



MEMORANDUM

DATE: February 9, 2024

To: Michael Plotnik, Traffic Manager, City of La Habra

FROM: Dean Arizabal, Principal, LSA

SUBJECT: Trip Generation, Vehicle Miles Traveled, Drive-Through Queuing, and Traffic Management Analysis for the 541 East Whittier Boulevard Starbucks Project

LSA has prepared this trip generation, vehicle miles traveled (VMT), drive-through queuing, and traffic management analysis for the proposed 541 East Whittier Boulevard Starbucks coffee shop (project) in La Habra, California. The proposed project includes a 1,200-square-foot (sf) Starbucks coffee shop with drive-through and no indoor seating.

The proposed project site is at the northwest corner of the Chestnut Street/East Whittier Boulevard intersection. Access to the proposed project is provided via one full-access driveway on Chestnut Street and one right-in/right-out only driveway on East Whittier Boulevard. The proposed drive-through lane for the Starbucks coffee shop can accommodate 17 vehicles. The conceptual project site plan is attached.

The purpose of this analysis is to identify the proposed project trip generation, determine whether the proposed project requires a VMT analysis per the *Guidelines for Evaluating Vehicle Miles Traveled for the County of Orange* (September 17, 2020) and the North Orange County Collaborative (NOCC), determine the potential project drive-through queues, and provide traffic management measures (as needed) for the proposed project. This analysis was prepared consistent with the scoping agreement approved by the City of La Habra (City) Traffic Manager on December 5, 2023.

TRIP GENERATION

The daily and peak-hour trips of the proposed project were calculated using trip rates from the Institute of Transportation Engineers' (ITE) *Trip Generation Manual*, 11th Edition (2021) for "Coffee/Donut Shop with Drive-Through Window and No Indoor Seating" (Land Use 938).

The trip generation was then reduced based on review of pass-by trip percentages from the ITE *Trip Generation Manual* and as directed by the City Traffic Manager. Pass-by trips are made by drivers already on adjacent/nearby roadways (e.g., stopped by the coffee shop on the way to work or home) and therefore are not additive trips to the circulation system.

Table A presents the ITE trip generation summary for the proposed project. As shown in Table A, the proposed project would generate 215 daily trips, including 48 trips (24 inbound and 24 outbound) in the a.m. peak hour and 18 trips (9 inbound and 9 outbound) in the p.m. peak hour.

Table A: Project Trip Generation

Land Use	Size	Unit	Daily	AM Peak Hour			PM Peak Hour		
				In	Out	Total	In	Out	Total
Trip Rates¹									
Coffee Shop		tsf	179.00	19.91	19.90	39.81	7.54	7.54	15.08
Project Trip Generation									
Coffee Shop	1.200	tsf	215	24	24	48	9	9	18
Pass-By Reductions ²			(108)	(12)	(12)	(24)	(5)	(4)	(9)
Total			107	12	12	24	4	5	9

Source: Compiled by LSA (2023).

¹ Trip rates from the Institute of Transportation Engineers (ITE) *Trip Generation Manual*, 11th Edition (2021).
Land Use 938 (Coffee/Donut Shop with Drive-Through Window and No Indoor Seating)

² 50% Daily, AM, and PM pass-by reductions have been applied as directed by the City of La Habra Traffic Manager.
tsf = thousand square feet

After applying 50 percent pass-by trip reductions (similar to other coffee shop and fast-food with drive-through uses), the net trip generation of the proposed project is 107 daily trips, including 24 trips (12 inbound and 12 outbound) in the a.m. peak hour and 9 trips (4 inbound and 5 outbound) in the p.m. peak hour.

VEHICLE MILES TRAVELED

According to the *Guidelines for Evaluating Vehicle Miles Traveled for the County of Orange*, neighborhood retail projects (e.g., local-serving retail uses less than 50,000 sf) are screened out from a VMT analysis and are presumed to have a less-than-significant transportation impact. In addition, the City, along with six other north Orange County cities (Brea, Buena Park, Fullerton, Orange, Placentia, and Yorba Linda), formed the NOCC to review and develop VMT methodologies, thresholds of significance, mitigation measures, and screening criteria. Based on the NOCC recommendations, local-serving retail uses less than 50,000 sf are screened out from a VMT analysis and are presumed to have a less-than-significant transportation impact. The proposed project includes 1,200 sf of local-serving retail use (Starbucks coffee shop with drive-through). As such, the proposed project meets the City’s and NOCC’s VMT screening criteria.

The nearest Starbucks coffee shops with drive-through facilities to the Chestnut Street/East Whittier Boulevard intersection are at the northeast corner of the Harbor Boulevard/East La Habra Boulevard intersection (approximately 1 mile away at 1201 East La Habra Boulevard) and the northeast corner of the Beach Boulevard/West Whittier Boulevard intersection (approximately 1.5 miles away at 1801 West Whittier Boulevard). It is anticipated that Starbucks customers in the project vicinity would utilize the proposed project as opposed to these existing facilities located further away. As such, the proposed project would help reduce regional VMT. Therefore, based on its land use types, size, and location, the proposed project is presumed to have a less-than-significant impact on transportation.

DRIVE-THROUGH QUEUING

To determine the potential drive-through queues of the proposed project, queuing surveys were conducted by an independent data collection firm (Counts Unlimited) at three similar existing Starbucks coffee shops for two days.

The Starbucks survey locations are as follows:

- Laguna Woods (24281 Moulton Parkway) – 783 sf building with 9-vehicle drive-through capacity and 15-space parking supply
- Garden Grove (11162 Garden Grove Boulevard) – 1,200 sf building with 11-vehicle drive-through capacity and 10-space parking supply
- La Palma (5014 Orangethorpe Avenue) – 850 sf building with 9-vehicle drive-through capacity and 11-space parking supply

The drive-through queues were observed for the following days and times:

- Thursday (December 7, 2023): 6:00 a.m. to 9:00 a.m. (in 5-minute intervals, 11:00 a.m. to 1:00 p.m. (in 15-minute intervals), and 3:00 to 6:00 p.m. (in 5-minute intervals)
- Saturday (December 9, 2023): 8:00 a.m. to 1:00 p.m. (in 5-minute intervals)

The Counts Unlimited queuing surveys are attached. These surveys include the pickup window to order board, order board back, and total queues.

Based on the two days of survey data, the maximum observed queues of the three Starbucks coffee shop locations are as follows:

- Laguna Woods – Thursday: 8 vehicles (7:40 a.m. to 7:45 a.m.)
- Laguna Woods – Saturday: 13 vehicles (8:30 a.m. to 8:35 a.m.)
- Garden Grove – Thursday: 9 vehicles (8:10 a.m. to 8:15 a.m. and 3:10 p.m. to 3:15 p.m.)
- Garden Grove – Saturday: 9 vehicles (9:35 a.m. to 9:45 a.m., 9:55 a.m. to 10:00 a.m., 10:40 a.m. to 10:45 a.m., 10:50 a.m. to 10:55 a.m., 11:00 a.m. to 11:05 a.m., 11:15 a.m. to 11:20 a.m., 11:40 a.m. to 11:45 a.m., 11:50 a.m. to 11:55 a.m., 12:10 p.m. to 12:15 p.m., and 12:20 p.m. to 12:25 p.m.)
- La Palma – Thursday: 10 vehicles (8:25 a.m. to 8:30 a.m., 4:45 p.m. to 4:50 p.m., and 5:20 p.m. to 5:25 p.m.)
- La Palma – Saturday: 10 vehicles (10:00 a.m. to 10:05 a.m., and 10:45 a.m. to 10:50 a.m.)

Based on this drive-through queuing information, the queues of the proposed project could range from 8 to 13 vehicles during peak times of the day.

As shown on the site plan, the proposed project can store 17 vehicles. Therefore, adequate drive-through storage is provided for the proposed project.

TRAFFIC MANAGEMENT

Starbucks would position staff at the Chestnut Street driveway during peak periods to regularly monitor and manage the drive-through queues. In the unlikely event that drive-through queues approach or exceed 17 vehicles, staff could temporarily close the Chestnut Street driveway (via traffic cones), direct customers to enter via the E. Whittier Boulevard driveway, and utilize the internal drive aisle south of the drive-through entry as an additional drive-through storage area.

This internal drive aisle can accommodate 6 additional vehicles for a total drive-through storage capacity of 23 vehicles. A graphic of the Starbucks drive-through plan (depicting the internal drive aisle and potential additional drive-through storage area) is attached.

Based on the project configuration and the additional drive-through storage capacity, the project queues are unlikely to extend into the internal drive aisle serving the site or the public streets (East Whittier Boulevard and Chestnut Street). As such, the drive-through lane and operations of the proposed project are not anticipated to affect the ability of patrons and employees to access, circulate, and park within the project site.

CONCLUSIONS

LSA analyzed the trip generation of the proposed project. The proposed project is anticipated to generate 107 daily trips, including 24 a.m. peak-hour trips and 9 p.m. peak-hour trips.

Because the proposed project does not exceed 50,000 sf of local-serving retail uses, it is screened out from a VMT analysis and is presumed to have a less-than-significant transportation impact. In addition, customers are anticipated to frequent the proposed project rather than drive to existing similar facilities located further away, resulting in reduced regional VMT.

LSA reviewed queuing surveys of the drive-through operations of existing Starbucks coffee shops in Laguna Woods, Garden Grove, and La Palma for two days that reflected maximum queues of 8 to 13 vehicles. The proposed project would provide a drive-through capacity of 17 vehicles. As such, adequate drive-through storage is provided for the proposed project.

Although the 17-vehicle storage capacity is sufficient for the anticipated drive-through queues, Starbucks staff would actively monitor and manage the drive-through queues during peak periods. If necessary, staff could temporarily close the Chestnut Street driveway (via traffic cones), direct customers to enter via the E. Whittier Boulevard driveway, and utilize the internal drive aisle for additional drive-through storage (6 additional vehicles within this drive aisle) for a total drive-through capacity of 23 vehicles.

As such, the proposed project is unlikely to cause any disruption to the access, internal circulation, or parking on site. Therefore, drive-through queues of the proposed project are not anticipated to extend into the public streets (East Whittier Boulevard and Chestnut Street).

If you have any questions, please contact me at (949) 553-0666.

Attachments: Project Site Plan
Counts Unlimited Queuing Surveys
Starbucks Drive-Through Plan

DRIVE THRU SURVEY

LOCATION: Starbucks, 24281 Moulton Pkw
 CITY: Laguna Woods

DAY: Thursday
 DATE: 12/7/2023

TIME	PickUp Window To Order Board	Order Board Back	TOTAL
6:00	0	1	1
6:05	0	0	0
6:10	1	1	2
6:15	0	0	0
6:20	1	0	1
6:25	1	0	1
6:30	1	0	1
6:35	0	0	0
6:40	1	0	1
6:45	4	3	7
6:50	2	0	2
6:55	1	0	1
7:00	3	1	4
7:05	3	1	4
7:10	2	1	3
7:15	0	3	3
7:20	0	0	0
7:25	2	1	3
7:30	3	0	3
7:35	3	0	3
7:40	5	3	8
7:45	3	0	3
7:50	1	0	1
7:55	4	2	6
8:00	1	0	1
8:05	3	0	3
8:10	2	1	3
8:15	3	3	6
8:20	3	3	6
8:25	0	0	0
8:30	2	2	4
8:35	2	5	7
8:40	3	0	3
8:45	3	0	3
8:50	2	0	2
8:55	2	0	2
9:00	3	0	3

Statistic	Queue: PickUp Window To Order Board	Queue: Order Board Back	Total Queue
Max Queue	5	5	8

DRIVE THRU SURVEY

LOCATION: Starbucks, 24281 Moulton Pkwy
CITY: Laguna Woods

DAY: Thursday
DATE: 12/7/2023

TIME	PickUp Window To Order Board	Order Board to DT Entrance	TOTAL
11:00	3	0	3
11:15	1	2	3
11:30	0	0	0
11:45	3	0	3
12:00	2	0	2
12:15	1	1	2
12:30	1	1	2
12:45	2	2	4
13:00	4	0	4
13:15	4	3	7
13:30	3	4	7

Statistic	Queue: PickUp Window To Order Board	Queue: Order Board Back	Total Queue
Max Queue	4	4	7

DRIVE THRU SURVEY

LOCATION: Starbucks, 24281 Moulton Pkw
 CITY: Laguna Woods

DAY: Thursday
 DATE: 12/7/2023

TIME	PickUp Window To Order Board	Order Board to DT Entrance	TOTAL
15:00	5	1	6
15:05	3	1	4
15:10	1	0	1
15:15	3	1	4
15:20	3	2	5
15:25	4	2	6
15:30	2	1	3
15:35	0	1	1
15:40	0	0	0
15:45	1	0	1
15:50	0	4	4
15:55	4	2	6
16:00	3	1	4
16:05	2	0	2
16:10	3	0	3
16:15	4	0	4
16:20	1	0	1
16:25	2	0	2
16:30	0	0	0
16:35	2	0	2
16:40	2	0	2
16:45	1	1	2
16:50	2	2	4
16:55	2	4	6
17:00	4	2	6
17:05	4	1	5
17:10	3	0	3
17:15	2	0	2
17:20	1	0	1
17:25	1	2	3
17:30	3	1	4
17:35	1	0	1
17:40	0	0	0
17:45	0	0	0
17:50	1	0	1
17:55	1	1	2
18:00	0	0	0

Statistic	Queue: PickUp Window To Order Board	Queue: Order Board Back	Total Queue
Max Queue	5	4	6

DRIVE THRU SURVEY

LOCATION: Starbucks, 24281 Moulton Pkwy
 CITY: Laguna Woods

DAY: Saturday
 DATE: 12/9/2023

TIME	PickUp Window To Order Board	Order Board to DT Entrance	TOTAL
8:30	4	9	13
8:35	5	5	10
8:40	4	7	11
8:45	4	6	10
8:50	3	4	7
8:55	4	1	5
9:00	4	7	11
9:05	5	7	12
9:10	3	2	5
9:15	3	3	6
9:20	4	3	7
9:25	5	3	8
9:30	3	2	5
9:35	3	5	8
9:40	2	2	4
9:45	1	3	4
9:50	4	3	7
9:55	4	4	8
10:00	3	4	7
10:05	2	3	5
10:10	2	2	4
10:15	2	4	6
10:20	3	3	6
10:25	1	1	2
10:30	1	3	4
10:35	4	4	8
10:40	4	3	7
10:45	3	3	6
10:50	3	4	7
10:55	4	5	9
11:00	4	3	7
11:05	4	0	4
11:10	2	0	2
11:15	1	3	4
11:20	4	3	7
11:25	3	1	4
11:30	2	3	5
11:35	3	3	6
11:40	4	4	8
11:45	4	0	4
11:50	2	0	2
11:55	1	0	1
12:00	2	0	2
12:05	2	0	2
12:10	3	1	4
12:15	4	1	5
12:20	2	1	3
12:25	1	1	2
12:30	4	1	5
12:35	4	2	6
12:40	4	1	5
12:45	4	4	8
12:50	4	3	7
12:55	3	1	4
13:00	3	0	3

Statistic	Queue: PickUp Window To Order Board	Queue: Order Board Back	Total Queue
Max Queue	5	9	13

DRIVE THRU SURVEY

LOCATION: Starbucks, 11162 Garden Grove
 CITY: Garden Grove

Day: Thursday
 Date: 12/7/2023

TIME	PickUp Window To Order Board	Order Board to DT Entrance	TOTAL
6:00	1	1	2
6:05	1	2	3
6:10	3	0	3
6:15	2	0	2
6:20	1	1	2
6:25	0	1	1
6:30	1	1	2
6:35	2	0	2
6:40	3	0	3
6:45	2	0	2
6:50	0	1	1
6:55	2	2	4
7:00	2	5	7
7:05	2	4	6
7:10	4	4	8
7:15	3	3	6
7:20	2	3	5
7:25	2	0	2
7:30	3	3	6
7:35	3	2	5
7:40	4	3	7
7:45	1	4	5
7:50	4	4	8
7:55	4	4	8
8:00	2	4	6
8:05	3	4	7
8:10	5	4	9
8:15	3	4	7
8:20	3	4	7
8:25	3	4	7
8:30	4	4	8
8:35	3	4	7
8:40	3	4	7
8:45	4	4	8
8:50	2	4	6
8:55	4	4	8
9:00	3	4	7

Statistic	Queue: PickUp Window To Order Board	Queue: Order Board Back	Total Queue
Max Queue	5	5	9

DRIVE THRU SURVEY

LOCATION: Starbucks, 11162 Garden Grove
CITY: Garden Grove

Day: Thursday
Date: 12/7/2023

TIME	PickUp Window To Order Board	Order Board to DT Entrance	TOTAL
11:00	3	1	4
11:15	0	0	0
11:30	4	2	6
11:45	2	0	2
12:00	1	0	1
12:15	4	2	6
12:30	2	1	3
12:45	4	1	5
13:00	4	2	6
13:15	2	4	6
13:30	3	3	6

Statistic	Queue: PickUp Window To Order Board	Queue: Order Board Back	Total Queue
Max Queue	4	4	6

DRIVE THRU SURVEY

LOCATION: Starbucks, 11162 Garden Grove
 CITY: Garden Grove

Day: Thursday
 Date: 12/7/2023

TIME	PickUp Window To Order Board	Order Board to DT Entrance	TOTAL
15:00	3	5	8
15:05	4	3	7
15:10	4	5	9
15:15	4	2	6
15:20	1	3	4
15:25	3	4	7
15:30	4	3	7
15:35	4	3	7
15:40	4	2	6
15:45	3	3	6
15:50	1	3	4
15:55	2	3	5
16:00	4	1	5
16:05	2	1	3
16:10	1	0	1
16:15	0	1	1
16:20	2	0	2
16:25	3	3	6
16:30	3	4	7
16:35	4	4	8
16:40	4	4	8
16:45	4	3	7
16:50	4	4	8
16:55	4	4	8
17:00	3	4	7
17:05	4	4	8
17:10	4	3	7
17:15	3	2	5
17:20	3	4	7
17:25	2	4	6
17:30	3	3	6
17:35	1	4	5
17:40	4	4	8
17:45	3	4	7
17:50	2	4	6
17:55	5	2	7
18:00	1	1	2

Statistic	Queue: PickUp Window To Order Board	Queue: Order Board Back	Total Queue
Max Queue	5	5	9

DRIVE THRU SURVEY

LOCATION: Starbucks, 11162 Garden Grove
 CITY: Garden Grove

Day: Saturday
 Date: 12/9/2023

TIME	PickUp Window To Order Board	Order Board to DT Entrance	TOTAL
8:30	4	4	8
8:35	3	4	7
8:40	4	4	8
8:45	2	5	7
8:50	4	4	8
8:55	4	4	8
9:00	2	4	6
9:05	4	4	8
9:10	3	4	7
9:15	4	3	7
9:20	4	0	4
9:25	3	3	6
9:30	4	4	8
9:35	5	4	9
9:40	5	4	9
9:45	5	3	8
9:50	3	4	7
9:55	5	4	9
10:00	4	4	8
10:05	4	4	8
10:10	4	4	8
10:15	3	4	7
10:20	4	4	8
10:25	3	4	7
10:30	3	4	7
10:35	4	4	8
10:40	5	4	9
10:45	4	4	8
10:50	5	4	9
10:55	4	4	8
11:00	5	4	9
11:05	3	5	8
11:10	4	2	6
11:15	5	4	9
11:20	4	3	7
11:25	3	4	7
11:30	4	3	7
11:35	4	4	8
11:40	5	4	9
11:45	3	3	6
11:50	4	5	9
11:55	4	4	8
12:00	4	4	8
12:05	4	4	8
12:10	4	5	9
12:15	3	4	7
12:20	4	5	9
12:25	4	4	8
12:30	5	2	7
12:35	4	2	6
12:40	5	3	8
12:45	3	0	3
12:50	3	1	4
12:55	3	3	6
13:00	4	2	6

Statistic	Queue: PickUp Window To Order Board	Queue: Order Board Back	Total Queue
Max Queue	5	5	9

DRIVE THRU SURVEY

LOCATION: Starbucks, 5014 Orangethorpe
 CITY: La Palma, CA

DAY: Thursday
 DATE: 12/7/2023

TIME	PickUp Window To Order Board	Order Board to DT Entrance	TOTAL
6:00	0	0	0
6:05	0	3	3
6:10	3	0	3
6:15	1	1	2
6:20	4	2	6
6:25	3	0	3
6:30	2	0	2
6:35	4	0	4
6:40	3	2	5
6:45	5	1	6
6:50	4	1	5
6:55	2	1	3
7:00	3	1	4
7:05	0	2	2
7:10	3	1	4
7:15	2	2	4
7:20	5	2	7
7:25	5	2	7
7:30	5	3	8
7:35	4	4	8
7:40	4	4	8
7:45	5	4	9
7:50	5	4	9
7:55	5	3	8
8:00	3	4	7
8:05	4	4	8
8:10	4	3	7
8:15	5	4	9
8:20	5	4	9
8:25	6	4	10
8:30	5	4	9
8:35	5	4	9
8:40	5	3	8
8:45	4	3	7
8:50	3	4	7
8:55	3	3	6
9:00	5	4	9

Statistic	Queue: PickUp Window To Order Board	Queue: Order Board Back	Total Queue
Max Queue	6	4	10

DRIVE THRU SURVEY

LOCATION: Starbucks, 5014 Orangethorpe
CITY: La Palma, CA

DAY: Thursday
DATE: 12/7/2023

TIME	PickUp Window To Order Board	Order Board to DT Entrance	TOTAL
11:00	2	0	2
11:15	2	2	4
11:30	0	1	1
11:45	0	0	0
12:00	1	1	2
12:15	5	1	6
12:30	1	0	1
12:45	2	2	4
13:00	2	0	2
13:15	3	1	4
13:30	1	1	2

Statistic	Queue: PickUp Window To Order Board	Queue: Order Board Back	Total Queue
Max Queue	5	2	6

DRIVE THRU SURVEY

LOCATION: Starbucks, 5014 Orangethorpe
 CITY: La Palma, CA

DAY: Thursday
 DATE: 12/7/2023

TIME	PickUp Window To Order Board	Order Board to DT Entrance	TOTAL
15:00	5	3	8
15:05	4	3	7
15:10	5	1	6
15:15	2	1	3
15:20	5	1	6
15:25	5	4	9
15:30	5	4	9
15:35	4	3	7
15:40	4	4	8
15:45	3	4	7
15:50	3	4	7
15:55	5	3	8
16:00	4	4	8
16:05	5	3	8
16:10	5	3	8
16:15	5	4	9
16:20	5	2	7
16:25	5	1	6
16:30	5	3	8
16:35	5	3	8
16:40	6	3	9
16:45	5	5	10
16:50	5	4	9
16:55	5	2	7
17:00	5	3	8
17:05	4	4	8
17:10	5	4	9
17:15	4	3	7
17:20	5	5	10
17:25	5	1	6
17:30	5	0	5
17:35	5	2	7
17:40	5	0	5
17:45	3	1	4
17:50	5	2	7
17:55	5	3	8
18:00	4	3	7

Statistic	Queue: PickUp Window To Order Board	Queue: Order Board Back	Total Queue
Max Queue	6	5	10

DRIVE THRU SURVEY

LOCATION: Starbucks, 5014 Orangethorpe
 CITY: La Palma, CA

DAY: Saturday
 DATE: 12/9/2023

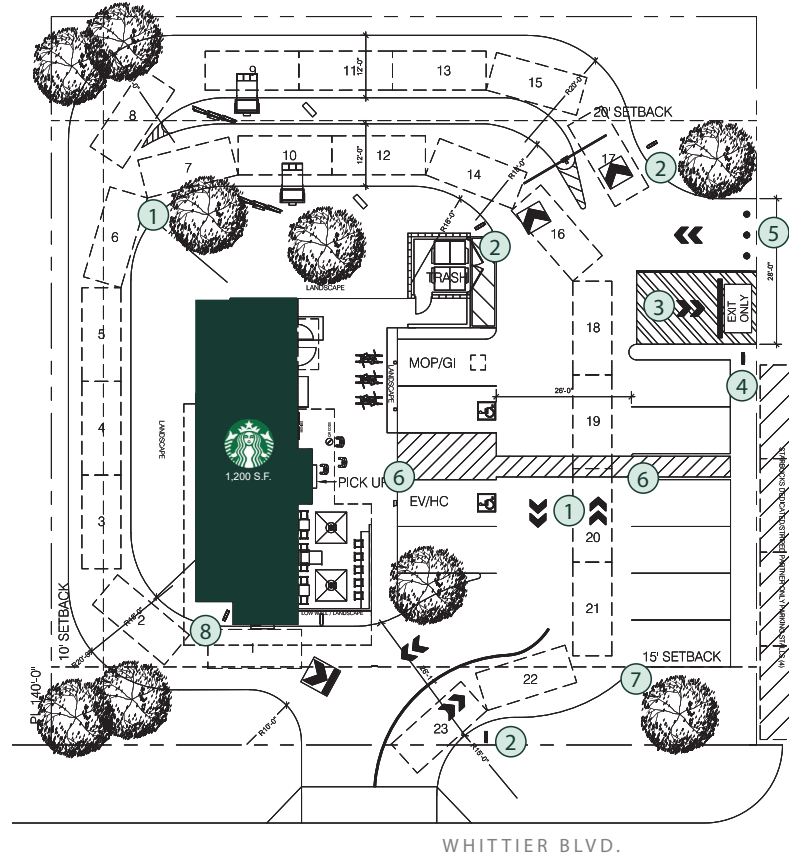
TIME	PickUp Window To Order Board	Order Board to DT Entrance	TOTAL
8:30	5	0	5
8:35	2	1	3
8:40	0	2	2
8:45	3	0	3
8:50	3	1	4
8:55	1	3	4
9:00	3	0	3
9:05	2	1	3
9:10	3	0	3
9:15	3	1	4
9:20	5	3	8
9:25	1	2	3
9:30	0	0	0
9:35	1	2	3
9:40	5	3	8
9:45	4	3	7
9:50	5	4	9
9:55	5	4	9
10:00	6	4	10
10:05	6	3	9
10:10	5	4	9
10:15	5	4	9
10:20	5	4	9
10:25	6	3	9
10:30	2	4	6
10:35	5	4	9
10:40	5	4	9
10:45	5	5	10
10:50	4	3	7
10:55	5	1	6
11:00	5	2	7
11:05	5	4	9
11:10	3	4	7
11:15	5	3	8
11:20	5	3	8
11:25	2	3	5
11:30	4	3	7
11:35	3	4	7
11:40	2	4	6
11:45	2	4	6
11:50	2	2	4
11:55	3	1	4
12:00	2	3	5
12:05	2	3	5
12:10	5	4	9
12:15	3	4	7
12:20	2	4	6
12:25	2	4	6
12:30	3	4	7
12:35	4	2	6
12:40	3	2	5
12:45	4	3	7
12:50	2	3	5
12:55	4	3	7
13:00	4	3	7

Statistic	Queue: PickUp Window To Order Board	Queue: Order Board Back	Total Queue
Max Queue	6	5	10

NOTE: ALL GROUND SIGN ARROWS WILL BE ORIENTED TO MATCH THE FLOW OF TRAFFIC AND ILLUMINATED
 1" = 4 1/2" TYP.

KEY NOTES

- ① INSTALL DIRECTIONAL ARROWS TO BE PAINTED ON PAVEMENT, LEADING FROM WHITTIER BLVD.
- ② INSTALL "DRIVE THRU" DIRECTIONAL GROUND SIGN WITH SIREN LOGO
- ③ INSTALL "EXIT ONLY" AND HATCH PATTERN TO BE PAINTED ON PAVEMENT, TO DISCOURAGE DRIVE-THRU CUSTOMERS ENTERING FROM CHESTNUT AVE.
- ④ INSTALL "EXIT ONLY" DIRECTIONAL GROUND SIGN WITH BLANK BACK
- ⑤ STAFF TO MONITOR QUEUE/UTILIZE CONES DISCOURAGING DT CUSTOMERS ENTERING FROM CHESTNUT AVE.. DURING HIGH PEAK CUSTOMER TRAFFIC
- ⑥ INSTALL "CAUTION VEHICLE CROSSING" SIGN AT CROSSWALK.
- ⑦ INSTALL "PEDESTRIAN CROSSING AHEAD" SIGN.
- ⑧ INSTALL "THANK YOU/EXIT ONLY" DIRECTIONAL GROUND SIGN AT DT EXIT



CHESTNUT AVE. AND WHITTIER BLVD. - DRIVE THRU MANAGEMENT PLAN

01/08/23 Starbucks Operations Approved

