LONG BEACH TRANSIT
STAR INITIATIVE

FINAL REPORT
EXECUTIVE SUMMARY



MAY 2018

LONG BEACH TRANSIT



WHAT IS THE STAR INITIATVE?

The Long Beach Transit (LBT) STAR Initiative stands for Systemwide Transit Analysis and Reassessment. This 18- month, comprehensive analysis of Long Beach Transit's bus service is designed to maximize productivity and effectiveness and increase ridership through improvements across all aspects of operations.

Why Change?

The City of Long Beach and surrounding areas are growing, and the transportation needs of residents are changing. The STAR Initiative looked at ways to respond to the needs of a rapidly evolving customer market.

As we continue to grow, our transit system should be a first class choice for mobility. LBT evaluated its entire transit operation to accommodate expected growth through ensuring mobility and improving the overall quality of life for all current and future residents of Long Beach and surrounding areas.

The result? Changes to almost every route in the system in the next 10 years that will help make LBT more valuable to residents, employees and visitors.



GOALS AND STRATEGIES

Goal One: Retain, Reclaim and Recruit customers while maintaining and improving choices for those without other options.

- **Strategy 1.1.** Focus on productivity when investing in additional service.
- **Strategy 1.2.** Pursue capital investments that will support speed and reliability, such as Rapid service and dedicated lanes.
- **Strategy 1.3.** Simplify service by operating fewer route variations that serve easy-to-understand destinations.
- **Strategy 1.4.** Operate buses more often and with longer hours in order to expand the types of trips that customers can make on LBT.
- **Strategy 1.5.** Improve customer amenities at bus stops to enhance customer experience and enhance LBT's perception among potential customers.
- **Strategy 1.6.** Reduce duplication of service in order to provide high quality service in the most cost-effective manner.

Goal Two: Improve integration of local and regional transit service.

- **Strategy 2.1.** Identify gaps at the edge of the service area that LBT could fill through coordination with neighboring agencies or extensions of LBT routes.
- **Strategy 2.2.** Minimize the extent to which fare policy negatively impacts trips that require transfers between operators in the region.

Goal Three: Transition LBT from being a transit operator toward being a mobility provider.

- **Strategy 3.1.** Enhance end-to-end user experience through customer information, fare payment options, schedule reliability and physical amenities.
- **Strategy 3.2.** Look at vehicle options other than a 40-foot bus, particularly in lower-density areas such as East Long Beach. This could include using smaller vehicles and ride-hail technology.

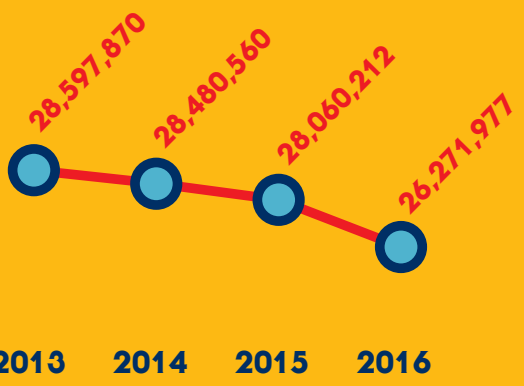


Long Beach Transit's new fleet of battery-electric buses are quieter and environmentally friendly.

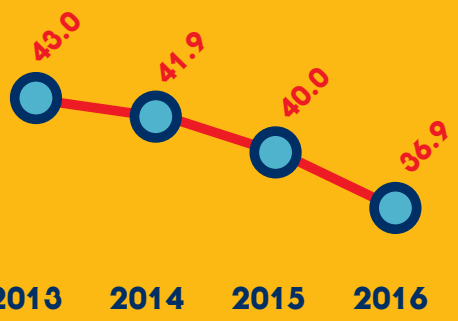
RIDERSHIP

On a typical weekday, LBT carries 83,000 average daily riders. While the amount of service supplied in the last four years has increased by approximately 7 percent, ridership has not increased correspondingly.

Ridership
(2013-2016)

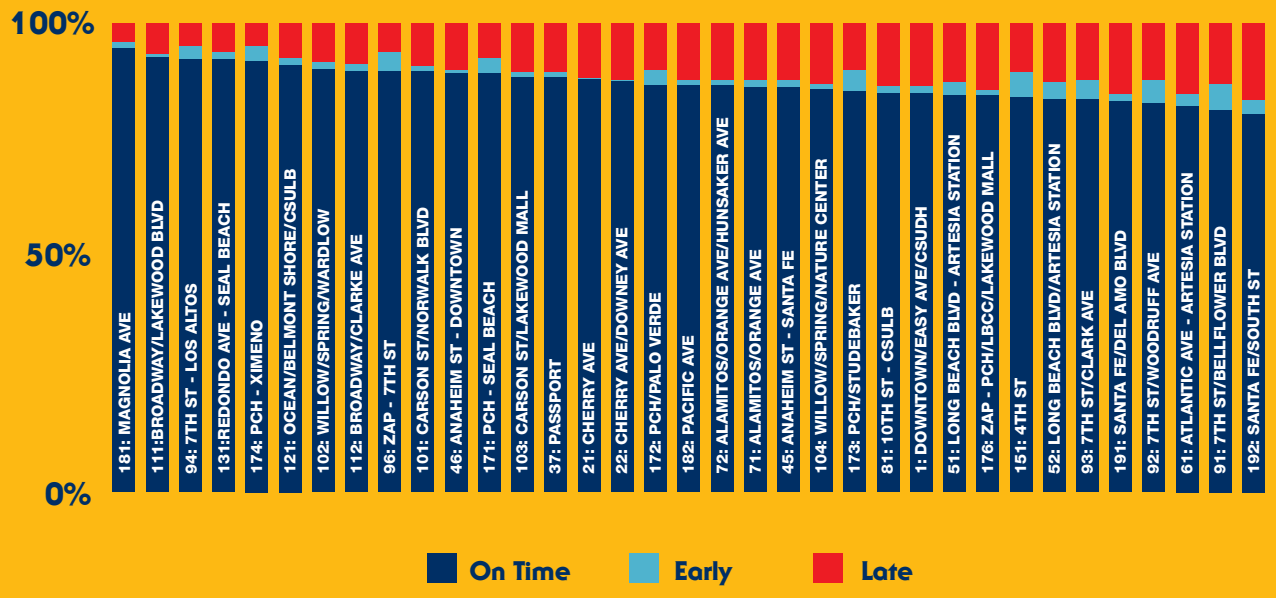


Passengers per Revenue Hour
(2013-2016)

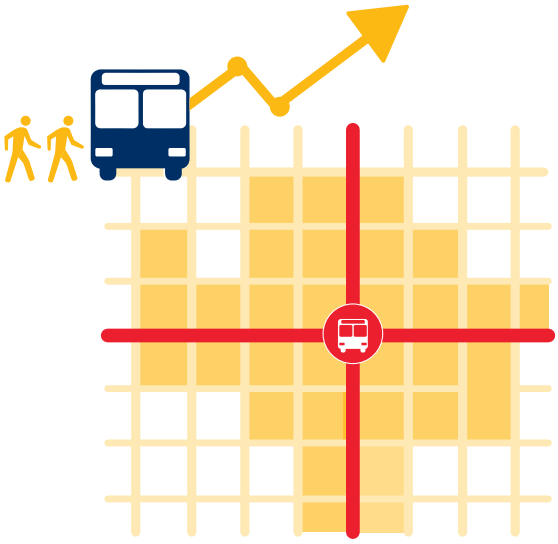


ON-TIME PERFORMANCE

Systemwide, Long Beach Transit services have an average on-time performance of 87 percent. In general, shorter routes have the best on-time performance, while the worst-performing routes are longer, high ridership routes such as Routes 192, 91 and 61. Running late is much more common for LBT routes than running early across the system.



WHAT ARE THE CHALLENGES? WHAT'S WORKING?



High ridership on multiple corridors near downtown Long Beach. Atlantic Avenue, 7th Street, Anaheim Street and Pacific Coast Highway all have great ridership.



LBT can be confusing. especially for first time riders. Simplified routes, more frequent service and less route variants would make LBT easier to navigate.



Service coverage is good, with most parts of Long Beach, Signal Hill and Lakewood being less than ¼ mile away from an existing bus route. However, wait times for service in outlying areas is typically long.



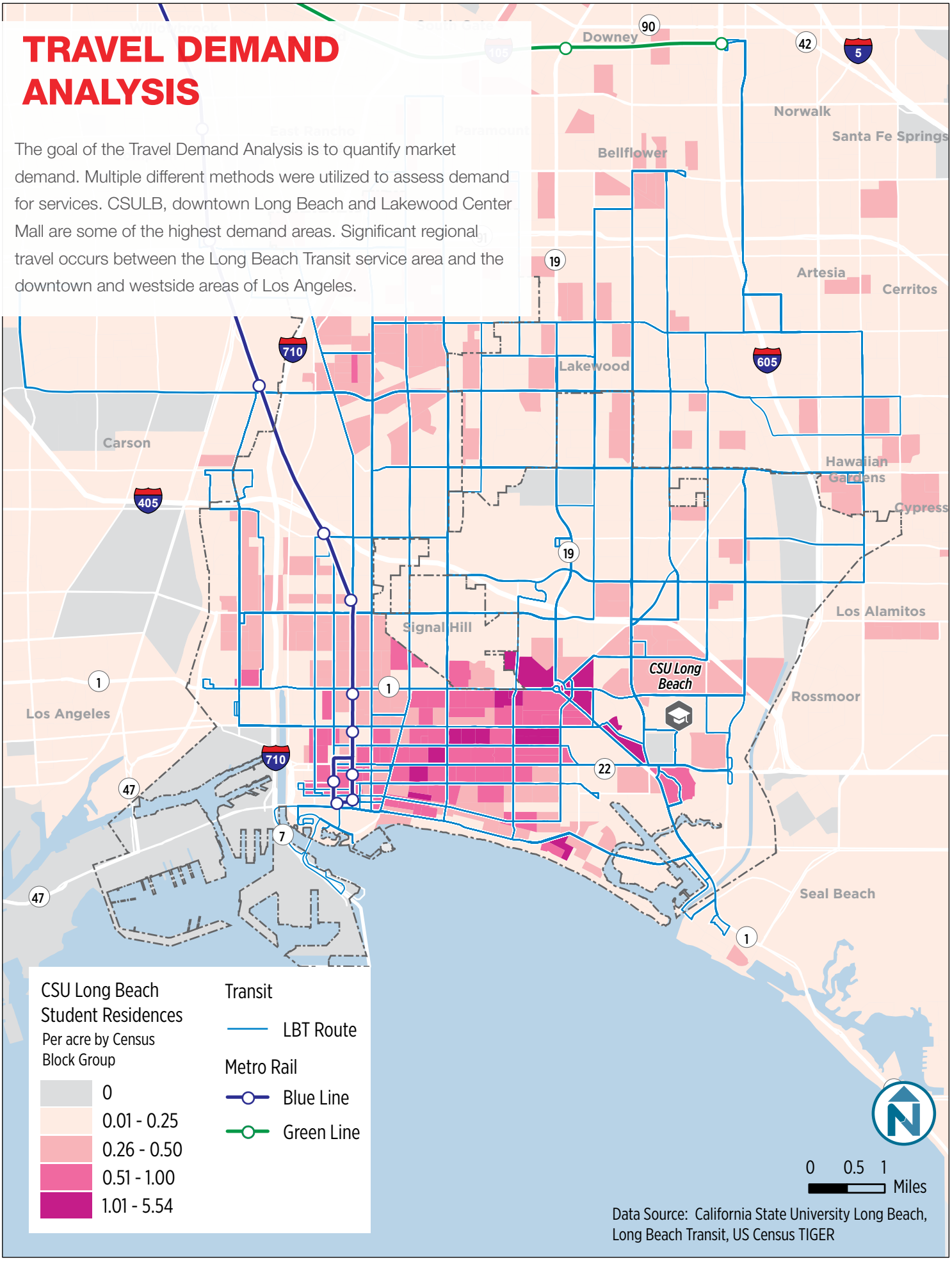
Ridership has been declining. Improving service to existing high ridership destinations, such as California State University, Long Beach (CSULB), or creating better connections to regional service can help reverse this trend.



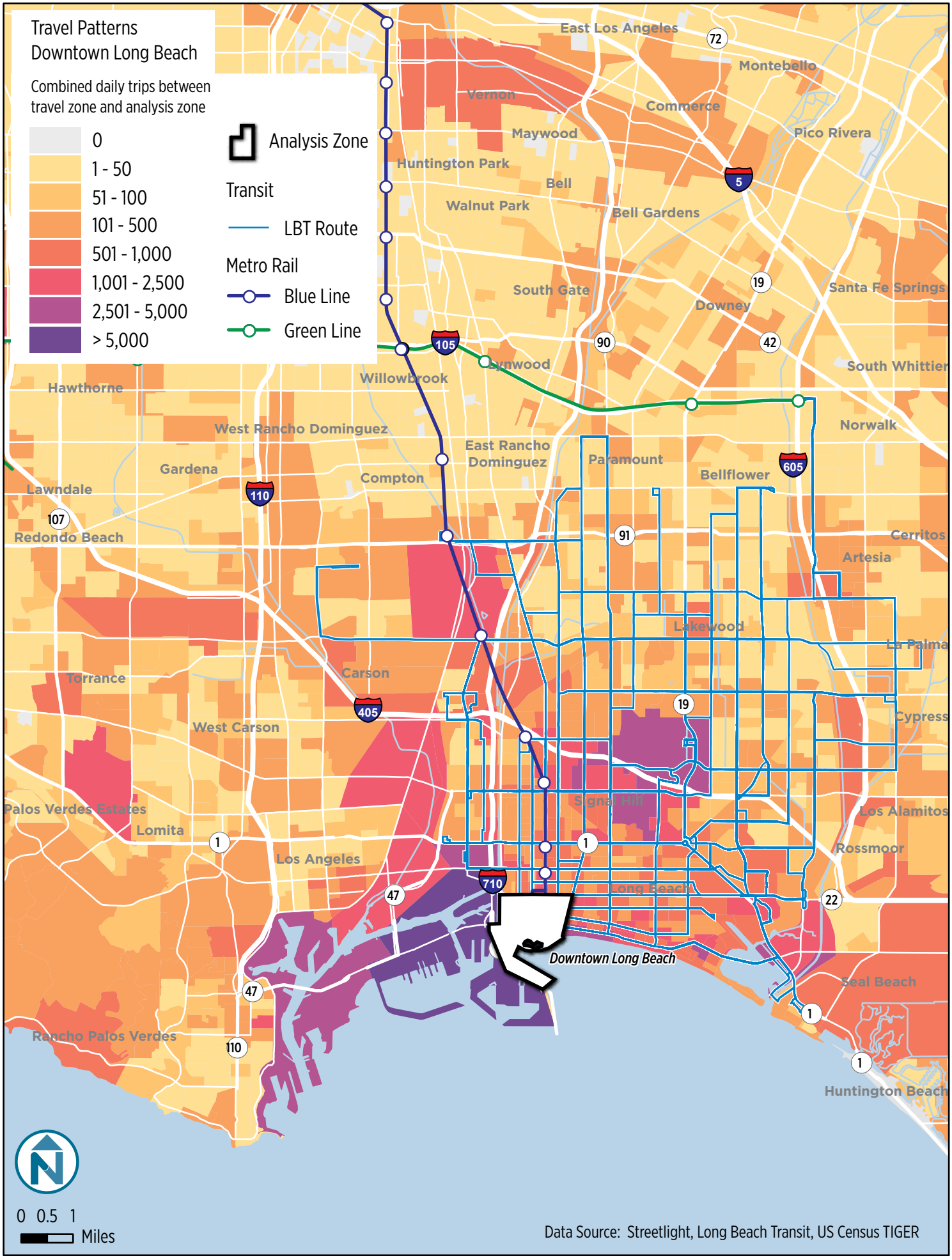
Almost all routes serve downtown Long Beach. which leads to duplicative service in some of the most congested parts of the service area.

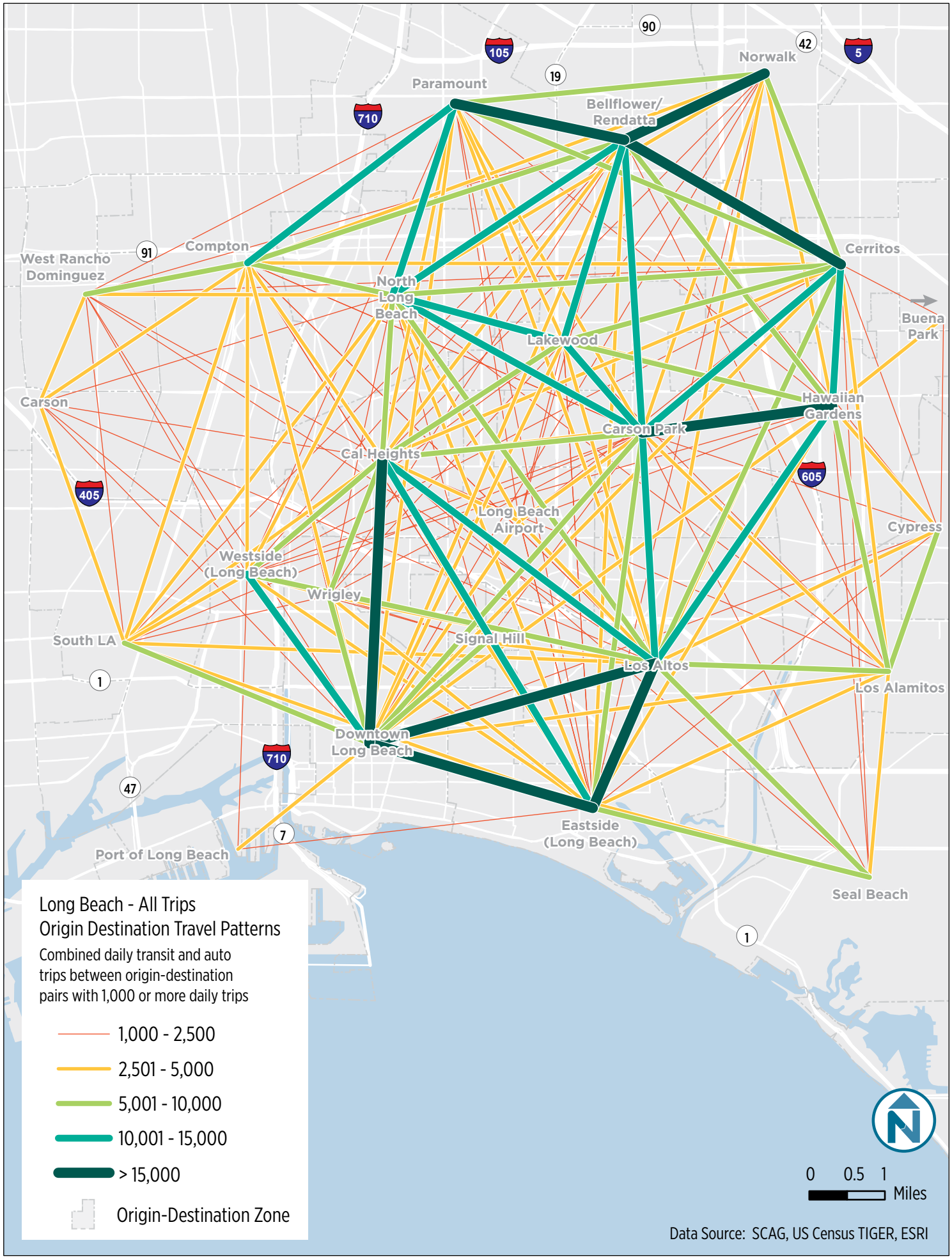
TRAVEL DEMAND ANALYSIS

The goal of the Travel Demand Analysis is to quantify market demand. Multiple different methods were utilized to assess demand for services. CSULB, downtown Long Beach and Lakewood Center Mall are some of the highest demand areas. Significant regional travel occurs between the Long Beach Transit service area and the downtown and westside areas of Los Angeles.



Data Source: California State University Long Beach, Long Beach Transit, US Census TIGER


Travel Patterns
Downtown Long Beach
Combined daily trips between travel zone and analysis zone
0
1 - 50
51 - 100
101 - 500
501 - 1,000
1,001 - 2,500
2,501 - 5,000
> 5,000
Analysis Zone
Transit
LBT Route
Metro Rail
Blue Line
Green Line
East Los Angeles
Montebello
Vernon
Commerce
Maywood
Pico Rivera
Huntington Park
Bell
Walnut Park
Bell Gardens
South Gate
Downey
Santa Fe Springs
Lynwood
Willowbrook
South Whittier
Hawthorne
West Rancho Dominguez
East Rancho Dominguez
Norwalk
Gardena
Paramount
Bellflower
Compton
Lawndale
Redondo Beach
Cerritos
Artesia
Lakewood
La Palma
Torrance
Carson
West Carson
Cypress
Palos Verdes Estates
Signal Hill
Los Alamitos
Lomita
Los Angeles
Rossmoor
Long Beach
Downtown Long Beach
Seal Beach
Rancho Palos Verdes
Huntington Beach
0 0.5 1
Miles
Data Source: Streetlight, Long Beach Transit, US Census TIGER


Long Beach - All Trips
Origin Destination Travel Patterns
Combined daily transit and auto trips between origin-destination pairs with 1,000 or more daily trips
1,000 - 2,500
2,501 - 5,000
5,001 - 10,000
10,001 - 15,000
> 15,000
Origin-Destination Zone
0 0.5 1
Miles
Data Source: SCAG, US Census TIGER, ESRI
Norwalk
Paramount
Bellflower/ Rendatta
Compton
West Rancho Dominguez
Cerritos
North Long Beach
Lakewood
Buena Park
Carson
Hawaiian Gardens
Carson Park
Cal Heights
Long Beach Airport
Cypress
Westside (Long Beach)
Wrigley
South LA
Signal Hill
Los Altos
Los Alamitos
Downtown Long Beach
Eastside (Long Beach)
Port of Long Beach
Seal Beach
90
105
42
5
19
710
91
405
605
1
47
7

PUBLIC INVOLVEMENT ACTIVITIES

A wide variety of outreach activities were conducted as part of the STAR Initiative. Public feedback was sought before recommendations were made and twice during the recommendations development process.

NUMBER OF PARTICIPANTS AT OUTREACH EVENTS

Project Advisory Group
27

Stakeholder Interviews
25

Community Meetings
203

Community Organization Presentations
98

Pop-Up Events
300+

Online Survey
1,361



TOP Community residents visit a pop up event in their neighborhood. BOTTOM Residents expressed their thoughts through online and paper surveys.

NON-RIDER SURVEY

A survey focused on residents of the Long Beach service area was conducted to capture service priorities and what improvements would cause respondents to ride. Respondents prioritized improved technology such as real-time information, smartphone application and enhanced lighting and shelters. Service priorities included more reliable, speedier service and improved frequency.



RECOMMENDATIONS

Based on service analyses, market assessments and public input, a series of improvements were developed. Because of the complexity of implementing big service changes, a phased approach is recommended. The Short-Term Roadmap includes recommendations that can occur in the next 2 years. The Mid-Term Roadmap includes recommendations that may be implemented in the next three to five years, while the Long-Term Roadmap includes recommendations that may be implemented in the five- to 10-year timeframe.





TOP Residents provided input at community meeting events. BOTTOM "Design a Better Transit System" activity at a pop up outreach event.

KEY THEMES

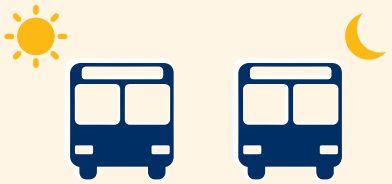
Key themes of the recommended roadmaps include:

1



More frequent service

2



Later evening/earlier morning service

3



More destinations

4



Innovative transit solutions

5



Easier to understand service

6



Better regional connections

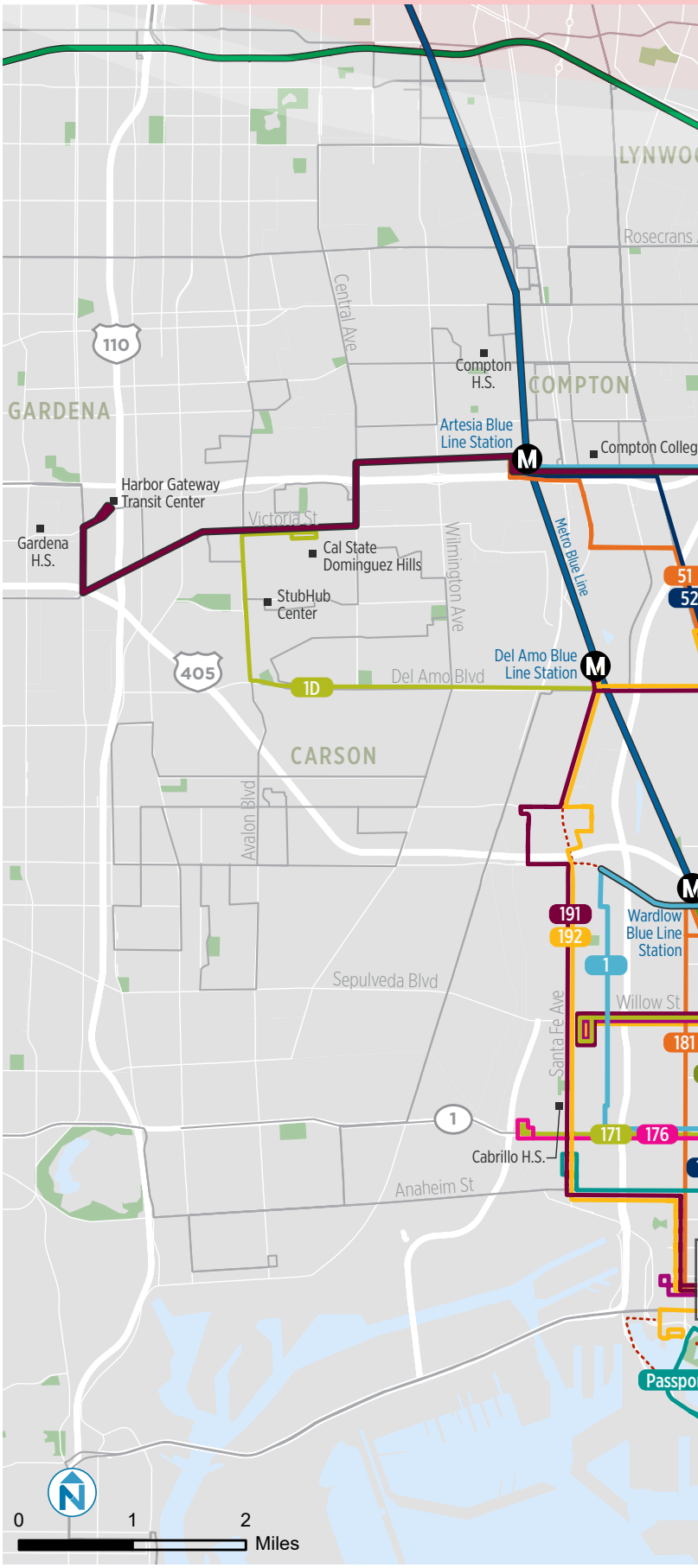
SHORT-TERM ROADMAP RECOMMENDATIONS

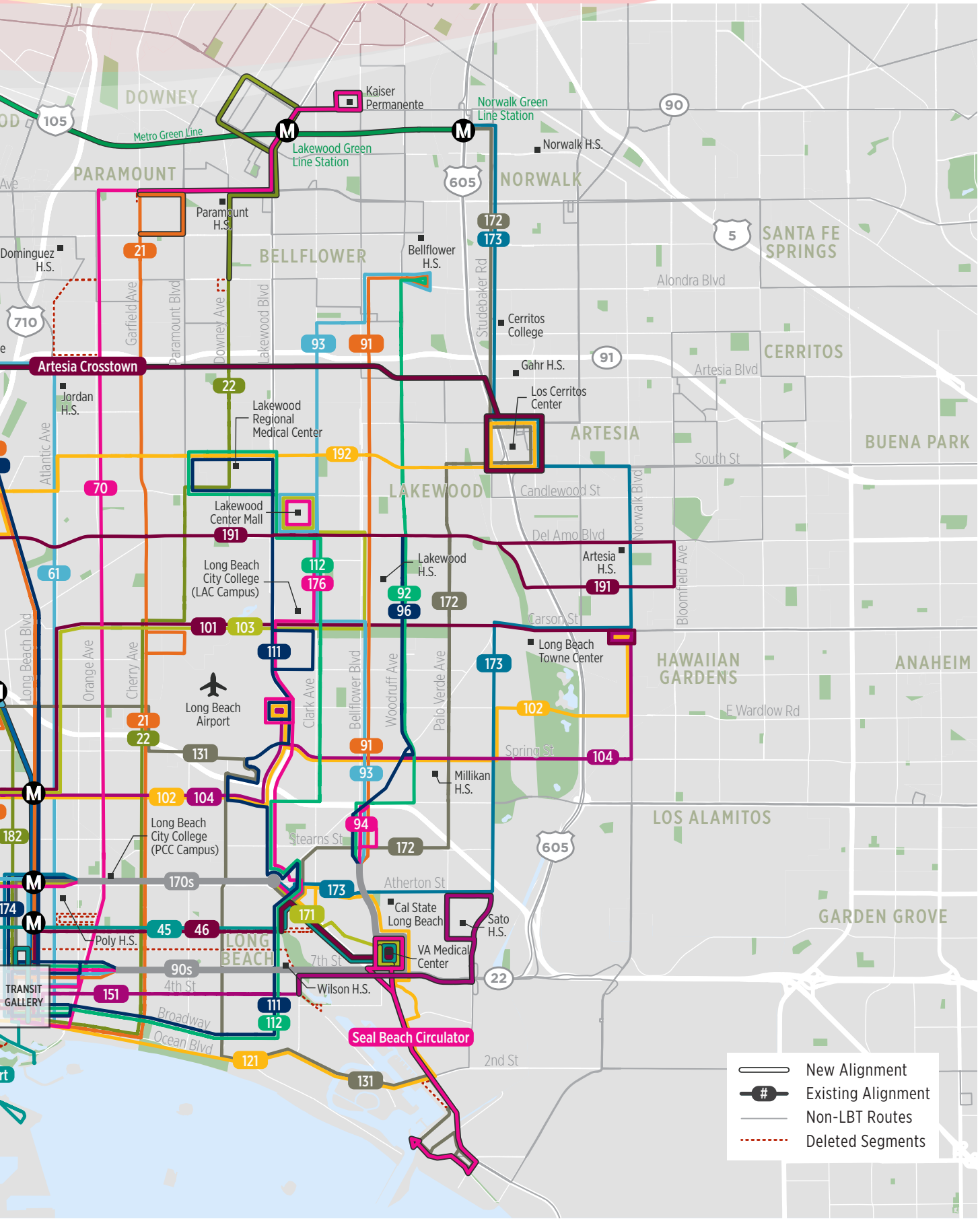
The Short-Term Roadmap contains targeted improvements that address mobility needs with minor modifications to the existing service network. These improvements will result in better connections to local and regional destinations, increased access to frequent service and higher ridership. Highlights of the Short-Term Roadmap include:

- Extending service on Anaheim and 4th streets to serve CSULB
- Providing better connections to the Metro Blue Line from west Long Beach and to the Metro Green Line from the City of Paramount
- Adjusting the Passport route to serve more downtown Long Beach residents
- Acquiring and improving service on Artesia Boulevard
- Defining opportunities to implement smaller buses
- Changing 12 bus routes
- Up to a 10 percent increase in LBT service hours

Benefits of Short-Term Roadmap include:

- Better connections to key major destinations and job centers such as CSULB
- Better connections to Metro Rail
- Increase in customers with access to 15-minute service
- Increase of 41,300 residents within ¼ mile of service (+6 percent)
- Increase of 44,400 jobs within ¼ mile of service (+16 percent)



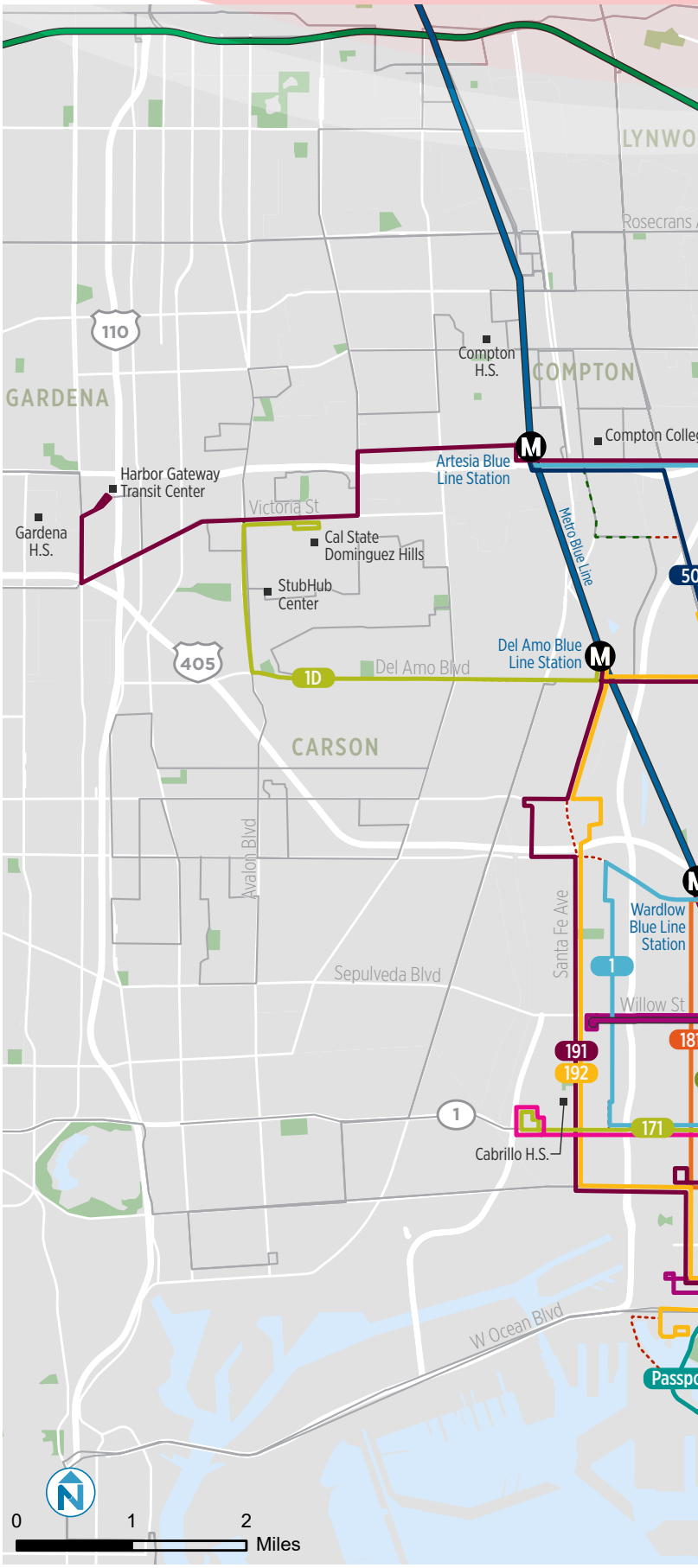

DOWNEY
PARAMOUNT
BELLFLOWER
NORWALK
SANTA FE SPRINGS
CERRITOS
ARTESIA
BUENA PARK
LAKEWOOD
HAWAIIAN GARDENS
ANAHEIM
LOS ALAMITOS
GARDEN GROVE
LONG BEACH
Metro Green Line
Lakewood Green Line Station
Norwalk Green Line Station
Kaiser Permanente
Norwalk H.S.
Paramount H.S.
Bellflower H.S.
Dominguez H.S.
Jordan H.S.
Cerritos College
Gahr H.S.
Los Cerritos Center
Artesia Crosstown
Lakewood Regional Medical Center
Lakewood Center Mall
Long Beach City College (LAC Campus)
Lakewood H.S.
Artesia H.S.
Long Beach Towne Center
Long Beach Airport
Millikan H.S.
Long Beach City College (PCC Campus)
Cal State Long Beach
Sato H.S.
VA Medical Center
Poly H.S.
Wilson H.S.
Seal Beach Circulator
TRANSIT GALLERY
Alondra Blvd
Artesia Blvd
South St
Candlewood St
Del Amo Blvd
Carson St
E Wardlow Rd
Spring St
Stearns St
Atherton St
7th St
4th St
Broadway
Ocean Blvd
2nd St
Garfield Ave
Paramount Blvd
Downey Ave
Lakewood Blvd
Studebaker Rd
Norwalk Blvd
Bloomfield Ave
Atlantic Ave
Long Beach Blvd
Orange Ave
Cherry Ave
Clark Ave
Bellflower Blvd
Woodruff Ave
Palo Verde Ave
New Alignment
Existing Alignment
Non-LBT Routes
Deleted Segments

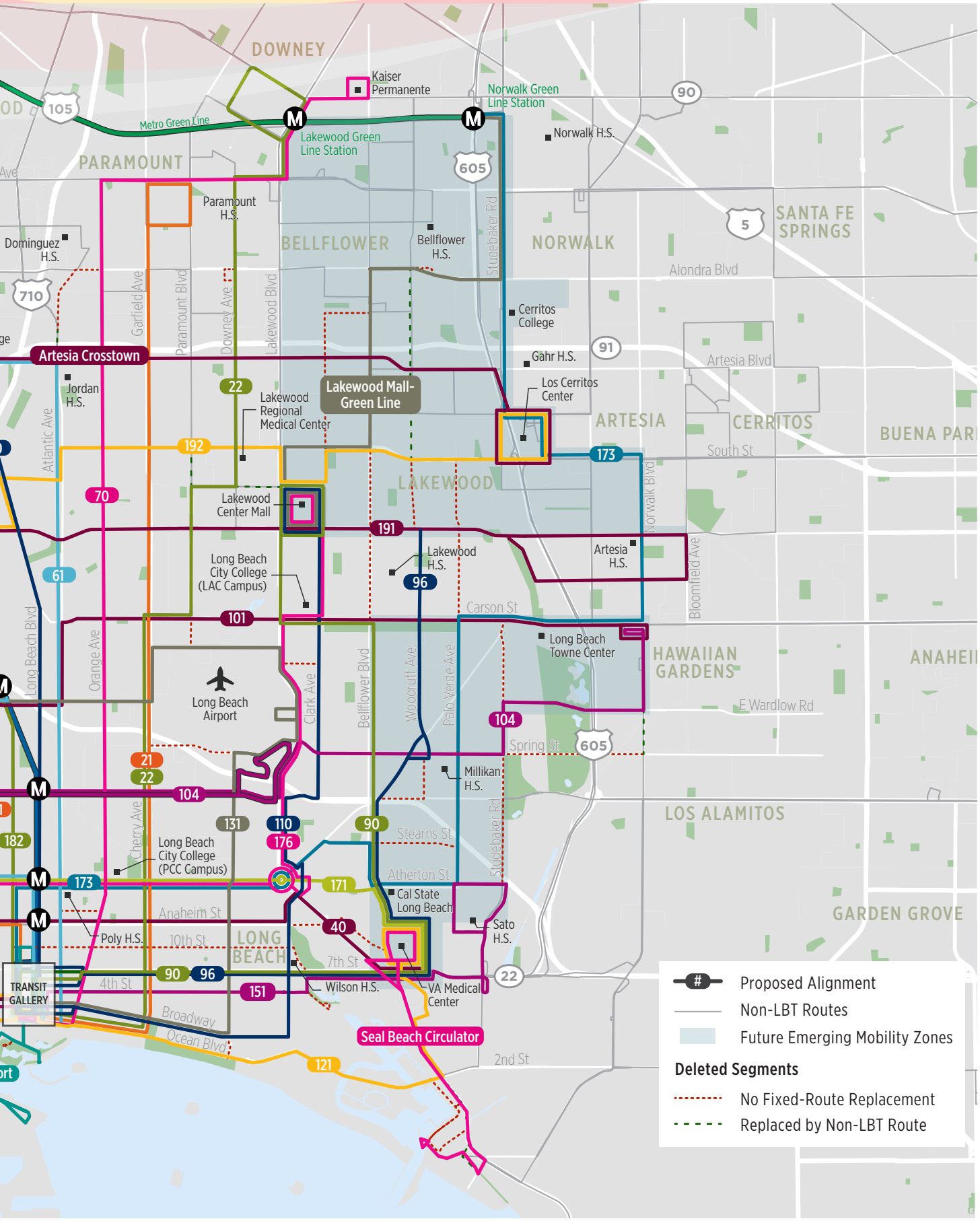
MID-TERM ROADMAP RECOMMENDATIONS

The Mid-Term Roadmap is a transformative restructuring of LBT's route network to improve mobility and the attractiveness of service. It builds upon the Short-Term Roadmap.

The Mid-Term Roadmap focuses on simplification of the route network and investments in the highest-ridership corridors throughout the city. Specific improvements include:

- Four new corridors with service every 15 minutes, seven days a week including:
  - » Carson Street
  - » Willow Street
  - » Broadway, Ximeno Avenue, Lakewood Boulevard and Clark Avenue
  - » Bellflower Boulevard between CSULB and Lakewood Center Mall
- Route consolidation on major corridors to improve bus spacing and make service easier to understand
- All routes would operate at least every 30 minutes during the day
- Service would operate earlier and later in the day
- Simplification of route numbers and patterns
- Future emerging mobility zones, where on-demand service using smaller vehicles would be provided to serve the needs of customers
- New service connecting Lakewood Center Mall and the City of Norwalk
- More direct service between the Long Beach Airport, Metro Blue Line and downtown Long Beach
- Supporting capital improvements

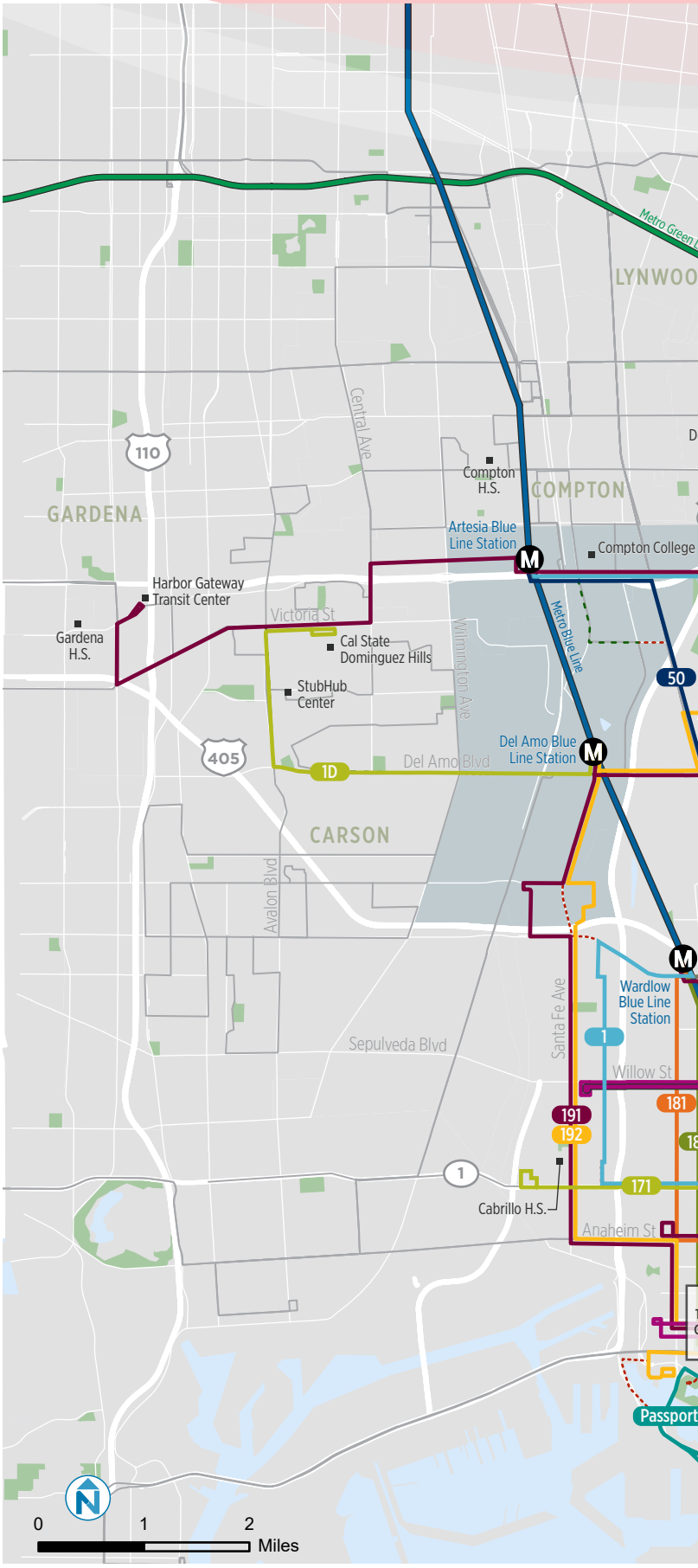


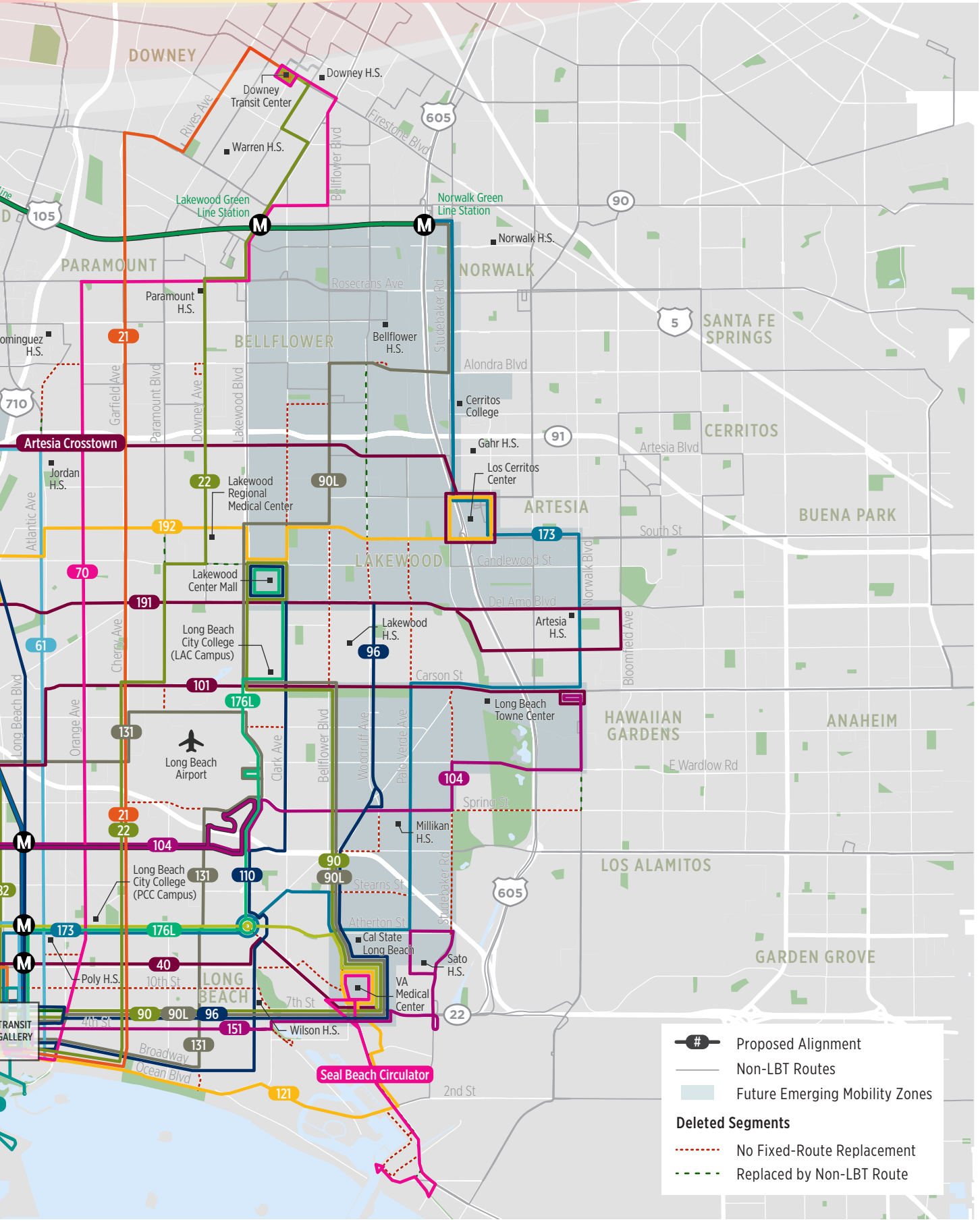

DOWNEY
Kaiser Permanente
Norwalk Green Line Station
Metro Green Line
Lakewood Green Line Station
Norwalk H.S.
PARAMOUNT
Paramount H.S.
Dominguez H.S.
BELLFLOWER
Bellflower H.S.
NORWALK
SANTA FE SPRINGS
Alondra Blvd
Cerritos College
Gahr H.S.
Artesia Crosstown
Jordan H.S.
Lakewood Regional Medical Center
Lakewood Mall-Green Line
Los Cerritos Center
ARTESIA
CERRITOS
BUENA PAR
South St
LAKEWOOD
Lakewood Center Mall
Lakewood H.S.
Artesia H.S.
Long Beach City College (LAC Campus)
Carson St
Long Beach Towne Center
HAWAIIAN GARDENS
ANAHEI
Long Beach Airport
E Wardlow Rd
Spring St
Millikan H.S.
LOS ALAMITOS
Long Beach City College (PCC Campus)
Stearns St
Atherton St
Cal State Long Beach
Sato H.S.
GARDEN GROVE
Anaheim St
Poly H.S.
10th St
LONG BEACH
7th St
TRANSIT GALLERY
4th St
Wilson H.S.
VA Medical Center
Broadway
Ocean Blvd
Seal Beach Circulator
2nd St
Proposed Alignment
Non-LBT Routes
Future Emerging Mobility Zones
Deleted Segments
No Fixed-Route Replacement
Replaced by Non-LBT Route

LONG-TERM ROADMAP RECOMMENDATIONS

The Long-Term Roadmap illustrates the improvements necessary to meet mobility needs that were identified through the STAR Initiative throughout the existing service area and beyond. Costs were not a consideration in developing the Long-Term Roadmap. Highlights include:

- One new corridor with service every 15 minutes, seven days a week between Lakewood Center Mall and the City of Norwalk
  - » Carson Street
  - » Willow Street
  - » Broadway, Ximeno Avenue, Lakewood Boulevard and Clark Avenue
  - » Bellflower Boulevard between CSULB and Lakewood Center Mall
- Service would operate earlier and later in the day
- Limited-stop service connecting downtown Long Beach with Long Beach Airport, CSULB, LBCC campuses and Lakewood Center Mall
- Regional connections to the downtown and westside areas of Los Angeles and Orange County
- Better connections to the City of Downey
- Additional future emerging mobility zones, where on-demand service using smaller vehicles would be provided to serve the needs of customers
- Supporting capital improvements




DOWNEY
Downey Transit Center
Downey H.S.
Warren H.S.
Rives Ave
Firestone Blvd
605
Bellflower Blvd
Lakewood Green Line Station
Norwalk Green Line Station
105
90
Norwalk H.S.
PARAMOUNT
NORWALK
Rosecrans Ave
Paramount H.S.
5
SANTA FE SPRINGS
21
BELLFLOWER
Bellflower H.S.
Studebaker Rd
Alondra Blvd
710
Garfield Ave
Paramount Blvd
Downey Ave
Lakewood Blvd
Cerritos College
CERRITOS
Artesia Crosstown
Gahr H.S.
91
Artesia Blvd
Jordan H.S.
22
Lakewood Regional Medical Center
90L
Los Cerritos Center
ARTESIA
BUENA PARK
192
173
South St
Atlantic Ave
LAKEWOOD
Candlewood St
70
Lakewood Center Mall
Norwalk Blvd
191
Del Amo Blvd
Long Beach City College (LAC Campus)
Lakewood H.S.
Artesia H.S.
61
Cherry Ave
96
Carson St
101
176L
Long Beach Towne Center
Bloomfield Ave
HAWAIIAN GARDENS
ANAHEIM
Long Beach Blvd
Orange Ave
131
Long Beach Airport
Clark Ave
Bellflower Blvd
Woodruff Ave
Palo Verde Ave
104
E Wardlow Rd
Spring St
21
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GARDEN GROVE
Poly H.S.
10th St
LONG BEACH
VA Medical Center
7th St
90
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96
151
Wilson H.S.
22
Broadway
Ocean Blvd
Seal Beach Circulator
121
2nd St
Proposed Alignment
Non-LBT Routes
Future Emerging Mobility Zones
Deleted Segments
No Fixed-Route Replacement
Replaced by Non-LBT Route

NEXT STEPS

Long Beach Transit will work to determine the specific phasing of the Short-, Mid- and Long-Term Roadmaps. Route changes, policy changes and implementation order will all require additional public input before they are finalized.










LONG BEACH TR


LONG BEACH TRANSIT


111 TO SOUTH ST
2231



LONG BEACH
TRANSIT