ITEM 26

Regional Connector Operating Plan

August 2020

Public Engagement and Outreach – Environmental Phase (2008-2014)

- Prior to the Board of Directors selection of the Locally Preferred Alternative (LPA):
  - Elected Official briefings
    - Over 100 Stakeholder Working Group briefings:
      - Little Tokyo, Arts District, Financial District, Grand Ave Cultural Institutions, Bunker Hill, Broadway, Historic Core, and Project area-wide groups
    - Community Update Meetings
    - Collateral materials
- Positive community and stakeholders support of the North-South, East-West service alignment

Public Engagement and Outreach – Construction Phase (2014-2020)

- Continued outreach following Board approval of the LPA:
  - Distribution of Final EIS/EIR
  - Elected Official briefings
  - Community Leadership Council (CLC)*
  - Monthly community meetings
  - Special events in downtown LA and Boyle Heights
  - Printed and online materials:
  - Project website, social media, agency blogs, e-newsletters
  - Little Tokyo Community Office
  - Tittle VI Program Update – Office of Civil Rights
- Community and stakeholders continue to support the North-South, East-West service alignment
- Minimal interest in maintaining north/south Gold Line connection

Purpose

- Purpose – Validate Locally Preferred Alternative (LPA) as continued to be supported by stakeholders and the community through the environmental and construction phases.

- Criteria for validating alternatives include:
  - Travel patterns to/from each segment
  - Network simplicity
  - Headway consistency
  - On Time Performance
  - Peak vehicle requirement
  - Revenue vehicle hours

Service Scenarios

Three primary service scenarios being evaluated:

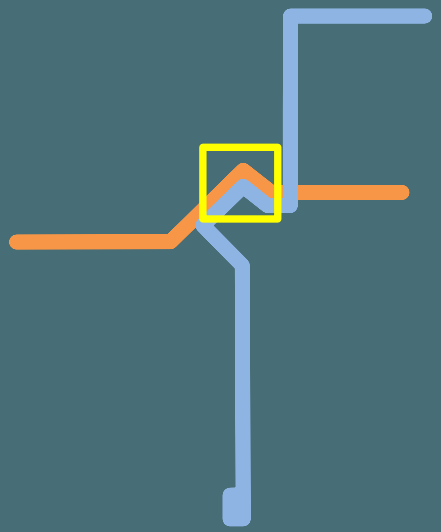
Alt A: Long Beach – Azusa,
Santa Monica – Atlantic*

Alt B: Long Beach – Atlantic,
Santa Monica – Azusa

Alt C: Long Beach – Atlantic/Azusa
Expo – Atlantic/Azusa

* Locally Preferred Alternative

Travel Patterns: Alternative A



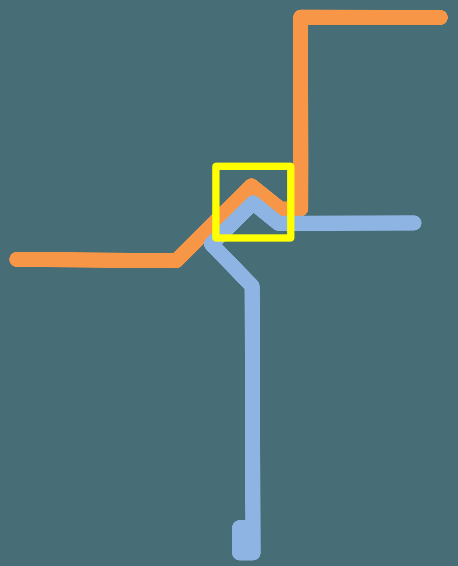
All Trips

	Origin (O) to Destination (D)	All Trips	Outside DTLA – Outside DTLA	Inside DTLA – Inside DTLA	Outside DTLA – Inside DTLA
East Flows	O: Expo D: Gold Line East O: Blue D: Gold Line (US – APU)	100%	12%	52%	36%
West Flows	O: Gold Line East D: Expo O: Gold Line (US – APU) D: Blue	100%	12%	53%	35%

Transit Trips

	Origin (O) to Destination (D)	All Trips	Outside DTLA – Outside DTLA	Inside DTLA – Inside DTLA	Outside DTLA – Inside DTLA
East Flows	O: Expo D: Gold Line East O: Blue D: Gold Line (US – APU)	100%	12%	24%	64%
West Flows	O: Gold Line East D: Expo O: Gold Line (US – APU) D: Blue	100%	8%	25%	67%

Travel Patterns: Alternative B



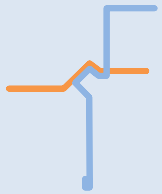
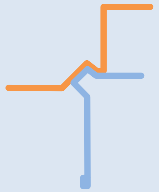
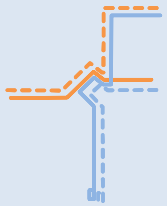
All Trips

	Origin (O) to Destination (D)	All Trips	Outside DTLA – Outside DTLA	Inside DTLA – Inside DTLA	Outside DTLA – Inside DTLA
East Flows	O: Expo D: Gold Line (US – APU) O: Blue D: Gold Line East	100%	14%	51%	35%
West Flows	O: Gold Line (US – APU) D: Expo O: Gold Line East D: Blue	100%	14%	51%	34%

Transit Trips

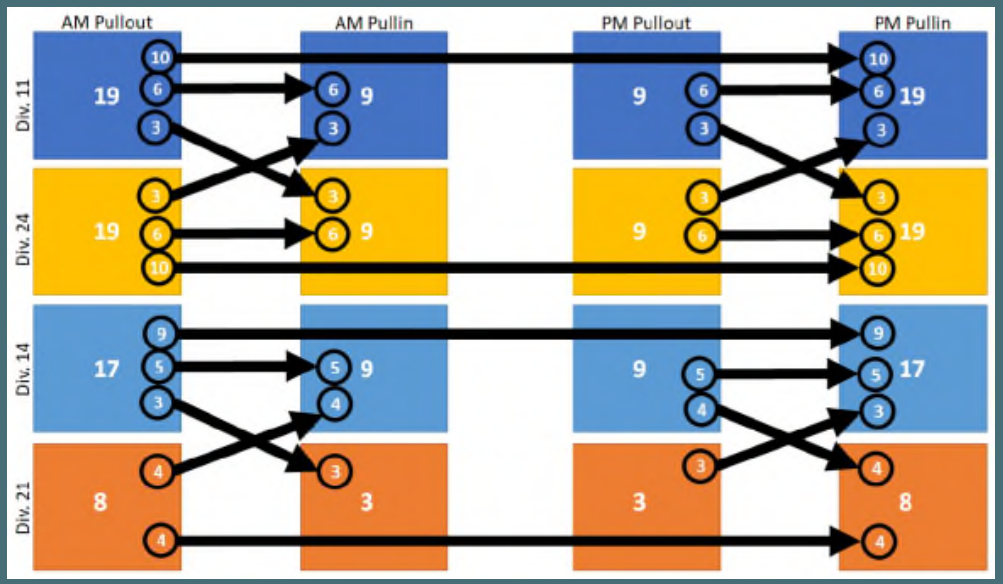
	Origin (O) to Destination (D)	All Trips	Outside DTLA – Outside DTLA	Inside DTLA – Inside DTLA	Outside DTLA – Inside DTLA
East Flows	O: Expo D: Gold Line (US – APU) O: Blue D: Gold Line East	100%	14%	24%	62%
West Flows	O: Gold Line (US – APU) D: Expo O: Gold Line East D: Blue	100%	9%	25%	66%

Network Simplicity: Wait and Transfers

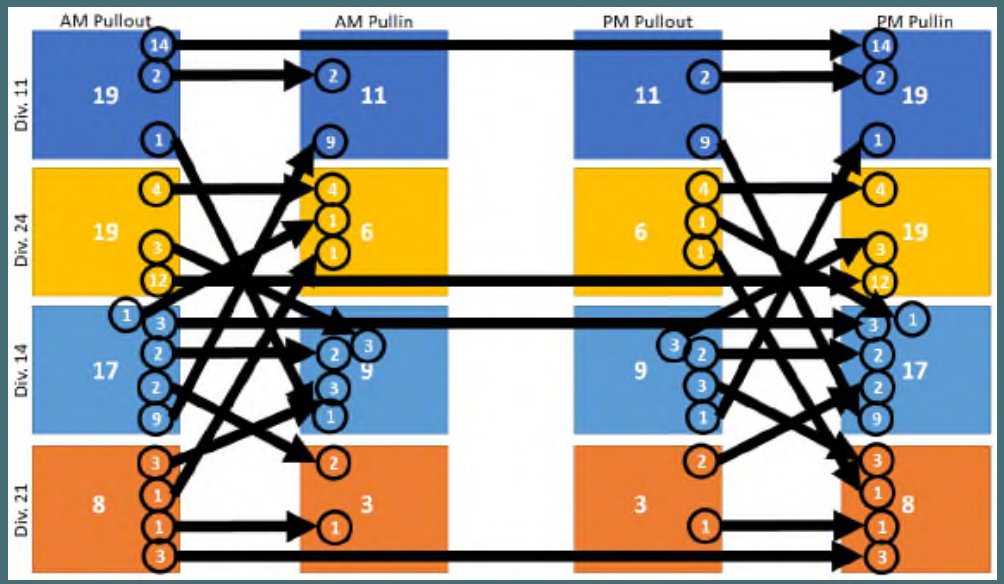
Alternative	Route	Initial Wait	Transfer	Total
A 	Santa Monica - Atlantic	3	0	3
	Santa Monica - APU/CC	3	3	6
	Long Beach - Altantic	3	3	6
	Long beach - APU/CC	3	0	3
B 	Santa Monica - Atlantic	3	3	6
	Santa Monica - APU/CC	3	0	3
	Long Beach - Altantic	3	0	3
	Long beach - APU/CC	3	3	6
C 	Santa Monica - Atlantic	6	0	6
	Santa Monica - APU/CC	6	0	6
	Long Beach - Altantic	6	0	6
	Long beach - APU/CC	6	0	6

Network Simplicity: Train Cycling Plans

Alternative A and B



Alternative C



Headway Regularity

Alternative	Percent of Scheduled Headway (NB/EB)						
	100%	110%	120%	130%	140%	150%	Greater
A	55%	73%	82%	87%	90%	92%	8%
B	57%	71%	78%	82%	85%	87%	13%
C	53%	67%	75%	81%	85%	88%	12%
Current	69%	81%	87%	92%	95%	97%	3%

Alternative	Percent of Scheduled Headway (SB/WB)						
	100%	110%	120%	130%	140%	150%	Greater
A	60%	75%	83%	87%	90%	92%	8%
B	59%	73%	79%	83%	86%	88%	12%
C	57%	71%	79%	84%	87%	89%	11%
Current	67%	78%	85%	90%	93%	96%	4%

- Alternative A performs the best for regularity of headways
- No alternative performs as well as current because traffic signal delays on Blue and Expo will spread to Gold Line

Resource Requirement

Alternative	Total Peak Vehicles	With 20% Spares	Weekday Revenue Car Hours	Annual Revenue Car Hours	Annual Operating Cost
A	195	234	2,658	901,461	$433M
B	192	231	2,621	889,027	$427M
C	195	234	2,753	933,582	$448M

Service Plan Recommendation

Alternative A (Long Beach – Azusa, Santa Monica – Atlantic)

- Approved as Locally Preferred Alternative
- Significant outreach and support for Alt A
- Simple to understand (and operate) network that minimizes wait and transfer times
- Performs best in headway regularity
- Second least costly operations
- Opportunities to improve upon Alternative A with train delay mitigations

Train Delay Mitigations

- Delays through the Regional Connector due to variability in run times can be mitigated through better signal priority/preemption along the current A (Blue) and E (Expo) Line street running territory and more consistent dwell times;

- Otherwise, in-line schedule recovery of up to 5 minutes approaching the junctions will need to be built into the schedules to ensure trains enter the Regional Connector on time.

Headway Regularity

Alternative	Percent of Scheduled Headway (NB/EB)						
	100%	110%	120%	130%	140%	150%	Greater
A	55%	73%	82%	87%	90%	92%	8%
B	57%	71%	78%	82%	85%	87%	13%
C	53%	67%	75%	81%	85%	88%	12%
Current	69%	81%	87%	92%	95%	97%	3%
Recovery	58%	82%	90%	94%	96%	97%	3%

Alternative	Percent of Scheduled Headway (SB/WB)						
	100%	110%	120%	130%	140%	150%	Greater
A	60%	75%	83%	87%	90%	92%	8%
B	59%	73%	79%	83%	86%	88%	12%
C	57%	71%	79%	84%	87%	89%	11%
Current	67%	78%	85%	90%	93%	96%	4%
Recovery	60%	84%	92%	96%	98%	99%	1%

- Scheduled holds improve headway regularity to current levels

Resource Requirement

With No In-Line Schedule Recovery

Alternative	Total Peak Vehicles	With 20% Spares	Weekday Revenue Car Hours	Annual Revenue Car Hours	Annual Operating Cost
A	195	234	2,658	901,461	$433M
B	192	231	2,621	889,027	$427M
C	195	234	2,753	933,582	$448M

With In-Line Schedule Recovery

Alternative	Total Peak Vehicles	With 20% Spares	Weekday Revenue Car Hours	Annual Revenue Car Hours	Annual Operating Cost
A	208	250	2,835	961,558	$462M
B	205	246	2,799	949,221	$456M
C	208	250	2,936	995,820	$478M

Implementation Recommendation

- Implement Alternative A (Long Beach – Azusa, Santa Monica – Atlantic) which is the Locally Preferred Alternative (LPA).
- Initially implement in-line schedule recovery before the junction to improve the headway regularity of service running through the Regional Connector.
- Continue to work with LADOT to reduce street signal delays on the Blue and Expo Lines near Downtown LA so that in-line schedule recovery can be minimized or eliminated.

Next Steps

- Board Staff briefing and oral report to OSCE Committee in August 2020
- Ongoing Construction Relations outreach for final phases of construction
- Board approval of recommendation in September 2020

Questions?