

To: BART

From:

Date: 3/2/2018

Re: Lake Merritt BART Transit Existing Conditions

The Lake Merritt BART Station Area is a critical hub for AC Transit. The area is serviced by four AC Transit bus routes (lines 18, 62, 88, and 96), seven days a week.

Over 3,000 AC Transit riders either start or end their bus ride at the Lake Merritt BART Station, about two percent of the District's daily ridership. The Lake Merritt BART Station acts as a crucial transfer point for AC Transit riders coming from Alameda, Berkeley, the Diamond District, and East Oakland. Lake Merritt BART is the access point for three BART lines (Blue, Orange and Green), and is walking distance from Laney College, making it crucial for student mobility.

Lake Merritt BART is also very important to AC Transit's bus operations. Lines 18 and 88 terminate at/near Lake Merritt BART. The terminal location of a bus route is where bus operators have a chance to recover from any delays that occurred along the previous trip, increasing reliability for the next trip out. The terminal is where the bus operator will have a restroom identified for use if needed. Having a convenient layover location dictates not only whether AC Transit can operate the line but also the service levels on that line.

The development being proposed to the existing BART surface parking lot east of Oak Street and the old MTC site bounded by 7th/8th Streets and Madison/Oak Streets will further increase demand for our service as the existing parking spaces are removed and more residential and commercial density takes its place.

EXISTING LEVEL OF SERVICE

During peak commute hours, a combined 28 buses per hour are either arriving or leaving the area. Exhibit 1 details the weekday level of service for each of the lines servicing the station.

Exhibit 1 – Weekday Route Frequencies by Time of Day

Line	Direction	Peak	Midday	Evening	Late Evening	Owl
18	To University Village	15	15	30	30	n/a
18	To Lake Merritt BART	15	15	30	30	n/a
62	To Fruitvale BART	15	15	20	20	n/a
62	To West Oakland BART	15	15	20	20	n/a
88	To Berkeley	15	20	20	n/a	n/a
88	To Lake Merritt BART	15	20	20	n/a	n/a
96	To Dimond District	30	30	30	30	n/a
96	To Alameda Point	30	30	30	30	n/a

Weekend service is less frequent than weekday service on lines 18, 62 and 88. Exhibit 2 details the level of service on weekends for each of the lines servicing the station.

Exhibit 2 – Weekend Route Frequencies by Time of Day

Line	Direction	Peak	Midday	Evening	Late Evening	Owl
18	To University Village	20	20	20	30	n/a
18	To Lake Merritt BART	20	20	20	30	n/a
62	To Fruitvale BART	30	30	30	30	n/a
62	To West Oakland BART	30	30	30	30	n/a
88	To Berkeley	20	20	20	n/a	n/a
88	To Lake Merritt BART	20	20	20	n/a	n/a
96	To Dimond District	30	30	30	n/a	n/a
96	To Alameda Point	30	30	30	n/a	n/a

EXISTING PASSENGER ACCESS

AC Transit provides access to Lake Merritt BART via three bus stops near the station:

- Westbound 8th Street, far side of Oak Street (18, 62)
- Northbound Oak Street, far side of 8th Street (62, 88, 96)
- Southbound Madison Street, far side of 9th Street (88, 96)

The bus stop along 8th Street is the end of line/start of line for Line 18 and is used by Line 62 trips heading to West Oakland BART. The bus stop along Madison Street is the start/end of Line 88 and is used by Line 96 trips heading toward Fruitvale BART. The bus stop along Oak Street is used by Line 62 trips heading toward Fruitvale BART, Line 88 trips heading toward downtown Berkeley, and Line 96 trips heading toward Alameda Point.

These bus stops are located between 80 and 500 feet from the various BART entrances. The stops for lines 18 and 62 allow for easy transfers between bus and BART while the stop for 88 and 96 require a longer walk to transfer between the two services.

EXISTING BUS ROUTING

The following section details existing bus routing for each of the lines operating near or at the Lake Merritt BART Station.

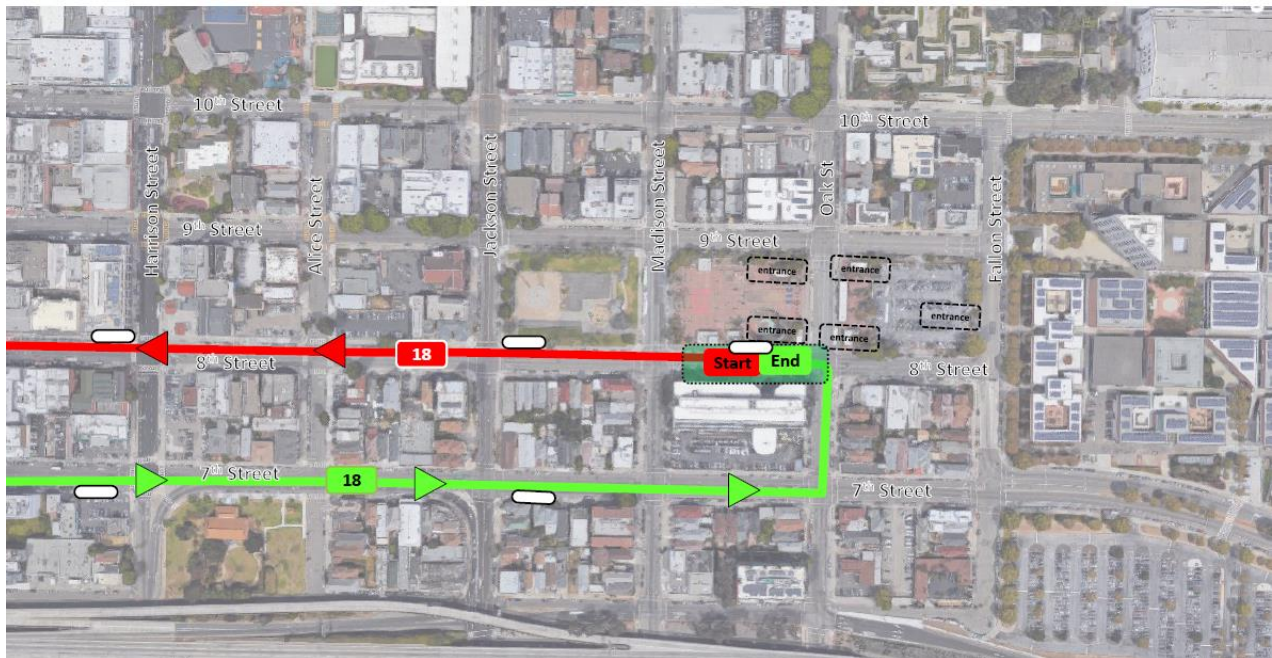
Line 18

Line 18 approaches the Lake Merritt BART station traveling southbound on Broadway, turning left on 7th Street, left on Oak Street and finally left onto 8th Street. Heading towards Berkeley, Line 18 starts on 8th Street, eventually making a right turn on Broadway to continue northbound. Exhibit 3 below details the existing Line 18 routing to/from Lake Merritt BART.

Exhibit 3 – Line 18 Existing Route

Lake Merritt BART Station – Line 18 Existing Conditions

- Inbound Route
- Existing Layover Zone
- Outbound Route
- Existing Stops



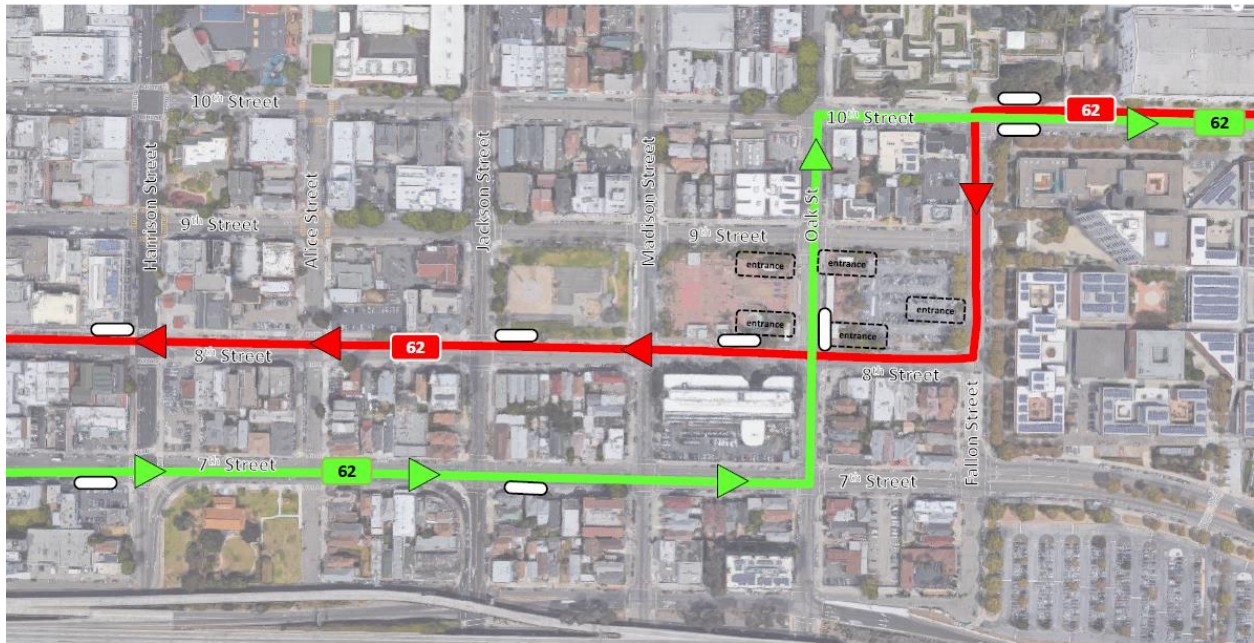
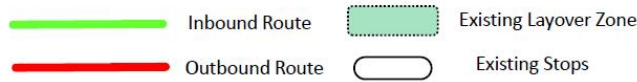
Line 62

Line 62 passes through the Lake Merritt BART station in both directions. Heading toward downtown Oakland to West Oakland BART, Line 62 approaches the Lake Merritt BART station traveling westbound on 10th Street, turning left onto Fallon Street, and finally turning right onto 8th street where passengers

are dropped off far side Oak Street. Heading toward Fruitvale BART, buses operate along eastbound 7th Street, then make the left at Oak Street where passengers are dropped off on Oak Street, far side of 8th Street. After continuing along 8th, Line 62 makes a right onto 10th Street. Exhibit 4 illustrates existing Line 62 routing.

Exhibit 4 – Line 62 Existing Route

Lake Merritt BART Station – Line 62 Existing Conditions

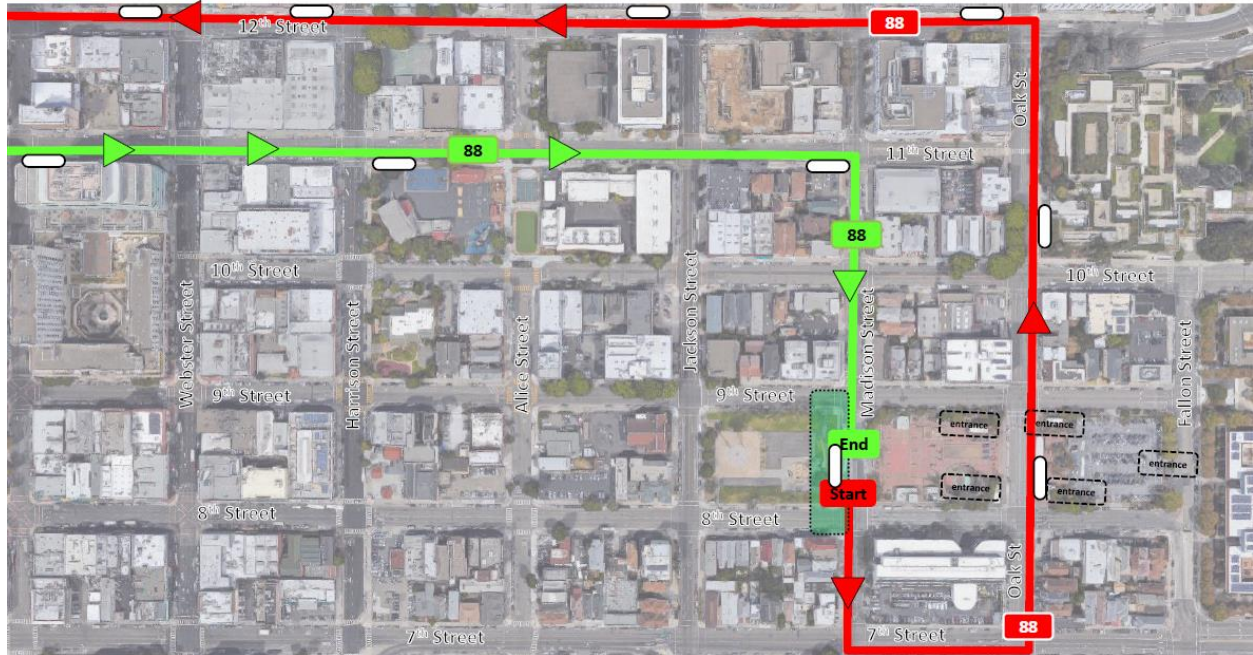
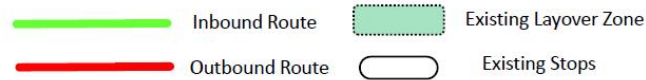


Line 88

Due to the lack of space allocated to AC Transit buses along Oak Street, Line 88 trips heading toward Lake Merritt BART terminate short of the station, ending along Madison Street, just south of 9th Street. Line 88 approaches the Lake Merritt BART Station via eastbound 11th Street, turning right onto Madison where the line terminates on Madison Street, far side of 9th Street. Heading northbound, Line 88 begins on Madison Street (at 9th Street), turning left into 7th street, left onto Oak Street and finally left onto 12th Street. Exhibit 5 below details the existing Line 88 routing to/from Lake Merritt BART.

Exhibit 5 – Line 88 Existing Route

Lake Merritt BART Station – 88 Line Existing Conditions

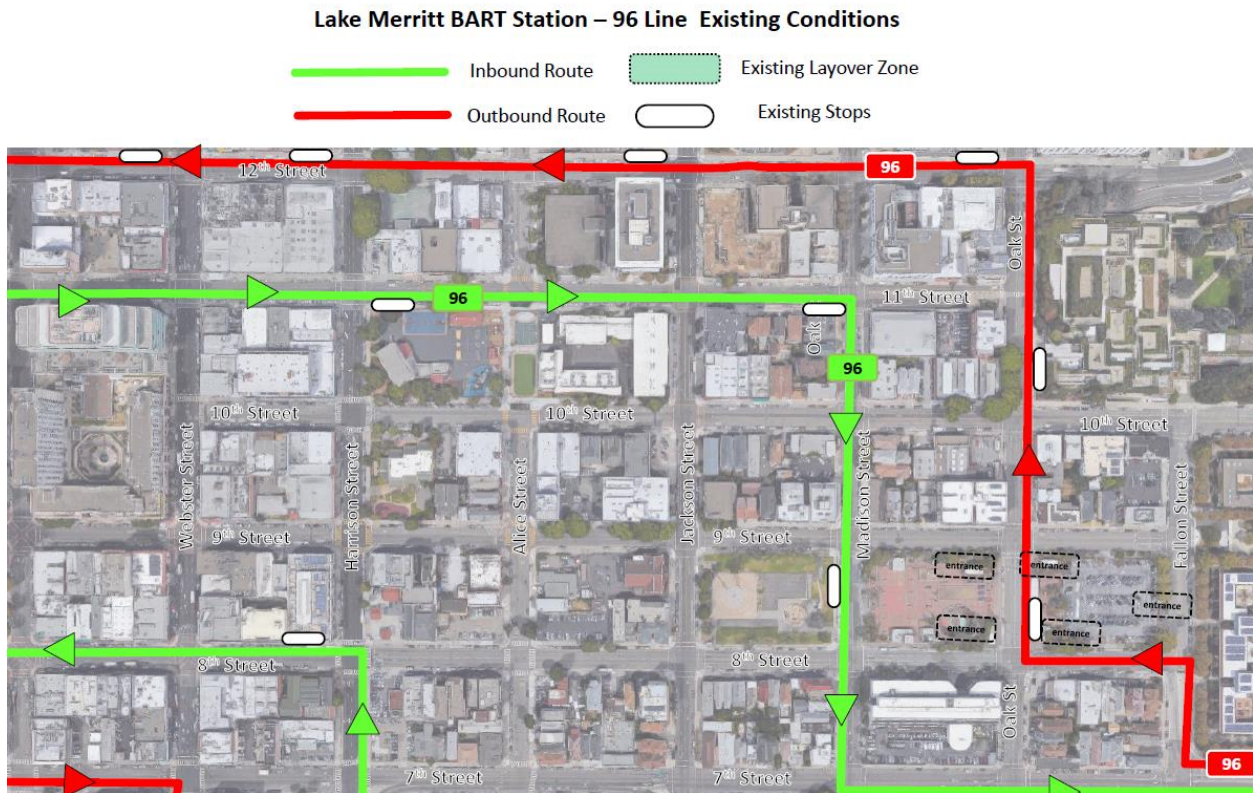


Line 96

Heading toward the Diamond District, Line 96 approaches the Lake Merritt BART station traveling eastbound on 11th Street, turning right onto Madison Street, dropping off/picking up passengers on Madison Street, far side of 9th Street. Heading toward Alameda, buses operate along westbound 7th Street, right Fallon Street, left 8th Street before turning right on Oak Street, dropping off/picking up on Oak Street, far side of 8th Street. After continuing along Oak Street, Line 96 makes a left onto 12th Street and continues westbound before turning left onto Broadway.

Line 96, heading toward Fruitvale BART, also uses the bus stop along Madison Street to drop off/pick-up passengers near Lake Merritt BART. This routing is used due to Oak Street being one-way. In order to drop off passengers closer to the station, Oak Street would have to become two-way, with a new bus stop for Line 96 added along the west side of Oak Street. Exhibit 6 details existing Line 96 routings.

Exhibit 6 – Line 96 Existing Route



REQUESTED IMPROVEMENTS

AC Transit has identified changes to service patterns, bus stop lengths and the physical environment that could improve passenger access within the area as well as allow for improved bus operations.

Oak Street- New Layover Space and Extended Bus Stop

As mentioned previously, Line 88 terminates its route along Madison Street. Additional bus stop space should be provided to allow Line 88 to terminate at the station, just ahead of the existing bus stop. This would allow passengers improved access to Lake Merritt BART, Laney College, and other future uses being planned as part of the development.

The extended bus stop for lines 62 and 96 is also critical to bus operations. Line 96 operates via 8th Street before making the right turn onto Oak Street into the bus stop. This stop should be long enough to allow Line 96 to pull flush into the bus stop after the turn.

Bus operations can also be affected by not having sufficient bus stop space. Not having enough space can lead to buses waiting in the travel lane or holding back at an intersection until the bus stop is clear. A longer bus stop will help bus operations by allowing both lines 62 and 96 to use the bus stop simultaneously.

The following curb marking changes are needed along northbound Oak Street between 8th Street and 9th Street to accommodate a new Line 88 layover and an extended bus stop for lines 62 and 96. In addition, having Line 88 near BART will allow bus operators to be closer to the designated restroom facilities.

1. Removal of existing passenger loading zone
2. Removal of two metered parking spaces
3. Extending the bus zone then entire length of the block
 - a. Line 88 (40-ft bus) will be located 20 feet from 9th Street Crosswalk for sufficient pedestrian visibility.
 - b. AC Transit mandates 20 feet in between buses in order for the bus to pull out into the general purpose lane.
 - c. AC Transit suggests 10 feet in between the bus and revised crosswalk at 8th for pedestrian safety.

Exhibit 7 illustrates street improvements described above.

Exhibit 7 – Oak Street Improvements

Lake Merritt BART Station – Oak Street Improvements



Additional Layover Space

Bus operations can also be affected by not having sufficient bus stop space. Not having enough space can lead to buses waiting in the travel lane or holding back at an intersection until the bus stop is clear. At locations where multiple, frequent routes are operating, these delays can add up.

Line 18 is the most frequent of the four bus lines that serve Lake Merritt BART and is also one of the two routes that layover at the station. There are times when Line 18 buses will have overlapping layovers and a third bus (Line 62) will arrive. This typically causes one of the buses to wait in the travel lane until one

of the other buses departs the stop. Ideally, the bus stop along 8th Street could be designed to accommodate two Line 18 bus layovers in addition to a bus stop for other bus lines.

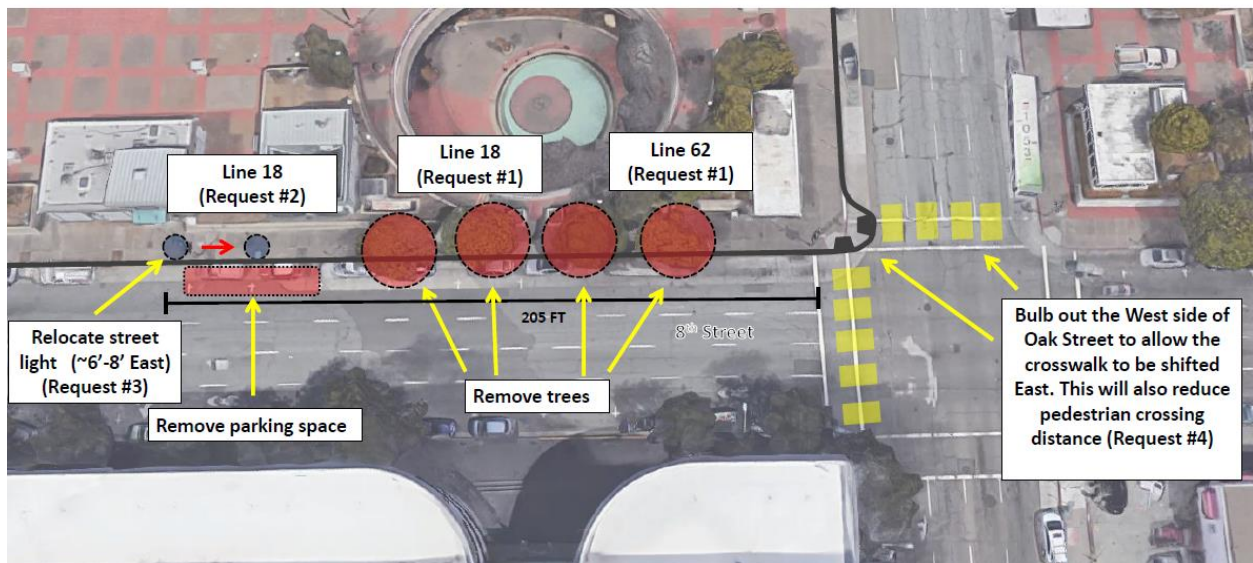
The following street improvements are needed along westbound 8th Street to accommodate our existing bus operations:

1. Trees located far side of 8th Street & Oak Street will need to be removed to ensure sufficient ADA passenger loading requirements.
2. One parking space located just west of the bus pad will need to be removed to allow room for a bus to pull into the general-purpose travel lane. AC Transit typically requires 15' clear for a lateral distance of 8' (typical parking spot width).
3. Shift streetlight east 6-8 feet to allow bus to pull closer to the driveway and allow for adequate front door loading space.
4. Bulb-out the West side of Oak Street to allow the crosswalk to be shifted east. This will also reduce pedestrian crossing distance.

Exhibit 8 illustrates street improvements described above.

Exhibit 8 – 8th Street Improvements

Lake Merritt BART Station – 8th Street Improvements



These changes improve transit connection for 833 Line 18 riders and 1,108 Line 62 riders who transfer to and from Lake Merritt BART every week along with AC Transit operations.