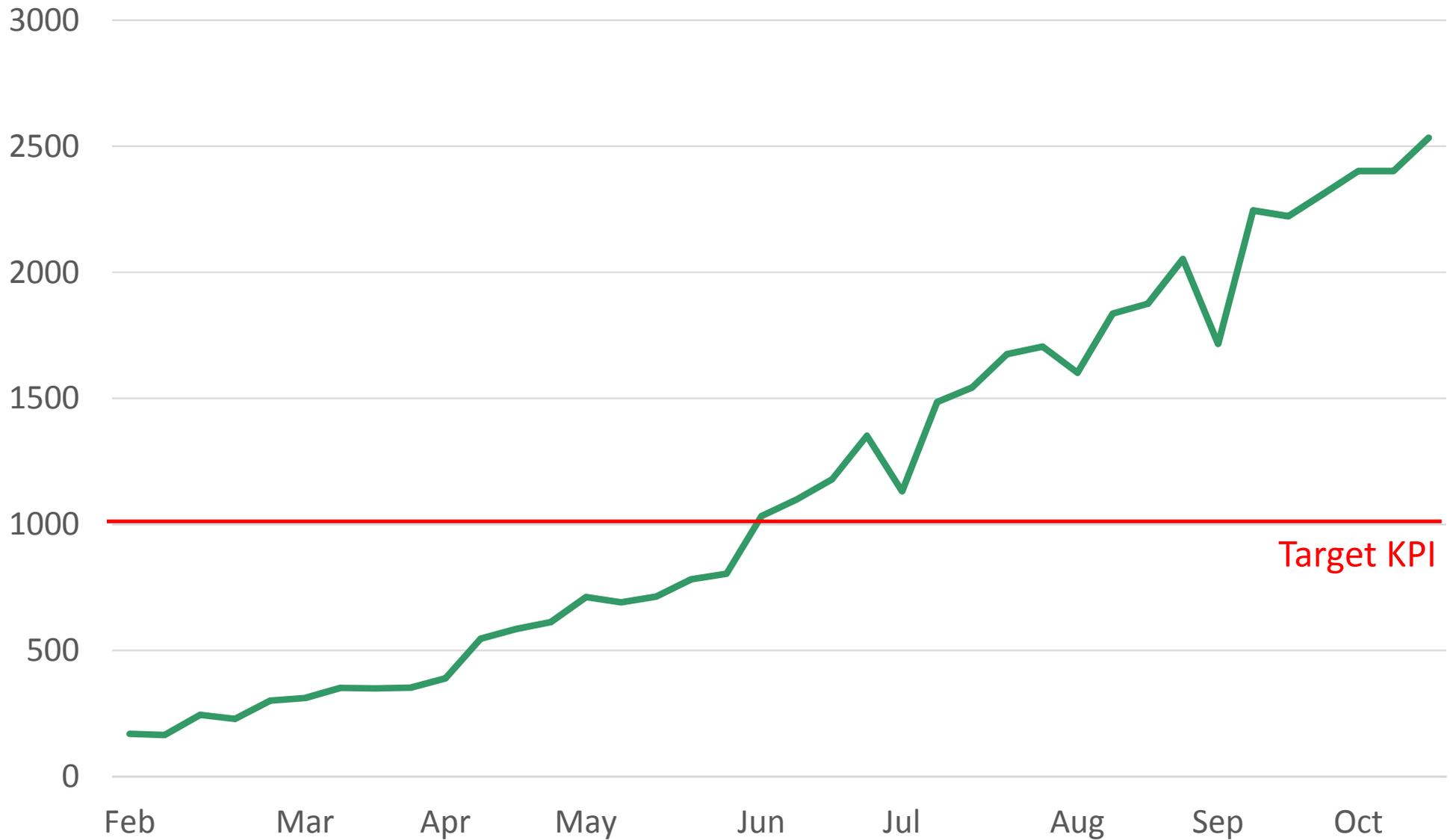
# Via Service

- Monday – Friday
- 6 AM – 8 PM
- Free transfer to Metro
- Call Center requests
- Accessible vehicles
- Live translation

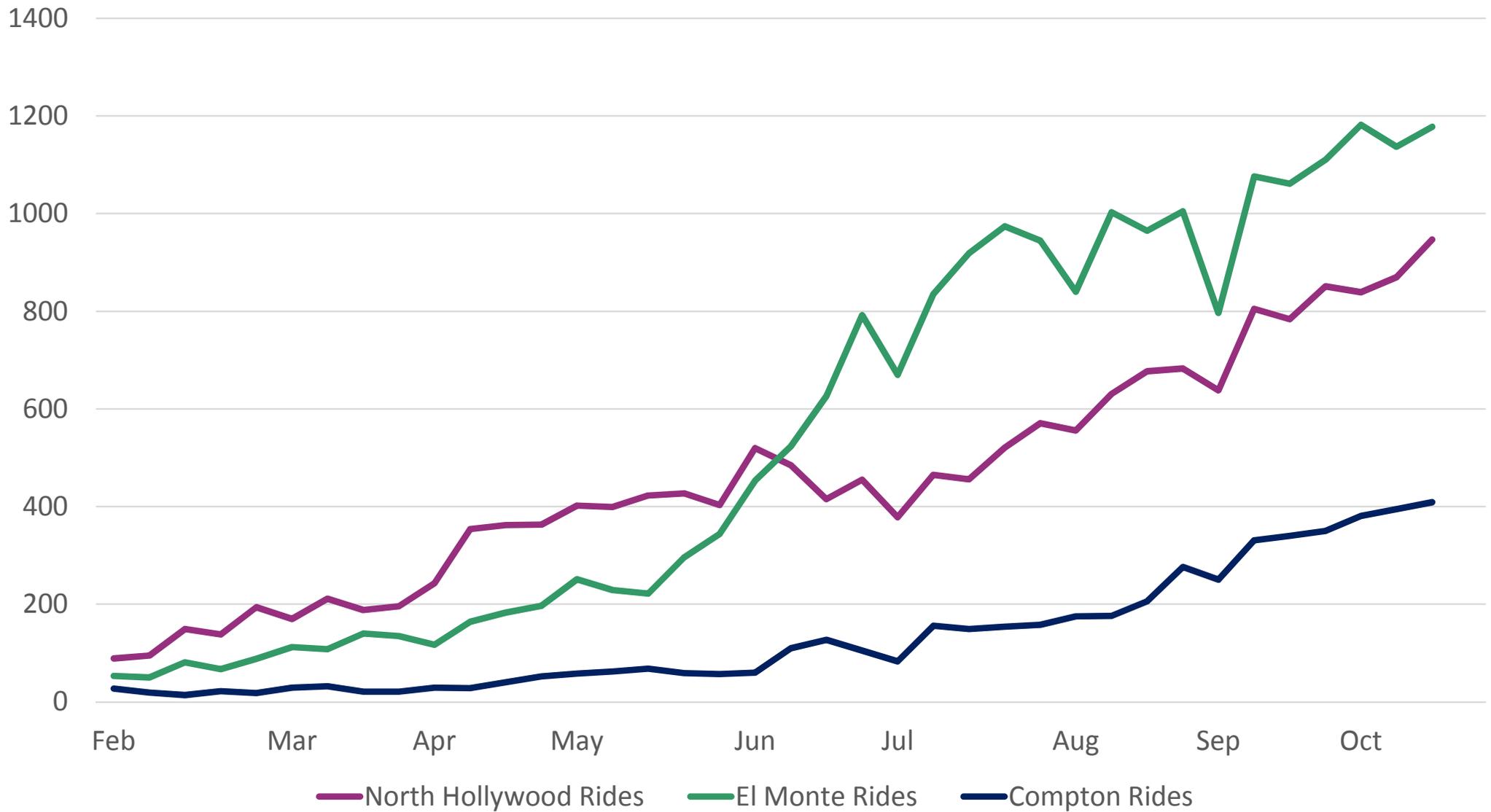


# Project Results

- Steadily increasing ridership
- Improved mobility
- Satisfied customers
- Fulfillment of Vision 2028 Goals
- Reasonable subsidy for excellent service
- Continuing to add new riders each week while retaining existing active riders



## Total Weekly Rides



## Weekly Rides by Zone



## Rides per Driver Hour

# Oct 14-18, 2019 Performance

- Total rides: 2500+ /target 1000
- Average wait time: 9.3 min /target 10 min
- Average customer rating: 4.8 stars /target 4.5 stars
- Rides per driver hour: 2.46 /target 2.5
- Wheelchair Accessible Vehicle rides: 22
- Call Center Rides: 47
- Average Trip Distance: 2.5 miles
- Repeat riders: 62%

# Customer Feedback

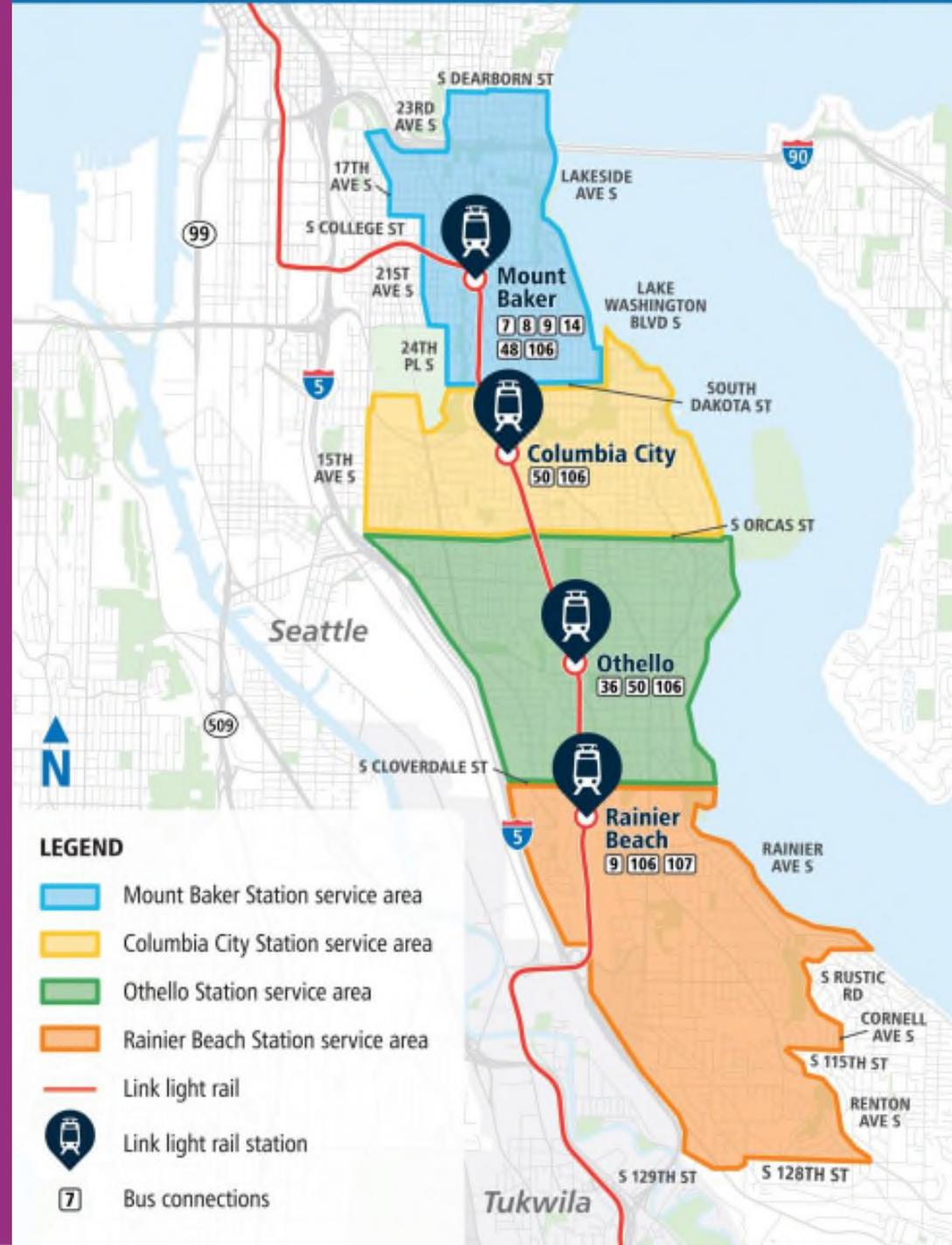
- “Very happy with this service!! Will take it again!!
- “Felt like a royalty treatment. I thought I was lost at a spa. I suggest we should expand to Arcadia and Pasadena specifically old Town Pasadena. If possible I would like to be able to get a ride to Santa Anita mall or connect with the gold line.”
- “Went above and beyond what was necessary to get me to the station.”
- “Extend the drop off zones and hours of service”
- “Add weekend service”
- “Exceptionally safe and attentive on the road.”
- “Podrian pone mas areas de aseso por favor”

# Metro Vision 2028

- Goal 1: Provide high-quality mobility options that enable people to spend less time traveling.
  - Improve connectivity to provide seamless journeys
  - Explore opportunities for expanding access to shared, demand-responsive transportation options for everyone
- Goal 2: Deliver outstanding trip experiences for all users of the transportation system.
- MOD is providing a cost-effective, customer-centric, efficient and equitable service.

## Seattle Partner Service – 7000+ rides per week due to:

- Evening & weekend service
- Dedicated fleet
- Contiguous zones
- Smaller zones
- More robust, agency-controlled outreach
- Payment integration

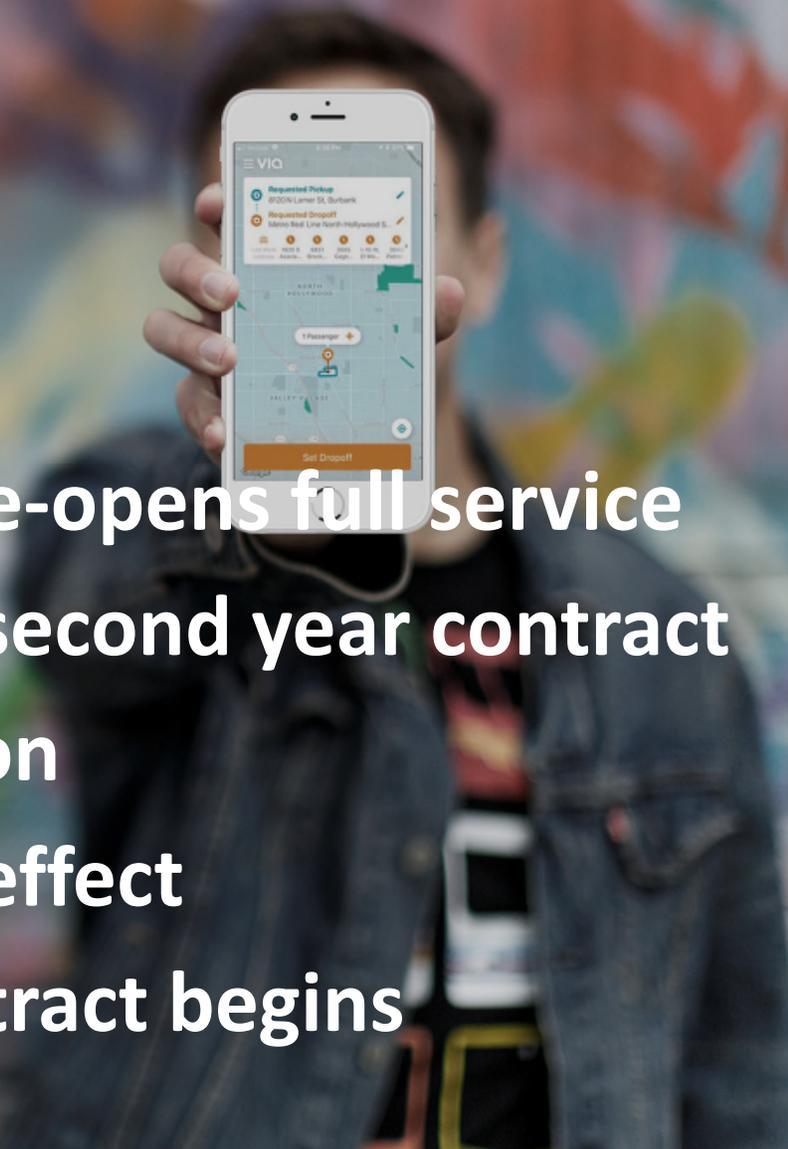


# Outstanding Research Questions

- Would enhanced outreach and engagement increase adoption, especially by disadvantaged populations?
- Would contiguous zones increase efficiency of service?
- Would permitting end to end service option increase adoption?

# Year 2 Proposed Changes

1. Compliance with AB 5
2. Extend hours to evenings and weekends
3. Improve customer experience
4. Improve outreach and engagement

- 
- **Nov. 2, 2019:** Blue Line re-opens full service
  - **Nov/Dec 2019:** Negotiate second year contract
  - **Jan 2020:** Board action
  - **Jan 1, 2020:** AB5 takes effect
  - **Jan. 28, 2020:** Year 2 Contract begins

## Timeline



**October 1, 2019**

## **Committee on Sustainability Sustainable Infrastructure Standard Summary Outline**

### **Purpose**

The purpose of this document is to introduce the Standard as the drafting is progressing and the standard is projected for publication in Fall 2020. The Standard is performance based with required Outcomes in six subject matters. Information from the Envision Sustainable Infrastructure Rating System was used in preparation of the Standard. In order to achieve a Sustainable Infrastructure Project, a percentage of the outcomes must be satisfied and eligible alternatives must have the Lowest Lifecycle Cost within an eight percent margin.

### **Feedback Solicited**

The Sustainable Infrastructure Standard Committee is encouraging and soliciting feedback at this time and throughout the standard making process by emailing or telephoning the Committee Secretary, John Frauenhoffer. 217 356 2797 [mustang2797@att.net](mailto:mustang2797@att.net)

### **Outcomes**

#### **Lifecycle Cost Analysis**

1. Alternatives will be evaluated over the Project Lifecycle as opposed to considering only Construction Cost.
2. Sixteen Components are required to be considered, including Initial Construction, Operations and Maintenance, Inspection and Monitoring, Energy and Water, Disposable Materials and Fuels, and Labor.
3. Eight Infrastructure Types have required minimum Lifecycle Durations.

#### **Natural Resources**

1. Information must be gathered to achieve Natural Resources Outcomes.
2. Thirteen Outcomes concentrate on preserving natural resources, reducing construction impacts, and abating pollution.

## **Resource Allocation**

1. This chapter concentrates on material use, recycling, energy, and water.
2. Components of Resource Allocation include renewable materials, construction waste management, balanced earthwork, and hazardous waste avoidance.
3. Outcomes focus on limiting energy, water, and raw materials while supporting recycling, reuse, and renewables.

## **Leadership**

1. Fostering effective leadership, commitment to sustainability, and accountability.
2. Required components include collaboration, teamwork, creativity, and stakeholder engagement aimed toward economic, environmental, and social quantifiable/non-quantifiable benefits.
3. Six Outcomes concentrate on Leadership Delivery.

## **Quality of Life**

1. The human aspects of civil engineering projects are defined.
2. Required Components include well-being, community needs, safety, noise, wayfinding, historic and cultural resources, and public space.
3. Three Primary Outcomes focus on ensuring Quality of Life.

## **Climate and Resilience**

1. Net Embodied Energy and Greenhouse Gases are quantified and limited.
2. Vulnerability Assessments consider multiple casualties and degrees of danger.
3. Risk Registers are central depositories for probabilities, impacts, and countermeasures.
4. At this time, resilience planning and response to other than natural events are not included in this standard; it is expected that this subject area would be included in a future revision.

