Kimley»Horn

MEMORANDUM

To: Zach Michels
CoreStates Group

From: Ben Huie, P.E.
Kimley-Horn and Associates, Inc.

Date: March 15, 2021

Subject: Oakley McDonald's and Quick Quack Traffic Analysis

A McDonald's fast food restaurant and a Quick Quack car wash facility are proposed to be developed on the northwest corner of Laurel Road and O'Hara Avenue in Oakley, CA. The 3,595 square-foot Quick Quack car wash facility will be located adjacent to the existing 7-11 gas station and convenience store, while the 4,597 square-foot McDonald's will be located to the east of Laurel Road and Mercedes Lane. The proposed land uses will replace previously approved land uses within the parcel. Kimley-Horn compared the trip generation between the previously approved land uses and the proposed land uses to determine if the project is estimated to generate more vehicle trips. A drive-through queuing and on-site circulation analysis was also conducted to evaluate the adequacy of the proposed drive-through lanes for each project. In addition, on-site pedestrian circulation and access to nearby facilities will be evaluated to determine whether the McDonald's project has adequate pedestrian access. The following discusses the methodology, analysis, and results of the trip generation comparison and queuing analysis.

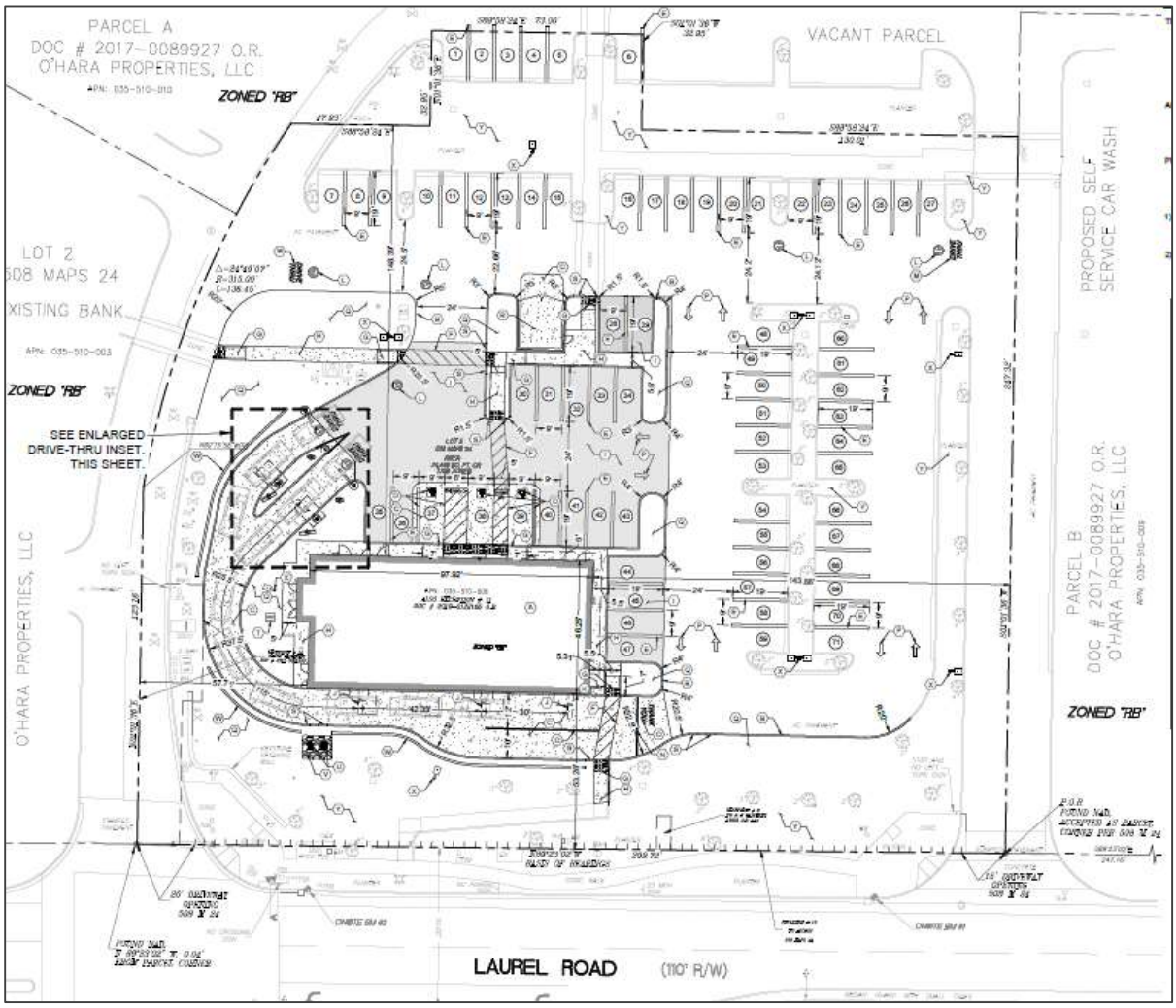
BACKGROUND

A previous traffic study, *Draft Traffic Impact Study for the Laurel/O'Hara Retail Center* dated April 10, 2007, for this retail parcel was prepared by Kimley-Horn and approved by the City. The proposed McDonald's restaurant will replace the 5,343 square-foot fast-food restaurant and 12-fueling position gas station that was planned in the traffic study. A trip generation study was conducted for the existing 7-11 gas station and convenience store, following the 2007 traffic impact study, in the *Trip Generation Study for the Laurel Road and O'Hara Avenue Commercial Project* dated January 9, 2017 which replaced the 17,270 square-foot pharmacy that was previously planned. The Quick Quack carwash will be an additional land use replacing the previously approved pharmacy/drugstore with drive-through window. The land use comparison is shown in **Table 1**. The proposed site plans are shown in **Figure 1** and **Figure 2** for the McDonalds and Quick Quack projects, respectively. The previous study site plan is shown in **Figure 3**.

Table 1: Land Use Comparison

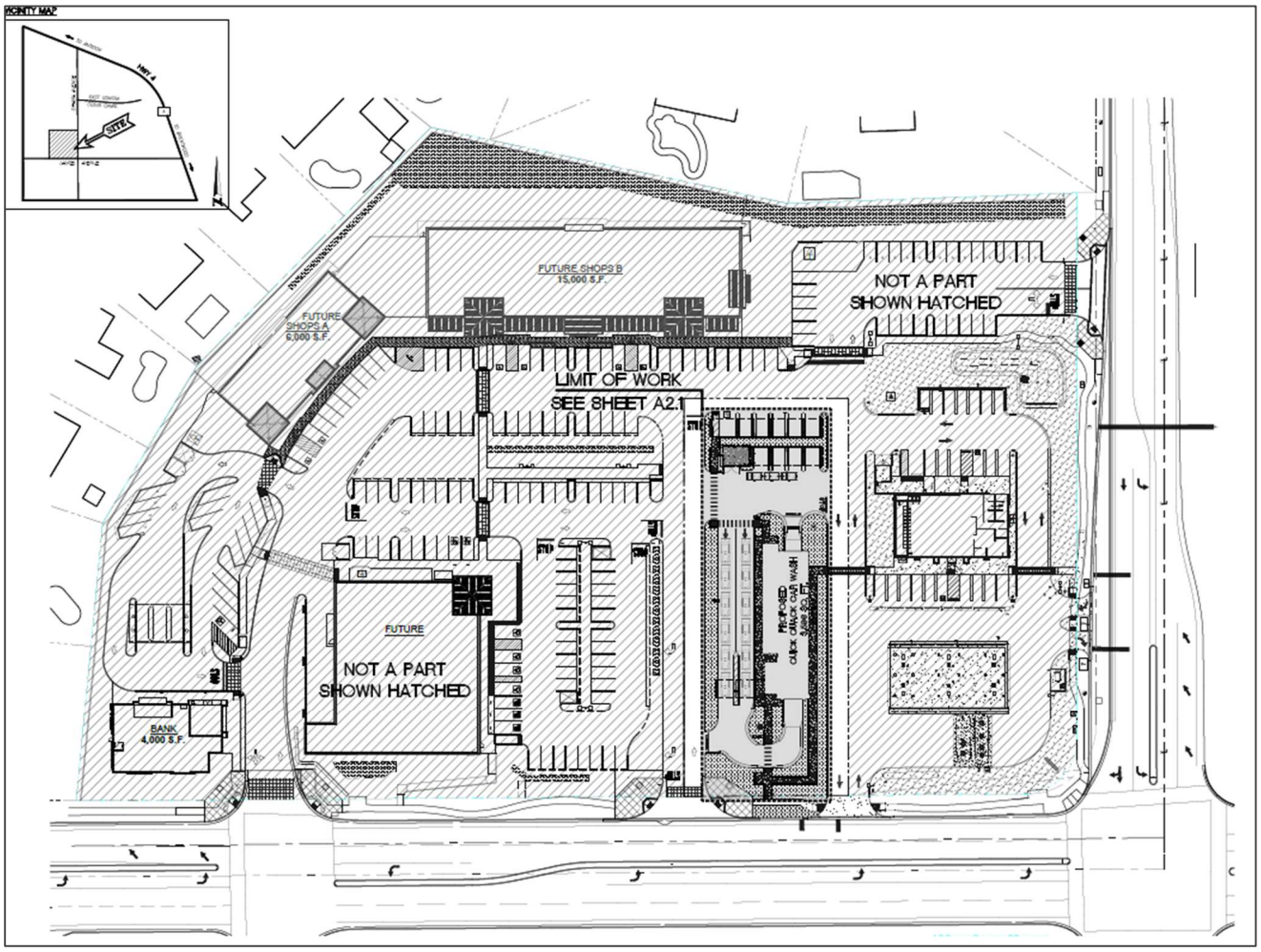
Parcel	April 2007 Draft Traffic Impact Study		January 2017 Trip Generation Study		Proposed Project	
	Land Use	Units	Land Use	Units	Land Use	Units
1	Pharmacy/Drugstore with Drive-Through	17,270 Square Feet	Gas Station with Convenience Market and Carwash	12 Fueling Stations	Gas Station with Convenience Market and Carwash	12 Fueling Stations
					Carwash	1 Car Wash Tunnel
2	Drive-In Bank	4,000 Square Feet	Drive-In Bank	4,000 Square Feet	Drive-In Bank	4,000 Square Feet
3	Gas Station with Convenience Market and Carwash	12 Fueling Positions	Gas Station with Convenience Market and Carwash	12 Fueling Positions	Fast-Food Restaurant with Drive-Through	4,597 Square Feet
4	Fast-Food Restaurant with Drive-Through	5,343 Square Feet	Fast-Food Restaurant with Drive-Through	5,343 Square Feet		
5	Shopping Center	26,000 Square Feet	Shopping Center	26,000 Square Feet	Shopping Center	26,000 Square Feet

Figure 1: Proposed Project Site Plan – McDonalds



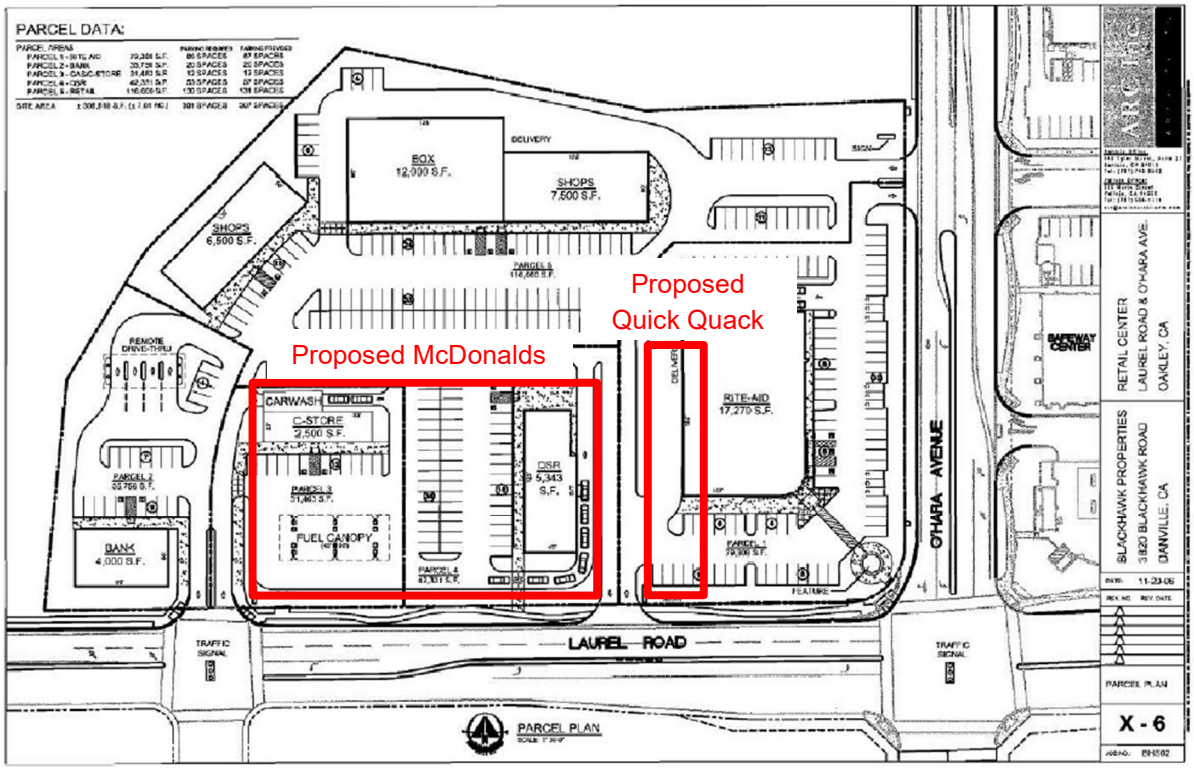
Source: Core States, Inc.

Figure 2: Proposed Project Site Plan – Quick Quack



Source: CRM Architects & Planners, Inc.

Figure 3: Previous Project Site Plan



Source: ARC, Inc.

TRIP GENERATION

PREVIOUS PROJECT

Trip generation is typically estimated by using the Institute of Transportation Engineers (ITE) *Trip Generation Manual*. The previous study used the then-current 7th Edition version of the *Trip Generation Manual*. The most current version is the 10th Edition version of the *Trip Generation Manual*. Therefore, the previous land uses were updated with the latest Trip Generation Manual, 10th Edition trip rates to accurately compare the two.

The same ITE Land Use Codes used to develop the trip generation in the 7th Edition for the previous project were also used to develop the trip generation in the 10th Edition for the proposed project, with the exception of the gas station, which was previously ITE Land Use Code 946 but has been updated to ITE Land Use Code 945 in the 10th Edition. Since the site contains retail uses, pass-by trip reductions were applied as specified in the ITE *Trip Generation Handbook*, *3rd Edition* to account for vehicle trips that are already on the road and will choose to stop as they pass by the site. These are not new vehicle trips but considered to be pass-by trips. In addition, this parcel includes a multi-use development which has potential interaction among the uses within the site. These types of trips are considered internal to the site and are "captured" within the site. The standard engineering reference for determining internal capture reductions for the proposed project is the ITE *Trip Generation Handbook, 3rd Edition*. Using the 7th Edition, the previously approved project was expected to generate a total of 8,110 daily trips, 223 AM peak hour trips, and 301 PM peak hour trips. It should be noted that the previous daily trip generation did not include internal capture and pass-by trips. Therefore, with the addition of internal capture and pass-by percentages, the daily trips results in a decrease from 8,110 daily trips to 3,668 daily trips. Using the 10th Edition, the previously approved project is expected to generate a total of 4,106 daily trips, 250 AM peak hour trips, and 308 PM peak hour trips. As a result of the change in methodology and trip generation rates from the 7th Edition to 10th Edition, the trips for the retail enter increases in daily, AM and PM peak hour trips.

The updated 10th Edition trip generation for the previous study is shown in **Table 2**. The trip generation comparison between the ITE *Trip Generation Manual 7th Edition* and *10th Edition* is shown in **Table 3**. As shown, the 10th Edition results in slightly more peak hour trips than the 7th Edition.

Table 2: Previous Project Trip Generation Update

ITE Code	LAND USE	Size	Project Trip Generation						
			Daily	AM Peak Hour			PM Peak Hour		
				In	Out	Total	In	Out	Total
820	Shopping Center	26.00 KSF	982	15	9	24	48	51	99
	Internal Capture (Daily 11%, AM 11%, PM 12%)		-108	-1	-1	-2	-6	-5	-11
	Pass-by (Daily 17%, AM 0%, PM 34%)		-149	0	0	0	-14	-16	-30
881	Pharmacy/Drugstore w/ Drive-Through Window	17.27 KSF	1,886	35	31	66	89	89	178
	Internal Capture (Daily 11%, AM 11%, PM 12%)		-207	-3	-4	-7	-12	-9	-21
	Pass-by (Daily 25%, AM 0%, PM 49%)		-411	0	0	0	-38	-39	-77
912	Drive-In Bank	4.00 KSF	402	22	16	38	41	41	82
	Internal Capture (Daily 11%, AM 11%, PM 12%)		-44	-2	-2	-4	-5	-4	-9
	Pass-by (Daily 32%, AM 29%, PM 35%)		-115	-6	-4	-10	-13	-13	-26
934	Fast-Food Restaurant w/ D.T.	5.343 KSF	2,518	110	105	215	91	84	175
	Internal Capture (Daily 24%, AM 13%, PM 34%)		-598	-17	-12	-29	-26	-34	-60
	Pass-by (Daily 50%, AM 49%, PM 50%)		-950	-46	-46	-92	-33	-25	-58
945	Gasoline Station w/ Conv. Mkt. & Car Wash	12 Fueling Positions	2,466	77	73	150	86	82	168
	Internal Capture (Daily 11%, AM 11%, PM 12%)		-271	-6	-9	-15	-11	-8	-19
	Pass-by (Daily 59%, AM 62%, PM 56%)		-1,295	-44	-40	-84	-42	-41	-83
Total Project Trips			8,254	259	234	493	355	347	702
Internal Captures			-1,228	-29	-28	-57	-60	-60	-120
Pass-By			-2,920	-96	-90	-186	-140	-134	-274
Net Project Trips			**4,106**	**134**	**116**	**250**	**155**	**153**	**308**

Notes:
1. Trip generation data from ITE Trip Generation Manual, 10th Edition, 2017.
2. Average rates used to develop trip generation for all land use codes.
3. Pass-by rates from ITE Trip Generation Handbook, 3rd Edition, 2017.
4. Daily pass-by rates are not available; therefore, rates were determined from the average of the AM and PM peak hour pass-by rates.

Table 3: Previous Project – Trip Generation Comparison

ITE Trip Generation Manual Edition	Daily	AM Peak Hour			PM Peak Hour		
		In	Out	Total	In	Out	Total
7th Edition	3,668	120	103	223	150	151	301
10th Edition	4,106	134	116	250	155	153	308
Difference	**438**	**14**	**13**	**27**	**5**	**2**	**7**

Note: The previous 2007 traffic impact study, using the ITE Trip Generation Manual 7th Edition, assumes a daily trip of 8,110 trips without internal capture and pass-by reductions. With both internal capture and pass-by reductions, the daily trip results in 3,668 trips.

PROPOSED PROJECT

The number of project trips for the proposed project was also estimated using the Institute of Transportation Engineers (ITE) *Trip Generation, 10th Edition*. For the proposed developments, average rates were used to estimate the number of project trips based on ITE Land Use 934 (Fast-Food Restaurant with Drive-Through) for the McDonalds and ITE Land Use 948 (Automated Car Wash) for the Quick Quack. Pass-by reduction and internal capture were applied to the proposed retail site using

the same methodology as the previous land use assumptions. **Table 4** presents the trip generation for the entire retail site with the proposed project. The proposed retail site is anticipated to generate 3,480 daily trips, 222 AM peak hour trips, and 286 PM peak hour trips. It should be noted that although the shopping center, gasoline station, and drive-in bank uses and sizes do not change from the previous to proposed land use assumptions, the internal capture trips show minor changes as a result of the changes in land use and size for the entire retail center.

Table 4: Proposed Project Trip Generation

ITE Code	LAND USE	Size	Project Trip Generation						
			Daily	AM Peak Hour			PM Peak Hour		
				In	Out	Total	In	Out	Total
820	Shopping Center	26.00 KSF	982	15	9	24	48	51	99
	Internal Capture (Daily 11%, AM 11%, PM 12%)		-110	-1	-1	-2	-6	-6	-12
	Pass-by (Daily 17%, AM 0%, PM 34%)		-148	0	0	0	-14	-15	-29
945	Gasoline Station w/ Conv. Mkt. & Car Wash	12 Fueling Position	2466	77	73	150	86	82	168
	Internal Capture (Daily 11%, AM 11%, PM 12%)		-277	-6	-9	-15	-11	-9	-20
	Pass-by (Daily 59%, AM 62%, PM 56%)		-1,292	-44	-40	-84	-42	-41	-83
912	Drive-In Bank	4.00 KSF	402	22	16	38	41	41	82
	Internal Capture (Daily 11%, AM 11%, PM 12%)		-45	-2	-2	-4	-5	-5	-10
	Pass-by (Daily 32%, AM 29%, PM 35%)		-114	-6	-4	-10	-13	-13	-26
934	Fast-Food Restaurant w/ D.T. (General)	4.60 KSF	2,166	94	91	185	78	72	150
	Internal Capture (Daily 25%, AM 15%, PM 35%)		-531	-16	-11	-27	-23	-29	-52
	Pass-by (Daily 50%, AM 49%, PM 50%)		-809	-38	-39	-77	-28	-22	-50
948	Automated Car Wash	1 Car Wash Tunnel	890	25	24	49	39	39	78
	Internal Capture (Daily 11%, AM 11%, PM 12%)		-100	-2	-3	-5	-5	-4	-9
Total Project Trips			6,906	233	213	446	292	285	577
Internal Captures			-1,063	-27	-26	-53	-50	-53	-103
Pass-By			-2,363	-88	-83	-171	-97	-91	-188
Net Project Trips			**3,480**	**118**	**104**	**222**	**145**	**141**	**286**

Notes:

1. Trip generation data from ITE Trip Generation Manual, 10th Edition, 2017.
2. Average rates used to develop trip generation for all land use codes.
3. Pass-by rates from ITE Trip Generation Handbook, 3rd Edition, 2017.
4. Daily pass-by rates are not available; therefore, rates were determined from the average of the AM and PM peak hour pass-by rates.
5. Daily and AM rates are not available for ITE 948 (Automated Car Wash), therefore a ratio of the Daily to PM rates and AM to PM rates for ITE 949 (Car Wash and Detail Center) were used to calculate the Daily and AM rates for ITE 948, respectively.

TRIP COMPARISON

With the previous project and proposed project trip generations shown in **Tables 2** and **4**, **Table 5** summarizes the comparison between the two versions of the project. The proposed project will result in 626 fewer daily trips, 28 fewer AM peak hour trips, and 22 fewer PM peak hour trips. Since the daily, AM, and PM peak hour trips decreased, the proposed project should not result in any additional impacts than identified in the previous traffic study.

Table 5: Previous and Proposed Project –Trip Generation Comparison

Scenario	Daily	AM Peak Hour			PM Peak Hour		
		In	Out	Total	In	Out	Total
Proposed Project	3,480	118	104	222	145	141	286
Previous Project	4,106	134	116	250	155	153	308
Difference	**-626**	**-16**	**-12**	**-28**	**-10**	**-12**	**-22**

QUEUING ANALYSIS

The following section provides the queuing analysis for each project. The queuing analysis was conducted to determine whether drive-through lanes for each project would provide adequate capacity to accommodate the queues from the proposed uses and whether the queues would block on-site circulation or extend into either the internal driveway aisle or off-site arterial roadways. For the McDonald's site, there are two proposed drive-through lanes that merge into one lane for a total storage length of 245 feet, which can accommodate 12 vehicles assuming a vehicle length of 20 feet. For the Quick Quack site, there are two proposed drive-through lanes that are 120 feet each for a total of 240 feet, which can accommodate 12 vehicles total.

DRIVE-THROUGH SERVICE TIMES

Due to the effects of COVID-19 and its shelter-in-place restrictions, collecting service times at similar McDonald's and Quick Quack drive-through locations was not feasible. Therefore, service times from the *Proposed McDonald's Side-by-Side Drive-Through Modifications* dated January 16, 2018, a previous Kimley-Horn study for a McDonald's located at 10000 Crow Canyon Road in the Town of Danville, was used. Service times at the pick-up window, or the time between one vehicle arrival at the pick-up window to the next vehicle arrival, was collected at this McDonald's location. The average service time observed at the pick-up window during the weekend dinnertime period was approximately 33 seconds per vehicle. For the Quick Quack car wash, the client provided an average service time of 180 seconds per vehicle.

DRIVE-THROUGH DEMAND

To determine the peak hour demand for both projects, trip generation for each land use were determined for the Saturday peak hour of generator as a conservative analysis. Based on data provided by the McDonald's client, approximately 70 percent of orders are taken from the drive-through, while the remaining 30 percent are from inside the store. Therefore, the peak hour demand for the project drive-through is estimated to be 70 percent of the peak hour trip generation for the entire project site. The Saturday peak hour of generator trip generation is shown in **Table 6.** McDonald's is expected to generate 90 inbound Saturday peak hour trips and Quick Quack is expected to generate 19 inbound Saturday peak hour trips. These values were used to evaluate the queuing analysis.

Table 6: Drive-Through Demands

ITE Land Use Code	Land Use	Size	Units	Saturday Peak Hour Generator		
				Total	In	Out
934	Fast-Food Restaurant w/ D.T.	4.6	KSF	252	129	123
McDonald's Project Drive-Through Trips (70%)				177	90	87
McDonald's Project In-Store Trips (30%)				75	39	36
Total McDonalds Drive-Through Trips				**177**	**90**	**87**
948	Automated Car Wash	1.0	Car Wash Tunnels	41	19	22
Total Quick Quack Drive-Through Trips				**41**	**19**	**22**

Notes:
1. Trip generation data from ITE Trip Generation Manual, 10th Edition, 2017.
2. Average rates used to develop trip generation for all land use codes.

QUEUING ANALYSIS

A micro-simulation model within an Excel Spreadsheet was used to determine the drive-through queuing for the project. Based on the service times and the drive-through demands, a queuing analysis was run with 1,000 iterations for the Saturday peak hour of generator, assuming an average vehicle length of 20 feet. Of the 1,000 iterations completed for the McDonald's drive-through, 95% of the iterations have a maximum queue of 13 vehicles or less. The McDonald's drive-through lanes can accommodate approximately 12 vehicles; therefore, the proposed 95th percentile queue is expected to extend out of the McDonald's drive-through lane by one vehicle. However, based on the site plan, the one vehicle exceeding the drive-through lane storage would have a minimal effect on adjacent parking spaces. Of the 1,000 iterations completed for the Quick Quack drive-through, 95% of the iterations have a maximum queue of 10 vehicles or less. The two Quick Quack drive-through lanes of 120 feet each lane can accommodate approximately 12 vehicles total; therefore, the proposed length of Quick Quack drive-through lanes is sufficient to accommodate the 95th percentile queue.

PEDESTRIAN ACCESS

The following provides a description of the pedestrian facilities on-site and off-site to determine the McDonald's adequacy of pedestrian access to nearby land uses. Since the McDonald's project, and not the Quick Quack car wash, is most likely to attract pedestrians from nearby uses, such as Laurel Elementary School located southwest of the intersection of Laurel Road and Mercedes Lane, pedestrian access to the McDonald's site was evaluated. The following provides a description of the pedestrian connectivity to the project site:

- Laurel Road and Mercedes Lane Intersection
  - Yellow marked crosswalks are provided on the north, south, and west legs of the intersection to allow pedestrians on the south side of Laurel Road, such as students from Laurel Elementary School, to access the McDonald's site. Each crosswalk has a pedestrian signal.

  - America Disability Act (ADA) ramps are provided at each end of each crosswalk at the intersection.
  - In discussion with the City, there is a crossing guard on the west leg of the intersection during school days to assist students and parents crossing Laurel Road.
  - An eastbound right turn (EBR) on red is restricted from 7:30 AM to 8:30 AM and from 1:00 PM to 3:00 PM during school days since students are crossing the south leg of the intersection.
- The existing sidewalk on the north side of Laurel Road (east of the intersection of Laurel Road and Mercedes Lane), connects to the pedestrian pathway that provides access to the McDonald's project site from the south. An ADA ramp is proposed at this pedestrian crossing.
- The existing sidewalk on the west side of Mercedes Lanes (north of the intersection of Laurel Road and Mercedes Lane), connects to a proposed ADA ramp and the proposed pedestrian pathway that leads to the McDonald's project entrance from the north.
- Additional proposed ADA ramps are provided throughout the project site.
- The proposed McDonalds drive-through queue is not expected to extend beyond the entrance of the parking lot and conflict with the pedestrian pathway just north of the drive-through entrance.

Based on the City of Oakley Municipal Code, Title 9.1.1402 (I3)[1], "The on-site pedestrian circulation system shall be lighted to enhance pedestrian safety and allow its use at night". Therefore, increased visibility at the pedestrian pathway that crosses the McDonald's drive-through lane is recommended to warn drive-through patrons of pedestrians crossing. It is recommended that sufficient lighting be provided and/or warning signs be provided to increase driver awareness. In addition, it is recommended that the landscaping within the pedestrian pathway, north of the drive-through entrance, allow for pedestrian visibility to oncoming vehicles traveling to and from the intersection of Laurel Road and Mercedes Lane. A summary of the on-site and off-site pedestrian facilities is provided in **Attachment A**.

CONCLUSION

Based on the results of the traffic analysis, the proposed project would not result in any new traffic impacts compared to the previously approved project. The proposed project would generate approximately 626 fewer trips daily, 28 fewer trips in the AM peak hour, and 22 fewer trips in the PM peak hour from the previously approved study. McDonald's is expected to generate a 95th percentile queue of 13 vehicles, with one vehicle extending out of the storage capacity of 12 vehicles. However, this one vehicle is not expected to significantly affect the operations of the adjacent parking spaces nor block the pedestrian crosswalk. Quick Quack is expected to generate a 95th percentile of 10 vehicles, which would also be accommodated by the storage capacity of 12 vehicles. The queuing analysis shows that the proposed project drive-throughs would be sufficient and no changes to the site are recommended. Many existing and proposed pedestrian facilities are provided on-site and off-site to

[1] *Oakley Municipal Code, Title 9 Land Use Regulation*, City of Oakley, November 2020.

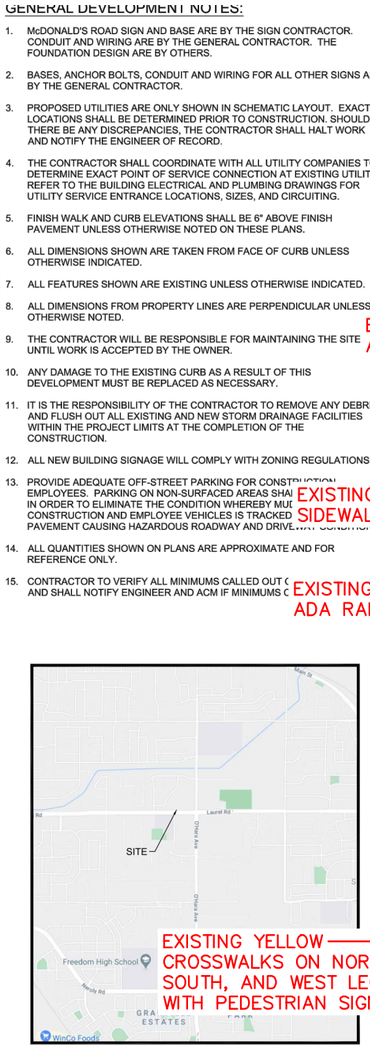
assist with pedestrian access and connectivity to the McDonald's project site. Existing pedestrian facilities include crosswalks, sidewalks, ADA ramps, and crossing guards for the Laurel Elementary School. Proposed pedestrian facilities include pedestrian pathways and ADA ramps that connect to the McDonald's project entrance. It is recommended that increased visibility to the pedestrian walkway is provided to warn drive-through patrons of pedestrians potentially crossing as vehicles exit the drive-through. Examples of improvements include providing luminaires or warning signs.

Attachments:

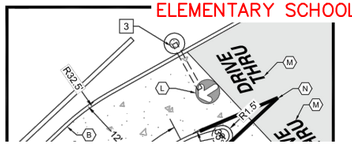
Attachment A – Pedestrian Facilities and Project Access

GENERAL DEVELOPMENT NOTES:

1. McDONALD'S ROAD SIGN AND BASE ARE BY THE SIGN CONTRACTOR. CONDUIT AND WIRING ARE BY THE GENERAL CONTRACTOR. THE FOUNDATION DESIGN ARE BY OTHERS.
2. BASES, ANCHOR BOLTS, CONDUIT AND WIRING FOR ALL OTHER SIGNS ARE BY THE GENERAL CONTRACTOR.
3. PROPOSED UTILITIES ARE ONLY SHOWN IN SCHEMATIC LAYOUT. EXACT LOCATIONS SHALL BE DETERMINED PRIOR TO CONSTRUCTION. SHOULD THERE BE ANY DISCREPANCIES, THE CONTRACTOR SHALL HALT WORK AND NOTIFY THE ENGINEER OF RECORD.
4. THE CONTRACTOR SHALL COORDINATE WITH ALL UTILITY COMPANIES TO DETERMINE EXACT POINT OF SERVICE CONNECTION AT EXISTING UTILITY. REFER TO THE BUILDING ELECTRICAL AND PLUMBING DRAWINGS FOR UTILITY SERVICE ENTRANCE LOCATIONS, SIZES, AND CIRCUITING.
5. FINISH WALK AND CURB ELEVATIONS SHALL BE 6" ABOVE FINISH PAVEMENT UNLESS OTHERWISE NOTED ON THESE PLANS.
6. ALL DIMENSIONS SHOWN ARE TAKEN FROM FACE OF CURB UNLESS OTHERWISE INDICATED.
7. ALL FEATURES SHOWN ARE EXISTING UNLESS OTHERWISE INDICATED.
8. ALL DIMENSIONS FROM PROPERTY LINES ARE PERPENDICULAR UNLESS OTHERWISE NOTED.
9. THE CONTRACTOR WILL BE RESPONSIBLE FOR MAINTAINING THE SITE UNTIL WORK IS ACCEPTED BY THE OWNER.
10. ANY DAMAGE TO THE EXISTING CURB AS A RESULT OF THIS DEVELOPMENT MUST BE REPLACED AS NECESSARY.
11. IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO REMOVE ANY DEBRIS AND FLUSH OUT ALL EXISTING AND NEW STORM DRAINAGE FACILITIES WITHIN THE PROJECT LIMITS AT THE COMPLETION OF THE CONSTRUCTION.
12. ALL NEW BUILDING SIGNAGE WILL COMPLY WITH ZONING REGULATIONS.
13. PROVIDE ADEQUATE OFF-STREET PARKING FOR CONSTRUCTION EMPLOYEES. PARKING ON NON-SURFACED AREAS SHALL BE WATERED IN ORDER TO ELIMINATE THE CONDITION WHEREBY MUD IS TRACKED ONTO PAVEMENT CAUSING HAZARDOUS ROADWAY AND DRIVEWAY CONDITIONS.
14. ALL QUANTITIES SHOWN ON PLANS ARE APPROXIMATE AND FOR REFERENCE ONLY.
15. CONTRACTOR TO VERIFY ALL MINIMUMS CALLED OUT ON PLANS AND SHALL NOTIFY ENGINEER AND ACM IF MINIMUMS CANNOT BE MET.



VICINITY MAP
SCALE: 1"=10'



PARCEL A
DOC # 2017-0089927 O.R.
O'HARA PROPERTIES, LLC
APN: 035-510-010
ZONED "RB"

LOT 2
LOT 5 24
EXISTING BANK
APN: 035-510-003
ZONED "RB"

VACANT PARCEL

PROPOSED SELF SERVICE CAR WASH

PARCEL B
DOC # 2017-0089927 O.R.
O'HARA PROPERTIES, LLC
APN: 035-510-009
ZONED "RB"

APN: 035-510-006
ALSO EXCEPTION # 11
DOC # 2019-0122166 O.R.

LAUREL ROAD (110' R/W)

PROPOSED LANDSCAPING SHOULD ALLOW FOR PEDESTRIAN VISIBILITY.

PROPOSED 95TH PERCENTILE QUEUE NOT EXPECTED TO EXTEND OUT OF PARKING LOT AND CONFLICT WITH PEDESTRIAN PATHWAY.

EXISTING ADA RAMP

PROPOSED PEDESTRIAN CROSSWALKS TO THE MCDONALD'S PROJECT ENTRANCE.

PROPOSED ADA RAMPS

EXISTING SIDEWALK

SEE ENLARGED DRIVE-THRU INSET. THIS SHEET.

PROPOSED ADA RAMPS

EXISTING ADA RAMPS

PROPOSED ADA RAMPS

RECOMMEND TO INCREASE PEDESTRIAN VISIBILITY SUCH AS PROVIDING SUFFICIENT LIGHTING AND WARNING SIGNS.

EXISTING ADA RAMPS AT THE END OF EACH CROSSWALK.

EXISTING YELLOW CROSSWALKS ON NORTH, SOUTH, AND WEST LEG WITH PEDESTRIAN SIGNALS.

PEDESTRIAN CROSSING TO CONNECT MCDONALD'S ENTRANCE TO THE SIDEWALK ON LAUREL ROAD.

EXISTING CROSSING GUARD FOR LAUREL ELEMENTARY SCHOOL.

EBR TURN ON RED RESTRICTED FROM 7:30-8:30 AM AND FROM 1:00-3:00 PM DURING SCHOOL DAYS.

SIGN LEGEND:

SITE KEY NOTES:

O. PROPOSED YELLOW PAINTED "THANK YOU" PAVEMENT PARKING. REFER TO CONSTRUCTION DETAIL SHEETS.

GENERAL NOTES:

THIS DRAWING REFERENCES: BOUNDARY & TOPOGRAPHIC SURVEY
APN: 035-510-006, LOT 5
OAKLEY
CONTRA COSTA COUNTY, STATE OF CALIFORNIA
PREPARED BY: ZIEBATECH LAND SURVEYING
DATED: 02/27/2020

APPLICANT: McDONALD'S CORPORATION
110 N CARPENTER ST.
CHICAGO, IL 60607
CONTACT: KEVIN MCAULEY
PHONE: (858) 342-3536

PROPERTY OWNER: OHARA PROPERTIES LLC
3820 BLACKHAWK ROAD
DANVILLE, CA 94506
CONTACT: ARIEL FOX
PHONE: (916) 473-8805

1) SITE ADDRESS: TBD LAUREL RD
OAKLEY, CA 94561
CONTRA COSTA COUNTY, STATE OF CALIFORNIA

2) PROJECT NAME: MCDONALD'S DRIVE-THROUGH QUICK SERVE RESTAURANT AT LAUREL PLAZA
(CUP 03-20, DR 09-10)

ZONING DATA
ZONED C2 - GENERAL COMMERCIAL

ITEM	EXISTING / REQUIRED	PROPOSED
PARCEL ID	035-510-006	035-510-006
LAND USE	COMMERCIAL	COMMEERCIAL
BUILDING USE	VACANT PARCEL	RESTAURANT
BUILDING HEIGHT (FT)	35' MAX	18'-10"
FLAG POLE (FT)	(2) FLAG POLE 25' MAX HEIGHT	-
BUILDING AREA (SF)	N/A	4,516 SF
FLOOR AREA RATIO (FAR)	N/A	0.061
FRONT SETBACK (FT)	10'	53.28' (S)
SIDE SETBACK (FT)	10'	143.88' (E) 57.71' (W)
REAR SETBACK (FT)	0'	148.39' (N)
PARKING SPACES	(1) SPACE PER 150 SF GFA (29) PARKING SPACES REQUIRED	71 SPACES
ADA PARKING SPACES	3 SPACES REQUIRED	3 SPACES
TOTAL PARCEL AREA	74,443 SF (1.709 AC)	74,443 SF (1.709 AC)
TOTAL LIMITS OF DISTURBANCE	N/A	25,354 SF (0.582 AC)
TOTAL OFF-SITE WORK	N/A	273 SF (0.006 AC)
IMPERVIOUS SURFACES AREA (ACRES) (MAXIMUM %)	36,390 SF (0.835 AC) 48.88%	53,299 SF (1.224 AC) 71.60%
PERVIOUS SURFACES AREA (ACRES) (MINIMUM %)	38,053 SF (0.874 AC) 51.12%	21,144 SF (0.485 AC) 28.40%

SITE LEGEND

- EXISTING PROPERTY BOUNDARY LINE
- EXISTING ADJOINING PROPERTY LINE
- EXISTING ROAD CENTERLINE
- PROPOSED ROAD CENTERLINE
- PROPOSED DITCH CENTERLINE
- PROPOSED LIMITS OF BMP / DETENTION
- PROPOSED SAWCUT LINE
- EXISTING CURB
- PROPOSED CURB
- PROPOSED MOUNTABLE CURB
- PROPOSED BUILDING
- PROPOSED ASPHALT
- PROPOSED CONCRETE
- EXISTING SANITARY STRUCTURES
- EXISTING WATER STRUCTURES
- PROPOSED PARKING COUNT

N

NOT TO SCALE

Kimley»Horn

MARCH 2021

ATTACHMENT A
PEDESTRIAN FACILITIES AND PROJECT ACCESS

MCDONALD'S AND QUICK QUACK TRAFFIC ANALYSIS - OAKLEY, CA