

# WASHINGTON & CULVER BOULEVARD TACTICAL MOBILITY LANE MID-PILOT REPORT



**MOVE** *Culver* CITY

It's how we get there.



Sam  
Schwartz

STREETPLANS

TYLin

# PROJECT OVERVIEW

MOVE Culver City is a City-led effort that envisions a reimagining of our streets as public spaces and prioritizes safety through the design of the street. The effort includes the creation of physically separated bus and bike lanes on Washington and Culver Boulevards by converting a single vehicle travel lane in each direction.

The corridor extends 1.3 miles along Culver and Washington Boulevards between Duquesne Avenue to the west and La Cienega Avenue to the east. It connects Downtown Culver City with the E Line Culver City Station and the Arts District, and offers safe and reliable infrastructure for cyclists, pedestrians, motorists, first responders, and transit users – including Culver CityBus, Big Blue Bus, LA Metro and LADOT bus lines.

By prioritizing active transportation<sup>1</sup>, MOVE Culver City will create safer and more efficient roadways that will:

- Allow the community to accommodate growth identified in the 2020 General Plan update
- Meet the goals outlined in SCAG’s regional transportation plan, [Connect SoCal](#), to increase mobility options and achieve a sustainable growth pattern
- Help support the goals of SB375 which aim to lower greenhouse gas emissions



## DESIGN GUIDELINES<sup>2</sup>

- Create Dedicated Bus Lanes
- Create a Continuous Bike Network
- Enhance Bus Stops
- Leverage Public Art
- Launch a New Mini-Bus Circulator Service
- Utilize the Quick-Build<sup>3</sup> Approach
- Maintain Existing Auto Access & One General Purpose Vehicular Travel Lane
- Stay Within the Physical Boundaries of the Right-of-Way



## AFTER



**Bus and Bike Lanes**  
Bicycle and bus lanes were installed along with bus-only and bicycle traffic signals to protect cyclists from traffic and to improve transit service reliability.

**Improved Mobility Hubs**  
New custom bus boarding platforms enable level boarding while providing access to the bike lane. The project also launched a free circulator system, which utilizes zero-emission, low-floor electric mini buses.

**Pedestrian Safety & Public Art**  
Painted curb extensions enhance pedestrian safety by reducing crossing distances at crosswalks and expanding mobility options by creating space for streetscape amenities, such as micromobility drop off zones. Community-inspired asphalt art fills the curb extensions, clearly designating the space for people.

**Expanded Micromobility Options<sup>4</sup>**  
Wheels and Bird e-scooters were deployed within the study area to add another easy option for getting around Culver City.



total survey responses  
collected prior to project  
implementation

526

45

meetings conducted with community  
members and local stakeholders  
during the project design period

PUBLIC  
ENGAGEMENT

Pre-Implementation Survey Responses

“ I work downtown and live in Culver City. In order to get home, it takes so long, with 3 different transitions; metro, then CCB6 and CCB3, the frequency between buses are huge, and sometimes it's a problem if traffic forced you to miss bus connection, and you have to wait another 30 minutes for the next bus. ”  
- Culver City Resident

“ I just want to emphasize how challenging it is to cross the street as a pedestrian. The crossings are infrequent and the street is so wide. This would be even more challenging for movement disabled folks. We need to get rid of “beg-buttons” and institute pedestrian leading intervals for crossings. ”  
- Downtown Employee

## BUILDING MOMENTUM

MOVE Culver City builds on previous efforts to plan and implement holistic transportation options for pedestrians, bicyclists, and transit riders.

2010

Strategic Plan and  
Bicycle and Pedestrian  
Master Plan Adopted

2017

TOD Visioning [Plan](#)  
  
Expo-Downtown  
Bicycle Connector  
Feasibility [Study](#)

2018

CicLAVia hosted  
on Washington  
Blvd

2020

Culver City's Bicycle  
and Pedestrian  
Action [Plan](#) Adopted

## SPATIAL ALLOCATION

MOVE Culver City is the design implementation of the recommendations outlined in previous efforts and serves as **the only East / West** protected bike path and connection to the E Line station, Downtown, and the Arts District.

PRE-IMPLEMENTATION

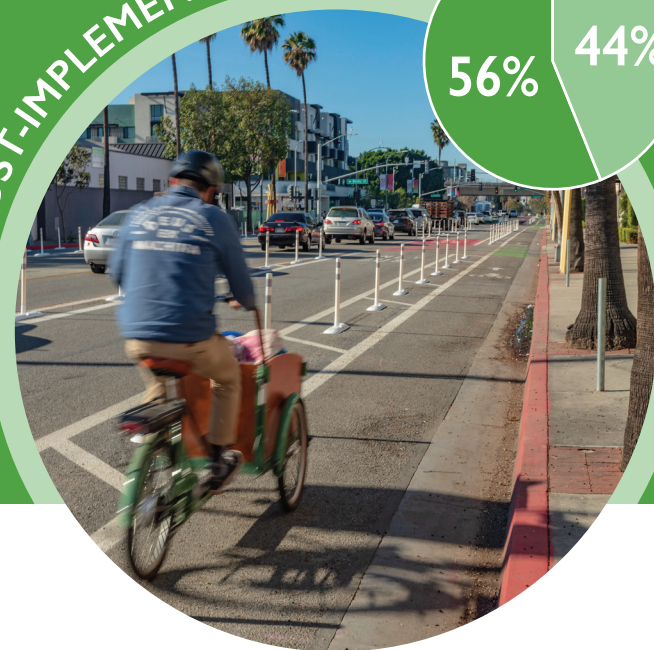
100%



POST-IMPLEMENTATION

56%

44%



Allocation of Roadway Space  
(curb to curb)

Single-Occupancy Vehicles

Sustainable Transportation  
(Cycling, walking, and taking transit)

# PROJECT PERFORMANCE

Methodology: A combination of technologies and methods have been used to collect project performance data, including cell-phone data, vehicle and pedestrian detection cameras, manual traffic counts, and in-person feedback. The following three pages identify the key performance indicators to date.

Due to changes the COVID-19 pandemic has had on travel patterns, project performance data is compared to a pre-implementation baseline from 2021 and a pre-pandemic baseline from 2019,

when available. Baselines vary across different transportation modes due to data availability. More information on data sources, project performance, and analysis methodology can be found at the end of this report.

The data collection process was independently validated by outside experts who verified that the collected data are appropriate, the methodology used is sound and reflects industry standards, and that the reported results are reproducible.



## Culver and Main Intersection

**+98%**

Increase in  
Cycling Activity

The Culver/Main intersection has seen the greatest increase in pedestrian activity with **+23%** increase compared to October 2021 and **+98%** increase in bicycle activity compared to November 2019.

# LOOKING AT SUSTAINABLE TRANSPORTATION

## Downtown Corridor Activity

Changes in pedestrian and bicycle activity were collected by GRIDSMART detection cameras and calculated using software and manual count methods.



**+52%**

Increase in  
Bus Ridership

Percentage increase is measured as average daily bus ridership on CityBus lines along the MOVE Culver City Downtown Corridor (CCB1, CCB5, and CCB7) compared to the average daily bus ridership of the pre-implementation baseline data collected from January to July 2021.

Data shows CityBus systemwide ridership increased by **26%** while bus ridership on the Project corridor increased by **52%**. Data also shows that the Line 1 bus travels **12% faster** during AM Peak and **26% faster** during PM Peak compared to Pre-Pandemic travel time.



**+32%**

Increase in  
Cycling Activity

Percentage increase is measured as average weekday cyclist volumes at two intersections along the corridor as compared to the average cyclist volumes of the pre-implementation baseline data collected in November 2019.



**+18%**

Increase in  
Pedestrian Activity

Percentage increase is measured as average weekday pedestrian volumes at four intersections along the corridor as compared to the average weekday pedestrian volumes of the pre-implementation baseline data collected in October 2021.



**+95%**

Increase in  
Micromobility Trips

Percentage increase is measured as average daily trips taken on Bird and Wheels scooters within 1/4 mile of MOVE Culver City Downtown Corridor in the first month of the pilot (January 2022) compared to July 2022.

# LOOKING AT VEHICULAR TRANSPORTATION

Vehicle activity on the Downtown Corridor and surrounding streets was analyzed through vehicle speeds, travel time, and volume.

**Vehicle travel time on Downtown Corridor saw minimal changes** compared to pre-implementation. Peak hour travel times decreased during morning and increased during evening, with evening peak hours expanding to 3PM - 7PM.

Vehicle travel times were analyzed for streets running parallel or nearby the Downtown Corridor and compared to September 2019 baseline. It was found that **the diversion of local traffic from the Downtown Corridor has not resulted in major increases in vehicle travel times** on Venice Blvd, Jefferson Blvd, Duquesne Ave, Higuera St, and Lucerne Ave.

\*Vehicle volumes are measured by GRIDSMART detection cameras located at six intersections. Vehicle travel time is measured using cell-phone data collected by Waze.

TRAVEL TIME | AM PEAK

-1 min

decrease in travel time on the Downtown Corridor during the AM peak hour.

TRAVEL TIME | PM PEAK

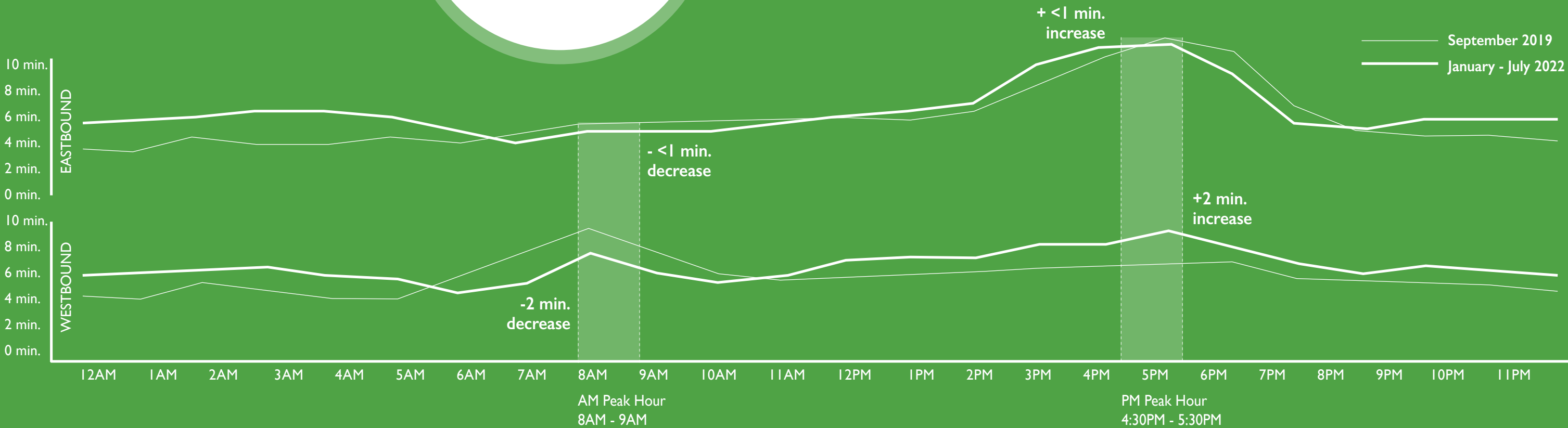
+2 min

maximum increase in travel time on the Downtown Corridor occurs during the PM peak hour.

VEHICLE VOLUMES

+6%

increase in average daily vehicle volumes on Downtown Corridor compared to September 2021 baseline.



**WEEKDAY VEHICLE TRAVEL TIME ALONG DOWNTOWN CORRIDOR**  
Culver Boulevard at Duquesne Avenue to Washington Boulevard at La Cienega Avenue

# PROJECT MONITORING

One of the benefits of the Quick-Build Approach is the ability to test the success of interventions prior to permanent improvements. A monitoring plan was created as a part of this project to account for any adjustments needed to improve the efficiency and safety of the corridor.

A central part of the monitoring plan focused on inspecting materials to ensure that planters, delineator posts, paint and signage were functional. Additionally, traffic patterns were monitored to analyze whether certain design elements required field adjustments to mitigate excessive delays and other traffic issues.

The mitigations listed on the righthand side of this spread were completed as a result of performance monitoring and stakeholder feedback.

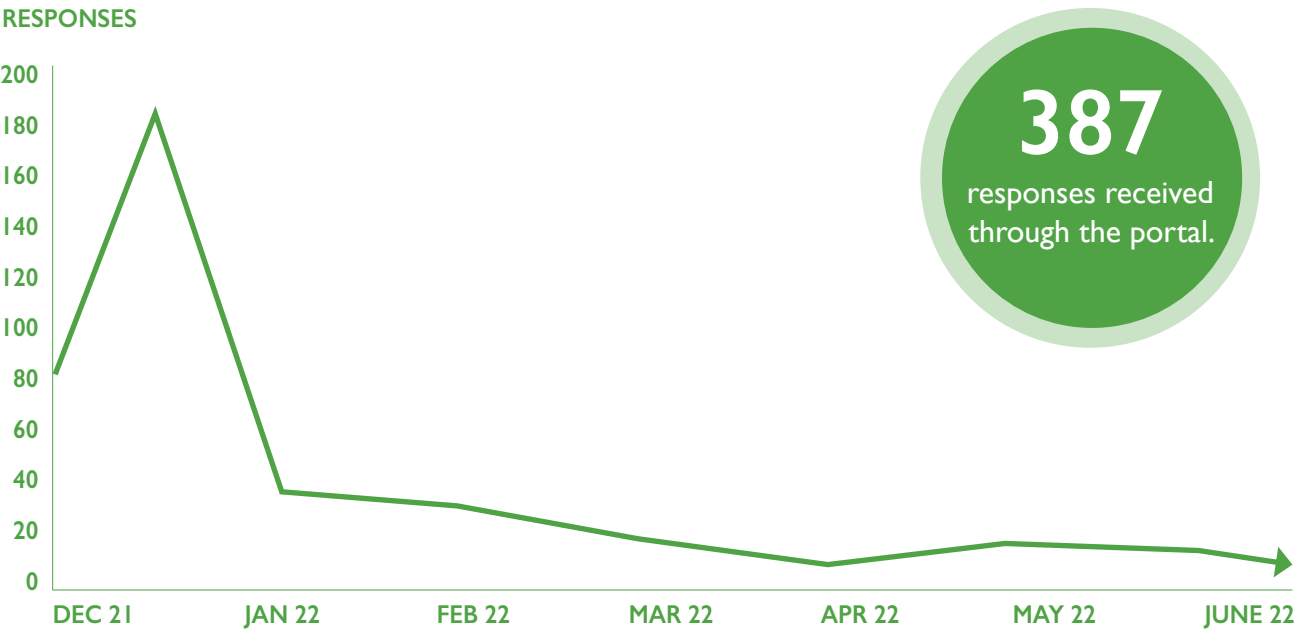
## BUS LANE VIOLATIONS & EMERGENCY RESPONSE

Bus lane violations collected by bus operators have **reduced by 60%** to an average of 3 daily violations compared to the beginning of the pilot, showing that drivers are becoming more observant of the separated bus lane.

Emergency response times originating at Fire Station 1 on Culver Blvd have remained the same since the project was implemented.

## COMMUNITY RESPONSE PORTAL (CRM)

At the time of implementation, the City launched a community response portal to keep track of community feedback.



### Delineator Posts

The City received comments about tire damage due to the curb stops. As a result, the curb stops were replaced with vertical delineators.



### Optimizing Traffic Signal System

Bicycle signal heads were adjusted to improve visibility from the bike lane and removed at selected locations to allow smoother bike movement.



### Ince Boulevard

The northbound/westbound segment of Washington Boulevard between Ince Boulevard and Culver Boulevard was reconfigured to improve traffic and signal operation efficiency.



### Asphalt Art

The monitoring team removed asphalt art that prematurely peeled, faded, or was otherwise damaged at 8 locations along the corridor. These locations were repainted with a base coat.

# ACTIVE TRANSPORTATION SURVEY

In order to complement the quantitative data that's been collected through Project Performance, there was a desire to have a deeper understanding of how cyclists and pedestrians perceive and utilize the corridor. As a result, an intercept survey of cyclists and pedestrians was conducted from August 27 to September 9, 2022.

**109 total survey responses** were collected which included **60 pedestrians** and **49 cyclists**.

Additional surveys are planned in the future to further complement the project performance monitoring.

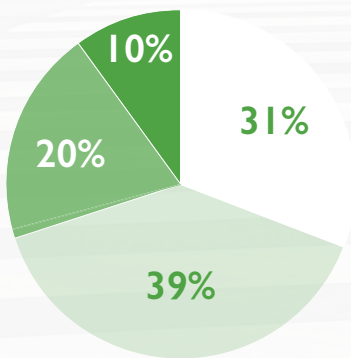
## TIME SPENT ON CORRIDOR

Respondents have said that they are spending more time at destinations along the corridor as a result of MOVE Culver City.

**39%** of respondents indicated spending more time in the **Arts District** since the project was implemented

**64%** of respondents indicated spending more time in **Downtown Culver City** since the project was implemented

**69% of survey respondents indicated visiting businesses along the corridor two or more times a week**



how many times a week do you visit businesses along the corridor?

- 0-1
- 2-3
- 4-6
- 7+

## MODES OF TRAVEL

Survey results show how people's behavior has changed as a result of MOVE Culver City. 38% of respondents say they are walking daily and 19% say they are biking daily on the corridor.

**34%** of respondents indicated taking the **E Line** more often as a result of the pilot project implementation

**41%** of respondents indicated **walking** along the corridor more often as a result of the pilot project implementation

**45%** of respondents indicated **biking** more often as a result of the pilot project implementation

**52%** of respondents indicated using their **vehicles** less often as a result of the pilot project implementation

## LEVELS OF COMFORT

MOVE Culver City updated the street design to improve the balance for sustainable modes of transportation. Most survey respondents have stated feeling more comfortable traveling along the corridor.

**50%** of respondents indicated feeling more comfortable **taking transit** since the project was implemented

**75%** of respondents indicated feeling more comfortable **biking** along the corridor since the project was implemented

**80%** of respondents indicated feeling more comfortable **walking** along the corridor since the project was implemented

## USER EXPERIENCE

Nearly 70% of the respondents said that the changes implemented on the corridor have led to a reduction in speeding vehicles, better bicycle and transit infrastructure, improved connectivity to the E Line, and a safer experience while traveling along the corridor.

Active Transportation Intercept Survey results will be available online at a later date.

For detailed monthly project reports:  
[MOVEculvercity.com](https://moveculvercity.com)

FOOTNOTES

1. Active Transportation

Active transportation most commonly refers to walking and cycling, but other modes include skateboarding, and scooters. Research has repeatedly shown the health benefits attached to active transportation, but other benefits include the potential for active travel to reduce car use, which would reduce congestion, air and noise pollution, as well as energy use and greenhouse gas emissions.

2. MOVE Culver City Design Guidelines

With guidance from the Mobility Subcommittee, Community Project Advisory Committee (CPAC), and the Transportation Department and the Public Works Department, a set of design guidelines were developed to ensure that goals and key considerations were being met. The guidelines incorporated comments received through the public engagement process and were approved by the City Council in February 2021.

3. Quick-Build Approach

This project utilizes a quick-build process that allows for temporary treatments and provides agility to update the design in real time. Instead of a traditional design project, we can test the improvements and monitor travel patterns to assess the impacts and update the design as needed.

4. Micromobility

Pedal-powered and electric bicycles and electric scooters, skateboards and skates are part of an evolving class of vehicles referred to as micromobility. They're typically low-speed, lightweight and partially or fully motorized and may be personally owned or part of a shared fleet. The micromobility trips reported only include data from the City's permitted shared micromobility operators.

APPENDIX:  
Project Monitoring and Analysis Methodology

Introduction

Project monitoring is a primary component of the MOVE Culver City project. The project team tracks the impacts of different modes of travel utilizing industry standards for the mobility lanes installed on the Downtown Corridor. The impacts are analyzed in several ways: (1) in monthly increments and published as Monthly Reports on the moveculvercity.com website, (2) through the Mid-Pilot Report that tracks trends over a seven-month period, and (3) the Year-End report that tracks trends over a 12-month period. The project reporting focuses on measuring the changes for pedestrian, bicycle, micromobility, and transit use and operations, while also understanding impacts on vehicle travel times and volumes on and adjacent to the corridor.

The analysis methodology was developed by the Consultant team in collaboration with the City Project Team and CPAC (Community Project Advisory Committee) during the project planning phase in 2021. Each transportation mode that uses the corridor (transit, bicycle, pedestrian, micromobility, and vehicles) has a unique data source, data collection approach, and analysis methodology. The data collection process was independently validated by outside experts who verified that the collected data are appropriate, the methodology used is sound and reflects industry standards, and that the reported results are reproducible. To provide details of these unique features, the following appendices have been prepared:

- (A) Methodology Approach, Data Storage, and Quality Control
- (B) Data Sources
- (C) Monthly Report Calculations Methodology
- (D) Mid-Pilot Report Calculations Methodology

(A) Methodology Approach, Data Storage, and Quality Control

The methodology for each transportation mode varies based on industry standards and national best practices. The primary sources for data collection and analysis methodology are Caltrans' Guide for the Preparation of Traffic Impact Studies, Culver City's Transportation Assessment Guidelines, LADOT's Transportation Assessment Guidelines, the California Environmental Quality Act (CEQA), Institute of Traffic Engineers (ITE) Trip Generation Manual, Highway Capacity Manual (HCM), and National Association of City Transportation Officials (NACTO).

Each report utilizes available and relevant historical data and compares it to current conditions for each transportation mode, as listed below. Due to changes the COVID-19 pandemic has on travel patterns, each report looks at two historical data sources when available: data collected before March 2020 is considered Pre-Pandemic conditions; data collected during 2021 is considered Pre-Implementation conditions. Post-Implementation conditions looks at all data collected starting January 16, 2022, when the corridor re-opened after design changes were made after the project launched in November 2021. Data sources for each mode are listed in the following section.

Before each report is published, the data is collected, scrubbed for inconsistencies, and stored in a database. Data for each mode is reviewed for any missing information or outliers that are uncharacteristic. Missing days of data are excluded from daily averages and peak hour calculations. Any outliers are investigated to determine if an event occurred during that time or if there was any equipment or software malfunction. Uncharacteristic data that does not have an explanation is excluded from daily averages and peak hour calculations. Once the data is prepared, all analysis calculations are in performed in Excel and Tableau.

(B) Data Sources

Summary Table of Data Sources

	Pre-Pandemic	Pre-Implementation	Post-Implementation
Culver CityBus Ridership	Culver CityBus (APCs)	Culver CityBus (APCs)	Culver CityBus (APCs)
Culver CityBus OTP	Culver CityBus (CAD/AVL)	Culver CityBus (CAD/AVL)	Culver CityBus (CAD/AVL)
Bicycle Volumes	Culver City (Manual Counts)	Not Available	Culver City (Manual Counts)
Pedestrian Volumes	Not Available	GridSmart	GridSmart
Micromobility	Populus	Populus	Populus
Vehicle Volumes	Not Available	GridSmart	GridSmart
Vehicle Travel Times	INRIX	Waze	Waze

Culver CityBus Ridership on the Project Corridor:

The traditional fixed route 40-foot buses within the Culver CityBus fleet are equipped with Automatic Passenger Counters (APCs) that track passenger boardings and alighting at each bus stop. The APCs and the reporting method used to process APC data is certified by Federal Transit Administration (FTA). The total monthly stop level ridership on CCB1, CCB5, and CCB7 is generated from RideCheck Plus software, which processes and reports APC data into standard excel spreadsheets.

The consultant team takes the monthly stop level ridership and calculates the daily ridership based on the number of days within the month and multiplies the daily value by seven to get the weekly ridership. The circulator was run with only a portion of vehicles that equipped with APCs; therefore, circulator ridership is recorded manually by operators. The manual records are then transferred by Transportation staff to a master tracking spreadsheet for Consultant’s use.

\*Data Source: City of Culver City (APCs)

Culver CityBus On-Time Performance (OTP):

Culver CityBus fleet utilizes Computer-Aided Dispatch / Automatic Vehicle Location system (CAD/ AVL system) to track real-time bus location and identifies whether buses are running early, late, or on time. CAD/AVL information feeds into CleverReports software where standard reports can be generated to get a summary of the occurrence of buses arriving at timepoints early, late, or on time. Buses arriving between 1 minute before and 5 minutes after their scheduled arrival time are considered to be on time, in keeping with industry standards.

\*Data Source: City of Culver City (CAD/AVL)

Bicycle Volumes:

Bicycle volumes are manually counted from the GRIDSMART video feed. The average bicycle volumes are extrapolated from sample weekday and weekend peak hour bicycle volumes counted at intersections for each reporting month; the peak hour volumes are assumed to be 10% of daily volumes. All bicycles approaching the intersection are considered in this sample count. This is a standard approach in traffic engineering for estimating daily bicycle activity and supported by bike share use in Los Angeles and New York City:

- 1. Metro bike share use in LA in Q2/Q3 2021 showed 11% daily volumes = peak hour volumes
- 2. Citibike share use in NYC consistently shows 10% daily volumes = peak hour volumes

\*Data Source: City of Culver City (Manual Peak Hour Counts from reviewing GRIDSMART Video Recording)

Pedestrian Volumes:

GRIDSMART video camera feeds count bi-directional pedestrian movements within all four crosswalks at the intersection, which are received as daily totals in the pedestrian crosswalk reports generated by GRIDSMART software.

\*Data Source: GRIDSMART

Micromobility:

Micromobility data is provided by the permitted Micromobility operators using data in compliance with the industry standard format, Mobility Data Specification (MDS). The operator MDS data feeds directly to Populus, which is a digital platform that allows cities to manage and monitor micromobility services and digitally communicate policies to operators. The micromobility study area is a ¼-mile radius around the Move Culver City Downtown Corridor but within the Culver City limits. Data on daily trips within the study area and daily trips originating in the study area are retrieved from Populus.

\*Data Source: Populus

Vehicle Volumes:

GRIDSMART video camera feeds installed at intersections along the MOVE Culver City Downtown Corridor collect vehicle volume data including vehicle speeds, turning movement counts, and vehicle length. Motorbikes and cyclists are removed from the vehicle volume calculation by filtering the data for vehicles that are between 9 ft and 45 ft in length Vehicle volumes look specifically at vehicles traveling on the Downtown Corridor: Washington and Culver Boulevards, not the cross-streets.

\*Data Source: GRIDSMART

Vehicle Travel Time:

The Waze Developers application programming interface (API) is used to collect vehicle travel time data in 15-minute intervals and is averaged hourly. The MOVE Culver City Downtown Corridor study area routes were manually created by the project team in the Waze Developers API tool. Study area routes were chosen by the Consultant team in collaboration with the City Project Team. The pre-Pandemic vehicle travel time data was purchased through INRIX to supplement the Waze data.

\*Data Source: INRIX, Waze

(C) Monthly Report Calculations Methodology

Culver CityBus Ridership:

Corridor bus ridership is considered the sum of all passengers who are on the bus when the bus enters the corridor and all passengers who board the bus at stops along the corridor. It is standard practice in transit analysis to compare year-over-year data for the same month when calculating the percent change of bus ridership so that seasonal variation is accounted for.

Transit On-Time Performance (OTP):

The CAD/AVL system provides the number of occurrence of trips arriving at designated timepoints early, late, and on time. Buses arriving between 1 minute before and 5 minutes after their scheduled arrival time are considered to be on time, in keeping with industry standards. The OTP for the project corridor is calculated at the timepoints on or immediately adjacent to the project corridor by dividing the total number of on time arrivals by the total number of arrival events respectively for CCB 1, 5, and 7, and the circulator. Started in April 2022, the Circulator service was modified to maintain a balanced headway and started running without a set schedule. Hence the project stopped reporting circulator OTP since the April 2022 report.

Pedestrian Volumes:

Average pedestrian volumes for all six intersections are calculated by averaging the daily pedestrian volume reports produced by GRIDSMART cameras. The weekday and weekend values for the past month are calculated by dividing the total pedestrian volume for all six intersections by the number of days in the month that data is available, then by the total number of intersections. The October 2021 Pre-Implementation values are an average of four intersections due to Washington/Helms and Washington/National not having cameras at the time.

Bicycle Data:

The average daily bicycle volumes are extrapolated from sampled weekday and weekend peak hour bicycle volumes counted at three intersections for each reporting month. Bicycles at all intersection approaches are counted. The peak hour volumes are assumed to be 10% of daily volume. Average bicycle volume for pre-pandemic is an average of two intersections, excluding Washington/Cattaraugus since data is unavailable.

Micromobility:

Daily trips is the total of all trips that originate or end in the micromobility study area. The micromobility study area is a ¼-mile radius around the MOVE Culver City Downtown Corridor but within the Culver City limits. Wheels was the only permitted operator in Culver City between January 2021 and April 2021. The daily micromobility ridership was low in the beginning of 2021 due to both impacts from the COVID-19 pandemic and the small fleet. Bird expanded their micromobility program to Culver City starting in November 2021.

Vehicle Volumes:

The past month average daily vehicle volume is calculated by dividing the total vehicle volume by the total number of intersections, and then dividing by the number of days in the month. This calculation is done for both weekday and weekend volumes with the data available for each intersection. The September 2021 pre-implementation data is an average of four intersections, excluding Washington/National and Washington/Helms due to the intersections not having cameras at the time. Only the eastbound and westbound volumes are used in the average calculations.

Vehicle Travel Times:

The peak hour travel time calculations are calculated by summing the weekday travel times and dividing by the number of days in each period. The travel time percent changes are calculated by comparing the past month Waze data with Pre-Pandemic and Pre-Implementation INRIX data.

Excluded Data:

Data for each mode is reviewed for any missing information or outliers that are uncharacteristic. Missing days of data are excluded from daily averages and peak hour calculations. Any outliers are investigated to determine if an event occurred during that time or if there was any equipment or software malfunction. Uncharacteristic data that does not have an explanation is excluded from daily averages and peak hour calculations.

Vehicle Volumes:

Post-Implementation data are missing the following dates:

- Washington/Cattaraugus: missing data 6/1-6/30due to camera malfunction.
- Culver/Main: missing data 7/2-7/30 due to camera malfunction.
- Washington/Ince: data pending for 8/1-9/30.

Pedestrians:

Post-Implementation data are missing the following dates:

- Saturday, 10/9/2021 excluded due to Walk n Roll community event.
- Culver/Main missing data 6/19/2022 – 6/28/2022, 7/2/2022 – 7/20/2022.
- Washington/Cattaraugus missing data 6/1/2022-6/30/2022.

(D) Mid-Pilot Report Calculations Methodology

Culver CityBus CCB1/5/7 Ridership (% Change):

This calculation is the average daily CCB1, CCB5, and CCB7 bus ridership percent change from January – July 2021 compared to January – July 2022. Ridership is considered the sum of all passengers who are on the bus when the bus enters the corridor and all passengers who board the bus at stops along the corridor.

\*Data Source: City of Culver City

Culver CityBus Travel Time:

This calculation is the percent change of CityBus travel time from January 2020 compared to January – July 2022 averaged between eastbound and westbound.

\*Data Source: City of Culver City

Bus Lane Violations (% Change):

This calculation is the percent change of bus lane violations between January 2022 – March 2022 compared to April 2022 – June 2022. Bus violations data is collected by Culver CityBus Line 1C1 bus operators observing violations along the MOVE Culver City Downtown Corridor.

\*Data Source: City of Culver City

Average Daily Bicycle Volumes (% Change):

This calculation measures the average weekday bicycle volume percent change from October 2021 compared to January – July 2022 at two intersections, Culver Boulevard/Main Street and Washington Boulevard/National Boulevard. The average weekday bicycle volumes are extrapolated from peak hour bicycle volumes; as explained above, peak hour volumes are considered to be 10% of daily volumes.

\*Data Source: City of Culver City(Manual Peak Hour Counts from GRIDSMART Video Recording)

Culver Boulevard & Main Street Average Daily Pedestrian Volumes (% Change):

This calculation is the average daily (weekday and weekend) pedestrian volume at Culver Boulevard/Main Street from October 2021 compared to January – July 2022. The calculation excludes pedestrian volume data from July 2, 2022 – July 20, 2022, due to a camera malfunction. GRIDSMART cameras count bi-directional pedestrian movement within all four crosswalks.

\*Data Source: GRIDSMART

Average Daily Pedestrian Volumes (% Change):

This calculation is the average weekday pedestrian volume percent change from October 2021 compared to January – July 2022. The September 2021 weekday pedestrian volume data is an average of four intersections, excluding Washington Boulevard/Helms Avenue and Washington Boulevard/ National Boulevard. The June 2022 weekday pedestrian data is an average of five intersections, excluding Washington Boulevard/Cattaraugus Avenue due to westbound camera malfunction. The July 2022 weekday pedestrian volume data is an average of five intersections, excluding Culver Boulevard/Main Street due to a camera malfunction. GRIDSMART cameras count bi-direction pedestrian movement within all four crosswalks.

\*Data Source: GRIDSMART

Average Daily Micromobility Activity (% Change):

This calculation is the percent change between January 2022 and July 2022 average daily micromobility trips beginning or ending within the study area. The micromobility study area is a ¼-mile radius around the MOVE Culver City Downtown Corridor but within the Culver City limits. Micromobility service provided by Wheels and Bird.

\*Data Source: Populus

Average Daily Vehicles Volumes (% Change):

This calculation is the average daily vehicle volume percent change from September 2021 compared to January - July 2022. The September 2021 vehicle volume data is an average of eastbound and westbound vehicle traffic at four intersections, excluding Washington Boulevard/ Helms Avenue and Washington Boulevard/National Boulevard. The June 2022 vehicle volume data is an average of eastbound and westbound vehicle traffic at five intersections, excluding Washington Boulevard/Cattaraugus Avenue due to a westbound camera malfunction. The July 2022 vehicle volume data is an average eastbound and westbound vehicle traffic at five intersections, excluding Culver Boulevard/Main Street due to a camera malfunction.

\*Data Source: GRIDSMART

Average Daily Vehicle Travel Time (Minutes):

This calculation is the 24-hour profile of average weekday vehicle travel time from September 2019 compared to January - July 2022.

\*Data Source: INRIX, Waze

Bus Lane Violations (average violations/day):

This calculation measures the average bus lane violations per day for January – July 2022. Bus violations data is collected by Culver CityBus Line 1C1 (downtown circulator) bus operators observing violations along the MOVE Culver City Downtown Corridor while running the circulator service.

\*Data Source: City of Culver City

Emergency Response Times (Seconds):

This calculation measures the difference between the average 90th percentile travel times in January – July 2019 compared to January – July 2022 for emergency vehicles dispatched from Culver City Fire Department Station 1. Station 1 is located on the MOVE Culver City Downtown Corridor and the data does not discern the routes taken by the emergency response team.

\*Data Source: Culver City Fire Department