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DRAFT
Shiloh Mixed Use Project
Initial Study/Mitigated Negative Declaration
Town of Windsor, Sonoma County, California

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ACRONYMS AND ABBREVIATIONS

µg/m^3	micrograms per cubic meter
°F	degrees Fahrenheit
°C	degrees Celsius (Centigrade)
AB	Assembly Bill
ABAG	Association of Bay Area Governments
ADA	Americans with Disabilities Act
AFY	acre-feet per year
APN	Assessor's Parcel Number
AQP	regional air quality plan
ARB	California Air Resources Board
ASF	age sensitivity factors
BAAQMD	Bay Area Air Quality Management District
BAU	business-as-usual
BMPs	Best Management Practices
CAL FIRE	California Department of Forestry and Fire Protection
CAP	Climate Action Plan
CBC	California Building Standards Code
CCR	California Code of Regulations
CDFW	California Department of Fish and Wildlife
CEEP	Community Energy Efficiency Program
CESA	California Endangered Species Act
CEQA	California Environmental Quality Act
CHL	California Historic Landmarks
CHRIS	California Historical Resources Inventory System
CNDDB	California Natural Diversity Database
CNPS	California Native Plant Society
CO	carbon monoxide
CO_2	carbon dioxide
CO_2e	carbon dioxide equivalent
CPHI	California Points of Historical Interest
CRHR	California Register of Historical Resources
CSG	California Geological Survey
dB	decibel
dBA	A-weighted decibel

DBR	daily breathing rate
DPM	diesel particulate matter
DPR	Department of Parks and Recreation
EF	exposure frequency
ED	exposure duration
EMFAC	ARB Emissions Factors model
EPA	U.S. Environmental Protection Agency
ESA	Environmental Site Assessment
EVCS	electrical vehicle charging stations
FESA	Federal Endangered Species Act
FHWA	Federal Highway Administration
FMMP	Farmland Mapping and Monitoring Program
GHGs	greenhouse gases
gsf	gross square feet
HCM	Highway Capacity Manual
HDM	Caltrans Highway Design Manual
HI	hazard index
HOV	high occupancy vehicle
HRA	Health Risk Assessment
HwB	Huichica loam
in/sec	inch per second
IS/MND	Initial Study/Mitigated Negative Declaration
ITE	Institute of Transportation Engineers
L_{dn}	day/night sound level
L_{eq}	equivalent sound level
LHMP	Local Hazard Mitigation Plan
L_{max}	maximum noise/sound level
LOS	Level of Service
LRA	Local Responsibility Area
MBTA	Migratory Bird Treaty Act
mgd	million gallons per day
MLD	most likely descendant
mph	miles per hour
MT	metric ton
NAAQS	National Ambient Air Quality Standards
NAHC	Native American Heritage Commission
NO_2	nitrogen dioxide

NO_X	nitrogen oxides
NRHP	National Register of Historic Places
NWIC	Northwest Information Center
NWP	Northwestern Pacific
OEHHA	California Office of Environmental Health Hazards Assessment
OPR	Governor's Office of Planning and Research
PACE	Property Assessed Clean Energy
PI-CRA	Phase I Cultural Resource Assessment
$PM_{2.5}$	fine particulate matter
PM_{10}	particulate matter
ppm	parts per million
ppv	peak particle velocity
Qoa	Pleistocene alluvium
RCPA	Sonoma County Regional Climate Protection Authority
REL	reference exposure limit
rms	root mean square
ROG	reactive organic gas
RWQCB	Regional Water Quality Control Board
SB	Senate Bill
SCEIP	Sonoma County Energy Independence Program
SCS	sustainable communities strategy
SCT	Sonoma County Transit
SCWA	Sonoma County Water Agency
sf	square feet
SHPO	State Historic Preservation Officer
SLCP	Short-Lived Climate Pollutant
SMART	Sonoma-Marin Area Rail Transit
SO_2	sulfur dioxide
SO_X	sulfur oxides
SOCO Fire	Sonoma County Fire District
SRA	State Responsibility Area
SRPCS	Santa Rosa Plain Conservation Strategy
SWPPP	Storm Water Pollution Prevention Plan
State Water Board	State Water Resources Control Board
TACs	Toxic Air Contaminants
TAH	time at home factor
TCRs	tribal cultural resources

TIS	Transportation Impact Study
UCMP	University of California Museum of Paleontology
USACE	United States Army Corps of Engineers
USFWS	United States Fish and Wildlife Services
USGS	California United States Geological Survey
UWMP	Urban Water Management Plan
VMT	vehicle miles traveled
VOCs	volatile organic compounds
WEAP	Worker Environmental Awareness Program
WPD	Windsor Police Department
WWD	Windsor Water District
WWTP	Wastewater Treatment Plant
ZNE	zero net energy

SECTION 1: INTRODUCTION

1.1 - Purpose

The purpose of this Initial Study/Mitigated Negative Declaration (IS/MND) is to identify any potential environmental impacts from implementation of the Shiloh Mixed Use Project (project) in the Town of Windsor, California. Pursuant to California Environmental Quality Act (CEQA) Guidelines Section 15367, the Town of Windsor is the Lead Agency in the preparation of this IS/MND and any additional environmental documentation required for the project. The Town has discretionary authority over the project. The intended use of this document is to determine potential environmental impacts resulting from implementation of the project and to provide the basis for input from public agencies, organizations, and interested members of the public.

The remainder of this section provides a brief description of the project location and the characteristics of the project. Section 2 includes an environmental checklist giving an overview of the potential impacts that may result from project implementation. Section 3 contains a list of people and organizations that were consulted during the preparation of the IS/MND. This section also contains a list of the authors who assisted in the preparation of the IS/MND.

1.2 - Project Location

The project site is located in the Town of Windsor, Sonoma County, California (Exhibit 1 and Exhibit 2) at 1200 Shiloh Road in the southern portion of the Town limits. The 1.75-acre project site consists of Assessor Parcel Numbers (APNs) 164-150-012 and 164-150-064. Specifically, the project site is located on the Windsor, California United States Geological Survey 7.5-Minute Topographical Quadrangle, Township 8 North, Range 9 West, Section 13 Mt. Diablo Base and Meridian (Latitude 38° North 31’ 31.44” and Longitude 122° West 48’ 4.74”).

1.3 - Environmental Setting

The 1.75-acre project site is rectangular in shape and is located at the southwest corner of Shiloh Road and Skylane Boulevard. The western half of the project site (APN 164-150-012) contains an existing single-family residence, gravel driveways, one detached garage, an above ground propane tank, several large trucks, and tractor-trailers. Based on historical aerial photos, the existing single-family residence is at least 50 years old. The relatively flat project site contains several trees and landscaping associated with the single-family residence (Exhibit 3). There are existing overhead electrical lines and an on-site propane tank. The eastern half of the project site (APN 164-150-064) contains vacant, disturbed land that supports grassy vegetation.

The project site is surrounded by a large-lot single-family residential parcel (west); Shiloh Road (north); Skylane Boulevard (east); and office and commercial uses (south). Single-family homes and agricultural land are located further west of the project site. Several offices and commercial space are located south of the project site along Skylane Boulevard. Across Shiloh Road to the north of the project site is WorldMark Windsor, a hotel. To the east of the project site across Skylane Boulevard is a mostly vacant

lot containing grassland and a single-family residence on the eastern most portion. Further east is a large industrial warehouse owned by Alexander Valley Cellars.

The Northwestern Pacific Railroad (NWP) line track, owned by the North Coast Railroad Authority, is located approximately 690 feet to the east of the site. The NWP is a regional railroad dating back to the late 1800s, which served the North Coast of California. The Sonoma-Marin Area Rail Transit (SMART) Commuter Rail line, which began operations in 2017, currently has no station further north than Santa Rosa, and there is currently no train service on the NWP track near the project site. The SMART Commuter Rail line proposes to extend its service to Windsor by 2021.

The project site is designated Retail Commercial by the Town of Windsor 2040 General Plan and is zoned Community Commercial by the Windsor Zoning Ordinance.

1.4 - Project Description

1.4.1 - Demolition and Removal

The project would include demolition of the existing single-family home, garage, and associated landscaping. In total, 1,167 gross square feet (gsf) of hardscape and 2,508 gsf of buildings would be demolished. In addition, the existing electric poles and on-site propane tank would be removed. In total, 6 trees would be removed.[1]

1.4.2 - Land Uses

The project applicant is proposing to merge the two parcels and construct a mixed-use development consisting of a 2,844 square feet (sf) neighborhood market and 27 apartment units on the 1.75-acre site (Exhibit 4). The project would include 14 one-bedroom units, 12 two-bedroom apartments units (ranging from 680 to 860 square feet), and 1 penthouse suite (1,110 square feet). The apartments would be composed of three, three-story buildings along the project frontages of Shiloh Road and Skylane Boulevard. The neighborhood market would occupy the northeast corner of the site (on the ground floor of the corner building, with residential units above)

A surface parking lot would provide 80 parking spaces behind the structures in the southwest portion of the site. At a minimum, four Americans with Disabilities Act (ADA) compliant parking spaces would be provided. Eight electric vehicle spaces with charging stations would be provided, consistent with the 2019 Building Code. Long term and short-term bicycle parking would be provided throughout the project site for both resident, employee, and customer use. Vehicular access would be taken from driveways on Shiloh Road and Skylane Boulevard. The project would provide landscaping, open space, and seating areas throughout the site as well as private balconies for use by the residential units. The main components of the project are as follows:

- Three, three-story apartment buildings (27 dwelling units)
- Neighborhood market of 2,844 square feet
- 80 surface parking spaces
- Open space and landscaping (including stormwater landscape treatment)

[1] Horticultural Associates. 2019. Tree Preservation and Mitigation Report. February.

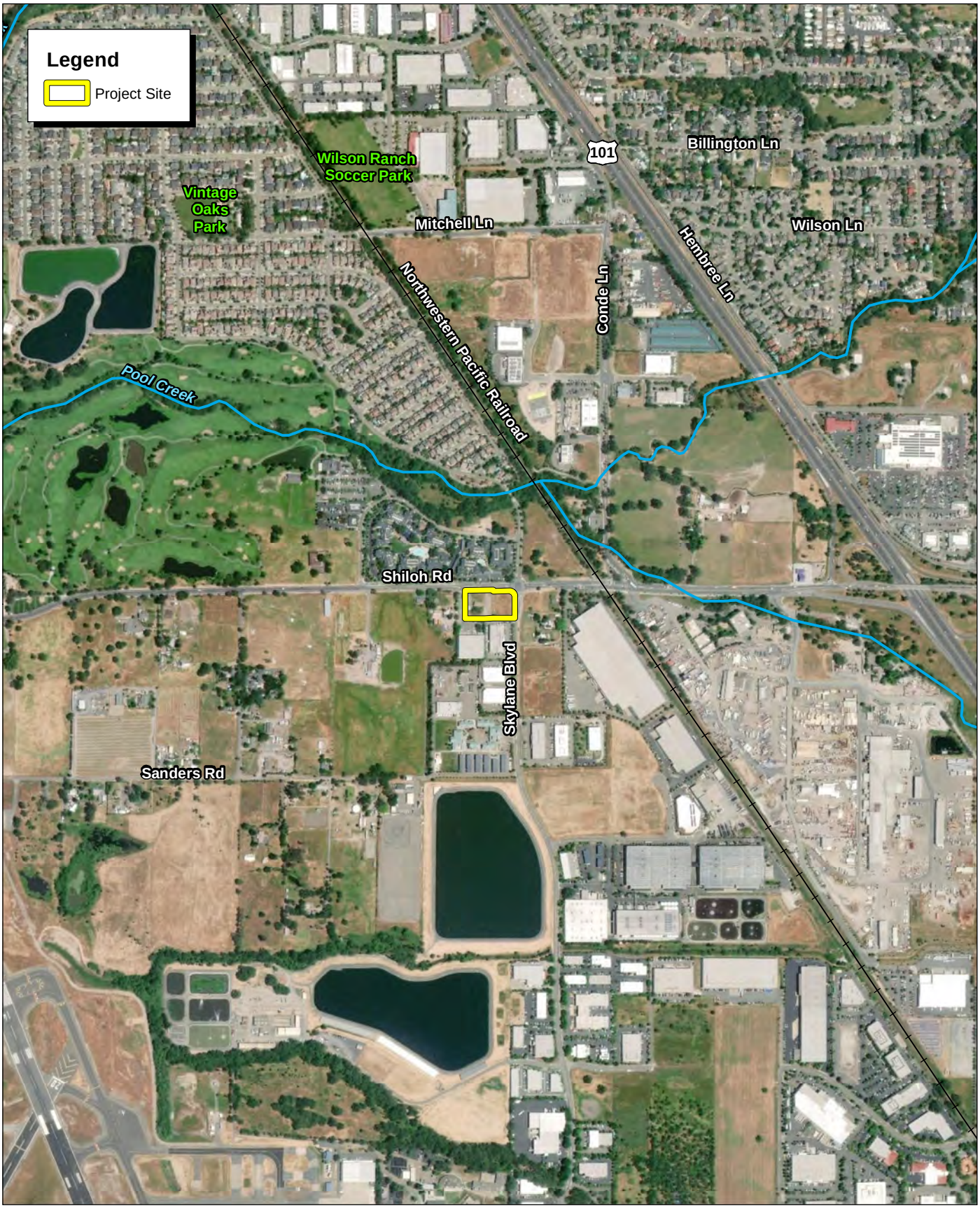


Source: Census 2000 Data, The CaSIL.

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Exhibit 1
Regional Location Map

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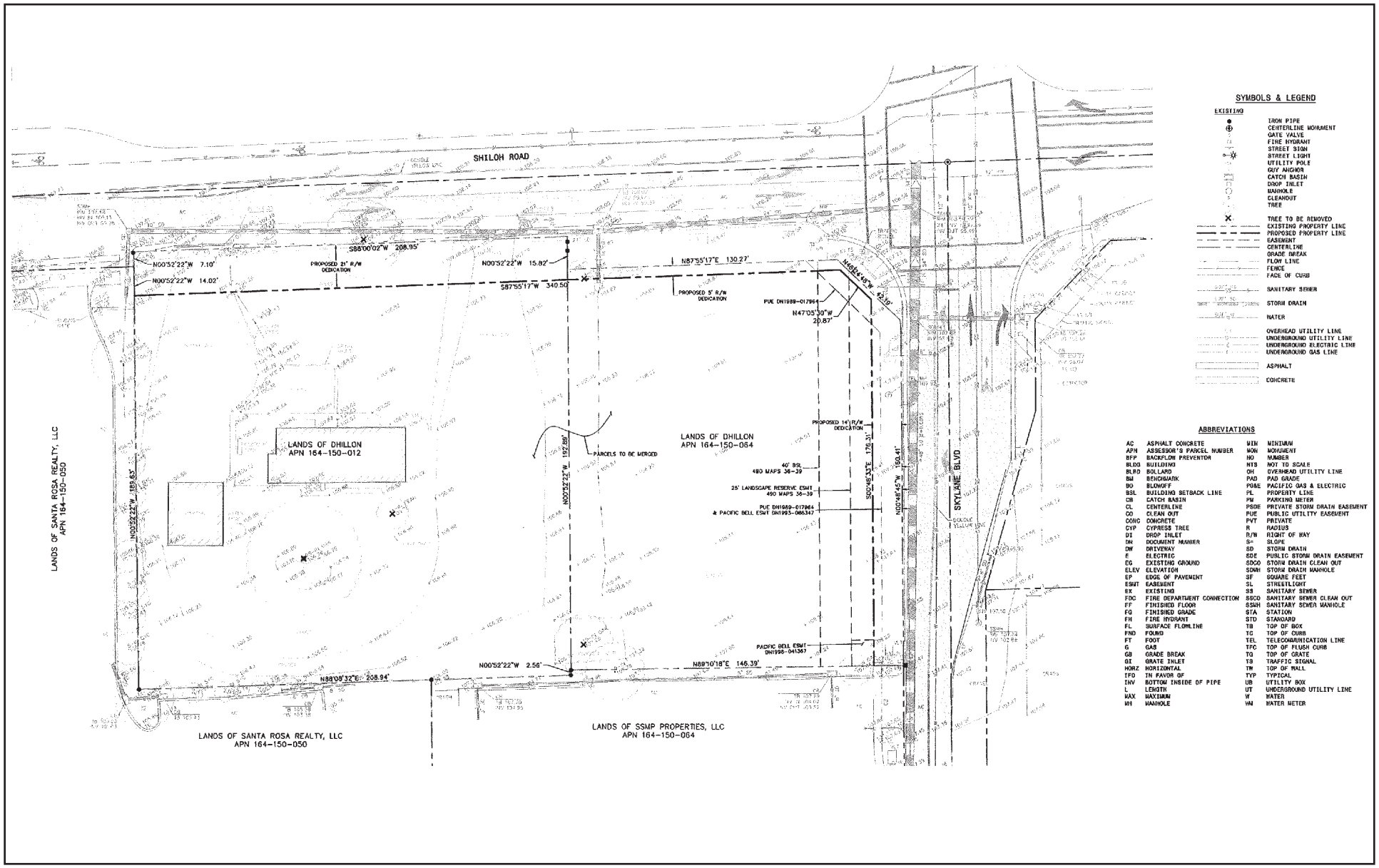
Source: ESRI Aerial Imagery.

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1,000 500 0 1,000 Feet

Exhibit 2
Local Vicinity Map
Aerial Base

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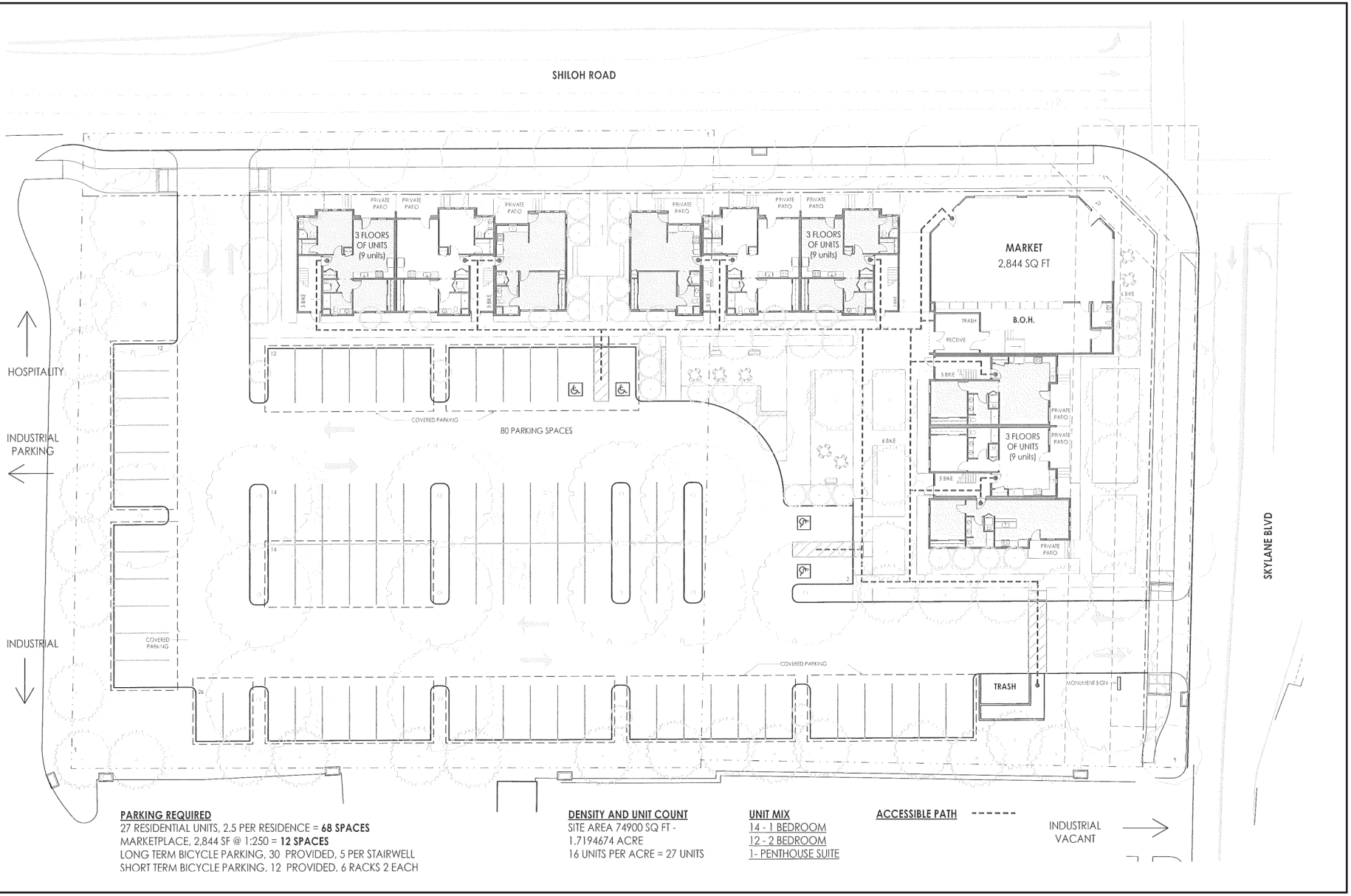


Source: BKF Engineers/Surveyors/Planners, July 2019.

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Exhibit 3
Project Site Existing Conditions

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Source: ARCHI LOGIX, November 21, 2019.

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Exhibit 4
Project Site Plan

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Table 1 summarizes the project.

Table 1: Summary of Proposed Development

Project Component	Unit Type/Size	Total Units	Square Footage
Three-story apartment building (total of all three buildings)	2-bedroom	12	860 per unit
	1-bedroom	14	680-733 per unit
	Penthouse Suite (2-bedroom)	1	1,100
Neighborhood Market			2,844
Parking Lot	surface parking spaces	80 spaces (56 covered and 4 ADA	—
Stormwater landscape treatment	—	—	1,680
Source: Archi|Logix 2019; Quadriga 2019; BKF 2019.			

Apartments

The project would develop three, three-story apartment buildings. As shown in Exhibit 5 and Exhibit 6, the project would be composed of contemporary architecture with an exterior featuring a dark concrete base, lighter colors in the upper stories, and composite wood cladding. Two of the three-story apartment buildings located on the northern portion of the site along Shiloh Road would be composed of two, two-bedroom units and one, one-bedroom unit on each floor for a total of nine units in each building. The other three-story apartment building, which includes the neighborhood market and fronts on Skylane Boulevard, would contain three one-bedroom units on the first two floors and two one-bedroom units on the third floor. There would also be one, two-bedroom penthouse suite on the third floor. Additionally, each unit would include a private patio.

All ground-floor apartment units would be raised above street level with buffer landscaping along the Shiloh Road and Skylane Boulevard rights-of-way in order to increase privacy. The apartment buildings along Shiloh Road would be 39 feet tall, while the apartment building along Skylane would be 37 feet tall, and the neighborhood market would be 38 feet and 6 inches tall (to the top of the parapet). A rooftop patio would be included on top of the market for the exclusive use of residents. This rooftop patio would include a shade structure composed of non-combustible material and would not exceed the allowable height.

Neighborhood Market

The project would include a neighborhood market on the northeast corner of the project site. The neighborhood market would include a variety of fresh items, convenience items, alcohol, and pre-prepared food and drinks to serve the public and an outdoor public seating area. The proposed hours for the neighborhood market are 5:00 a.m. to 10:00 p.m. The neighborhood market would include a sign attached to the building typical of small-scale retail development.

Lighting

LED lighting would be located throughout the project site. Along the frontages with Shiloh Road and Skylane Boulevard project lighting would be located below canopy and would illuminate sidewalks and project signage only. In addition to lighting poles in the parking lot area, the carport structures would have lighting installed as part of the construction. Exterior lighting would be located around seating areas, on stairwells, on building facades facing the parking area, and include wall mounted lighting on patio areas. An illuminated sign would be located at the project entrance from Skylane Boulevard.

Parking

The project would provide 80 total parking spaces: 12 spaces designated for the exclusive use of the neighborhood market and 68 spaces for the residential uses. Chapter 5, Parking Regulations, of the Town of Windsor's Code of Ordinances provides standards for parking layout and site development guidelines; pursuant to these parking regulations, 56 of the parking spaces would be covered. Additionally, the project would provide a total of 42 bike parking stalls: 30 long-term bike parking stalls located between the stairwells of each apartment building and 12 short-term stalls located adjacent to the neighborhood market and parking lot. The project would provide eight Level 2 electric vehicle charging stations (EVCS) in the parking lot that would serve residents and clientele of the market.

Open Space

The project would include outdoor tables and seating areas between the apartment buildings and adjacent to the neighborhood market.

Landscaping

As shown in Exhibit 7, the project would include ornamental trees, shrubs, perennials, and grasses throughout the project site, and would also include a landscape buffer along Shiloh Road and Skylane Boulevard. In addition, the project would include site screening shrubs and tree planting along project site boundaries in order to obscure views of the parking lot and trash areas from neighbors. Hardy grasses and perennial plantings would be included in the stormwater retention areas.

Land Use Designation and Zoning

The project site is designated Retail Commercial by the Town of Windsor 2040 General Plan[2,3] and zoned Community Commercial by the Town of Windsor Zoning Ordinance. The project would not require re-designation or rezoning of the project site.

[2] The Town of Windsor updated their General Plan and the most recent version, the 2040 General Plan, was published on April 4, 2018.

[3] Town of Windsor. 2018. 2040 General Plan Land Use Diagram. June.

The Retail Commercial designation is intended to provide convenience goods for surrounding residential neighborhoods and offer a range of local-serving, retail and service activities, restaurants, offices, and business services. In addition, this designation allows for residential uses on the second

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Source: ARCHI LOGIX, August 2019.

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Exhibit 5
Project Conceptual Views

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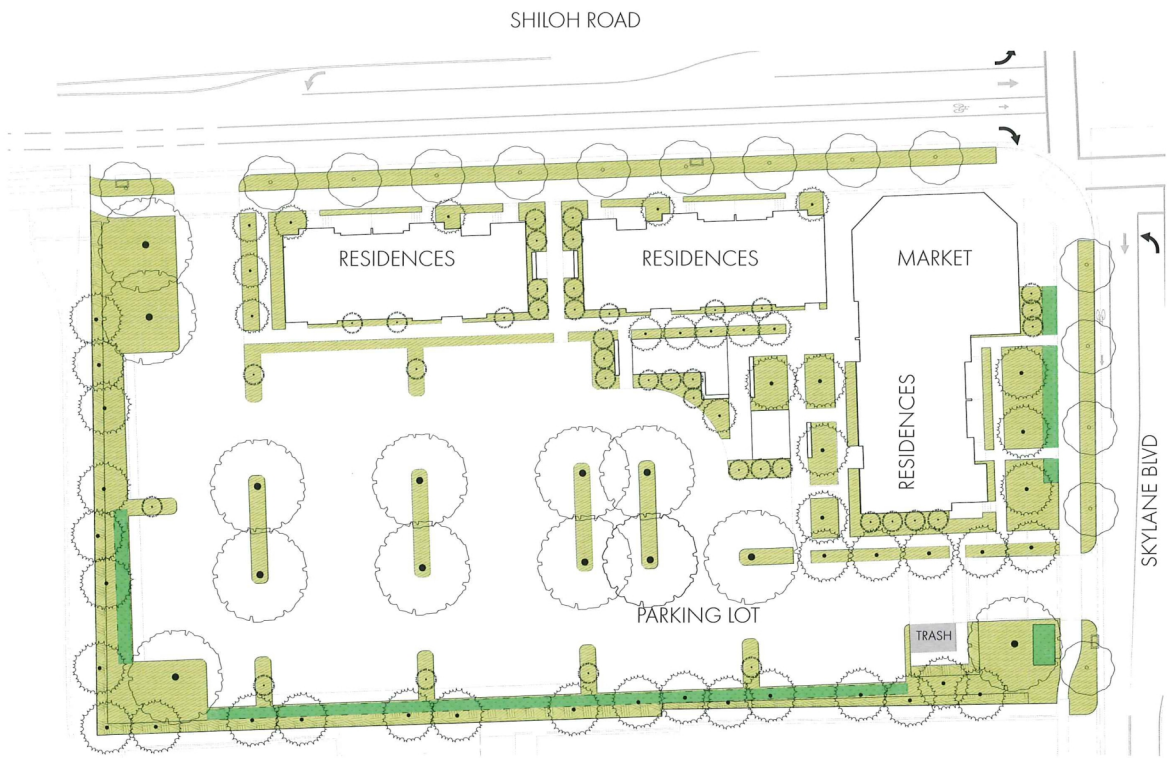


Source: ARCHI LOGIX, August 2019.

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Exhibit 6
Project Building Materials

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Botanical Name	Common Name	HxW	Water Use	Size
Trees: Street Trees				
Ginkgo biloba 'Autumn Gold'	Maidenhair Tree	45'x30'	Medium	24" Box
Liriodendron tulipifera	Tulip Tree	55'x35'	Medium	24" Box
Platanus x. acerifolia 'Bloodgood'	London Plane Tree	40'x30'	Medium	24" Box
Ulmus parvifolia	Chinese Elm	35'x30'	Medium	24" Box
Trees: Shade				
Carpinus betulus 'Fastigiata'	Pyramidal Hornbeam	20'x40'	Medium	24" Box
Fagus sylvatica 'Dawyck'	Dawyck Beech	25'x40'	Medium	24" Box
Fraxinus uhdei 'Monus'	Majestic Beauty Ash	50'x50'	Medium	24" Box
Koelreuteria paniculata	Golden Rain Tree	20'x20'	Medium	24" Box
Platanus x. acerifolia 'Bloodgood'	London Plane Tree	40'x30'	Medium	24" Box
Quercus agrifolia	Coast Live Oak	40'x40'	Very Low	24" Box
Quercus coccinea	Scarlet Oak	50'x50'	Medium	24" Box
Quercus lobata	Valley Oak	50'x50'	Very Low	24" Box
Quercus wislizenii	Interior Live Oak	40'x40'	Very Low	24" Box
Ulmus parvifolia	Chinese Elm	35'x30'	Medium	24" Box
Trees: Accent				
Albizia julibrissin 'Summer Chocolate'	Burgundy Mimosa	20'x15'	Low	15 Gal.
Arbutus unedo 'Compacta'	Dwarf Strawberry Tree	7'x5'	Low	15 Gal.
Arbutus x 'Marina'	Strawberry Tree	15'x10'	Low	15 Gal.
Carpinus betulus 'Fastigiata'	Pyramidal Hornbeam	20'x40'	Medium	24" Box
Cercis canadensis 'Oklahoma'	Oklahoma Redbud	15'x15'	Medium	15 Gal.
Cercis occidentalis	Western Redbud	10'x10'	Very Low	15 Gal.
X chitalpa tashkentensis	Chitalpa	20'x25'	Low	15 Gal.
Fagus sylvatica 'Dawyck'	Dawyck Beech	25'x40'	Medium	24" Box
Magnolia stellata 'Royal Star'	Royal Star Magnolia	10'x10'	Medium	15 Gal.
Rhus lancea	African Sumac	18'x18'	Low	15 Gal.
Shrubs: Visual Screen				
Dodonaea viscosa 'Green'	Green Hopseed Bush	8'x10'	Low	15 Gal.
Myrica californica	Pacific Wax Myrtle	12'x12'	Medium	15 Gal.
Punica granatum 'Wonderful'	Pomegranate	10'x10'	Low	5 Gal.
Rhamnus californica 'Eve Case'	California Coffeeberry	6'x8'	Low	5 Gal.
Romneya coulteri 'White Cloud'	White Cloud Matilija Poppy	5'x5'	Very Low	5 Gal.
Sambucus nigra 'Black Lace'	Black Lace Elderberry	10'x10'	Low	5 Gal.
Shrubs: Site				
Acacia cognata 'Cousin Itt'	River Wattle	3'x4'	Low	5 Gal.
Arctostaphylos x. 'John Dourley'	John Dourley Manzanita	3'x6'	Low	5 Gal.
Arctostaphylos dens. 'Howard McMinn'	Howard McMinn' Manzanita	4'x6'	Low	5 Gal.
Buddleja d. nanhoensis 'Petite Indigo'	Petite Indigo Butterfly Bush	4'x4'	Medium	5 Gal.
Correa x. 'Dusky Bells'	Australian Fuchsia	3'x3'	Low	1 Gal.
Hesperaloe parviflora 'Brakelights'	Brakelights Red Yucca	3'x3'	Low	1 Gal.
Myrtus communis 'Compacta'	Dwarf Myrtle	3'x4'	Low	5 Gal.
Perovskia atriplicifolia	Russian Sage	3'x3'	Low	1 Gal.
Phlomis russeliana	Turkish Sage	3'x3'	Low	1 Gal.
Salvia clevelandii 'Allen Chickering'	Cleveland Sage	4'x4'	Low	5 Gal.
Salvia leucantha 'Midnight'	Mexican Bush Sage	4'x4'	Low	5 Gal.
Salvia leucantha 'White Mischief'	White Mischief Bush Sage	3'x3'	Low	1 Gal.
Teucrium chamaedrys	Germander	18"x18"	Low	1 Gal.
Teucrium fruticans 'Azureum'	Blue Germander	4'x4'	Low	5 Gal.
Grasses: Site				
Cordyline x. 'JURred'	Festival Grass Cordyline	3'x3'	Medium	1 Gal.
Festuca mairei 'Greenlee's Form'	Greenlee Atlas Fescue	3'x3'	Low	1 Gal.
Lomandra longifolia 'Platinum Beauty'	Platinum Beauty Mat Rush	3'x3'	Low	1 Gal.
Muhlenbergia rigens	Deer Grass	3'x3'	Low	1 Gal.
Groundcovers: Site				
Acacia redolens 'Desert Carpet'	Bank Catclaw	2'x6'	Very Low	1 Gal.
Bulbine frutescens	Snake Flower	1'x3'	Low	1 Gal.
Grevillea juniperina 'Molongolo'	Juniper Grevillea	2'x6'	Low	1 Gal.
Sedum spurium 'Dragon's Blood'	Two Row Stone Crop	1'x1'	Low	4" Pot
Sedum spurium 'Tricolor'	Tricolor Sedum	1'x1'	Low	4" Pot
Bio-Retention Area				
Achillea millefolium	Common Yarrow	3'x3'	Low	1 Gal.
Carex divulsa	Berkeley Sedge	3'x3'	Low	1 Gal.
Chondropetalum tectorum	Cape Rush	3'x3'	Low	1 Gal.
Juncus patens 'Elk Blue'	Spreading Rush	3'x3'	Low	1 Gal.
Salvia uglinosa	Bog Sage	4'x3'	Medium	1 Gal.



Source: Quadriga Landscape Architecture and Planning, Inc., October 2019.

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Exhibit 7
Project Landscape Plan

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floor as part of a mixed-use development. Residential uses may be allowed on the ground floor within mixed use projects if the units are accessible (Zoning Ordinance Table 2-4, Note 4). The Retail Commercial designation is usually located along major arterial streets and transit routes and allows up to 16.0 dwelling units per acre.

According to the Town of Windsor Zoning Code, the Community Commercial Zoning designation is "applied to areas appropriate for a range of local- and community-serving retail and service land uses, including restaurants, shops, personal and business services."[4]

1.4.3 - Circulation and Access

Vehicle

The project proposes two driveways: one 24' foot-wide driveway on Shiloh Drive and one 24' foot-wide driveway on Skylane Boulevard.

Transit

Bus

Sonoma County Transit provides bus service in the Town of Windsor. Route 55 (Airport Business Park Shuttle) has two stops adjacent to the project site's northwest corner on both the north and south side of Shiloh Road. In addition, Route 66 (Windsor Shuttle) has a bus stop at Shiloh Road and Conde Lane, approximately 1,100 feet to the east of the project site.

Rail

As discussed previously, the NWP track, owned by the North Coast Railroad Authority, is located approximately 690 feet to the east of the site. There is currently no train service on the NWP track near the project site. The SMART Commuter Rail line proposes to extend its service from Santa Rosa to Windsor via the NWP track by 2021.

Bicycle

The project would include the restriping the two 6-foot Class II bicycle lanes[5] along Skylane Boulevard (northbound and southbound). A new 6-foot Class II bicycle lane along eastbound Shiloh Boulevard would be added by striping; the existing Class II bicycle Lane along westbound Shiloh Boulevard would remain. Bicycle parking would be provided as described above, and is discussed in greater detail in Section 16, Transportation.

Pedestrian

Sidewalks and pedestrian infrastructure would be provided throughout the project site and along both the Shiloh Drive and Skylane Boulevard project frontages.

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[4] The Town of Windsor. 2018. The Town of Windsor Zoning Ordinance, page 2-17. Website: https://www.townofwindsor.com/DocumentCenter/View/21611/Zoning-Ordinance-Rev-2018-08-20. Accessed January 21, 2019.

[5] Class II bicycle lanes provide a restricted right-of-way and are designated for the use of bicycles for one-way travel with a striped lane on a street or highway. These bicycle lanes are generally a minimum of 5 feet wide, and vehicle/pedestrian cross-flow is permitted.

1.4.4 - Utilities

Domestic Water

The Windsor Water District (WWD) would provide potable water to the project site. As shown in Exhibit 8, the project would connect to existing water lines contained within Skylane Boulevard.

Stormwater Drainage

The project would install an on-site stormwater collection system split into three drainage areas (Exhibit 9). The project would include 1,680 square feet of stormwater landscape treatment area in the form of bioretention landscaping. Project site stormwater would sheet flow into the bioretention areas where it would infiltrate the new soil medium in accordance with Priority 2 objectives of the City of Santa Rosa's Low Impact Design (LID) Technical Design Manual.[6] (The City of Santa Rosa's LID manual is being used for reference by the Town of Windsor.)

The project would install 12-inch storm drainage lines throughout the project site that would collect runoff from the stormwater retention areas and convey stormwater to existing storm drain mains in Shiloh Road and Skylane Boulevard.

Sanitary Sewer

The two existing parcels that comprise the project site are served by two separate sanitation districts: the Town of Windsor Water Reclamation District serves the existing residence on the western half of the site (APN 164-150-012), while the Sonoma County Water Agency's (SCWA) Airport/Larkfield/Wikiup Sanitation District (ALW Sanitation Zone) serves the eastern half of the site (APN 164-150-064).

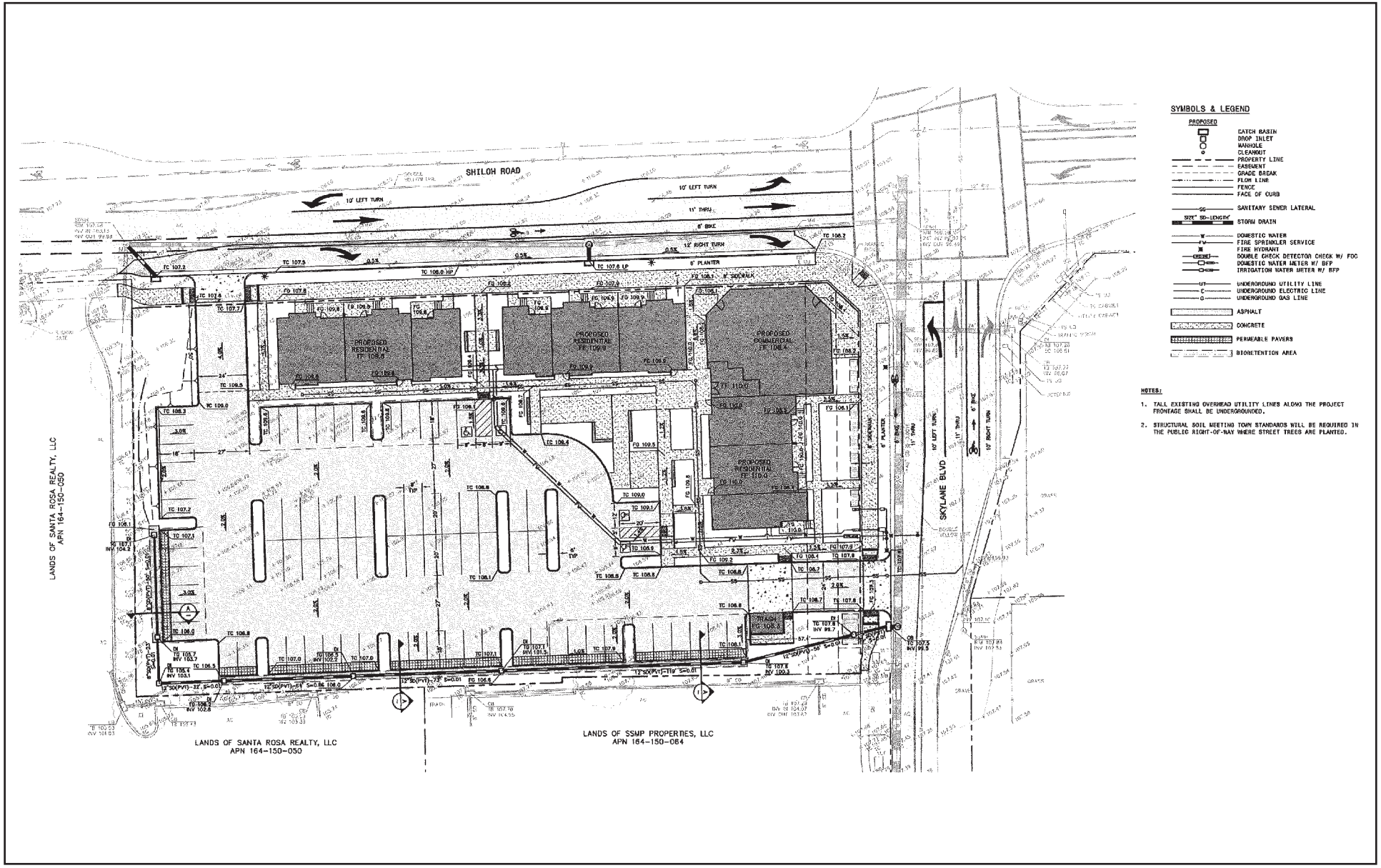
The project would merge the existing parcels and would also include an amendment to the existing agreement between the County and the Town of Windsor to provide serve to the site by the ALW Sanitation Zone. The project would connect to an existing sanitary sewer line within Skylane Boulevard (Exhibit 8).

Phasing and Construction

Project construction would occur in several phases, with estimated total construction taking 8 months.

As specific construction schedules and detailed information is not known at this time, conservative default assumptions will be used for purposes of analyzing and modeling construction durations and equipment. The assumed construction schedule and parameters are provided in Appendix A, Air Quality, Greenhouse Gas Emissions, and Energy Supporting Information.

[6] BKF. 2019. Stormwater Mitigation Plan.

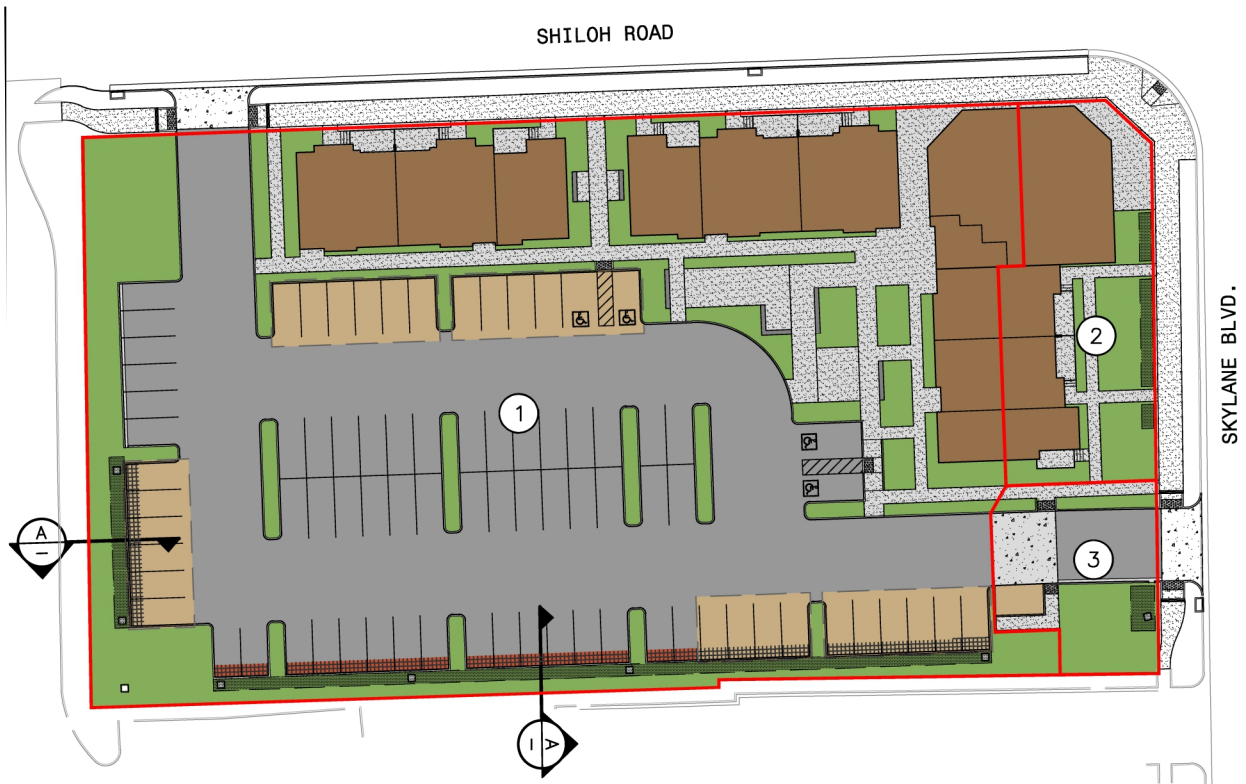


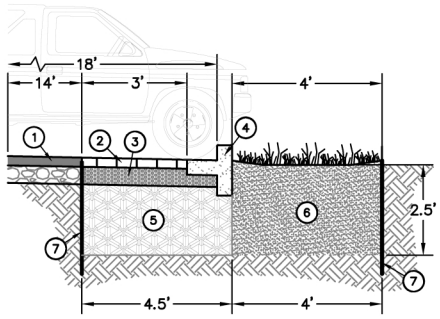
Source: BKF Engineers/Surveyors/Planners, July 2019.

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Exhibit 8
Project Utilities Plan

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A — BIO–RETENTION AND STORAGE
NO SCALE

LEGEND

- Roof
- Parking/Trash Shelter
- Concrete
- Pavement
- Permeable Pavers
- Landscape
- Bio-Retention

N

40 0 40
scale 1" = 40' feet

DRAINAGE AREAS							
Tributary Area	Roof	Shelter	Concrete	Pavement	Pavers	Planter	Total Area
	98	98	98	98	98	89	(ft^2)
1	8,804	5,940	5,825	24,295	572	12,050	57,486
2	2,823	-	1,306	-	-	1,816	5,945
3	-	179	993	804	-	1,190	3,166

BIO-RETENTION SIZING											
BIO-SWALE						ACO STORM BRIXX					
Area (ft^2)	Depth (ft)	Volume Soil (ft^3)	Porosity %	Volume Water Storage (ft^3)		Area (ft^2)	Depth (ft)	Volume (ft^3)	Porosity %	Volume Water Storage (ft^3)	TOTAL WATER STORAGE PROVIDED (ft3)
1,321	2.5	3303	50%	1651		1,152	2	2304	95%	2189	3840
239	2.5	598	50%	299		-	-	0	95%	0	299
120	2.5	300	50%	150		-	-	0	95%	0	150

Source: BKF Engineers/Surveyors/Planners, July 2019.

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Exhibit 9
Project Stormwater Drainage Plan

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1.5 - Required Discretionary Approvals

The Town of Windsor shall determine if the project is consistent with the policies and implementation programs of the 2040 General Plan. In addition, the project would require the following discretionary approvals from the Town of Windsor:

- Site Plan and Design Review
- Use Permit
- Tree removal permit
- Lot Line Adjustment
- IS/MND adoption

1.6 - Intended Uses of this Document

This IS/MND has been prepared to determine the appropriate scope and level of detail required in completing the environmental analysis for the project. This document will also serve as a basis for soliciting comments and input from members of the public and public agencies regarding the project. The Draft IS/MND will be circulated for a minimum of 30 days, during which period comments concerning the analysis contained in the IS/MND should be sent to:

Kimberly Voge, Planner
Town of Windsor, Planning Division
9291 Old Redwood Highway, Building 400
Windsor, CA 95492
Phone: 707.838.1021
Email: kvoge@townofwindsor.com

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SECTION 2: ENVIRONMENTAL CHECKLIST AND ENVIRONMENTAL EVALUATION

Environmental Factors Potentially Affected					
The environmental factors checked below would be potentially affected by this project, involving at least one impact that is a "Potentially Significant Impact" as indicated by the checklist on the following pages.					
☐	Aesthetics	☐	Agriculture and Forestry Resources	☒	Air Quality
☒	Biological Resources	☒	Cultural Resources/Tribal Cultural Resources	☒	Geology/Soils
☒	Greenhouse Gas Emissions/Energy	☒	Hazards/Hazardous Materials	☐	Hydrology/Water Quality
☒	Land Use/Planning	☐	Mineral Resources	☒	Noise
☐	Population/Housing	☐	Public Services	☐	Recreation
☒	Transportation	☒	Utilities/Services Systems	☐	Wildfire
☒	Mandatory Findings of Significance				

Environmental Determination

On the basis of this initial evaluation:

☐ I find that the proposed project COULD NOT have a significant effect on the environment, and a NEGATIVE DECLARATION will be prepared.

☒ I find that although the project could have a significant effect on the environment, there will not be a significant effect in this case because revisions in the project have been made by or agreed to by the project proponent. A MITIGATED NEGATIVE DECLARATION will be prepared.

☐ I find that the proposed project MAY have a significant effect on the environment, and an ENVIRONMENTAL IMPACT REPORT is required.

☐ I find that the proposed project MAY have a "potentially significant impact" or "potentially significant unless mitigated" impact on the environment, but at least one effect 1) has been adequately analyzed in an earlier document pursuant to applicable legal standards, and 2) has been addressed by mitigation measure based on the earlier analysis as described on attached sheets. An ENVIRONMENTAL IMPACT REPORT is required, but it must analyze only the effects that remain to be addressed.

☐ I find that although the proposed project could have a significant effect on the environment, because all potentially significant effects (a) have been analyzed adequately in an earlier EIR or NEGATIVE DECLARATION pursuant to applicable standards, and (b) have been avoided or mitigated pursuant to that earlier EIR or NEGATIVE DECLARATION, including revisions or mitigation measures that are imposed upon the proposed project, nothing further is required.

Date: 5/11/20 Signed: Kim Voge

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Environmental Issues	Potentially Significant Impact	Less than Significant Impact with Mitigation Incorporated	Less than Significant Impact	No Impact
1. Aesthetics *Except as provided in Public Resources Code Section 21099, would the project:*				
a) Have a substantial adverse effect on a scenic vista?	☐	☐	☒	☐
b) Substantially damage scenic resources, including, but not limited to, trees, rock outcroppings, and historic building within a state scenic highway?	☐	☐	☐	☒
c) In non-urbanized areas, substantially degrade the existing visual character or quality of public views of the site and its surroundings? (Public views are those that are experienced from publicly accessible vantage point). If the project is in an urbanized area, would the project conflict with applicable zoning and other regulations governing scenic quality?	☐	☐	☒	☐
d) Create a new source of substantial light or glare which would adversely affect day or nighttime views in the area?	☐	☐	☒	☐

Environmental Evaluation

Setting

This section provides a description of existing visual conditions near the project site and an assessment of changes to those conditions that would occur from implementation of the project. Effects of the project on the visual environment are generally defined in terms of the following: a project's physical characteristics and potential visibility; the extent to which the project's presence would change the perceived visual character and quality of the environment where it would be located; and the expected level of sensitivity that the viewing public may have in areas where project facilities would alter existing views.

The aesthetic quality of a community is composed of visual resources, which are those physical features that make up the visible landscape, including land, water, vegetation, and the built environment (e.g., buildings, roadways, and structures).

The project site is located in Sonoma County, in the Town of Windsor. The Town of Windsor is located in the Russian River Valley and approximately 2 miles from the Russian River. Gentle rolling hills, valley oak trees, grassland, and other vegetation characterize the area. This natural setting combined with Windsor's relatively compact development pattern give the Town a rural, small town feel. Highway 101 is the main north and southbound access point and offers views of the surrounding

foothills and open space areas such as agricultural land, creeks, and woodland areas, which offer scenic vistas from a number of vantage points.

The project site is located at 1200 Shiloh Road and is adjacent to the intersection of Skylane Boulevard and Shiloh Road. Views of the site are unobstructed from Shiloh Road and Skylane Boulevard. Development and trees block all other public views of the site.

The Town of Windsor 2040 General Plan outlines goals and policies that aim to preserve scenic resources including rural lanes, scenic roads, and natural features such as woodland areas, foothills, and agricultural land. The General Plan designates 16 roadways for scenic protection in Figure ER-1.[7] The closest locally designated scenic corridors to the site are the southern portion of Conde Lane, Shiloh Road west of Day Road, and Highway 101. The nearest State-designated state scenic highway is State Route 116, located approximately six miles to the southwest. The project site is relatively flat and does not contain foothills or mountains.

Would the project:

a) Have a substantial adverse effect on a scenic vista?

Less than significant impact. The primary scenic vistas in the Town of Windsor are foothills and open space areas like agricultural lands, creeks, and woodlands.[8] The Town does not have any officially designated ridgelines in the General Plan; however, it does designate scenic corridors and landforms as described below. General Plan Goal ER-9 aims to preserve significant landforms surrounding the community and maintain significant views from major corridors.[9] The nearest scenic corridors to the project site are Conde Lane between Mitchell Lane and Shiloh Road, and the westernmost portion of Shiloh Road (beginning near Day Road). The former is approximately 860 feet east of the project site, the latter over 1,500 feet west of the site. The project site is not visible from either corridor due to intervening development and vegetation. The project site does not contain ridges, hillsides, or ridgelines, and views of such features are obstructed from the site by trees and other development. As such, the project would not have a substantial adverse effect on a scenic vista, and impacts would be less than significant.

b) Substantially damage scenic resources, including, but not limited to, trees, rock outcroppings, and historic buildings within a state scenic highway?

No Impact. The nearest officially designated state scenic highway is State Route 116, located approximately six miles to the southwest.[10] As a result, the project site would not be located within a designated or eligible State Scenic Highway. Therefore, no impact would occur.

[7] Town of Windsor. 2018. Town of Windsor 2040 General Plan. April 4.
[8] Town of Windsor. 2018. Town of Windsor 2040 General Plan, page 2-109. April 4.
[9] Town of Windsor. 2018. Town of Windsor 2040 General Plan. April 4.
[10] State of California Department of Transportation. 2011. California Scenic Highway Mapping System. September 7. Website: http://www.dot.ca.gov/hq/LandArch/16_livability/scenic_highways/index.htm. Accessed April 29, 2019.

c) In non-urbanized areas, substantially degrade the existing visual character or quality of public views of the site and its surroundings? (Public views are those that are experienced from publicly accessible vantage point). If the project is in an urbanized area, would the project conflict with applicable zoning and other regulations governing scenic quality?

Less than significant impact. The project is in a mostly urbanized area. As described in the Project Description, to the north of the project site is the WorldMark hotel, to the west are two single-family homes and agricultural land, to the south of the project site are several offices and commercial space, to the east of the project site across Skylane Boulevard is a mostly vacant lot containing grassland, a single-family residence, and an Alexander Valley Cellars warehouse. The project site is located adjacent to Shiloh Road, a main route in the Town of Windsor that serves crosstown traffic. The project site is designated Retail Commercial by the Town of Windsor 2040 General Plan and zoned Community Commercial by the Windsor Zoning Ordinance.

The proposed project's apartment buildings would be 39-feet tall along the Shiloh Road frontage, 37-feet along the Skylane Boulevard frontage, and the neighborhood market on the corner would be 38-feet, six inches tall. As a result, the project would be consistent with the Town's 45-feet maximum height limit requirement for new structures in a Community Commercial district as defined by the Town Zoning Ordinance.[11] Architecture of project buildings would be modern in nature with neutral façade colors such as brown, gray, beige, and white and include different building materials to create visual interest consistent with General Plan Policy LU-1.10. As a result, the project would be consistent with Zoning Ordinance height limits and would also be consistent with applicable General Plan policies governing scenic quality and design as the project would incorporates visually stimulating architectural features. The Town's Planning Commission held a preliminary concept review on September 25, 2018 and reviewed the architectural design. The concept shown in Exhibit 5 and Exhibit 6 reflects the Planning Commission's comments and suggestions to make the architecture correspond to the GP policies. Therefore, impacts would be less than significant.

d) Create a new source of substantial light or glare which would adversely affect day or nighttime views in the area?

Less than significant impact. Daytime glare sources include sunlight and reflections from windows, architectural coatings, glass, and other reflective surfaces. Nighttime illumination and associated glare generally fall into two source categories: stationary and mobile. Stationary sources include structure lighting and decorative landscaping, lighted signs, solar panels, and streetlights. Mobile sources are primarily headlights from motor vehicles.

The project site and surrounding areas to the east and west have only few single-family homes on large lots with associated vehicles that would generate minimal stationary lighting or glare. The WorldMark Hotel to the north and office uses to the south include windows and two- to three-story-tall buildings that generate glare and nighttime lighting.

New light sources from project implementation would include interior and exterior lighting within and around the site. In addition, the proposed parking lot would also include lampposts and safety

[11] Town of Windsor Planning & Building Department. 2018. Town of Windsor Zoning Ordinance. August 20.

lighting that would cast light downward. New sources of glare from the project would include windows, building materials, and automobiles parked in the parking lot. As a result, the project would increase the amount of light and glare compared to existing conditions.

Project plans submitted for building permit approval must demonstrate compliance with the Town's performance standards for light and glare, including the types of lights, wattage minimums, and fixture heights necessary to provide safety on site premises (Zoning Ordinance Section 27.20.030.D).[12] The Project design would comply with General Plan Policy LU-1.13 to protect night skies by shielding and/or directing lights downward while still ensuring the area is safe.[13] In addition, new landscaping including trees along the project frontages with Shiloh Road and Skylane Boulevard would minimize nighttime illumination of the surrounding areas. Although the project would increase the amount of light and glare compared to existing conditions, compliance with applicable Town ordinances and General Plan policies would reduce these impacts to the maximum extent practicable. Therefore, impacts would be less than significant.

Mitigation Measures

None.

[12] Town of Windsor Planning & Building Department. 2018. Town of Windsor Zoning Ordinance. August 20.
[13] Town of Windsor. 2018. Town of Windsor 2040 General Plan. April 4.

Environmental Issues	Potentially Significant Impact	Less than Significant Impact with Mitigation Incorporated	Less than Significant Impact	No Impact
2. Agriculture and Forestry Resources *In determining whether impacts to agricultural resources are significant environmental effects, lead agencies may refer to the California Agricultural Land Evaluation and Site Assessment Model (1997) prepared by the California Dept. of Conservation as an optional model to use in assessing impacts on agriculture and farmland. In determining whether impacts to forest resources, including timberland, are significant environmental effects, lead agencies may refer to information compiled by the California Department of Forestry and Fire Protection regarding the state's inventory of forest land, including the Forest and Range Assessment Project and the Forest Legacy Assessment project; and forest carbon measurement methodology provided in Forest Protocols adopted by the California Air Resources Board. Would the project:*				
a) Convert Prime Farmland, Unique Farmland, or Farmland of Statewide Importance (Farmland), as shown on the maps prepared pursuant to the Farmland Mapping and Monitoring Program of the California Resources Agency, to non-agricultural use?	☐	☐	☐	☒
b) Conflict with existing zoning for agricultural use, or a Williamson Act contract?	☐	☐	☐	☒
c) Conflict with existing zoning for, or cause rezoning of, forest land (as defined in Public Resources Code Section 12220(g)), timberland (as defined by Public Resources Code Section 4526), or timberland zoned Timberland Production (as defined by Government Code Section 51104(g))?	☐	☐	☐	☒
d) Result in the loss of forest land or conversion of forest land to non-forest use?	☐	☐	☐	☒
e) Involve other changes in the existing environment which, due to their location or nature, could result in conversion of Farmland, to non-agricultural use or conversion of forest land to non-forest use?	☐	☐	☐	☒

Environmental Evaluation

Setting

In determining whether impacts to agricultural resources are significant environmental effects, lead agencies may refer to the California Agricultural Land Evaluation and Site Assessment Model prepared by the California Department of Conservation as an optional model to use in assessing impacts on agriculture and farmland. In determining whether impacts to forest resources, including timberland, are significant environmental effects, lead agencies may refer to information compiled by the California Department of Forestry and Fire Protection regarding the state's inventory of forest land, including the Forest and Range Assessment Project and the Forest Legacy Assessment project;

and forest carbon measurement methodology provided in Forest Protocols adopted by the California Air Resources Board.

Agricultural Resources

The California Department of Conservation Farmland Mapping and Monitoring Program (FMMP) was established by the State Legislature in 1982 to assess the location, quality, and quantity of agricultural lands and conversion of these lands over time. The FMMP has established five farmland categories:

- Prime Farmland is farmland with the best combination of physical and chemical features able to sustain long-term agricultural production. This land must have been used for irrigated agricultural production at some time during the last 4 years before the mapping date and have the ability to store moisture in soil well.
- Farmland of Statewide Importance is similar to Prime Farmland but contains greater slopes and a lesser ability to store soil moisture.
- Unique Farmland is usually irrigated but may include non-irrigated orchards or vineyards as found in some climate zones in California. This land must still have been cropped some time during 4 years prior to the mapping date.
- Farmland of Local Importance is important to the local agricultural economy as determined by each county's board of supervisors and local advisory committee.
- Grazing Land is land on which the existing vegetation is suited to the grazing livestock. This category was developed in cooperation with the California Cattlemen's Association, University of California Cooperative Extension, and other groups interested in the extent of grazing activities.

The FMMP classifies the project site and most of its surroundings as "Urban and Build-up Land." There is no Prime Farmland or Farmland of Statewide Importance located within the vicinity. Adjacent to the west of the project site is land designated as Unique Farmland and Farmland of Local Importance. The project site is not zoned for agricultural uses.

Forest Resources

The Williamson Act, classified in 1965 as the California Land Conversation Act, allows local governments to enter into contracts with private landowners, offering tax incentives in exchange for an agreement that the land will remain undeveloped or related open space use only for a period of 10 years. There are currently no properties under the Williamson Act within the Town of Windsor.

CEQA requires the evaluation of forest and timber resources where those resources are present; however, the project site is located within an area of mixed light industrial, commercial and residential development within the Town of Windsor, and there is no forest land as described in Public Resources Code Section 12220(g), timberland as defined by Public Resources Code Section 4526, or property zoned for Timberland Production as defined by Government Code Section 51104(g) on the site or in its vicinity.

Would the project:

a) Convert Prime Farmland, Unique Farmland, or Farmland of Statewide Importance (Farmland), as shown on the maps prepared pursuant to the Farmland Mapping and Monitoring Program of the California Resources Agency, to non-agricultural use?

No impact. The California Department of Conservation Farmland Mapping and Monitoring Program mapping for Sonoma County designates the project site as "Urban and Built up."[14] Therefore, development of the proposed project would not convert Prime Farmland, Unique Farmland, or Farmland of Statewide Importance to non-agricultural use. No impacts would occur.

b) Conflict with existing zoning for agricultural use, or a Williamson Act contract?

No impact. The project site is zoned Community Commercial by the Windsor Zoning Ordinance. This designation is a non-agricultural zoning designation. The land is not encumbered by a Williamson Act contract. Therefore, the proposed project would not conflict with existing agricultural zoning or with a Williamson Act contract. No impacts would occur.

c) Conflict with existing zoning for, or cause rezoning of, forest land (as defined in Public Resources Code Section 12220(g)), timberland (as defined by Public Resources Code Section 4526), or timberland zoned Timberland Production (as defined by Government Code Section 51104(g))?

No impact. The project site is zoned Community Commercial by the Windsor Zoning Ordinance. This designation is a non-forest land zoning district, which precludes the possibility of a conflict with a forest zoning designation. No impacts would occur.

d) Result in the loss of forest land or conversion of forest land to non-forest use?

No impact. The project site does not contain nor is it adjacent to any forested land. As stated in the Public Resource Code, "Forest land" is land that can support 10 percent native tree cover of any species, including hardwoods, under natural conditions, and that allows for management of one or more forest resources, including timber, aesthetics, fish and wildlife, biodiversity, water quality, recreation, and other public benefits. There would be no loss of forest land or conversion of forest land to non-forest use as a result of the project. No impacts would occur.

e) Involve other changes in the existing environment which, due to their location or nature, could result in conversion of Farmland, to non-agricultural use or conversion of forest land to non-forest use?

No Impact. As discussed previously, the project site does not currently support agricultural uses, State designated Farmland, or forest land. In addition, the project site is zoned Community Commercial by the Windsor Zoning Ordinance. This designation indicates the project site is intended for urban development and not Farmland or forest land. Therefore, the project would not result in the conversion of Farmland or forest land to a non-agricultural use or forest use. No impact would occur.

[14] California Department of Conservation. 2018. Sonoma County Important Farmland 2016.

Mitigation Measures

None.

Environmental Issues	Potentially Significant Impact	Less than Significant Impact with Mitigation Incorporated	Less than Significant Impact	No Impact
3. Air Quality *Where available, the significance criteria established by the applicable air quality management district or air pollution control district may be relied upon to make the following determinations.* *Would the project:*				
a) Conflict with or obstruct implementation of the applicable air quality plan?	☐	☒	☐	☐
b) Result in a cumulatively considerable net increase of any criteria pollutant for which the project region is non-attainment under an applicable federal or state ambient air quality standard?	☐	☒	☐	☐
c) Expose sensitive receptors to substantial pollutant concentrations?	☐	☒	☐	☐
d) Result in other emissions (such as those leading to odors) adversely affecting a substantial number of people?	☐	☐	☒	☐

Environmental Evaluation

Setting

Where available, the significance criteria established by the applicable air quality management or air pollution control district may be relied upon to make the following determinations.

Air Pollutants

Air pollutants relevant to the CEQA checklist questions for Air Quality are briefly described below.

- Ozone is a gas that is formed when reactive organic gases (ROGs) and nitrogen oxides (NO_X)—both byproducts of internal combustion engine exhaust—undergo slow photochemical reactions in the presence of sunlight. Ozone concentrations are generally highest during the summer months when direct sunlight, light wind, and warm temperature conditions are conducive to its formation. Heath effects can include, but not be limited to irritated respiratory system, reduced lung function, and aggravated chronic lung diseases.
- ROGs, or volatile organic compounds (VOCs), are defined as any compound of carbon—excluding carbon monoxide (CO), carbon dioxide (CO_2), carbonic acid, metallic carbides or carbonates, and ammonium carbonate—that participates in atmospheric photochemical reactions. Although there are slight differences in the definition of ROGs and VOCs, the two terms are often used interchangeably.
- Nitrogen dioxide (NO_2) forms quickly from NO_X emissions. Health effects from NO_2 can include the following: potential to aggravate chronic respiratory disease and respiratory symptoms in

sensitive groups; risk to public health implied by pulmonary and extra-pulmonary biochemical and cellular changes and pulmonary structural changes; contribution to atmospheric discoloration; increased visits to hospital for respiratory illnesses.

- CO is a colorless, odorless gas produced by the incomplete combustion of fuels. CO concentrations tend to be the highest during the winter morning, with little to no wind, when surface-based inversions trap the pollutant at ground levels. Because CO is emitted directly from internal combustion engines—unlike ozone—and motor vehicles operating at slow speeds are the primary source of CO in the project region, the highest ambient CO concentrations are generally found near congested transportation corridors and intersections. Potential health effects from CO depends on exposure and can include slight headaches; nausea; aggravation of angina pectoris (chest pain) and other aspects of coronary heart disease; decreased exercise tolerance in persons with peripheral vascular disease and lung disease; impairment of central nervous system functions; possible increased risk to fetuses; death.
- Sulfur dioxide (SO_2) is a colorless, pungent gas. At levels greater than 0.5 parts per million (ppm), the gas has a strong odor, similar to rotten eggs. Sulfur oxides (SO_X) include SO_2 and sulfur trioxide. Sulfuric acid is formed from sulfur dioxide, which can lead to acid deposition and can harm natural resources and materials. Although SO_2 concentrations have been reduced to levels well below State and federal standards, further reductions are desirable because SO_2 is a precursor to sulfate and PM_{10}.
- Respirable Particulate Matter (PM_{10}) and Fine Particulate Matter ($PM_{2.5}$) consist of extremely small, suspended particles or droplets 10 microns and 2.5 microns or smaller in diameter. Some sources of particulate matter, like pollen and windstorms, are naturally occurring. However, in populated areas, most particulate matter is caused by road dust, diesel soot, combustion products, abrasion of tires and brakes, and construction activities. Health effects from short-term exposure (hours/days) can include the following: irrigation of the eyes, nose, throat; coughing; phlegm; chest tightness; shortness of breath; aggravate existing lung disease, causing asthma attacks and acute bronchitis; those with heart disease can suffer heart attacks and arrhythmias. Health effects from long-term exposure can include the following: reduced lung function; chronic bronchitis; changes in lung morphology; or death.
- Toxic Air Contaminants (TACs) refer to a diverse group of air pollutants that can affect human health but have not had ambient air quality standards established for them. Diesel particulate matter (DPM) is a toxic air contaminant that is emitted from construction equipment and diesel fueled vehicles and trucks. Some short-term (acute) effects of DPM exposure include eye, nose, throat, and lung irritation, coughs, headaches, light-headedness, and nausea. Studies have linked elevated particle levels in the air to increased hospital admissions, emergency room visits, asthma attacks, and premature deaths among those suffering from respiratory problems. Human studies on the carcinogenicity of DPM demonstrate an increased risk of lung cancer, although the increased risk cannot be clearly attributed to diesel exhaust exposure.

Where available, the significance criteria established by the applicable air quality management or air pollution control district may be relied upon to make the following determinations. For purposes of this assessment, the significance thresholds recommended by the Bay Area Air Quality Management District (BAAQMD) were applied herein.

Would the project:

a) Conflict with or obstruct implementation of the applicable air quality plan?

Less than significant impact with mitigation incorporated. The project is located in the San Francisco Bay Area Air Basin (Air Basin), where air quality is regulated by the BAAQMD. The U.S. EPA is responsible for identifying non-attainment and attainment areas for each criteria pollutant within the Air Basin. The Air Basin is designated non-attainment for State standards for 1-hour and 8-hour ozone, 24-hour respirable particulate matter (PM_{10}), annual PM_{10}, and annual fine particulate matter ($PM_{2.5}$).[15]

To address regional air quality standards, the BAAQMD has adopted several air quality policies and plans, the most recent of which is the 2017 Clean Air Plan.[16] The 2017 Clean Air Plan was adopted in April of 2017 and serves as the regional air quality plan (AQP) for the Air Basin for attaining federal ambient air quality standards. The primary goals of the 2017 Clean Air Plan are to protect public health and protect the climate. The 2017 Clean Air Plan acknowledges that the BAAQMD's two stated goals of protection are closely related. As such, the 2017 Clean Air Plan identifies a wide range of control measures intended to decrease both criteria pollutants[17] and greenhouse gases (GHGs).[18] In September 2010, BAAQMD adopted their final Bay Area 2010 Clean Air Plan, which became the most recent ozone plan for the Air Basin. The 2010 Clean Air Plan identifies how the Air Basin would achieve compliance with the State 1-hour air quality standard for ozone, and how the region will reduce ozone from transporting to other basins downwind wind of the Air Basin. The 2017 Clean Air Plan updates the BAAQMD's 2010 Clean Air Plan, pursuant to air quality planning requirements defined in the California Health & Safety Code.

The 2017 Clean Air Plan also accounts for projections of population growth provided by Association of Bay Area Governments and vehicle miles traveled (VMT) provided by the Metropolitan Transportation Commission and identifies strategies to bring regional emissions into compliance with federal and State air quality standards. A project would be judged to conflict with or obstruct implementation of the 2017 Clean Air Plan if it would result in substantial new regional emissions not foreseen in the air quality planning process.

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[15] Bay Area Air Quality Management District (BAAQMD). 2017. California Environmental Quality Act Air Quality Guidelines. May. Website: http://www.baaqmd.gov/~/media/files/planning-and-research/ceqa/ceqa_guidelines_may2017-pdf.pdf?la=en. Accessed June 24, 2019.

[16] Bay Area Air Quality Management District (BAAQMD). 2017. Final 2017 Clean Air Plan. April 19. Website: http://www.baaqmd.gov/plans-and-climate/air-quality-plans/current-plans. Accessed June 24, 2019.

[17] EPA has established national ambient air quality standards (NAAQS) for six of the most common air pollutants—carbon monoxide, lead, ground-level ozone, particulate matter, nitrogen dioxide, and sulfur dioxide—known as "criteria" air pollutants (or simply "criteria pollutants").

[18] A greenhouse gas is any gaseous compound in the atmosphere that is capable of absorbing infrared radiation, thereby trapping and holding heat in the atmosphere. By increasing the heat in the atmosphere, greenhouse gases are responsible for the greenhouse effect, which ultimately leads to global warming.

The BAAQMD does not provide a numerical threshold of significance for project-level consistency analysis with AQPs. Therefore, the following criteria will be used for determining a project's consistency with the AQP.

- **Criterion 1:** Does the project support the primary goals of the AQP?
- **Criterion 2:** Does the project include applicable control measures from the AQP?
- **Criterion 3:** Does the project disrupt or hinder implementation of any AQP control measures?

Criterion 1

The primary goals of the 2017 Clean Air Plan, the current AQP to date, are to:

- Attain air quality standards;
- Reduce population exposure to unhealthy air and protecting public health in the Bay Area; and
- Reduce GHG emissions and protect the climate.

As discussed under Impacts 3a, 3b, and 3c, the project would not create a localized violation of State or federal air quality standards, significantly contribute to cumulative non-attainment pollutant violations, or expose sensitive receptors to substantial pollutant concentrations. The project would be required to implement the mitigation measures identified under Impact 3b, specifically Mitigation Measure (MM) AIR-1, to be consistent with Criterion 1. The project is therefore consistent with Criterion 1 significant after incorporation of identified mitigation.

Criterion 2

The 2017 Clean Air Plan contains 85 control measures aimed at reducing air pollutants and GHGs at the local, regional, and global levels. Along with the traditional stationary, area, mobile source, and transportation control measures, the 2017 Clean Air Plan contains a number of control measures designed to protect the climate and promote mixed use, compact development to reduce vehicle emissions and exposure to pollutants from stationary and mobile sources. The 2017 Clean Air Plan also includes an account of the implementation status of control measures identified in the 2010 Clean Air Plan.

Table 2 lists the relevant Clean Air Plan policies to the project and evaluates the project's consistency with the policies. As shown below, the project would be consistent with applicable measures and would not hinder the implementation of any AQP control measures.

Table 2: Project Consistency with Applicable Clean Air Plan Control Measures

Control Measure	Project Consistency
Stationary Control Measures	
SS29: Asphaltic Concrete	**Consistent.** Paving activities associated with the proposed project would be required to utilize asphalt that does not exceed BAAQMD emission standards.
SS33: Commercial Cooking Equipment	**Consistent.** If any of the proposed commercial kitchens install a char broiler, a catalytic oxidizer

Control Measure	Project Consistency
	system must also be installed pursuant to BAAQMD Rule 6-2.
SS34: Wood Smoke	**Consistent:** In compliance with BAAQMD Rule 6-3 wood burning devices, the project will not install any wood burning devices.
SS36: Particulate Matter from Trackout	**Consistent with Mitigation.** Mud and dirt that may be tracked out onto the nearby public roads during construction activities shall be removed promptly by the contractor based on BAAQMD's requirements. MM AIR-1, identified under Impact 3b, would implement Best Management Practices (BMPs) recommended by BAAQMD for fugitive dust emissions during construction.
SS37: Particulate Matter from Asphalt Operations	**Consistent.** Paving and roofing activities associated with the proposed project would be required to utilize best management practices to minimize the particulate matter created from the transport and application of road and roofing asphalt.
SS38: Fugitive Dust	**Consistent with Mitigation.** Material stockpiling and trackout during grading activities shall utilize BMPs to minimize the creation of fugitive dust (see MM AIR-1, identified under Impact 3b).
Transportation Control Measures	
TR9: Bicycle and Pedestrian Access Facilities	**Consistent.** The proposed project would comply with TR9 by providing sidewalks and pedestrian infrastructure, as well as long-term and short-term bicycle parking, throughout the project site for resident, employee, and customer use.
Buildings Control Measures	
BL1: Green Buildings	Consistent. The project will comply with the Town's latest adopted energy efficiency standards and incorporate applicable energy efficiency features designed to reduce project energy consumption.
BL2: Decarbonize Buildings	Consistent. The project will comply with the Town's latest adopted energy efficiency standards and incorporate applicable energy efficiency features designed to reduce project energy consumption.
BL4: Urban Heat Island Mitigation	Consistent. The project would incorporate landscaping throughout the site. The project would provide landscaping in accordance with Town standards that would serve to reduce the urban heat island effect and would include the planting of shade trees.
Energy Control Measures	

Control Measure	Project Consistency
EN2: Decrease Energy Use	**Consistent.** The project will comply with the Town's latest adopted energy efficiency standards. Compliance with these energy efficiency standards would decrease building energy consumption relative to business as usual conditions.
Natural and Working Lands Control Measures	
NW2: Urban Tree Planting	**Consistent.** The project would incorporate landscaping throughout the site. The project would provide landscaping in accordance with Town standards that would serve to reduce the urban heat island effect and would include the planting of shade trees.
Waste Management Control Measures	
WA3: Green Waste Diversion	**Consistent:** The solid waste provider would provide green waste collection, thereby allowing compostable materials to be diverted from the waste stream.
WA4: Recycling and Waste Reduction	**Consistent:** The solid waste provider would provide recycling pick-up, thereby allowing recoverable materials to be diverted from the waste stream.
Source: Bay Area Air Quality Management District (BAAQMD). 2017. Final 2017 Clean Air Plan. April 19. Website: https://www.baaqmd.gov/~/media/files/planning-and-research/plans/2017-clean-air-plan/attachment-a_-proposed-final-cap-vol-1-pdf.pdf?la=en. Accessed January 13, 2020.	

In summary, the project would not conflict with any applicable measures under the 2017 Clean Air Plan after the implementation of Mitigation Measure AIR-1; therefore, the project would be consistent with Criterion 2 after incorporation of mitigation.

Criterion 3

The project will not preclude extension of a transit line or bike path, propose excessive parking beyond parking requirements, or otherwise create an impediment or disruption to implementation of any AQP control measures. As shown in Table 2 above, the project would incorporate several AQP control measures as project design features. The project is therefore consistent with Criterion 3.

Summary

As addressed above, the project would be consistent with all three criteria after the incorporation of MM AIR-1. Thus, the project would not conflict with the 2017 Climate Action Plan (CAP). Therefore, impacts associated with conflicting with or obstructing implementation of the 2017 CAP would be less than significant with mitigation.

b) Result in a cumulatively considerable net increase of any criteria pollutant for which the project region is non-attainment under an applicable federal or state ambient air quality standard?

Less than significant impact with mitigation incorporated. This impact relates to criteria pollutant impacts from project construction and operation. Potential impacts would result in exceedances of State or federal standards for oxides of nitrogen (NO_X), particulate matter (PM_{10} and $PM_{2.5}$), or carbon monoxide (CO). NO_X emissions are of concern because of potential health impacts from exposure to NO_X emissions during both construction and operation and as a precursor in the formation of airborne ozone. PM_{10} and $PM_{2.5}$ are of concern during construction because of the potential to emit exhaust emissions from the operation of off-road construction equipment and fugitive dust during earth-disturbing activities (construction fugitive dust). CO emissions are of concern during project operation because CO hotspots can result from increases in on-road vehicle congestion.

Reactive Organic Gas (ROG) emissions are also important because of their participation in the formation of airborne ozone. Ozone is a respiratory irritant and an oxidant that increases susceptibility to respiratory infections and that can cause substantial damage to vegetation and other materials. Elevated ozone concentrations result in reduced lung function, particularly during vigorous physical activity. This health problem is particularly acute in sensitive receptors such as the sick, elderly, and young children. Construction and operational emissions are discussed separately below.

Construction Emissions

During construction, fugitive dust (PM_{10} and $PM_{2.5}$) would be generated from site grading and other earth-moving activities. The majority of this fugitive dust would remain localized and would be deposited near the project site. However, the potential for impacts from fugitive dust exists unless control measures are implemented to reduce the emissions from this source. Exhaust emissions would also be generated from the operation of the off-road construction equipment, as shown in Table 4.

Construction Fugitive Dust

BAAQMD does not recommend a numerical threshold for fugitive dust particulate matter emissions. Instead, BAAQMD bases the determination of significance for fugitive dust on a consideration of the control measures to be implemented. If all appropriate emissions control measures are implemented for a project as recommended by BAAQMD, then fugitive dust emissions during construction are not considered significant.

As required by MM AIR-1, the project would implement Best Management Practices recommended by BAAQMD for fugitive dust emissions during construction. MM AIR-1 is consistent with the AQ-1 Construction Emissions Measures (MM AQ-1.1 through MM AQ-1.8) of the Windsor 2040 General Plan Final EIR.[19] Therefore, with mitigation, short-term construction impacts associated with violating an air quality standard or contributing substantially to an existing or projected air quality violation would be less than significant.

[19] Town of Windsor. 2018. Windsor 2040 General Plan Final EIR. February. Website: https://www.townofwindsor.com/DocumentCenter/View/21024/Final-EIR. Accessed April 22, 2020.

Construction Air Pollutant Emissions: ROG, NO_X, PM_{10}, $PM_{2.5}$

Version 2016.3.2 of the California Emissions Estimator Model (CalEEMod) was used to estimate the project's construction emissions. CalEEMod provides a consistent platform for estimating construction and operational emissions from a wide variety of land use projects and is the model recommended by the BAAQMD for estimating project emissions. Estimated construction emissions are compared with the applicable thresholds of significance established by the BAAQMD to assess ROG, NO_X, exhaust PM_{10}, and exhaust $PM_{2.5}$ construction emissions to determine significance for this criterion.

For the purpose of this analysis, construction of the project was assumed to begin in June 2020 and last for 9 months. Construction emissions would likely decrease if the construction schedule moves to later years because of improvements in technology, equipment turn-over, and more stringent regulatory requirements. The preliminary construction schedule is provided in Table 3.

Table 3: Conceptual Construction Schedule

Construction Activity	Conceptual Construction Schedule		Working Days per Week	Total Number of Working Days
	Start Date	End Date		
Demolition	6/1/2020	6/11/2020	6	10
Site Preparation	6/12/2020	6/29/2020	6	15
Grading	6/30/2020	7/10/2020	6	10
Paving	7/11/2020	7/22/2020	6	10
Building Construction	7/23/2020	2/27/2021	6	189
Architectural Coating	2/17/2021	2/27/2021	6	10
Source: CalEEMod Output, Appendix A.				

Project-specific construction equipment assumptions are not currently known, therefore, CalEEMod default construction equipment assumptions were used in the analysis. CalEEMod default construction equipment and equipment activity is based on detailed construction industry studies. The assumptions used to estimate emissions and complete CalEEMod results are provided in Appendix A. The duration of construction activity and associated equipment represent a reasonable approximation of the expected construction fleet as required by CEQA guidelines. The applicable BAAQMD thresholds for ROG, NO_X, exhaust PM_{10}, and exhaust $PM_{2.5}$ are based on the average daily rate; therefore, the relevant annual emissions were converted to the average daily rate to compare to the applicable thresholds. Annual construction emissions are summarized by activity in Table 4, while average daily construction emissions are compared with the applicable BAAQMD significance thresholds in Table 5.

Table 4: Annual Construction Emissions (Unmitigated)

Construction Activity	Tons per Year			
	ROG	NO_X	PM_{10} (Exhaust)	$PM_{2.5}$ (Exhaust)
2020				

Construction Activity	Tons per Year			
	ROG	NO_X	PM_{10} (Exhaust)	$PM_{2.5}$ (Exhaust)
Demolition	0.41	0.11	0.01	0.01
Site Preparation	0.01	0.14	0.01	0.01
Grading	0.01	0.13	0.00	0.00
Paving	0.01	0.04	0.00	0.00
Paving (off-site roadways)	0.00	0.02	0.00	0.00
Building Construction—2020	0.15	1.11	0.06	0.05
Total 2020 Construction Emissions	0.59	1.55	0.07	0.07
2021				
Building Construction—2021	0.05	0.37	0.02	0.02
Architectural Coating	0.39	0.01	0.00	0.00
Total 2021 Construction Emissions	0.43	0.38	0.02	0.02
Total Construction Emissions	**1.03**	**1.93**	**0.09**	**0.09**

Notes:
ROG = reactive organic gases NO_X = oxides of nitrogen
PM_{10} = particulate matter 10 microns in diameter
$PM_{2.5}$ = particulate matter 2.5 microns in diameter
Unrounded numbers from the CalEEMod output were used for all calculations.
Source: CalEEMod Output (see Appendix A).

Table 5: Construction Emissions (Unmitigated Average Daily Rate)

Parameter	Air Pollutants			
	ROG	NO_X	PM_{10} (Exhaust)	$PM_{2.5}$ (Exhaust)
Total Emissions (tons)	1.03	1.93	0.09	0.09
Total Emissions (lbs)	2,060	3,852	185	177
Average Daily Emissions (lbs/day)[1]	8.44	15.79	0.76	0.73
Significance Threshold (lbs/day)	**54**	**54**	**82**	**54**
Exceeds Significance Threshold?	**No**	**No**	**No**	**No**

Notes:
[1] Calculated by dividing the total lbs by the total 263 working days of construction for the duration of construction (2019–2020).
Calculations use unrounded totals.
lbs = pounds ROG = reactive organic gases NO_X = oxides of nitrogen
PM_{10} = particulate matter 10 microns in diameter
$PM_{2.5}$ = particulate matter 2.5 microns in diameter
Source: CalEEMod Output (see Appendix A).

As shown in Table 5, the construction emissions from all construction activities are below the recommended thresholds of significance; therefore, the construction of the project would have less than significant impact in regards to emissions ROG, NO_X, exhaust PM_{10}, and exhaust $PM_{2.5}$. As

previously discussed, the project would implement MM AIR-1 with BMPs recommended by the BAAQMD to reduce potential impacts related to fugitive dust emissions from use of the construction equipment. Therefore, project construction would have a less than significant impact after incorporation of mitigation.

Operational Emissions

Operational Air Pollutant Emissions: ROG, NO_X, PM_{10}, $PM_{2.5}$

Regional pollutants of concern include ROG, NO_X, PM_{10}, and $PM_{2.5}$. The project operational emissions for the respective pollutants were calculated using CalEEMod version 2016.3.2. Operations were analyzed assuming full buildout in 2021. Operational emissions for land use development projects are typically distinguished as mobile-, area-, and energy-source emissions. Mobile-source emissions are those associated with automobiles that would travel to and from the proposed project site. Area-source emissions are those associated with natural gas combustion for space and water heating, landscape maintenance activities, and periodic architectural coatings. Energy-source emissions are those associated with electricity consumption and are more pertinent for GHG emissions than air quality pollutants. The maximum daily operational emissions modeled for summer and winter seasons. The results for the estimated annual emissions during long-term operations are presented in Table 6, while unmitigated maximum daily emissions from project operations are presented in Table 7. For detailed assumptions and complete emission estimates, please refer to Appendix A.

Table 6: Annual Operational Emissions (Unmitigated)

Emissions Source	Tons per Year			
	ROG	NO_X	PM_{10}	$PM_{2.5}$
Area	0.14	0.01	0.00	0.00
Energy	0.00	0.00	0.00	0.00
Mobile	0.67	2.78	0.88	0.25
Estimated Annual Emissions	**0.82**	**2.79**	**0.88**	**0.25**
Thresholds of Significance	**10**	**10**	**15**	**10**
Exceeds Significance Threshold?	No	No	No	No

Notes:
ROG = reactive organic gases NO_X = oxides of nitrogen
PM_{10} = particulate matter 10 microns or less in diameter
$PM_{2.5}$ = particulate matter 2.5 microns or less in diameter
Source: CalEEMod Output (see Appendix A).

Table 7: Daily Operational Emissions (Unmitigated)

Emissions Source	Pounds per Day			
	ROG	NO_X	PM_{10}	$PM_{2.5}$
Area	0.84	0.27	0.03	0.03

Emissions Source	Pounds per Day			
	ROG	NO_X	PM_{10}	$PM_{2.5}$
Energy	0.00	0.00	0.00	0.00
Mobile	5.46	19.85	6.37	1.77
Estimated Maximum Daily Emissions	**6.31**	**20.13**	**6.41**	**1.81**
Thresholds of Significance	**54**	**54**	**82**	**54**
Exceeds Significance Threshold?	**No**	**No**	**No**	**No**

Notes:
ROG = reactive organic gases NO_X = nitrous oxides
PM_{10} = particulate matter 10 microns or less in diameter
$PM_{2.5}$ = particulate matter 2.5 microns or less in diameter
Source: CalEEMod Output (see Appendix A).

As shown in Table 6 and Table 7, the project would not result in operational-related air pollutants or precursors that would exceed BAAQMD's thresholds of significance, indicating that ongoing project operations would not be considered to have the potential to generate a significant quantity of air pollutants. Therefore, long-term operational impacts associated with criteria pollutant emissions would be less than significant.

Operational CO Hotspot

The CO emissions from traffic generated by the project are a concern at the local level. Congested intersections can result in high, localized concentrations of CO.

The BAAQMD recommends a screening analysis to determine if a project has the potential to contribute to a CO hotspot. The screening criteria identify when site-specific CO dispersion modeling is necessary. The project would result in a less than significant impact to air quality for local CO if the following screening criteria are met:

- The project is consistent with an applicable congestion management program established by the county congestion management agency for designated roads or highways, regional transportation plan, and local congestion management agency plans; or
- The project traffic would not increase traffic volumes at affected intersections to more than 44,000 vehicles per hour; or
- The project traffic would not increase traffic volumes at affected intersections to more than 24,000 vehicles per hour where vertical and/or horizontal mixing is substantially limited (e.g., tunnel, parking garage, bridge underpass, natural or urban street canyon, below-grade roadway).

No intersections impacted by the project would experience traffic volumes of 44,000 vehicles per hour. According to the traffic impact analysis prepared for the project by TJKM, the intersection of Shiloh Road and U.S. 101 Northbound Off-Ramp would experience the highest peak-hour traffic volumes among the intersections impacted by the project, with 3,082 vehicles per hour during the

PM peak-hour for the Cumulative Plus Project Scenario (Appendix H).[20] Therefore, based on the above criteria, the project would not exceed the CO screening criteria and would have a less than significant impact related to CO.

c) Expose sensitive receptors to substantial pollutant concentrations?

Less than significant impact with mitigation incorporated. A sensitive receptor is defined by the BAAQMD as the following: "Facilities or land uses that include members of the population that are particularly sensitive to the effects of air pollutants, such as children, the elderly, and people with illnesses. Examples include schools, hospitals, and residential areas."

The project site is surrounded by a large-lot single-family residential parcel (west); Shiloh Road (north); Skylane Boulevard (east); and office and commercial uses (south). Single-family homes and agricultural land are located further west of the project site. Several offices and commercial space are located south of the project site along Skylane Boulevard. Across Shiloh Road to the north of the project site is WorldMark Windsor, a hotel. To the east of the project site across Skylane Boulevard is a mostly vacant lot containing grassland and a single-family residence on the eastern most portion. Further east is a large industrial warehouse owned by Alexander Valley Cellars.

- **Criterion 1:** Construction of the project would not result in an exceedance of the health risk significance thresholds.
- **Criterion 2:** Operation of the project would not result in an exceedance of the health risk significance thresholds.
- **Criterion 3:** The cumulative health impact would not result in an exceedance of the cumulative health risk significance thresholds.
- **Criterion 4:** A CO hotspot assessment must demonstrate that the project would not result in the development of a CO hotspot that would cause an exceedance of the CO ambient air quality standards.

Criterion 1: Project Construction Toxic Air Pollutants

An assessment was made of the potential health impacts to surrounding sensitive receptors resulting from the emissions of Toxic Air Contaminants (TACs) during construction. A summary of the assessment is provided below, while the detailed assessment is provided in Appendix A of this IS/MND.

Diesel particulate matter (DPM) has been identified by the California Air Resources Board (ARB) as a carcinogenic substance. Major sources of DPM include off-road construction equipment and heavy-duty delivery truck and worker activities. For purposes of this analysis, DPM is represented as exhaust emissions of $PM_{2.5}$.

[20] TJKM. 2020. Shiloh Mixed Use Transportation Impact Study. January.

Estimation of Construction DPM Emissions

Construction DPM emissions (as $PM_{2.5}$ exhaust) were estimated using CalEEMod version 2016.3.2, as described under the discussion for Impact 3b. Construction was assumed to occur in a single phase and last for 9 months. The construction DPM emissions were assumed to be distributed over the project area with a working schedule of 8 hours per day and 6 days per week.

Construction exhaust emissions of DPM are shown in Table 8.

Table 8: Project DPM Construction Emissions

Annual Construction Emissions	On-site DPM (as $PM_{2.5}$ Exhaust) (tons/year)	Off-site DPM (as $PM_{2.5}$ Exhaust) (tons/year)	Total DPM (as $PM_{2.5}$ Exhaust) (tons/year)
Annual Construction Emissions—Unmitigated			
Project Site	8.672E-02	2.055E-05	8.67E-02
Roadway Improvements	9.200E-04	0.000E+00	9.20E-04
Total Emissions	8.76E-02	2.06E-05	8.77E-02
Source: Appendix A.			

Estimation of Cancer Risks

The BAAQMD has developed a set of guidelines for estimating cancer risks that provide adjustment factors that emphasize the increased sensitivities and susceptibility of young children to exposures to TACs.[21] These adjustment factors include age-sensitivity weighting factors, age-specific daily breathing rates, and age-specific time-at-home factors. The recommended method for the estimation of cancer risk is shown in the equations below with the cancer risk adjustment factors provided in Table 9 for several types of sensitive/residential receptors (infant, child, and adult).

$$\text{Cancer Risk} = C_{DPM} \times \text{Inhalation Exposure Factor} \qquad \text{(EQ-1)}$$

Where:

Cancer Risk = Total individual excess cancer risk defined as the cancer risk a hypothetical individual faces if exposed to carcinogenic emissions from a particular source for specified exposure durations; this risk is defined as an excess risk because it is above and beyond the background cancer risk to the population; cancer risk is expressed in terms of risk per million exposed individuals.

C_{DPM} = Period average DPM air concentration calculated from the air dispersion model in $\mu g/m^3$

Inhalation is the most important exposure pathway to impact human health from DPM and the inhalation exposure factor is defined as follows:

[21] Bay Area Air Quality Management District (BAAQMD). 2016. BAAQMD Air Toxics NSR Program Health Risk Assessment (HRA) Guidelines. January. Website: http://www.baaqmd.gov/~/media/files/planning-and-research/rules-and-regs/workshops/2016/reg-2-5/hra-guidelines_clean_jan_2016-pdf.pdf?la=en. Accessed June 24, 2019.

Inhalation Exposure Factor = CPF x EF x ED x DBR x AAF/AT (EQ-2)

Where:

CPF = Inhalation cancer potency factor for the TAC: 1.1 (mg/kg-day)-1 for DPM
EF = Exposure frequency (days/year)
ED = Exposure duration (years of construction)
AAF = set of age-specific adjustment factors that include age sensitivity factors (ASF), daily breathing rates (DBR), and time at home factors (TAH)—see Table 9.
AT = Averaging time period over which exposure is averaged (days)

The California Office of Environmental Health Hazards Assessment (OEHHA)-recommended values for the various cancer risk parameters, shown in EQ 2, above, are provided in Table 9.

Table 9: Exposure Assumptions for Cancer Risk

Receptor Type	Exposure Frequency		Exposure Duration (years)	Age Sensitivity Factors (ASF)	Time at Home Factor (TAH) (%)	Daily Breathing Rate (DBR)[1] (L/kg-day)
	Hours/day	Days/year				
Sensitive/Residential—Infant						
3rd Trimester	24	350	0.25	10	85	361
0 to 2 year	24	350	0.49	10	85	1,090
Sensitive Receptor—Child						
3 to 16 years	24	350	0.74	3	72	572
Sensitive Receptor—Adult						
> 16 years	24	350	0.74	1	73	261

Notes:
[1] The daily breathing rates recommended by the BAAQMD for sensitive/residential receptors assume the 95th percentile breathing rates for all individuals less than 2 years of age and 80th percentile breathing rates for all older individuals.
(L/kg-day) = liters per kilogram body weight per day
Source: Bay Area Air Quality Management District (BAAQMD). 2016. Air Toxics NSR Program Health Risk Assessment (HRA) Guidelines. Website: http://www.baaqmd.gov /~/media/files/planning-and-research/rules-and-regs/workshops/2016/reg-2-5/hra-guidelines_clean_jan_2016-pdf.pdf?la=en. Accessed January 13, 2020.

Estimation of Non-Cancer Chronic Hazards

An evaluation of the potential non-cancer effects of chronic chemical exposures was also conducted. Adverse health effects are evaluated by comparing the annual receptor concentration of each chemical compound with the appropriate reference exposure limit (REL). Available RELs promulgated by the OEHHA were considered in the assessment.

Risk characterization for non-cancer health hazards from TACs is expressed as a hazard index (HI). The HI is a ratio of the predicted concentration of the project's emissions to a concentration considered acceptable to public health professionals, termed the REL.

To quantify non-carcinogenic impacts, the hazard index approach was used.

$$HI = C_{ann}/REL \qquad (EQ\text{-}3)$$

Where:

HI = chronic hazard index
C_{ann} = annual average concentration of TAC as derived from the air dispersion model ($\mu g/m^3$)
REL = reference exposure level above which a significant impact is assumed to occur ($\mu g/m^3$)

The HI assumes that chronic sub-threshold exposures adversely affect a specific organ or organ system (toxicological endpoint). For each discrete chemical exposure, target organs presented in regulatory guidance were used. To calculate the hazard index, each chemical concentration or dose is divided by the appropriate toxicity reference exposure level. For compounds affecting the same toxicological endpoint, this ratio is summed. Where the total equals or exceeds 1, a health hazard is presumed to exist. For purposes of this assessment, the TAC of concern is DPM for which the OEHHA has defined a REL for DPM of 5 $\mu g/m^3$. The principal toxicological endpoint assumed in this assessment was through inhalation.

The maximum impacted receptor (MIR) was found at an existing residence located approximately 270 feet east of the project site. Table 10 presents a summary of the project's construction cancer risk, chronic non-cancer hazard, and $PM_{2.5}$ concentration impacts at the MIR prior to the application of any equipment mitigation. As discussed in Air Impact 2, MM AIR-1 would be required to reduce fugitive dust emissions during construction. Annual $PM_{2.5}$ emissions were estimated assuming compliance with MM AIR-1. It should be noted that inclusion of Standard Permit Condition AQ No. 1 only reduces $PM_{2.5}$ total and not $PM_{2.5}$ exhaust.

Table 10: Estimated Health Risks and Hazards during Project Construction—Unmitigated

Source	Cancer Risk (risk per million)	Chronic Non-Cancer Hazard Index[2]	Annual $PM_{2.5}$ Concentration ($\mu g/m^3$)
Risks and Hazards at the MIR: Infant[1]	4.79	0.012	0.068
Risks and Hazards at the MIR: Child[1]	1.15	0.012	0.068
Risks and Hazards at the MIR: Adult[1]	0.13	0.012	0.068
BAAQMD Thresholds of Significance	**10**	**1**	**0.30**
Exceeds Individual Source Threshold?	**No**	**No**	**No**

Notes:
[1] The MIR is an existing residence located approximately 270 feet east of the project site.
[2] Chronic non-cancer hazard index was estimated by dividing the annual DPM concentration (as PM2.5 exhaust) by the REL of 5 mg/m3.
MEI = maximally exposed individual
Source: Appendix A.

As shown above in Table 10, the project's construction DPM emissions would not exceed the applicable thresholds of significance at the MIR for the chronic non-cancer hazard index, Cancer Risk The project's construction emissions would not exceed the BAAQMD significance threshold;

therefore, project-related emissions would not result in significant health impacts to nearby sensitive receptors during construction.

Criterion 2: Project-Specific Operation Toxic Air Pollutants

The proposed project would primarily generate trips for visitors, employees, and customers traveling to and from the project site. Although the project would receive diesel truck deliveries, this would represent a very small percentage of daily trips. Instead, most daily trips would be made by passenger vehicle, which are gasoline-combusted and, thus, would not generate significant amount of DPM emissions during operation. Therefore, the project would not result in significant health impacts to nearby sensitive receptors during operation.

Criterion 3: Cumulative HRA

The BAAQMD recommends assessing the potential cumulative impacts from sources of TACs within 1,000 feet of a project. As a result, a cumulative HRA was performed that examined the cumulative impacts of the project's construction emissions and sources of TAC emissions within 1,000 feet of the project. Based on proximity to the project site, the MIR was determined to be a residence approximately 270 feet east of the project site. Therefore, the cumulative health impacts were estimated at this location.

For a project-level analysis, BAAQMD provides three tools for use in screening potential sources of TACs. These tools are:

- **Surface Street Screening Tables.**[22] BAAQMD pre-calculated potential cancer risks and $PM_{2.5}$ concentration increases for each county within their jurisdiction for roadways that meet BAAQMD's "major roadway" criteria of 10,000 vehicles or 1,000 trucks per day. Risks are assessed by roadway volume, roadway direction, and distance to sensitive receptors. Skylane Boulevard is designated as a truck route in the Town's General Plan, and adjacent business generate truck traffic on local roadways and at loading docks located approximately 100 feet from the southern property line of the project site. However, based on BAAQMD's criteria, there are no major roadways in the vicinity.

- **Freeway Screening Analysis Tool**. BAAQMD prepared GIS files that contain pre-estimated cancer risk, hazard index, and $PM_{2.5}$ concentration increases for highways within the Bay Area. Risks are provided by roadway link and are estimated based on direction and distance to the sensitive receptor. There are no freeways located within 1,000 feet of the MIR. The Redwood Highway (U.S. 101) which is approximately 2,200 feet from the MIR is included in the cumulative analysis. The risks are calculated using GIS tool by BAAQMD.

- **Stationary Source Risk and Hazard Screening Tool**. The BAAQMD has prepared a Geographic Information System (GIS) tool with the location of permitted sources, which has been updated more recently than the previously mentioned Google Earth tool. For each emissions source, the BAAQMD provides conservative estimates of cancer risk, non-cancer hazards, and $PM_{2.5}$

[22] Bay Area Air Quality Management District (BAAQMD). 2015. Roadway Screening analysis calculator. Website: http://www.baaqmd.gov/plans-and-climate/california-environmental-quality-act-ceqa/ceqa-tools. Accessed November 11, 2019.

concentrations. Using information from the GIS tool, there are no existing stationary sources located within approximately 1,000 feet of the MIR.

- **Rail Screening Tools**. The BAAQMD prepared GIS files that contain estimated cancer risks and $PM_{2.5}$ concentrations from railroad operations at any point within the Air Basin. The Northwestern Pacific Railroad (NWP) line track, owned by the North Coast Railroad Authority, is located approximately 350 feet to the northeast of the MIR.

The cumulative health risk results are summarized in Table 11 during project construction. The methodology used to create the summary presented in Table 11 is described in detail in Appendix A.

Table 11: Summary of the Cumulative Health Impacts at the MIR during Construction

Source	Source Type	Distance from MIR[(1)] (feet)	Cancer Risk (per million)	Chronic HI	$PM_{2.5}$ Concentration ($\mu g/m^3$)
Project					
Construction (no mitigation)	Diesel Construction Equipment	270	4.79	0.012	0.068
Freeway					
Redwood Highway	Traffic on Highway	2,200	2.69	N/A	0.043
Existing Rail					
Rail	Rail	350	0.76	N/A	0.001
Cumulative Health Risks					
Cumulative Total with Project Construction			8.24	N/A	0.109
BAAQMD's Cumulative Thresholds of Significance			**100**	**10**	**0.8**
Threshold Exceedance?			**No**	**No**	**No**

Notes:
(1) The MIR is an existing residence located approximately 270 feet east of the project.

N/A = no data available
Source: Appendix A.

As noted in Table 11, the cumulative impacts from the project construction and existing sources of TACs would be less than the BAAQMD's cumulative thresholds of significance.

The project would locate new sensitive receptors (residents) that could be subject to existing sources of TACs at the project site. However, the California Supreme Court concluded in *California Building Industry Association v. BAAQMD* that agencies generally subject to CEQA are not required to analyze the impact of existing environmental conditions on a project's future users or residents. Although impacts from existing sources of TAC emissions on sensitive receptors on the project site are not subject to CEQA, the BAAQMD recommends assessing the potential cumulative impacts from sources of TACs within 1,000 feet of a project when siting new sensitive land uses. The potential TAC risks to

the project's future residents are analyzed for informational purposes below. The BAAQMD screening analysis was applied at the project for conditions at build-out. Table 12 summarizes the cumulative health impacts at buildout.

Table 12: Cumulative Operation Air Quality Health Impacts at the Project Site

Source	Source Type	Distance from MIR[1] (feet)	Cancer Risk (per million)	Chronic HI	$PM_{2.5}$ Concentration ($\mu g/m^3$)
Freeway					
Redwood Highway	Traffic on Highway	2,300	2.24	N/A	0.036
Existing Rail					
Rail	Rail	590	0.51	N/A	0.037
Cumulative Health Risks					
Cumulative Total with Project Construction			2.75	N/A	0.109
BAAQMD's Cumulative Thresholds of Significance			**100**	**10**	**0.8**
Threshold Exceedance?			**No**	**No**	**No**

Notes:
[1] The MIR is an existing residence located approximately 270 feet east of the project.
N/A = no data available
Source: Appendix A.

As noted in Table 12, the health impacts from existing TAC emission sources located within 1,000 feet of the project site would not exceed the BAAQMD's cumulative health significance thresholds and no existing source of TACs would exceed the BAAQMD's project-level health significance thresholds. The cumulative impacts from the existing sources of TACs at the project site would be less than the BAAQMD's cumulative thresholds of significance.

Criterion 4: CO Hotspot

As discussed under Impact 3b, the operational CO hotspot impact as a result of project operations would be less than significant.

d) Result in other emission (such as those leading to odors) adversely affecting a substantial number of people?

Less than significant impact. As stated in the BAAQMD 2017 Air Quality Guidelines, odors are generally regarded as an annoyance rather than a health hazard and the ability to detect odors varies considerably among the populations and overall is subjective.[23]

The BAAQMD does not have a recommended odor threshold for construction activities. However, BAAQMD recommends screening criteria that are based on distance between types of sources

[23] Bay Area Air Quality Management District (BAAQMD). 2017. California Environmental Quality Act (CEQA) Air Quality Guidelines. May. Website: http://www.baaqmd.gov/~/media/files/planning-and-research/ceqa/ceqa_guidelines_may2017-pdf.pdf?la=en. Accessed November 11, 2019.

known to generate odor and the receptor. For projects within the screening distances, the BAAQMD has the following threshold for project operations:

> An odor source with five (5) or more confirmed complaints per year averaged over three years is considered to have a significant impact on receptors within the screening distance shown in Table 11.[24]

Two circumstances have the potential to cause odor impacts:

1) A source of odors is proposed to be located near existing or planned sensitive receptors, or
2) A sensitive receptor land use is proposed near an existing or planned source of odor.

Projects that would site an odor source or a receptor farther than the applicable screening distance, shown in Table 13 below, would not likely result in a significant odor impact.

Table 13: Odor Screening Distances

Land Use/Type of Operation	Project Screening Distance
Wastewater Treatment Plant	2 miles
Wastewater Pumping Facilities	1 mile
Sanitary Landfill	2 miles
Transfer Station	1 mile
Composting Facility	1 mile
Petroleum Refinery	2 miles
Asphalt Batch Plant	2 miles
Chemical Manufacturing	2 miles
Fiberglass Manufacturing	1 mile
Painting/Coating Operations	1 mile
Rendering Plant	2 miles
Coffee Roaster	1 mile
Food Processing Facility	1 mile
Confined Animal Facility/Feed Lot/Dairy	1 mile
Green Waste and Recycling Operations	1 mile
Source: Bay Area Air Quality Management District (BAAQMD). 2017. Final 2017 Clean Air Plan. April 19. Website: https://www.baaqmd.gov/~/media/files/planning-and-research/plans/2017-clean-air-plan/attachment-a_-proposed-final-cap-vol-1-pdf.pdf?la=en. Accessed January 13, 2020.	

[24] Bay Area Air Quality Management District (BAAQMD). 2017. California Environmental Quality Act (CEQA) Air Quality Guidelines. May. Website: http://www.baaqmd.gov/~/media/files/planning-and-research/ceqa/ceqa_guidelines_may2017-pdf.pdf?la=en. Accessed November 11, 2019.

Project Construction

Odors from diesel exhaust, architectural coatings, and asphalt paving would be emitted during construction of the project, which are objectionable to some; however, emissions would be temporary and would disperse rapidly from the project site. Therefore, construction of the project would not create objectionable odors affecting a substantial number of people. As such, impacts would be less than significant.

Project Operation

Project as an Odor Generator

Land uses typically considered associated with odors include wastewater treatment facilities, waste-disposal facilities, or agricultural operations.

The project is a mixed-use development consisting of 2,844 square-feet of commercial uses and 27 dwelling units and is not expected to produce any offensive odors that would result in odor complaints. During operation of the project, odors would primarily consist of passenger vehicles traveling to and from the site. These occurrences would not produce objectionable odors affecting a substantial number of people; therefore, operational impacts associated with the project's potential to create odors would be less than significant.

Project as a Receptor

The project is a mixed-use development consisting of 2,844 square-feet of commercial uses and 27 dwelling units and would have the potential to place sensitive receptors (residents) near existing or planned sources of odors. The project site is not located within the vicinity of agricultural operations (e.g., dairies, feedlots, etc.), landfills, wastewater treatment plants, or refineries. ATP Group is a chemical wholesaler located approximately 100 feet from the southern property line of the project site; this business is a supplier of chemicals and does not manufacture chemicals on-site. Public records requests were filed with the BAAQMD to obtain the most recent 3-year odor complaint history for the potential odor generators within the vicinity of the project site; the information obtained from the public record requests is summarized in Table 14.

Table 14: Summary of Odor Complaint Records

Name of Facility	Location	Land Use/ Type of Operation	Number of Complaints Over Most Recent 3-year Period[1]	Average Number of Complaints per Year	Distance From the Project Site
Pacific Sanitation	590 Caletti Avenue, Windsor	Sanitation Service	2	0.67	0.33 mile southeast of project
Windsor Material Recovery Facility	590 Caletti Avenue, Windsor	Sanitation Service			
Source: Bay Area Air Quality Management District (BAAQMD). 2019. Public Records Request No.2019-11-0036 for Windsor from November 2016–November 2019. Accessed November 11.					

Based on the responses from the BAAQMD, there are no land uses within the screening distances shown in Table 13 of the BAAQMD's CEQA Guidelines[25] that have received five or more confirmed complaints per year for any recent 3-year period. Considering all of the information, the uses in the vicinity of the project would not cause substantial odor impacts to the project. The project would not place odor sensitive receptors near an existing or planned source of odor affecting a substantial number of people. Therefore, operational odor impacts in terms of the project site as an odor sensitive receptor would be less than significant.

Mitigation Measures

MM AIR-1 During construction activities, the following air pollution control measures shall be implemented:

- All exposed surfaces (e.g., parking areas, staging areas, soil piles, graded areas, and unpaved access roads) shall be watered two times per day, with priority given to the use of recycled water for this activity when feasible.
- All haul trucks transporting soil, sand, or other loose material off-site shall be covered.
- All visible mud or dirt track-out onto adjacent public roads shall be removed using wet power vacuum street sweepers at least once per day. The use of dry power sweeping is prohibited.
- All vehicle speeds on unpaved roads shall be limited to 15 mph.
- All roadways, driveways, and sidewalks shall be paved as soon as possible. Building pads shall be laid as soon as possible after grading unless seeding or soil binders are used.
- Idling times shall be minimized either by shutting equipment off when not in use or reducing the maximum idling time to 5 minutes (as required by the California airborne toxics control measure Title 13, Section 2485 of California Code of Regulations [CCR]). Clear signage shall be provided for construction workers at all access points.
- All construction equipment shall be maintained and properly tuned in accordance with manufacturer's specifications. All equipment shall be checked by a certified visible emissions evaluator.
- Post a publicly visible sign with the telephone number and person to contact at the lead agency regarding dust complaints. This person shall respond and take corrective action within 48 hours. The Air District's phone number shall also be visible to ensure compliance with applicable regulations.

[25] Bay Area Air Quality Management District (BAAQMD). 2017. CEQA Air Quality Guidelines. May. Website: http://www.baaqmd.gov/~/media/files/planning-and-research/ceqa/ceqa_guidelines_may2017-pdf.pdf?la=en. Accessed: October 21, 2019.

Environmental Issues	Potentially Significant Impact	Less than Significant Impact with Mitigation Incorporated	Less than Significant Impact	No Impact
4. Biological Resources *Would the project:*				
a) Have a substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special status species in local or regional plans, policies, or regulations, or by the California Department of Fish and Game or U.S. Fish and Wildlife Service?	☐	☒	☐	☐
b) Have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, and regulations or by the California Department of Fish and Game or U.S. Fish and Wildlife Service?	☐	☐	☐	☒
c) Have a substantial adverse effect on state or federally protected wetlands (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means?	☐	☒	☐	☐
d) Interfere substantially with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors, or impede the use of wildlife nursery sites?	☐	☐	☐	☒
e) Conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance?	☐	☐	☒	☐
f) Conflict with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or state habitat conservation plan?	☐	☐	☐	☒

Environmental Evaluation

Setting

The section provided below evaluates potential effects on biological resources that may result from project implementation. The analysis is based on a site visit by a FirstCarbon Solutions (FCS) Biologist on January 29, 2019 and a Tree Preservation and Mitigation Report prepared by John C. Meserve, ISA certified arborist, in February of 2019. In addition, descriptions and analysis in this section are based on results from the California Department of Fish and Wildlife (CDFW) California Natural Diversity

Database (CNDDB), and the United States Fish and Wildlife Service (USFWS) database searches. Supporting information is provided in Appendix B.

Would the project:

a) Have a substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special status species in local or regional plans, policies, or regulations, or by the California Department of Fish and Game or U.S. Fish and Wildlife Service?

Less than significant impact with mitigation incorporated. For the purpose of this analysis, special-status species refers to all species formally listed as threatened and/or endangered under the United States Endangered Species Act (ESA) or the California Endangered Species Act (CESA); California Species of Special Concern; designated as Fully Protected by CDFW; given a status of 1A, 1B, or 2 by California Native Plant Society (CNPS); or designated as special-status by city, county, or other regional planning documents. Federal and state listed threatened and/or endangered species are legally protected under ESA/CESA. The designated special-status species listed by CNPS have no direct legal protection but require an analysis of the significance of potential impacts under CEQA guidelines.

Special-status plant and wildlife species typically occur in undeveloped areas. Although it is less likely, it is also possible for them to occur within developed areas. The project site contains characteristics of land that has been developed or disturbed, including buildings on site, impervious gravel surfaces, and disturbed soils. 19 special-status plant species and 12 special-status wildlife species were evaluated for their potential to occur on the project site, based on their ecology and regional occurrences within the California United States Geological Survey (USGS) *Healdsburg, California* 7.5-minute topographic quadrangle. Potential impacts occurring to special-status species, if they were found on-site, would likely be significant.

Special-Status Plant Species

Nineteen special status plant species have been recorded to have the potential to occur within the project site based on CNDDB and CNPS database searches, but due to the high level of grading and disturbance experienced at the project site, none of these species are expected to occur on site and no mitigation measures are recommended. The site is dominated by invasive and non-native species of vegetation such as common mallow (*Malva neglecta*), and English plantain (*Plantago lanceolata*). A plant's potential to occur on the project site was based on the presence of suitable habitats, soil types, and occurrences recorded by the USFWS, CNPS, or CNDDB within the Healdsburg quadrangle, and field observations made during the January 29, 2019, site survey by FCS Biologists. Based on the high level of disturbance and lack of suitable soil types within project boundaries, it was determined that all 19 special-status plant species are considered unlikely to occur on the project site. Many of the listed plants require forest woodland habitat, vernal pools, or riparian areas, all of which are absent at the site.

Special-status Wildlife Species

As noted above, 12 special-status wildlife species were evaluated for their potential to occur on project site. Because of the highly disturbed nature of the project site and previous development

efforts coupled with an absence of suitable habitat, 2 special-status wildlife species have the potential to occur within the project boundaries. The level of development within the project boundaries as well as the urban context surrounding the site further preclude the presence of the remaining 10 special-status wildlife species.

While the burrowing owl (*Athene cunicularia*) does prefer dry, open habitats dominated by annual or perennial grasslands, the high level of disturbance surrounding and within the site likely precludes presence of this species. Similarly, the distance from ocean shores and larger streams preclude the presence of osprey (*Pandion haliaetus*). While the open, non-native grassland features of the project site provide marginal foraging habitat for the white-tailed kite (*Elanus leucurus*), the species prefers to forage near isolated, dense-topped trees for nesting and perching. As such, it is not expected to occur near or within the project boundaries. The project site and its adjacent areas contain mature trees that support potential habitat for bird species protected under the Migratory Bird Treaty Act (MBTA).

The associated structures on-site may provide suitable roosting habitat for the pallid bat (*Antrozous pallidus*) and Townsend's big-eared bat (*Corynorhinus townsendii*).

Construction activities could disturb nesting and breeding birds in trees within and around the construction site. Potential impacts on special-status and migratory birds that could result from the construction and operation of the project include the destruction of eggs or occupied nests, mortality of young, and the abandonment of nests with eggs or young birds prior to fledging. If these species were found to be present, impacts to these species would be significant.

MM BIO-1a would reduce impacts to special-status bat species to less than significant by preventing take and/or mortality of individual bats roosting in trees and buildings and implementing pre-demolition surveys to avoid direct mortality of roosting bats.

MM BIO-1b would reduce impacts to migratory and nesting birds and raptors protected under the MBTA to less than significant by preventing take of individuals roosting in trees, requiring preconstruction surveys to be conducted, and alteration of construction activities to avoid disturbance of any active nests.

b) Have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, and regulations or by the California Department of Fish and Game or U.S. Fish and Wildlife Service?

No impact. The project site consists of a single-family home and detached garage. The rest of the area consists of non-native, annual grassland and gravel surfaces. There are no critical or sensitive habitats found within the project site. No further studies or regulatory permitting would be required, as no impacts to any sensitive natural communities would occur from project implementation. No impact would occur.

c) Have a substantial adverse effect on state or federally protected wetlands (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means?

Less than significant impact with mitigation incorporated. During the site visit, it was noted that small pools of water had accumulated in indentations. This appears to be due to a drainage feature that runs to the north of the project site. To document the extent of which wetlands or other state or federally protected features exist within the project boundaries, it is recommended a jurisdictional delineation be completed. All potential jurisdictional features on the project site, whether isolated or not, are considered jurisdictional by the Regional Water Quality Control Board (RWQCB). Implementation of Mitigation Measures BIO-2, which calls for a formal jurisdictional delineation, and compliance with the associated permit requirements would reduce impacts from erosion, sedimentation, runoff, and accidental spills, as well as reduce impacts to wetland habitat to a less than significant level.

d) Interfere substantially with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors, or impede the use of wildlife nursery sites?

No Impact The project site was evaluated for evidence of a wildlife movement corridor during the reconnaissance-level survey. No wildlife movement corridors are within the project boundaries. The project site is surrounded by a roadway with a high volume of traffic, as well as commercial and hotel buildings, which reduce the viability of the area as a wildlife corridor. As such, the project would not have a significant impact on wildlife corridors or nursery sites and no mitigation is necessary. No impact would occur.

e) Conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance?

Less than significant impact. An arborist report was completed in February 2019 by Horticultural Associates and found the project site to contain 20 trees along and within the property borders. Trees observed included valley oak (*Quercus lobata*), catalpa (*Catalpa spp.),* Chinese elm (*Ulmus parvifolia*), Monterrey pine (*Pinus radiata*), and sweetgum (*Liquidambar styraciflua*). As the project proposes to remove several mature trees within the project boundaries, the project will be required to adhere to all policies regarding tree removal and replacement.

The Town's 2007 Tree Preservation and Protection Ordinance (Zoning Ordinance Chapter 27.36.) regulates protection, preservation, maintenance, and removal of protected trees, including oak trees that have a diameter of 6'' or greater 4.5 feet from surrounding grade. As such, the project shall be required to obtain a tree removal permit from the Town and either replace the trees that are to be removed or pay an in-lieu fee, unless the trees are documented as being "hazardous." This would ensure that impacts to protected trees would be minimized and no conflicts with the tree ordinance would occur. As such, impacts would be less than significant.

Complete tree protection guidelines for construction around preserved trees and recommendations for removal of certain trees can be found in the attached arborist report in Appendix B. This includes

the health and potential for removal of each tree, possible development impacts, and necessary steps for protection of existing trees.

f) Conflict with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or state habitat conservation plan?

No Impact. The project site is located within the USFWS Santa Rosa Plain Conservation Strategy (SRPCS), a conservation program put in place to mitigate adverse effects on listed species from development on the Santa Rosa Plain. The site currently exists in an area designated as "Already Developed" As such, it has no potential for impact. If the jurisdictional delineation were to find waters of the state or potential habitat for sensitive biological resources the project applicant may be subject to additional regulations and requirements previous to development including, but not limited to, additional surveys for certain listed species, development fees, and habitat preservation measures.

Mitigation Measures

MM BIO-1a Pallid Bat and Townsend's Big-eared Bat

If suitable roosting habitat for special-status bats will be affected by project construction (e.g., removal or buildings, modification of bridges), a qualified wildlife biologist will conduct surveys for special-status bats during the appropriate time of day to maximize detectability to determine if bat species are roosting near the work area no less than 7 days and no more than 14 days prior to beginning ground disturbance and/or construction. Survey methodology may include visual surveys of bats (e.g., observation of bats during foraging period), inspection for suitable habitat, bat sign (e.g., guano), or use of ultrasonic detectors (Anabat, etc.). Visual surveys will include trees within 0.25 mile of project construction activities. The type of survey will depend on the condition of the potential roosting habitat. If no bat roosts are found, then no further study is required.

If evidence of bat use is observed, the number and species of bats using the roost will be determined. Bat detectors may be used to supplement survey efforts.

If roosts are determined to be present and must be removed, the bats will be excluded from the roosting site before the facility is removed. A mitigation program addressing compensation, exclusion methods, and roost removal procedures will be developed prior to implementation. Exclusion methods may include use of one-way doors at roost entrances (bats may leave but cannot not reenter) or sealing roost entrances when the site can be confirmed to contain no bats. Exclusion efforts may be restricted during periods of sensitive activity (e.g., during hibernation or while females in maternity colonies are nursing young).

If roosts cannot be avoided or it is determined that construction activities may cause roost abandonment, such activities may not commence until permanent, elevated bat houses have been installed outside of, but near the construction area.

Placement and height will be determined by a qualified wildlife biologist, but the height of the bat house will be at least 15 feet. Bat houses will be multi-chambered and will be purchased or constructed in accordance with CDFW standards. The number of bat houses required will be dependent upon the size and number of colonies found, but at least one bat house will be installed for each pair of bats (if occurring individually), or of sufficient number to accommodate each colony of bats to be relocated.

MM BIO-1b Migratory and Nesting Birds

Implementation of the following avoidance and minimization measures would avoid or minimize potential effects to migratory birds and habitat in and adjacent to the Project site. These measures shall be implemented for construction work during the nesting season (February 1 through August 31):

If construction or tree removal is proposed during the breeding/nesting season for migratory birds, a qualified biologist shall conduct pre-construction surveys for northern harrier, white-tailed kite, and other migratory birds within the construction area, including a 300-footsurvey buffer, no more than 7 days prior to the start of ground disturbing activities in the construction area.

If an active nest is located during pre-construction surveys, USFWS and/or CDFW (as appropriate) shall be notified regarding the status of the nest. Furthermore, construction activities shall be restricted as necessary to avoid disturbance of the nest until it is abandoned or a qualified biologist deems disturbance potential to be minimal. Restrictions may include establishment of exclusion zones (no ingress of personnel or equipment at a minimum radius of 300 feet around an active raptor nest and 50-foot radius around an active migratory bird nest) or alteration of the construction schedule.

A qualified biologist shall delineate the buffer using nest buffer signs, ESA fencing, pin flags, and or flagging tape. The buffer zone shall be maintained around the active nest site(s) until the young have fledged and are foraging independently. foraging independently.

MM BIO-2 Potential Jurisdictional Features

A formal delineation is required to document the full extent of jurisdictional waters within the project site. Impacts on waters of the U.S. (i.e. USACE jurisdiction) would require a Section 404 Clean Water Act permit from the Army Corps of Engineers and a Section 401 Water Quality Certification from the Regional Board. Impacts to wetlands under CDFW jurisdiction would require a Section 1602 Streambed Alteration Agreement from CDFW.
These permits shall be obtained prior to issuance of grading permits and implementation of the proposed project.

The project applicant shall ensure that the project will result in no net loss of waters of the U.S. by providing mitigation through impact avoidance, impact minimization, and/or compensatory mitigation for the impact, as determined in the CWA Section 404/401 permit requirements.

Compensatory mitigation may consist of (1) obtaining credits from a mitigation bank; (2) making a payment to an in-lieu fee program that will conduct wetland, stream, or other aquatic resource restoration, creation, enhancement, or preservation activities; and/or (3) providing compensatory mitigation through an aquatic resource restoration, establishment, enhancement, and/or preservation activity. This final type of compensatory mitigation may be provided at or adjacent to the impact site (i.e., on-site mitigation) or at another location, usually within the same watershed as the permitted impact (i.e., off-site mitigation). The project /permit applicant retains responsibility for the implementation and success of the mitigation project.

Evidence of compliance with this mitigation measure shall be provided prior to initiating construction and grading activities for the proposed project.

Environmental Issues	Potentially Significant Impact	Less than Significant Impact with Mitigation Incorporated	Less than Significant Impact	No Impact
5. Cultural Resources and Tribal Cultural Resources *Would the project:*				
a) Cause a substantial adverse change in the significance of a historical resource as pursuant to Section 15064.5?	☐	☒	☐	☐
b) Cause a substantial adverse change in the significance of an archaeological resource pursuant to Section 15064.5?	☐	☒	☐	☐
c) Disturb any human remains, including those interred outside of formal cemeteries?	☐	☒	☐	☐
Would the project cause a substantial adverse change in the significance of a tribal cultural resource, defined in Public Resources Code Section 21074 as either a site, feature, place, cultural landscape that is geographically defined in terms of the size and scope of the landscape, sacred place, or object with cultural value to a California Native American tribe, and that is:				
d) Listed or eligible for listing in the California Register of Historical Resources, or in a local register of historical resources as defined in Public Resources Code Section 5020.1(k), or	☐	☒	☐	☐
e) A resource determined by the lead agency, in its discretion and supported by substantial evidence, to be significant pursuant to criteria set forth in subdivision (c) of Public Resources Code Section 5024.1. In applying the criteria set forth in subdivision (c) of Public Resource Code Section 5024.1, the lead agency shall consider the significance of the resource to a California Native American tribe.	☐	☒	☐	☐

Environmental Evaluation

Introduction

At the request of the Town of Windsor, FCS conducted a Phase I Cultural Resource Assessment (PI-CRA) of the proposed project site in January 2019. There are no substantial changes in the proposed project or new information of substantial importance since the 2019 PI-CRA that would result in any new significant environmental impacts or substantial increase in the severity or previously identified significant impacts related to cultural resources and tribal cultural resources. As described below, the proposed project would have less than significant impacts to cultural resources and tribal cultural resources, with the incorporation of identified mitigation measures, which is consistent with the 2019 PI-CRA.

Environmental Setting

The analysis of project impacts on cultural resources and tribal cultural resources is based primarily on the PI-CRA performed by FCS, dated November 17, 2019. Descriptions and analysis in this section are based on information provided by the California Native American Heritage Commission (NAHC), Northwest Information Center (NWIC), National Register of Historic Places (NRHP), California Register of Historical Resources (CRHR), California Historic Landmarks (CHL) list, California Points of Historical Interest (CPHI) list, the California Historical Resources Inventory System (CHRIS), the University of California Museum of Paleontology (UCMP) Paleontological Database, additional research of Sonoma County and the Town of Windsor, and a pedestrian survey conducted by FCS. The Cultural Resource Assessment and all correspondence are provided in Appendix C.

Northwest Information Center

In order to determine the presence or absence of cultural and historical resources within the proposed project area, a records search and literature review were conducted for the project site and a 0.50-mile radius surrounding it on January 29, 2019 at the NWIC, located at Sonoma State University. The current inventories of the NRHP, CRHR, CHL, CPHI list, and the CHRIS listings for Sonoma County were reviewed to determine the existence of previously documented local historical resources. Results of the records search indicated that five known cultural resources (P-49-001242, P-49-002703, P-49-002834, P-49-002875, and P-49-003542) have been recorded within the 0.50-mile search radius surrounding the project site, none of which are located within the project area. In addition, 53 area-specific survey reports are on file with the NWIC for the project site and its 0.50-mile search radius, two (S-008930 and S-022483) assessed the project area in its entirety. Both reports failed to identify any significant cultural resources within the project area. NWIC record search results may be found in Appendix C.

Native American Heritage Commission and Tribal Consultation

FCS sent a request to the NAHC in an effort to determine whether any sacred sites or tribal cultural resources (TCRs) are listed on its Sacred Lands File for the project site. A response was received on January 29, 2019, indicating positive results from the Sacred Lands File search; the NAHC instructed FCS to contact the Mishewal-Wappo Tribe of Alexander Valley for further information regarding the search results. The NAHC included a list of eight tribal representatives, including the Mishewal-Wappo Tribe of Alexander Valley, available for consultation. To ensure the protection of potential TCRs and address potential concerns about the project, a letter containing project information and requesting any additional information was sent to eight tribal representatives on February 7, 2019. Three tribal representatives responded to the inquiry request for additional information. The Middletown Rancheria, Point Rancheria Band of Kashia Pomo Indians, and Lytton Rancheria had no comments or specific information to give. However, the Lytton Rancheria believes the project area is located in traditional Pomo territory and the preservation of Pomo cultural resources is of great interest to the tribe. Pursuant to Assembly Bill (AB) 52, representatives from Lytton Rancheria requested consultation on the project and review of the Project CRA. The representative concurred with the findings of the report, and offered edits to the project inadvertent discovery procedures, which were incorporated. NAHC and Tribal Consultation correspondence may be found in Appendix C.

Pedestrian Cultural Resources Survey

FCS Senior Archaeologist, Dana DePietro, PhD, surveyed the project site for cultural resources on May 14, 2019. The project area consists of two adjacent parcels of land (APN 164-150-012 and APN 164-150-064) that contain a single residence. The rectangular in shape 1.75-acre project site is located on the Healdsburg, USGS 7.5-minute topographic quadrangle, Township 8 North, Range 9 West, Section 24. The site is bordered by Shiloh Road and residential condominiums the north, Skylane Boulevard and an open lot to the east, commercial offices to the south, and a single residence to the west.

The project site was surveyed using standard 15-meter transects moving north-south across the site whenever possible. Soil visibility, particularly in the eastern half of the project area was poor (5-10 percent) due to underbrush and vegetation across the site. Areas of poor visibility were intermittently inspected with a hand-trowel. Visible soils consisted of light grey/brown sandy soils interspersed with small stones (3 to 5 centimeter) composed of schist, quartz, and basalt. Several obsidian nodules were also observed; however, they are common element of the geomorphology of the Windsor area and all observed examples were unworked.

No prehistoric resources were observed during the course of the pedestrian survey. The single residence located in the west of the project area was found to be over 45 years old and therefore required an assessment of its historic significance and eligibility for listing on the CRHR. The residence at 1200 Shiloh Road was evaluated and does not appear to meet any of the criteria for historic and/or architectural significance required for listing on the CRHR or at the local level. As such, it should not be considered a historical resource under CEQA. California Department of Parks and Recreation (DPR) evaluation and recordation forms may be found in Appendix C.

Cultural Resources

Would the project:

a) Cause a substantial adverse change in the significance of a historical resource as pursuant to Section 15064.5?

Less than significant mitigation measure incorporated. The results of the records search indicate that five known cultural resources have been recorded within the 0.5-mile search radius surrounding the project site. Of these resources, four are historic buildings or structures; however, none of these resources are located within the project site. A review of historic aerial photographs dating back to the 1940s revealed the presence of one unevaluated structure over 45 years in age, however an evaluation of the structure indicates it does not meet any of the eligibility criteria for listing on the CRHR or at the local level. Therefore, the potential for the proposed project to have an adverse effect on historic resources is considered low.

While unlikely, subsurface construction activities always have the potential to damage or destroy previously undiscovered historic and prehistoric resources. Historic resources can include wood, stone, foundations, and other structural remains; debris-filled wells or privies; and deposits of wood, glass, ceramics, and other refuse. Implementation of MM CUL-1 is recommended to reduce potential impacts to historic resources that may be discovered during project construction. With the incorporation of mitigation, impacts associated with historic resources would be less than significant.

b) Cause a substantial adverse change in the significance of an archaeological resource pursuant to Section 15064.5?

Less than significant with mitigation incorporated. Records search results from the NWIC indicate that five cultural resources lie within 0.5 mile of the project site. Of these resources, one is a prehistoric lithic scatter. The FCS field survey examined all areas of the exposed ground surface for evidence of archaeological resources. No additional prehistoric cultural resources or raw materials commonly used in the manufacture of tools were found at either previously recorded site, nor were any identified within the project site as a whole.

While unlikely, it is possible that earthmoving activities associated with project construction could encounter previously undiscovered archaeological resources. Disturbance of these undiscovered resources would be a potentially significant impact. Mitigation Measure CUL-1 would establish procedures for the inadvertent discovery of cultural resources on the project and would require a qualified archaeologist and/or Native American monitor be present during the initial phase of ground disturbance in order to check for the inadvertent exposure of cultural materials. Implementation of Mitigation Measure CUL-1 would reduce impacts on undiscovered cultural resources to a less than significant level.

c) Disturb any human remains, including those interred outside of formal cemeteries?

Less than significant with mitigation incorporated. No human remains or cemeteries are known to exist within or near the project site. Although human remains within the project site are unlikely, there is always the possibility that construction activities associated with the project could potentially damage or destroy previously undiscovered human remains. This would be a potentially significant impact.

In the event of the accidental discovery or recognition of any human remains, CEQA Guidelines Section 15064.5, Health and Safety Code Section 7050.5, and Public Resources Code Sections 5097.94 and 5097.98 must be followed. Mitigation Measure CUL-3 further specifies the procedures to follow in the event human remains are uncovered. Along with compliance with these guidelines and statutes, implementation of this mitigation would reduce potential impacts related to human remains to a less than significant level.

Tribal Cultural Resources

Would the project cause a substantial adverse change in the significance of a tribal cultural resource, defined in Public Resources Code Section 21074 as either a site, feature, place, cultural landscape

that is geographically defined in terms of the size and scope of the landscape, sacred place, or object with cultural value to a California Native American tribe, and that is:

d) Listed or eligible for listing in the California Register of Historical Resources, or in a local register of historical resources as defined in Public Resources Code Section 5020.1(k), or

Less than significant with mitigation incorporated. The project site lies at the intersection of lands that were controlled by two separate ethnographic groups at the time of European contact: The Western Wappo and Southern Pomo. The project site lies within the Southern Pomo sphere of influence; however, each group may have had shared access to the region at different points in time. The traditional territory of the Southern Pomo lay in what is today Sonoma County, beginning approximately 5 miles south of Santa Rosa and extending northward for 40 miles.

As described under Impact 5b, a search of records revealed no recorded archaeological resources are located on-site. A pedestrian survey did not find additional cultural resources or raw materials commonly used in the manufacture of tools. However, while unlikely, it is possible that earthmoving activities associated with project construction could encounter previously undiscovered archaeological resources and tribal cultural resources. Implementation of Mitigation Measure CUL-1 would reduce impacts on undiscovered cultural resources, including those of value to Tribes, to a less than significant level.

e) A resource determined by the lead agency, in its discretion and supported by substantial evidence, to be significant pursuant to criteria set forth in subdivision (c) of Public Resources Code Section 5024.1. In applying the criteria set forth in subdivision (c) of Public Resource Code Section 5024.1, the lead agency shall consider the significance of the resource to a California Native American tribe.

Less than significant with mitigation incorporated. FCS sent a letter to the NAHC in an effort to determine whether any sacred sites or tribal cultural resources were listed for the project site on its Sacred Lands File. A response was received on January 29, 2019 indicating that the results from the Sacred Lands File search were positive. The letter stated that tribal cultural resources may be present within the project site and recommended consultation with local tribal representatives. To this end, the NAHC included a list of eight tribal representatives available for consultation. To ensure the protection of potential tribal cultural resources and address potential concerns about the project, a letter containing project information and a request for any additional information was sent to all eight tribal representatives on February 7, 2019. Three tribal representatives responded to the inquiry request for additional information. The Middletown Rancheria, Point Rancheria Band of Kashia Pomo Indians, and Lytton Rancheria had no comments or specific information to give. However, the Lytton Rancheria believes the project area is located in traditional Pomo territory and the preservation of Pomo cultural resources is of great interest to the tribe. Pursuant to AB 52, representatives from Lytton Rancheria requested consultation on the project and review of the Project CRA. The representative concurred with the findings of the report, and offered edits to the project inadvertent discovery procedures, which were incorporated.

Tribal consultation efforts conducted by the Town of Windsor and FCS pursuant to AB 52 failed to identify additional significant TCRs meeting the criteria set forth in subdivision (c) of Public Resources Code Section 5024.1. As noted under Impact 5d, however, undiscovered cultural resources may exist within the project site boundaries. Implementation of Mitigation Measure CUL-1 would reduce impacts on undiscovered cultural resources, including those of value to Tribes. In addition, implementation of Mitigation Measure CUL-2 would mitigate impacts on human remains that could be uncovered during project construction, including remains that may be Native American in origin. Implementation of these mitigation measures would reduce impacts to a less than significant level.

Mitigation Measures

MM CUL-1 In the event a potentially significant cultural resource is encountered during subsurface earthwork activities, all construction activities within a 100-foot radius of the find shall cease, the Town shall be notified of the find, and workers shall avoid altering the materials until an archaeologist who meets the Secretary of Interior's Professional Qualification Standards for archaeology has evaluated the situation. The Applicant shall include a standard inadvertent discovery clause in every construction contract to inform contractors of this requirement. Potentially significant cultural resources consist of but are not limited to stone, bone, glass, ceramics, fossils, wood, or shell artifacts, or features including hearths, structural remains, or historic dumpsites. The archaeologist, in consultation with the appropriate Tribe, shall make recommendations concerning appropriate measures that will be implemented to protect the resource, including but not limited to excavation and evaluation of the finds in accordance with Section 15064.5 of the CEQA Guidelines. Any previously undiscovered resources found during construction within the project site shall be recorded on appropriate Department of Parks and Recreation (DPR) 523 forms and will be submitted to the Town of Windsor, the NWIC, and the State Historic Preservation Officer (SHPO), if required.

MM CUL-2 In the event of the accidental discovery or recognition of any human remains, CEQA Guidelines Section 15064.5; Health and Safety Code Section 7050.5; Public Resources Code Section 5097.94 and Section 5097.98 must be followed. If during the course of project development there is accidental discovery or recognition of any human remains, the following steps shall be taken:

1. There shall be no further excavation or disturbance within 100 feet of the remains until the County Coroner is contacted to determine if the remains are Native American and if an investigation of the cause of death is required. If the coroner determines the remains to be Native American, the coroner shall contact the NAHC within 24 hours, and the NAHC shall identify the person or persons it believes to be the most likely descendant (MLD) of the deceased Native American. The MLD may make recommendations to the landowner or the person responsible for the excavation work within 48 hours, for appropriate treatment

and disposition of, with appropriate dignity, the human remains and any associated grave goods as provided in PRC Section 5097.98.

2. Where the following conditions occur, the landowner or his or her authorized representative shall rebury the Native American human remains and associated grave goods with appropriate dignity either in accordance with the recommendations of the MLD or on the project site in a location not subject to further subsurface disturbance:
   - The NAHC is unable to identify a MLD or the MLD failed to make a recommendation within 48 hours after being notified by the commission.
   - The descendant identified fails to make a recommendation.
   - The landowner or his authorized representative rejects the recommendation of the descendant, and mediation by the NAHC fails to provide measures acceptable to the landowner.

Additionally, California Public Resources Code Section 15064.5 requires the following relative to Native American Remains:

- When an initial study identifies the existence of, or the probable likelihood of, Native American Remains within a project, a lead agency shall work with the appropriate Native Americans as identified by the NAHC as provided in Public Resources Code Section 5097.98. The applicant may develop a plan for treating or disposing of, with appropriate dignity, the human remains and any items associated with Native American Burials with the appropriate Native Americans as identified by the NAHC.

Environmental Issues	Potentially Significant Impact	Less than Significant Impact with Mitigation Incorporated	Less than Significant Impact	No Impact
6. Geology and Soils *Would the project:*				
a) Directly or indirectly cause potential substantial adverse effects, including the risk of loss, injury, or death involving:				
i) Rupture of a known earthquake fault, as delineated on the most recent Alquist-Priolo Earthquake Fault Zoning Map issued by the State Geologist for the area or based on other substantial evidence of a known fault? Refer to Division of Mines and Geology Special Publication 42.	☐	☐	☐	☒
ii) Strong seismic ground shaking?	☐	☐	☒	☐
iii) Seismic-related ground failure, including liquefaction?	☐	☐	☒	☐
iv) Landslides?	☐	☐	☐	☒
b) Result in substantial soil erosion or the loss of topsoil?	☐	☐	☒	☐
c) Be located on a geologic unit or soil that is unstable, or that would become unstable as a result of the project, and potentially result in on- or off-site landslide, lateral spreading, subsidence, liquefaction or collapse?	☐	☒	☐	☐
d) Be located on expansive soil, as defined in Table 18-1-B of the Uniform Building Code (1994), creating substantial direct or indirect risks to life or property?	☐	☐	☒	☐
e) Have soils incapable of adequately supporting the use of septic tanks or alternative wastewater disposal systems where sewers are not available for the disposal of wastewater?	☐	☐	☐	☒
f) Directly or indirectly destroy a unique paleontological resource or site or unique geologic feature?	☐	☒	☐	☐

Environmental Evaluation

The analysis in this section is based in part on a Geotechnical Investigation prepared by PJC & Associates, Inc. This report is provided in Appendix D of this IS/MND.

Setting

Regionally, the Town of Windsor is situated in the northern portion of the San Francisco Bay area within the Coast Ranges Geomorphic Province of California. The Coast Ranges Geomorphic Province is characterized by a series of northwest-trending mountain ranges and intervening valleys that align subparallel with the San Andreas Fault System. The Northern California region contains a number of active, potentially active, and inactive faults, and it is considered a region of high seismic activity. The closest known active faults to the project site are the Rodgers Creek (2.2 miles to the west), Maacama (6.6 miles to the north), and the San Andreas Fault (18.6 miles to the west). Soil in the vicinity of the site is identified by the United States Department of Agriculture—Soil Conservation Service as Huichica loam (HwB), shallow, ponded, 0 to 5 percent slopes.[26] Huichica loam is classified with very high runoff, slow infiltration rates, and is considered moderately well drained.[27]

University of California Museum of Paleontology Database Search

On January 25, 2019, FCS Consulting Paleontologist Dr. Ken Finger performed a UCMP database records search for the Shiloh Windsor project site. The project site is located in Section 19, Township 8N, Range 8W, Healdsburg quadrangle (2015 USGS 7.5-series topographic map). According to the geologic map by Delattre and Gutierrez (2013), the project site and much of the surrounding 0.5-mile search area are located on Pleistocene alluvium (Qoa). This deposit is known to be highly sensitive, however a significant yield of paleontological resources is low in the area.

The UCMP database search focused on Pleistocene vertebrates from Sonoma County. The results are 10 localities that yielded 12 vertebrate specimens including pond turtle (*Clemmys*), Harlan's ground sloth (*Glosstherium harlandi*), robust ground sloth (*G. robustus*), ancient bison (*Bison antiquus*), horse (Equus), and American mastodon (*Mammut americanum*). None of the 10 paleontological localities, however, are within or near the 0.5-mile search radius, and the one closest to the project site is 8 miles to the southeast. Thus, the project site appears to have a low potential but high sensitivity for significant paleontological resources.

Would the project:

a) Directly or indirectly cause potential substantial adverse effects, including the risk of loss, injury, or death involving:

i) Rupture of a known earthquake fault, as delineated on the most recent Alquist-Priolo Earthquake Fault Zoning Map issued by the State Geologist for the area or based on other substantial evidence of a known fault? Refer to Division of Mines and Geology Special Publication 42.

No impact. Review of geologic maps of the site and vicinity do not indicate the presence of active faults at the project site. The nearest active fault zone is the Healdsburg-Rogers Creek Fault, approximately 2.2 miles west of the project site. The project site is not located within a state-

[26] United States Department of Agriculture (USDA). 2020. Natural Resource Conservation Service, Web Soil Survey. Website: https://websoilsurvey.sc.egov.usda.gov/App/WebSoilSurvey.aspx. Accessed January 23, 2019.
[27] Ibid.

mandated Earthquake Fault Zone as defined by the California Geological Survey (CSG), in accordance with the Alquist-Priolo Earthquake Fault Zone Act.[28] Therefore, no impacts would occur.

ii) Strong seismic ground shaking?

Less than significant impact. The project site could experience strong to violent ground shaking as a result of an earthquake on the Hayward-Rodgers Creek fault, as well as ground shaking associated with seismic activity on other regional faults. Strong ground shaking can be expected to occur during earthquakes, based on the distance to epicenters, depth and magnitude of the shock, and the characteristics of the underlying soil materials at the site. The project would be required to be designed and constructed in accordance with all prevailing standards for earthquake-resistant construction, which are consistent with the California Building Standards Code (CBC). Conformance with CBC requirements will reduce seismic ground shaking impacts to less than significant levels.

iii) Seismic-related ground failure, including liquefaction?

Less than significant impact. Liquefaction is a phenomenon associated with loose, cohesionless sands and gravels subjected to ground shaking during earthquakes, which can result in building hazards associated with total and/or differential soil settlements. Association of Bay Area Governments (ABAG) determined that the project site is located in an area considered to have a low liquefaction potential.[29] Based on soil bores conducted on the project site, the project site contains hard alluvial sandy clays, clayey silts, and medium dense clayey sands that extend to a depth of 51.5 feet below project grade.[30] As a result, the geotechnical investigation determined that based on the project site soils composition and location the project would not be susceptible to liquefaction. Therefore, impacts would be less than significant.

iv) Landslides?

No impact. The project site is a relatively flat parcel of land with little difference in elevation. The site is surrounded by land that is similarly level. No landslide risk or impact would occur

b) Result in substantial soil erosion or the loss of topsoil?

Less than significant impact. Project construction would include clearing, grading, excavation, and other earthmoving activities. These activities would expose surface soils to wind and precipitation, which could lead to soil erosion. This is considered a potentially significant impact.

The Windsor Municipal Code contains requirements for new development and redevelopment projects to minimize pollutants in stormwater runoff. These requirements include Best Management Practices (BMPs) —such as erosion control, revegetation, stream setbacks, and parking lot cleaning—that are detailed in the Town's Phase II NPDES [National Pollutant Discharge Elimination System] Storm Water Management Plan. The Town of Windsor Municipal Code Title IX, Chapter 4 includes stormwater discharge requirements designed to achieve compliance with the North Coast

[28] PJC & Associates, Inc. 2019. Geotechnical Investigation, page 7.
[29] Ibid.
[30] Ibid.

RWQCB's NPDES permit and Waste Discharge Requirements for MS4 Discharges (Order No. R1-2015-0030; NPDES No. CA0025054). Discharges to the Town's stormwater conveyance system that would not be covered by the MS4 general NPDES permit would be required to obtain coverage under an individual NPDES permit or comply with individual Waste Discharge Requirements, as approved by the North Coast RWQCB.

Projects that disturb 1 or more acres of soil are required to obtain the General Permit for Discharges of Storm Water Associated with Construction Activity (Construction General Permit), issued by the State Water Resources Control Board (State Water Board). The Construction General Permit requires the development and implementation of a Storm Water Pollution Prevention Plan (SWPPP). The SWPPP must list BMPs the project will implement to control erosion and prevent the conveyance of sediments off-site. Implementation of the conditions of the Construction General Permit would reduce erosion impacts resulting from project construction to less than significant. Once construction work is completed, the impervious surfaces and landscaping would minimize potential erosion risks. Therefore, impacts would be less than significant.

c) Be located on a geologic unit or soil that is unstable, or that would become unstable as a result of the project, and potentially result in on- or off-site landslide, lateral spreading, subsidence, liquefaction or collapse?

Less than significant impact with mitigation incorporated. The upper portion of the project site soils are composed of artificial fill. These types of soils could result in significant settlement once the project is complete. The Geotechnical Investigation determined that the artificial fill on-site would need to be excavated and replaced with engineered fill. Additionally, below the artificial fill the project site is underlain with natural sandy silt alluvial soils. The Geotechnical Investigation determined that these natural sandy silt alluvial types of soils are not suitable to be constructed on because they could cause irregular ground settlement under project structure loads resulting in potentially cracked foundations, a potentially significant impact. Implementation of MM GEO-1 would ensure the project applicant submits a final report to the Town of Windsor Engineer and Building Official demonstrating full compliance with the preliminary geotechnical investigation recommendations, consistent with Municipal Code Chapter 8 Section 16-8-850. Compliance with these recommendations would ensure the project removes all inadequate soils and would reduce impacts to a less than significant level. Therefore, impacts would be less than significant with the incorporation of Mitigation.

d) Be located on expansive soil, as defined in Table 18-1-B of the Uniform Building Code (1994), creating substantial direct or indirect risks to life or property?

Less than significant impact. The Geotechnical Investigation determined through laboratory testing of the project site that on-site soils have a low expansion potential. As a result, the project site does not contain expansive soils as defined in Table 18-1-B of the Uniform Building Code (1994). As a result, the project would not create substantial direct or indirect risks to life of property due to expansive soils. Therefore, impacts would be less than significant.

e) Have soils incapable of adequately supporting the use of septic tanks or alternative wastewater disposal systems where sewers are not available for the disposal of wastewater?

Less than significant impact. The project site contains a septic sewer system that provides wastewater disposal for the existing single-family home. The project would remove the existing septic tank as part of project demolition. The project site is located in a developed area of Windsor and would be served by the Sonoma County Airport/Larkfield/Wikiup Sanitation (ALW Sanitation Zone) and connection to existing sanitary sewer lines within Skylane Boulevard. Therefore, the project would not use septic tanks or any alternative wastewater disposal system, and impacts would be less than significant.

f) Directly or indirectly destroy a unique paleontological resource or site or unique geologic feature?

Less than significant with mitigation incorporated. Kenneth L. Finger, Ph.D., Consulting Paleontologist, conducted a records search of the UCMP database. The records search determined that no records of paleontological finds are on the project site and the nearest paleontological resource is located 8 miles to the southeast. According to the records search, the project site is located on Pleistocene alluvium, which has a high sensitivity but low potential of yielding significant paleontological resources. Based on this information, no paleontological resources are expected to be encountered during construction activities associated with the proposed project.

As with historical and archaeological resources, it is possible that earthmoving activities associated with project construction could encounter previously undiscovered paleontological resources. Damage or destruction of these resources would be a potentially significant impact. Implementation of MM GEO-2 would ensure preconstruction training of the project construction crew so they are aware of what kinds of vertebrate fossils they should be on the lookout for and what they should do if any are uncovered during excavations. Additionally, MM GEO-2 would ensure that if any significant fossils are unearthed, the construction crew would not attempt to remove them**,** as they could be extremely fragile and therefore prone to crumbling and to allow for recording the details of its occurrence. This mitigation would reduce impacts associated with paleontological resources to less than significant.

Mitigation Measures

MM GEO-1 After the completion of project site grading and prior to the release of grading bonds and prior to issuance of building permits, the project applicant shall provide a final report to the Town of Windsor Engineer and Building Official demonstrating full compliance with the preliminary geotechnical investigation recommendations prepared by PJC & Associates, Inc. on June 25, 2019.

MM GEO-2 To avoid inadvertent damage to paleontological resources that may be present in the site, a qualified Paleontologist will provide a Worker Environmental Awareness Program (WEAP) as training for the project construction crew to recognize fossil material. Prior to the start of construction, the project Paleontologist or his or her

designee, shall conduct training for construction personnel regarding the appearance of fossils and the procedures for notifying paleontological staff should fossils be discovered by construction staff. The WEAP shall be fulfilled at the time of a preconstruction meeting at which a qualified Paleontologist shall attend. In the event that fossils or fossil-bearing deposits are discovered during construction activities, excavations within a 15-foot radius of the find shall be temporarily halted or diverted, and the Town shall be notified of the find. The project contractor shall notify a qualified Paleontologist to examine the discovery. The applicant shall include a standard inadvertent discovery clause in every construction contract to inform contractors of this requirement. The Paleontologist shall document the discovery as needed in accordance with Society of Vertebrate Paleontology standards and assess the significance of the find under the criteria set forth in CEQA Guidelines Section 15064.5. The Paleontologist shall notify the appropriate agencies to determine procedures that would be followed before construction activities are allowed to resume at the location of the find. If the Applicant determines that avoidance is not feasible, the Paleontologist shall prepare an excavation plan for mitigating the effect of construction activities on the discovery. The plan shall be submitted to the Town of Windsor for review and approval prior to implementation, and the Applicant shall adhere to the recommendations in the plan.

Environmental Issues	Potentially Significant Impact	Less than Significant Impact with Mitigation Incorporated	Less than Significant Impact	No Impact
7. Greenhouse Gas Emissions and Energy *Would the project:*				
a) Generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment?	☐	☒	☐	☐
b) Conflict with any applicable plan, policy, or regulation adopted for the purpose of reducing the emissions of greenhouse gases?	☐	☒	☐	☐
c) Result in potentially significant environmental impact due to wasteful, inefficient, or unnecessary consumption of energy resources, during project construction or operation?	☐	☐	☒	☐
d) Conflict with or obstruct a state or local plan for renewable energy or energy efficiency?	☐	☐	☒	☐

Environmental Evaluation

Setting

This section evaluates the possible impacts related to GHG emissions that could result from construction and operation of the project. Where available, the significance criteria established by the applicable air quality management or air pollution control district (in this case, the BAAQMD) may be relied upon to make the following determinations. Information included in this section is based on project-specific GHG emissions modeling results utilizing CalEEMod, Version 2016.3.2. The modeling data is provided in its entirety in Appendix A.

Greenhouse Gas Emissions

Gases that trap heat in the atmosphere are referred to as GHGs. The effect is analogous to the way a greenhouse retains heat. There have been significant legislative and regulatory activities that directly and indirectly affect climate change and GHGs in California. The primary climate change legislation in California is AB 32, the California Global Warming Solutions Act of 2006, and Senate Bill (SB) 32, focusing on reducing GHG emissions in California. The project would generate a variety of GHG emissions during construction and operation, including several defined by AB 32 such as carbon dioxide (CO_2), methane (CH_4), and nitrous oxide (N_2O).

To describe how much global warming a given type and amount of GHG may cause, the CO_2 equivalent (CO_2e) metric is used. The calculation of the CO_2e is a consistent methodology for comparing GHG emissions since it normalizes various GHG emissions to a consistent reference gas, CO_2. For example, CH_4's warming potential of 25 indicates that CH_4 has 25 times greater warming

effect than CO_2 on a molecule-per-molecule basis. A CO_2e is the mass emissions of an individual GHG multiplied by its global warming potential.

Would the project:

a) Generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment?

Less than significant impact with mitigation incorporated. Both construction and operational activities have the potential to generate GHG emissions. The project would generate GHG emissions during temporary (short-term) construction activities such as demolition, site preparation, construction equipment engines, on-site heavy duty construction vehicles, vehicles hauling materials to and from the project site, asphalt paving, and motor vehicles used by the construction workers.

Long-term, operational GHG emissions would result from project-generated vehicular traffic, operation of any landscaping equipment, off-site generation of electrical power over the life of the project, the energy required to convey water to and wastewater from the project site, the emissions associated with the hauling and disposal of solid waste from the project site, and any fugitive refrigerants from air conditioning or refrigerators.

The Town of Windsor 2040 General Plan Final EIR[31] establishes GHG thresholds for all new development projects. These thresholds represent the rate of emissions reduction necessary for individual projects under the 2040 General Plan to achieve their fair share of Statewide GHG reduction necessary to meet climate change legislation in 2030, 2040, and 2050. The target GHG thresholds for projects under the 2040 General Plan were determined by calculating a linear interpolation of State emissions reduction goals. These thresholds are intended to ensure that projects in the Town of Windsor meet the GHG reduction targets and remain on the trajectory for GHG emissions reductions through the year 2050. The estimated annual operational emissions for this assessment were compared with these thresholds to determine significance for this criterion.

- 1.91 metric tons CO_2e per service population per year from 2017 to 2030.
- 1.12 metric tons CO_2e per service population per year from 2030 to 2040.
- 0.49 metric tons CO_2e per service population per year from 2040 to 2050.

Construction

The project would emit GHG emissions during construction from the off-road equipment, worker vehicles, and any hauling that may occur. Neither the Town of Windsor nor the BAAQMD presently provide a construction-related GHG emission threshold; however, the BAAQMD recommends that construction-generated GHG emissions be quantified and disclosed. The BAAQMD also recommends that lead agencies (in this case, the Town of Windsor) make a determination of the level of significance of construction-generated GHG emissions. Total GHG emissions generated throughout

[31] Town of Windsor. 2018. Windsor 2040 General Plan Final EIR. February. Website: https://www.townofwindsor.com/DocumentCenter/View/21024/Final-EIR. Accessed April 22, 2020.

construction were combined and are presented in Table 15. As shown in Table 15, construction of the project is estimated to generate approximately 273 MT CO_2e over the entire project construction duration. In order to account for the construction emissions in estimating the total GHG emissions produced by the project, the total emissions generated during construction were amortized based on the life of the development (30 years). The amortized emissions from construction were added to the operational emissions to determine the total emissions from the project. These total project emissions were analyzed against the applicable Town of Windsor thresholds of 1.91 MT CO_2e/service population/year in year 2021, 1.12 MT CO_2e/service population/year in year 2030, and 0.49 MT CO_2e/service population/year in year 2040 in Table 16.

Table 15: Construction GHG Emissions

Construction Activities	On-site MT CO_2e per year	Off-site MT CO_2e per year	MT CO_2e per year
2020			
Demolition	11	2	12
Site Preparation	11	0	12
Grading	6	15	21
Paving	6	0	6
Paving (off-site roadway improvements)	2	0	3
Building Construction—2020	127	33	160
Total 2020 Construction Emissions	*163*	*51*	*214*
2021			
Building Construction—2021	46	12	57
Architectural Coating	1	0	2
Total 2021 Construction Emissions	*47*	*12*	*59*
Total Construction Emissions			**273**
Emissions Amortized over 30 years			**9**

Notes:
MT CO_2e = metric tons of carbon dioxide equivalent
Unrounded results used to calculate totals.
Construction GHG emissions are amortized over the 30-year lifetime of the project.
Source: CalEEMod Output (see Appendix A).

Operation

Operational or long-term emissions occur over the life of the project. The major sources for operational GHG emissions include:

- **Motor Vehicles:** These emissions refer to GHG emissions contained in the exhaust from the cars and trucks that would travel to and from the project site. Weekday, Saturday, and Sunday trip rates for the apartment and market land uses were taken from the Institute of Transportation Engineers (ITE) Trip Generation manual,[32] using the same land uses as those used in the traffic impact study prepared for the project by TJKM, to estimate mobile-source emissions.[33] Also consistent with the traffic impact study, a 5 percent reduction was applied to the apartment trips to reflect a reduction in vehicle trips to and from the proposed residences, given their proximity to the proposed market.[34] Trips generated by the existing residence on the project site are subtracted from the total project trips.
- **Indirect Electricity:** These emissions refer to those generated by off-site power plants to supply electricity required for the project. Electricity emissions are zero because the project would achieve zero net electricity through on-site solar electricity generation.
- **Water Transport:** These emissions refer to those generated by the electricity required to transport and treat the water to be used on the project site.
- **Waste:** These emissions refer to the GHG emissions produced by decomposing waste generated by the project.

Detailed modeling results are provided in Appendix A. Operational GHG emissions by source are shown in Table 16. The total project emissions also include the addition of construction emissions amortized over the life of the project (30 years). As presented in Table 15, project's amortized construction emissions equal 9 MT CO_2e per year.

In total, long-term operation of the proposed project would generate approximately 1,141 MT CO_2e per year in the 2021 operational year, 914 MT CO_2e in the 2030 operational year, and 847 MT CO_2e in the 2040 operational year. The existing single-family home occupying the site would be removed to make way for the project; therefore, the existing emissions were included in the baseline to calculate the project's net emissions. After accounting for existing emissions, the project's net GHG emissions are estimated to be 1,124 MT CO_2e per year in the 2021 operational year, 900 MT CO_2e per year in the 2030 operational year, and 834 MT CO_2e per year in the 2040 operational year. The Town's applicable thresholds are presented in units of MT CO_2e/service population/year. The proposed project's total service population (residents + employees) is 53 people. The proposed project's net GHG emissions per service population are estimated to be 21.21 MT CO_2e/service population/year in the 2021 operational year, 16.98 MT CO_2e/service population/year in the 2030 operational year, and 15.74 MT CO_2e/service population/year in the 2040 operational year.

The estimated net annual project emissions, including operational emissions and amortized construction emissions, were compared with the threshold of 1.91 MT CO_2e/service population/year to determine significance at project buildout in the year 2021. The estimated total net annual GHG emissions generated by the proposed project in the year 2030 were compared with the applicable threshold of 1.12 MT CO_2e/service population/year. The estimated total net annual GHG emissions

[32] Institute of Transportation Engineers (ITE). 2017. Trip Generation, 10th Edition: Land Use Package 2 (10.2017).
[33] TJKM. 2020. Shiloh Mixed Use Transportation Impact Study. January.
[34] Ibid.

generated by the proposed project in the year 2040 were compared with the applicable threshold of 0.49 MT CO_2e/service population/year. .

Table 16: Unmitigated Net Project GHG Emissions (2021, 2030, and 2040)

Emission Source	Project Total MT CO_2e per year (2021)	Project Total MT CO_2e per year (2030)	Project Total MT CO_2e per year (2040)
Area	12	12	12
Energy	0	0	0
Mobile (Vehicles)	1,108	881	815
Waste	8	8	8
Water	4	4	4
Total Project Operational Emissions	*1,132*	*905*	*838*
Amortized Construction Emissions	*9*	*9*	*9*
Total Project Emissions	*1,141*	*914*	*847*
Existing Emissions	*(17)*	*(14)*	*(13)*
Net Project Emissions (MT CO_2e/year)	1,124	900	834
Service Population (residents + employees)	53	53	53
Project Emission Generation (MT CO_2e/service population/year)	**21.21**	**16.98**	**15.74**
Applicable Town of Windsor Threshold (MT CO_2e/service population/year)	**1.91**	**1.12**	**0.49**
Does project exceed threshold?	**Yes**	**Yes**	**Yes**

Notes:
MT CO_2e = metric tons of carbon dioxide equivalent.
Unrounded results used to calculate totals.
Existing emissions from existing single-family residence on project site.
Source of Emissions: CalEEMod Output (see Appendix A).

As shown in Table 16, the project's combined long-term net operational emissions and amortized construction emissions would exceed the Town of Windsor's recommended thresholds for GHG emissions in years 2021, 2030, and 2040. Therefore, the impact would be potentially significant.

To address the potentially significant impact, mitigation would be required to reduce the project's estimated generation of GHG emissions. To meet the threshold of 1.91 MT CO_2e/year in the 2021 operational year, the project would be required to reduce GHG emissions by 1,023 MT CO_2e per year.

To meet the efficiency threshold of 1.12 MT CO_2e/service population/year in the 2030 operational year, the project would be required to reduce GHG emissions by 841 MT CO_2e per year. To meet the efficiency threshold of 0.49 MT CO_2e/year in the 2040 operational year, the project would be required to reduce GHG emissions by 809 MT CO_2e per year. MM GHG-1 requires the project applicant purchase voluntary carbon credits from a verified GHG emissions credit broker in an amount sufficient to offset operational GHG emissions of approximately 26,516 MT CO_2e total over the lifetime of the project. With the implementation of MM GHG-1, the impact would be less than significant.

GHG emissions from project operations in the years 2021, 2030, and 2040 after the implementation of MM GHG-1, are compared with the applicable thresholds in Table 17.

Table 17: Mitigated Net Project GHG Emissions (2021, 2030, and 2040)

Emission Source	Project Total MT CO_2e per year (2021)	Project Total MT CO_2e per year (2030)	Project Total MT CO_2e per year (2040)
Area	12	12	12
Energy	0	0	0
Mobile (Vehicles)	1,108	881	815
Waste	8	8	8
Water	4	4	4
Amortized Construction Emissions	*9*	*9*	*9*
Additional Off-Model Mitigation Through the Purchase of Offsets (MM GHG-1)	(1,023)	(841)	(809)
Total Project Emissions	*118*	*73*	*39*
Existing Emissions	*(17)*	*(14)*	*(13)*
Net Project Emissions (MT CO_2e/year)	101	59	26
Service Population (residents + employees)	53	53	53
Project Emission Generation (MT CO_2e/service population/year)	**1.91**	**1.11**	**0.49**
Applicable Town of Windsor Threshold (MT CO_2e/service population/year)	**1.91**	**1.12**	**0.49**
Does project exceed threshold?	**No**	**No**	**No**
Notes: MT CO_2e = metric tons of carbon dioxide equivalent.			

Emission Source	Project Total MT CO_2e per year (2021)	Project Total MT CO_2e per year (2030)	Project Total MT CO_2e per year (2040)
Unrounded results used to calculate totals. Existing emissions from existing single-family residence on project site. Source of Emissions: CalEEMod Output (see Appendix A).			

With implementation of MM GHG-1, the project would not exceed any applicable threshold. Therefore, the project would not result in a significant generation of GHG emissions after incorporation of mitigation.

b) Conflict with any applicable plan, policy or regulation adopted for the purpose of reducing the emissions of greenhouse gases?

Less than significant impact. This impact is addressed by assessing the project's consistency with the Town of Windsor 2040 General Plan,[35] the Town of Windsor Greenhouse Gas Emissions Reduction Action Plan Update,[36] Sonoma County Regional Climate Action Plan,[37] the ARB adopted 2008 Scoping Plan,[38] and ARB's adopted 2017 Scoping Plan Update.[39]

Town of Windsor 2040 General Plan

The Environmental Resources chapter of the Town of Windsor 2040 General Plan contains GHG reduction targets that align with AB 32 and SB 32, which call for communities in California to reduce emission levels to 1990 levels by 2020 and 40 percent below 1990 levels by 2030.[40] The Town also continues to encourage smart growth development practices in accordance with SB 375 to reduce VMT to and from new development, while enhancing connectivity with alternative modes of travel. GHG emissions reduction policies in the Town of Windsor 2040 General Plan are aimed at supporting local, regional, and State efforts to reduce GHG emissions. However, the Town of Windsor General Plan does not include a qualified GHG reduction plan, and the GHG emissions reduction policies contained therein apply to the Town and not to individual development projects. These GHG emissions reduction policies are listed below for informational purposes.

Policy ER-5.1: Community Greenhouse Gas Reduction. The Town shall strive to reduce emissions by 25 percent below the 1990 community emissions level by 2020, and further reduce community emissions by:

- 40 percent below the 1990 level by 2030;

[35] Town of Windsor. 2018. Town of Windsor 2040 General Plan. April 4. Website: https://www.townofwindsor.com/843/Planning-Documents. Accessed June 12, 2019.
[36] The Energy Alliance Association. 2012. Town of Windsor Greenhouse Gas Emissions Reduction Action Plan Update. July 24. Website: https://www.google.com/search?q=town+of+windsor+ca+climate+action+plan&rlz=1C1GCEU_enUS814US815&oq=town+of+windsor+ca+climate+action+plan&aqs=chrome..69i57.8191j0j7&sourceid=chrome&ie=UTF-8#. Accessed June 12, 2019.
[37] The Sonoma County Regional Climate Protection Authority. 2016. Climate Action 2020 and Beyond: Sonoma County Regional Climate Action Plan. July. Website: https://rcpa.ca.gov/projects/climate-action-2020/. Accessed June 12, 2019.
[38] California Air Resource Board (ARB). 2008. Climate Change Draft Scoping Plan a framework for change. June. Website: https://ww3.arb.ca.gov/cc/scopingplan/document/draftscopingplan.pdf. Accessed November 12, 2019.
[39] California Air Resource Board (ARB). 2017. California's 2017 Climate Change Scoping Plan. November. Website: https://ww3.arb.ca.gov/cc/scopingplan/scoping_plan_2017.pdf.
[40] Town of Windsor. 2018. Town of Windsor 2040 General Plan. April 4. Website: https://www.townofwindsor.com/843/Planning-Documents. Accessed June 12, 2019.

- 60 percent below the 1990 level by 2040; and
- 80 percent below the 1990 level by 2050 (New Policy, Town Staff and Consultants)

Policy ER-5.3: Greenhouse Gas Efficiency Target. The Town shall ensure that all new development projects and Public Works Improvement projects would result in less than (*) metric tons CO_2e per capita (including residents and employees) per year in order to ensure that the emissions targets for the years 2030 and 2050 in ER-5.1 and ER-5.2 would be achieved. *Note: The Windsor 2040 General Plan Final EIR[41] provides the actual targets as follows: The Town shall ensure that all new development projects and Public Works Improvement projects would result in less than 1.91 metric tons CO_2e per service population (including residents and employees) per year from 2017 to 2030, less than 1.12 metric tons CO_2e per service population per year from 2030 to 2040, and 0.49 metric tons CO_2e per service population per year from 2040 to 2050 in order to ensure that the emissions targets for the years 2030, 2040, and 2050 in ER-5.1 and ER-5.2 would be achieved.

Policy ER-5.4: Encourage Development Patterns that Reduce Greenhouse Gas Emissions. The Town shall strive to reduce greenhouse gas emissions by encouraging compact, mixed-use, pedestrian/bicycle friendly, transit-oriented development that reduces VMT; promoting energy efficient building enhancements, construction practices, design, and site planning; improving the job-to-housing ratio; and other methods of reducing greenhouse gas emissions while maintaining a balance of housing types.

Policy ER-5.8: Energy Conservation and Efficiency Programs. The Town shall promote energy conservation/energy efficiency improvement programs for residential and commercial properties such as those offered by Sonoma County Energy Independence Program (SCEIP) and Property Assessed Clean Energy (PACE) that reduce energy demand which contribute to background levels of regional air emissions and GHG emissions.

Policy ER-5.10: Energy Performance Standards. The Town shall require new construction to meet targeted energy performance standards to advance Town greenhouse gas reduction and other sustainability goals and policies identified in the General Plan. The Town will allow new development to select from a range of options to achieve a minimum energy performance standard, including but not limited to:

- solar easements to guarantee access to increased renewable energy generation;
- installation of EV charging stations in homes and in commercial development to increase the ability for the public to use zero-emission vehicles;
- passive heating and cooling building design;
- solar roof and carport panels;
- cool roofs;
- Smart appliances;
- wind generation;
- installation of energy efficient appliances and fixtures; and

[41] Town of Windsor. 2018. Windsor 2040 General Plan Final EIR. February. Website: https://www.townofwindsor.com/DocumentCenter/View/21024/Final-EIR. Accessed April 22, 2020.

- other emerging technologies as they become available.

The Town shall work with affordable housing developers to assist in meeting the energy performance standards.

Policy ER-5.11: Zero Net Energy Goals. The Town shall strive to implement the State goal of zero net energy (ZNE) in all new residential construction by 2020 and ZNE in all new commercial construction by 2030.

Policy ER-5.14: Compliance with Energy Regulations. The Town shall continue to enforce State energy regulations governing energy consumption and use of solar and other renewable energy resources in existing and new development.

The Town has adopted and recommends the GHG efficiency targets listed in Policy ER-5.3. The project is a mixed-use development that would encourage residents to use on-site facilities, thereby reducing VMT. The project would include on-site solar, and would achieve zero net electricity, and would be required to meet all state standards for building efficiency. The proposed parking lot would include a minimum of eight Level 2 electric vehicle charging stations (EVCS) that would serve residents and clientele of the market. Additionally, the project would include sidewalks and pedestrian infrastructure, as well as long-term and short-term bicycle parking, throughout the project site for resident, employee, and customer use. As shown in Impact 7a, with implementation of MM GHG-1, the project would not exceed the GHG efficiency targets set forth in the Town of Windsor General Plan. Considering this information, the project would not conflict with any policies contained in the Town of Windsor General Plan to reduce GHG emissions after the implementation of MM GHG-1.

Town of Windsor Greenhouse Gas Emissions Reduction Action Plan Update

Measures contained in the Town of Windsor Greenhouse Gas Emissions Reduction Action Plan Update[42] are aimed at reducing GHG emissions from Town controlled sources. As such, the project would not conflict with any adopted policies from this plan.

Sonoma County Regional Climate Action Plan

In July 2016, the Sonoma County Regional Climate Protection Authority (RCPA) adopted the Sonoma County Regional CAP, also known as Climate Action 2020 and Beyond, which applies to the County, including the Town of Windsor.[43] However, the EIR for the Sonoma Regional CAP was invalidated in 2017. According to Policy LU-9.6 of the Town of Windsor 2040 General Plan, the Town shall support Sonoma County's efforts to achieve regional solutions to issues related to land use, transportation, and climate change when such efforts are consistent with the Town of Windsor General Plan.[44] The Sonoma County Regional CAP focuses on relatively short-term actions to reduce emissions by 25

[42] The Energy Alliance Association. 2012. Town of Windsor Greenhouse Gas Emissions Reduction Action Plan Update. July 24. Website: https://www.google.com/search?q=town+of+windsor+ca+climate+action+plan&rlz=1C1GCEU_enUS814US815&oq=town+of+windsor+ca+climate+action+plan&aqs=chrome..69i57.8191j0j7&sourceid=chrome&ie=UTF-8#. Accessed June 12, 2019.

[43] The Sonoma County Regional Climate Protection Authority. 2016. Climate Action 2020 and Beyond: Sonoma County Regional Climate Action Plan. July. Website: https://rcpa.ca.gov/projects/climate-action-2020/. Accessed June 12, 2019.

[44] Town of Windsor. 2018. Town of Windsor 2040 General Plan. April 4. Website: https://www.townofwindsor.com/843/Planning-Documents. Accessed June 12, 2019.

percent below 1990 levels by 2020 to a degree that is beyond current State mandate (AB 32). The Town of Windsor supports the regional GHG emissions reduction target of 25 percent below 1990 countywide emissions by 2020. Section 5.9 of the Sonoma County Regional CAP includes the community GHG emissions profile specific to the Town of Windsor, and the goals and state, regional, and local measures that the Town of Windsor will support as part of the regional approach to reducing GHG emissions. However, due to the invalidation of the Sonoma Regional CAP EIR, these goals and measures are not used as the basis for this analysis.

AB 32 Scoping Plan

The California State Legislature adopted AB 32 in 2006. AB 32 focuses on reducing GHG emissions to 1990 levels by the year 2020. Pursuant to the requirements in AB 32, the ARB adopted the Climate Change Scoping Plan (Scoping Plan) in 2008, which outlines actions recommended to obtain that goal. The Scoping Plan calls for an "ambitious but achievable" reduction in California's GHG emissions, cutting approximately 30 percent from business-as-usual (BAU) emission levels projected for 2020, or about 10 percent from 2008 levels.[45]

The Scoping Plan contains a variety of strategies to reduce the State's emissions. As shown in Table 18: the project is consistent with most of the strategies, while others are not applicable to the project.

As shown in Table 18 the project is consistent with the applicable strategies and would not conflict with the recommendations of AB 32 in achieving a Statewide reduction in GHG emissions. Considering this information, the project would not significantly hinder or delay the State's ability to meet the reduction targets contained in AB 32 or conflict with implementation of the Scoping Plan.

Table 18: Scoping Plan Measures Consistency Analysis

Scoping Plan Reduction Measure	Project Consistency
California Cap-and-Trade Program Linked to Western Climate Initiative. Implement a broad-based California Cap-and-Trade program to provide a firm limit on emissions. Link the California cap-and-trade program with other Western Climate Initiative Partner programs to create a regional market system to achieve greater environmental and economic benefits for California. Ensure California's program meets all applicable AB 32 requirements for market-based mechanisms.	**Not applicable.** Although the cap-and-trade system has begun, the project is not one targeted by the cap-and-trade system regulations and therefore this measure does not apply to the project.
California Light-Duty Vehicle GHG Standards. Implement adopted standards and planned second phase of the program. Align zero-emission vehicle, alternative and renewable fuel and vehicle technology programs with long-term climate change goals.	**Not applicable.** This is a Statewide measure that cannot be implemented by a project applicant or lead agency. However, the standards would be applicable to the light-duty vehicles that access the project site.
Energy Efficiency. Maximize energy efficiency building and appliance standards; pursue additional efficiency including new technologies, policy, and implementation	**Consistent.** This is a measure for the State to increase its energy efficiency standards in new buildings. The project is required to build to the

[45] California Air Resources Board (ARB). 2020. AB 32 Scoping Plan. Website: https://ww3.arb.ca.gov/cc/scopingplan/scopingplan.htm. Accessed March 9, 2020.

Scoping Plan Reduction Measure	Project Consistency
mechanisms. Pursue comparable investment in energy efficiency from all retail providers of electricity in California.	new standards and would increase its energy efficiency through compliance with State standards.
Renewable Portfolio Standard. Achieve 33 percent renewable energy mix statewide. Renewable energy sources include (but are not limited to) wind, solar, geothermal, small hydroelectric, biomass, anaerobic digestion, and landfill gas.	**Not applicable.** This is a Statewide measure that cannot be implemented by a project applicant or lead agency. The utility is required to increase its percent of power supply from renewable sources to 33 percent by the year 2020 pursuant to various regulations. The project would include on-site solar and would achieve zero net electricity.
Low Carbon Fuel Standard. Develop and adopt the Low Carbon Fuel Standard.	**Not applicable.** This is a Statewide measure that cannot be implemented by a project applicant or lead agency. All fuel consumption associated with the project's construction and operational activities would use fuel that meets these standards.
Regional Transportation-Related GHG Targets. Develop regional GHG emissions reduction targets for passenger vehicles. This measure refers to SB 375.	**Not applicable.** The project is not related to developing GHG emission reduction targets.
Vehicle Efficiency Measures. Implement light-duty vehicle efficiency measures.	**Not applicable.** When this measure is initiated, the standards would be applicable to the light-duty vehicles that would access the project site.
Goods Movement. Implement adopted regulations for the use of shore power for ships at berth. Improve efficiency in goods movement activities.	**Not applicable.** The project does not propose any changes to maritime, rail, or intermodal facilities or forms of transportation.
Million Solar Roofs Program. Install 3,000 MW of solar-electric capacity under California's existing solar programs.	**Consistent.** This measure is to increase solar throughout California, which is being done by various electricity providers and existing solar programs. The project would include on-site solar to generate 100 percent of the project's electricity use.
Medium/Heavy-Duty Vehicles. Adopt medium and heavy-duty vehicle efficiency measures.	**Not applicable.** This is a Statewide measure that cannot be implemented by a project applicant or lead agency.
Industrial Emissions. Require assessment of large industrial sources to determine whether individual sources within a facility can cost-effectively reduce GHG emissions and provide other pollution reduction co-benefits. Reduce GHG emissions from fugitive emissions from oil and gas extraction and gas transmission. Adopt and implement regulations to control fugitive CH_4 emissions and reduce flaring at refineries.	**Not applicable.** This measure involves industrial sources of emissions and would not apply to residential development projects.
High Speed Rail. Support implementation of a high-speed rail system.	**Not applicable.** This is a Statewide measure that cannot be implemented by a project applicant or lead agency. The proposed project would not preclude the implementation of this strategy.

Scoping Plan Reduction Measure	Project Consistency
Green Building Strategy. Expand the use of green building practices to reduce the carbon footprint of California's new and existing inventory of buildings.	**Consistent.** The project would comply with the California Energy Code and thus incorporate applicable energy efficiency features designed to reduce project energy consumption.
High Global Warming Potential Gases. Adopt measures to reduce high global warming potential gases.	**Not applicable.** This is a Statewide measure that cannot be implemented by a project applicant or lead agency. The proposed project would not preclude the implementation of this strategy.
Recycling and Waste. Reduce CH_4 emissions at landfills. Increase waste diversion, composting, and commercial recycling. Move toward zero waste.	**Consistent**. The project would not conflict with implementation of this measure. The project is required to achieve the recycling mandates via compliance with the CALGreen code.
Sustainable Forests. Preserve forest sequestration and encourage the use of forest biomass for sustainable energy generation.	**Not applicable.** The project site is in a built-up urban area. No forested lands exist on-site; therefore, no on-site preservation is possible.
Water. Continue efficiency programs and use cleaner energy sources to move and treat water.	**Consistent.** The project would comply with the California Energy Code and the California Updated Model Landscape Ordinance. With adherence to these regulations, the project would consume energy and water in an efficient manner.
Agriculture. In the near-term, encourage investment in manure digesters and at the five-year Scoping Plan update determine if the program should be made mandatory by 2020.	**Not applicable.** The project site is not designated or in use for agriculture purposes. No grazing, feedlot, or other agricultural activities that generate manure occur on-site or are proposed to be implemented by the project.
Source of ARB Scoping Plan Reduction Measure: California Air Resource Board (CARB). 2014. First Update to the Climate Change Scoping Plan, Building on the Framework, Pursuant to AB 32, The California Global Warming Solutions Act of 2006. May. Website: https://ww3.arb.ca.gov/cc/scopingplan/2013_update/first_update_climate_change_scoping_plan.pdf. Accessed January 13, 2020. Source of Project Consistency or Applicability: FCS 2020.	

SB 32 2017 Scoping Plan Update

The 2017 Climate Change Scoping Plan Update addressing the SB 32 targets was adopted on December 14, 2017. Table 19 provides an analysis of the project's consistency with the 2017 Scoping Plan Update measures. As shown in Table 19, many of the measures are not applicable to the project, while the project is consistent with strategies that are applicable.

Table 19: Consistency with SB 32 2017 Scoping Plan Update

2017 Scoping Plan Update Reduction Measure	Project Consistency
SB 350 50 percent Renewable Mandate. Utilities subject to the legislation will be required to increase their renewable energy mix from 33percent in 2020 to 50 percent in 2030.	**Not applicable.** This measure would apply to utilities and not to individual development projects. The project would purchase electricity from a utility subject to the SB 350 Renewable Mandate.

2017 Scoping Plan Update Reduction Measure	Project Consistency
SB 350 Double Building Energy Efficiency by 2030. This is equivalent to a 20 percent reduction from 2014 building energy usage compared to current projected 2030 levels.	**Not applicable**. This measure applies to existing buildings. New structures are required to comply with Title 24 Energy Efficiency Standards that are expected to increase in stringency over time. The project would comply with the applicable Title 24 Energy Efficiency Standards in effect at the time building permits are received.
Low Carbon Fuel Standard. This measure requires fuel providers to meet an 18 percent reduction in carbon content by 2030.	**Not applicable.** This is a Statewide measure that cannot be implemented by a project applicant or lead agency. However, vehicles accessing the project site would benefit from the standards.
Mobile Source Strategy (Cleaner Technology and Fuels Scenario). Vehicle manufacturers will be required to meet existing regulations mandated by the LEV III and Heavy-Duty Vehicle programs. The strategy includes a goal of having 4.2 million ZEVs on the road by 2030 and increasing numbers of ZEV trucks and buses.	**Not applicable.** This measure is not applicable to the project; however, vehicles accessing the project site would be benefit from the increased availability of cleaner technology and fuels. Future residents and visitors can be expected to purchase increasing numbers of more fuel efficient and zero emission cars and trucks each year. Furthermore, delivery trucks and buses that would serve future residents will be made by increasing numbers of ZEV delivery trucks.
Sustainable Freight Action Plan The plan's target is to improve freight system efficiency 25 percent by increasing the value of goods and services produced from the freight sector, relative to the amount of carbon that it produces by 2030. This would be achieved by deploying over 100,000 freight vehicles and equipment capable of zero emission operation and maximize near-zero emission freight vehicles and equipment powered by renewable energy by 2030.	**Not applicable.** This measure applies to owners and operators of trucks and freight operations. The project is a residential development and would not support substantial truck and freight operations. It is expected that deliveries throughout the State would be made with an increasing number of ZEV delivery trucks, including deliveries that would be made to future residents.
Short-Lived Climate Pollutant (SLCP) Reduction Strategy. The strategy requires the reduction of SLCPs by 40 percent from 2013 levels by 2030 and the reduction of black carbon by 50 percent from 2013 levels by 2030.	**Consistent.** The project would not include major sources of black carbon. This measure revolves around ARB's SLCP Reduction Strategy that was released in April 2016 as a result of SB 650. SB 650 required the State to develop a strategy to reduce emissions of SLCPs. DPM reductions have come from strong efforts to reduce on-road vehicle emissions. Car and truck engines used to be the largest sources of anthropogenic black carbon emissions in California, but the State's existing air quality policies will virtually eliminate black carbon emissions from on-road diesel engines within 10 years. These policies are based on existing technologies. Another major source of black carbon is wood-burning. As described Section 3a, Air Quality, of this IS/MND, in compliance with BAAQMD Rule 6-3 wood burning devices, the project will not install any wood burning devices. Natural gas hearths produce very little black carbon compared to wood burning fireplace; therefore,

2017 Scoping Plan Update Reduction Measure	Project Consistency
	the project would not include major sources of black carbon.
SB 375 Sustainable Communities Strategies. Requires Regional Transportation Plans to include a sustainable communities strategy for reduction of per capita vehicle miles traveled.	**Not applicable.** The project does not include the development of a Regional Transportation Plan. Furthermore, the project is not within a sustainable communities strategy (SCS) priority area.
Post-2020 Cap-and-Trade Program. The Post 2020 Cap-and-Trade Program continues the existing program for another 10 years. The Cap-and-Trade Program applies to large industrial sources such as power plants, refineries, and cement manufacturers.	**Not applicable.** The project is not one targeted by the cap-and-trade system regulations, and, therefore, this measure does not apply to the project. However, the post-2020 Cap-and-Trade Program indirectly affects people and entities who use the products and services produced by the regulated industrial sources when increased cost of products or services (such as electricity and fuel) are transferred to the consumers.
Natural and Working Lands Action Plan. The ARB is working in coordination with several other agencies at the federal, State, and local levels, stakeholders, and with the public, to develop measures as outlined in the Scoping Plan Update and the governor's Executive Order B-30-15 to reduce GHG emissions and to cultivate net carbon sequestration potential for California's natural and working land.	**Not Applicable**. The project site is in a built-up urban area and would not be considered natural or working lands.
Source: California Air Resource Board (CARB). 2017. California's 2017 Climate Change Scoping Plan. November. Website: https://ww3.arb.ca.gov/cc/scopingplan/scoping_plan_2017.pdf. Accessed January 13, 2020.	

As discussed in Table 18 and Table 19, the project would not conflict with any applicable 2017 Scoping Plan.

The project would comply with the California Green Building Standards Code, including requirements to increase recycling, reduce waste, reduce water use, increase bicycle use, and other measures that will reduce GHG emissions. Motor vehicle emissions associated with the project would be reduced through compliance with mandatory State regulations on fuel efficiency and fuel carbon content. Emissions related to project electricity consumption would be reduced as the electric utility, Sonoma Clean Power, is required to comply with the Renewable Portfolio Standard, which requires utilities to procure an incrementally increasing portion of electricity from renewable energy sources with the goal of achieving totally carbon-free energy by the year 2045..

Therefore, the project would not conflict with any applicable plan, policy, or regulation adopted to reduce GHG emissions after the implementation of MM GHG-1. The impact would be less than significant with mitigation incorporated.

Energy

Would the project:

c) Result in potentially significant environmental impact due to wasteful, inefficient, or unnecessary consumption of energy resources, during project construction or operation?

Less than significant impact. During construction, the project would result in energy consumption through the combustion of fossil fuels in construction vehicles, worker commute vehicles, and construction equipment, and the use of electricity for temporary buildings, lighting, and other sources. No natural gas would be utilized as part of construction. Fossil fuels used for construction vehicles and other energy-consuming equipment would be used during site demolition, site preparation, grading, paving, and building construction. Limitations on idling of vehicles and equipment and requirements that equipment be properly maintained would result in fuel savings. California regulations (CCR Title 13, §§ 2449(d)(3) and 2485) limit idling from both on-road and off-road diesel-powered equipment and are enforced by the ARB.

The types of equipment could include gasoline- and diesel-powered construction and transportation equipment, including trucks, bulldozers, frontend loaders, forklifts, and cranes. Construction equipment is estimated to consume a total of 20,118 gallons of diesel fuel over the entire construction duration (Appendix A).

Fuel use associated with construction vehicle trips generated by the project was also estimated; trips include construction worker trips, haul trucks trips for material transport, and vendor trips for construction material deliveries. Fuel use from these vehicles traveling to the project was based on (1) the projected number of trips the project will generate during construction, (2) average trip distances by trip type, and (3) fuel efficiencies estimated in the ARB Emissions Factors model (EMFAC) mobile source emission model. The specific parameters used to estimate fuel usage are included in Appendix A. In total, the project is estimated to generate approximately 96,654 VMT and a combined 4,225 gallons of gasoline and diesel for vehicle travel during construction.

Other equipment could include construction lighting, field services (office trailers), and electrically driven equipment such as pumps and other tools. The Town of Windsor's permissible hours for construction are generally restricted to between 7:00 a.m. and 7:00 p.m. from Monday through Friday and between 8:00 a.m. and 7:00 p.m. on Saturday. No construction activity is permitted on Sundays unless expressly authorized by the Building Official; but in no event shall such construction activity be permitted on Sunday before 9:00 a.m. or after 5:00 p.m.[46] As on-site construction activities would be restricted between these hours, it is anticipated that the use of construction lighting would be minimal. Single-wide mobile office trailers, which are commonly used in construction staging areas, generally range in size from 160 square feet to 720 square feet. A typical 720-square-foot office trailer would consume approximately 9,531 kilowatt hours (kWh) during the 9-month construction phase (Appendix A). Due to the temporary nature of construction and the financial incentives for developers and contractors to use energy-consuming resources in an efficient manner, the construction phase of the project would not result in wasteful, inefficient, and unnecessary consumption of energy.

[46] Town of Windsor. 2016. Code of Ordinances. Website: https://library.municode.com/ca/windsor/codes/code_of_ordinances?nodeId=TITVIIBUHO_CH1GE_ART1PUAD_7-1-190COHO. Accessed: April 6, 2019.

Due to the temporary nature of construction and the financial incentives for developers and contractors to use energy-consuming resources in an efficient manner, the construction phase of the proposed project would not result in wasteful, inefficient, and unnecessary consumption of energy. Therefore, the construction-related impact related to fuel and electricity consumption would be less than significant.

Operation

Less than significant impact. The operational phase of the project would consume energy as part of building operations and transportation activities. Building operations for the project would involve energy consumption for multiple purposes including, but not limited to, building heating and cooling, refrigeration, lighting, and electronics. The project would be all-electric; therefore, the project would consume no natural gas. Based on the modeling output files used to estimate GHG emissions associated with the project, building operations would consume approximately 296,087 kilowatt hours of electricity per year (inputs used to calculate values are described in more detail in Appendix A). However, the project would include on-site solar electricity generation, and would achieve net zero electricity.

New structures are required to comply with California Code of Regulations (Title 24, Part 6) Energy Efficiency Standards that are expected to increase in stringency over time. The project would comply with the applicable Title 24 Energy Efficiency Standards in effect at the time building permits are received. As of 2019, photovoltaic systems are required for new homes which are scheduled to go into effect on January 1, 2020. The standards also encourage demand responsive technologies including battery storage and heat pump water heaters and improve the building's thermal envelope through high performance attics, walls, and windows to improve comfort and energy savings. The standards enable the use of highly efficient air filters to trap hazardous particulates from both outdoor air and cooking and improve kitchen ventilation systems. Therefore, the operational energy consumption would not preclude implementation of the State of California's energy reduction efforts.[47]

Operational energy would also be consumed during vehicle trips associated with the project. Fuel consumption would be primarily related to vehicle use by residents and visitors associated with the project. Based on the estimates contained in the CalEEMod output files (Appendix A of this document), project-related vehicle trips would result in approximately 2.3 million VMT,[48] and consume an estimated 95,744 gallons of gasoline and diesel combined,[49] on an annual basis.

The project site is located approximately 0.5 miles west of the U.S.-101 via the Shiloh Road interchange. As such, it would be in proximity to a regional route of travel. Sonoma County Transit provides bus service in the Town of Windsor. Route 55 (Airport Business Park Shuttle) has two stops adjacent to the project site's northwest corner on both the north and south side of Shiloh Road. In addition, Route 66 (Windsor Shuttle) has a bus stop at Shiloh Road and Conde Lane, approximately 1,100 feet to the east of the project site. The SMART Commuter Rail line proposes to extend its service from Santa Rosa to Windsor and north to Cloverdale via the NWP track by 2021. Additionally,

[47] California Energy Commission. 2019. Building Energy Efficiency Standards. Accessed: May 6, 2019.
[48] VMT was estimated using CalEEMod; see Appendix A.
[49] Operational Fuel Consumption was estimated using the EMFAC Web Database Emissions for Sonoma County; see Appendix A.

long term and short-term bicycle parking would be provided throughout the project site for both resident, employee, and customer use, and sidewalks and pedestrian infrastructure would be provided throughout the project site and along both the Shiloh Drive and Skylane Boulevard project frontages. The existing transportation facilities in the area would provide future residents, visitors, and employees associated with the project with access to public transportation, thus further reducing fuel consumption demand. For these reasons, project operational transportation fuel consumption would not result in the use of large amounts of energy or the use of energy in a wasteful manner.

The project's buildings would be designed and constructed in accordance with the State's Title 24 energy efficiency standards. These standards, widely regarded as the most advanced energy efficiency standards, would help reduce the amount of energy required for lighting, water heating, and heating and air conditioning in buildings and promote energy conservation. As such, building and site designs would be reviewed, prior to approval of the project. Therefore, operation of the project would not result in wasteful, inefficient, or unnecessary consumption of energy resources and impacts are less than significant.

d) Conflict with or obstruct a state or local plan for renewable energy or energy efficiency?

Less than significant impact. During the construction phase, the project would adhere to California regulations (CCR Title 13, Sections 2449 and 2485) limit idling from both on-road and off-road diesel-powered equipment. The project would be required to comply with these regulations, which are enforced by ARB. Part 11, chapter 5 of the State's Title 24 energy efficiency standards establish mandatory measures for non-residential buildings, including material conservation and efficiency. The project would also be required to comply with these mandatory measures.

Furthermore, building and site designs would be reviewed by the Town of Windsor for energy impacts, prior to approval of the project. Therefore, it is anticipated that the construction phase of the project would not conflict with State or local renewable or energy efficiency objectives. Construction-related energy impacts would be less than significant.

Operation

During the operational phase of the project, the energy consumption- for building operations and transportation activities would involve energy consumption for multiple purposes including, but not limited to, building heating and cooling, lighting, and electronics, as well as parking lot lighting. The State's Title 24 energy efficiency standards are widely regarded as the most advanced energy efficiency standards. These standards help reduce the amount of energy required for lighting, water heating, and heating and air conditioning in buildings and promote energy conservation.

The Town of Windsor General Plan Environmental Resources Element, Housing Element, and Transportation and Mobility Element provides energy conservation guidelines and goals that are consistent with national and State programs. The U.S. EPA has long sponsored conservation efforts such as the Energy Star Program that encourages superior energy efficiency by residents and businesses. Many jurisdictions have enrolled in the Community Energy Efficiency Program (CEEP), which provides incentives for builders who attain energy savings 30 percent above the National

Model Energy Code.[50] The following are energy conservation policies from the Town of Windsor General Plan that are applicable to the project:

Environmental Resources

ER-5.4: Encourage Development Patterns that Reduce Greenhouse Gas Emissions. The Town shall strive to reduce greenhouse gas emissions by encouraging compact, mixed-use, pedestrian/bicycle friendly, transit oriented development that reduces VMT; promoting energy efficient building enhancements, construction practices, design, and site planning; improving the job-to-housing ratio; and other methods of reducing greenhouse gas emissions while maintaining a balance of housing types.

ER-5.8: Energy Conservation and Efficiency Programs. The Town shall promote energy conservation/energy efficiency improvement programs for residential and commercial properties such as those offered by Sonoma County Energy Independence Program (SCEIP) and Property Assessed Clean Energy (PACE), that reduce energy demand which contribute to background levels of regional air emissions and GHG emissions.

ER-5.9: Energy Conservation through Land Use. The Town shall promote the creation of a land use pattern that reduces operational energy requirements, especially for transportation purposes, by:

- Avoiding land use configurations and siting decisions that result in single-purpose automobile trips, and instead encouraging patterns that result in multi-purpose trips.
- Avoiding land use configurations and siting decisions that result in single-purpose automobile trips, and instead encouraging patterns that result in multi-purpose trips.
- Promoting land use patterns that provide employment opportunities for Windsor residents.

ER-5.10: Energy Performance Standards. The Town shall require new construction to meet targeted energy performance standards to advance Town greenhouse gas reduction and other sustainability goals and policies identified in the General Plan. The Town will allow new development to select from a range of options to achieve a minimum energy performance standard, including but not limited to:

- solar easements to guarantee access to increased renewable
- energy generation;
- installation of EV charging stations in homes and in
- commercial development to increase the ability for the
- public to use zero-emission vehicles;
- passive heating and cooling building design;
- solar roof and carport panels;
- cool roofs;
- Smart appliances;
- wind generation;

[50] United States Environmental Protection Agency (EPA). 2019. Local Energy Efficiency Benefits and Opportunities. Website: https://www.epa.gov/statelocalenergy/local-energy-efficiency-benefits-and-opportunities#two. Accessed: May 10, 2019.

- installation of energy efficient appliances and fixtures; and
- other emerging technologies as they become available.

ER-5.11: Zero Net Energy Goals. The Town shall strive to implement the State goal of zero net energy (ZNE) in all new residential construction by 2020 and ZNE in all new commercial construction by 2030.

ER-5.14: Compliance with Energy Regulations. The Town shall continue to enforce State energy regulations governing energy consumption and use of solar and other renewable energy resources in existing and new development.

ER-5.15: Title 24 Application. The Town shall require energy conservation standards for new residential construction, commercial construction, and within Town facilities, as contained in Title 24 of the California Code of Regulations, to be periodically reviewed to identify opportunities for adopting standards that more closely respond to local conditions, especially in the area of passive design, to reduce cooling loads.

ER-5.19: Energy Conservation Measures and Education. The Town shall encourage energy conservation measures, such as insulation and weather-stripping, in existing structures through public education and financial assistance to low-and moderate-income families.

ER-5.20: Windsor Serving as the Energy Conservation Model. The Town government shall be in the forefront of energy conservation efforts locally and regionally by undertaking and publicizing energy efficiency and renewable energy resource programs such as Sonoma County Energy Independence Program (SCEIP) and Property Assessed Clean Energy (PACE) and requiring all new Town buildings to be demonstration buildings and models of emerging energy and water technologies.

Housing

H-8.1: The Town shall ensure that all new residential development meets or exceeds the standards contained in Title 24, Part 6 of the California Code of Regulations (Energy Efficiency Standards for Residential and Nonresidential Buildings) and the Town's Green Building Ordinance, and encourage the retrofitting of existing development to improve energy and conservation.

H-8.2: The Town shall establish a development pattern that helps reduce vehicle miles traveled and promotes transit ridership, and pedestrian and bicycle access.

H-8.3: The Town shall encourage homeowners and property owners of existing residential buildings to incorporate energy and water efficient features and renewable energy facilities in structures.

H-8.5: The Town shall encourage residential development in proximity to the SMART Station, consistent with the Windsor Station/Downtown Specific Plan, to reduce vehicle miles traveled and promote transit ridership.

Transportation and Mobility

M-1.2: Trip Generation Reduction for Applicable Developments. The Town shall consider appropriate reductions to the trip generation for projects with a multimodal system approach that increases transit ridership, biking, and walking, in order to reduce air pollution, energy consumption, and greenhouse gas emissions.

The Town of Windsor's General Plan Policies ER-5.10, ER-5.14, ER-5.15, and H-8.1 would reinforce the implementation and enforcement of the California Building and Energy codes to promote energy efficient building design and construction. The project would be required by State law to comply with the Title 24 energy efficiency standards.

The Town of Windsor's General Plan Policy M-1.2 aims to increase transit ridership, biking, and walking, in order to reduce air pollution, energy consumption, and GHG emissions. The project site is located in close proximity to multiple Sonoma County Transit bus stops, and the project would include sidewalks and pedestrian infrastructure, as well as long term and short-term bicycle parking for resident, employee, and customer use, throughout the project site. The project would provide at minimum eight Level 2 electric vehicle charging stations (EVCS) in the parking lot that would serve residents and clientele of the market. Additionally, the SMART Commuter Rail line proposes to extend its service from Santa Rosa to Windsor and north to Cloverdale via the NWP track by 2021. These project design features support the aims of Policy M-1.2 to increase alternative transportation.

In addition to the Windsor's General Plan energy reduction policies, the State of California under SB 350 has adopted an Integrated Resources Plan to meet state Greenhouse Gas (GHG) reduction goals, while balancing the need for reliable and affordable electric service to customers. As well as a Sustainability Reduction Plan for sustainable Electric and Water Initiatives. This plan identifies reduction accomplishments in 2015 and sets goals for 2020 and 2030 as a roadmap towards reducing emissions and fostering sustainable initiatives. The Town of Windsor was a participating jurisdiction in the Sonoma County Regional (CAP), which identifies these standards and contains measures that support the state mandated Title 24 Energy Efficiency Standard.[51] However, the Town of Windsor has not adopted the CAP, and the Town has an existing Greenhouse Gas Emissions Reduction Plan, adopted in 2012, that is enforced locally through the building permit review and inspection process.[52] As noted in Impact B of the Greenhouse Gas Emissions section, measures contained in the Town of Windsor Greenhouse Gas Emissions Reduction Action Plan Update[53] are aimed at reducing GHG emissions from Town controlled sources. As such, the project would not conflict with any adopted policies from this plan.

Electricity would be provided by Sonoma Clean Power (SCP) to the project site. California's Renewables Portfolio Standard (RPS) requires that 33 percent of electricity retail sales be served by

[51] The Sonoma County Regional Climate Protection Authority. 2016. Climate Action 2020 and Beyond: Sonoma County Regional Climate Action Plan. July. Website: https://rcpa.ca.gov/projects/climate-action-2020/. Accessed June 12, 2019.

[52] Town of Windsor. 2012. Greenhouse Gas Emission Reduction Action Plan. Website: https://www.townofwindsor.com/DocumentCenter/View/13343/Greenhouse-Gas-Adopted-Plan-07-24-12. Accessed May 3, 2019.

[53] The Energy Alliance Association. 2012. Town of Windsor Greenhouse Gas Emissions Reduction Action Plan Update. July 24. Website: https://www.google.com/search?q=town+of+windsor+ca+climate+action+plan&rlz=1C1GCEU_enUS814US815&oq=town+of+windsor+ca+climate+action+plan&aqs=chrome..69i57.8191j0j7&sourceid=chrome&ie=UTF-8#. Accessed June 12, 2019.

renewable energy sources by 2020. The power mix of SCP's 2017 CleanStart plan includes 45 percent eligible renewable (23 percent wind, 11 percent geothermal, and 11 percent solar), 42 percent large hydro, and 13 percent unspecified sources of power. SCP also offers the SCP EverGreen plan, which includes 100 percent eligible renewable (100 percent geothermal).[54] SCP exceeded the SB 350 goal of 33 percent renewable electricity procurement by 2020, and is on track to meet the SB 350 goal of 50 percent renewable electricity procurement by 2030. Therefore, the project would receive electricity from a utility company that would meet California's RPS requirements.

As such, the proposed project would not conflict with or obstruct a State or local plan for renewable energy or energy efficiency. Operational energy impacts would be less than significant.

Mitigation Measures

MM GHG-1 Prior to the issuance of the certificate of occupancy, the applicant shall provide documentation to the Town of Windsor that the project would achieve additional annual greenhouse gas (GHG) emission reductions of 1,023 metric ton (MT) carbon dioxide equivalent (CO_2e) per year in 2021, decreasing to 841 MT CO_2e per year in 2030, and decreasing to 809 MT CO_2e per year in 2040 based on current estimates of the project-related GHG emissions, through the following measure or other measures approved by the Town:

- Purchase voluntary carbon credits from a verified GHG emissions credit broker in an amount sufficient to offset operational GHG emissions of approximately 26,516 MT CO_2e total over the lifetime of the project. Copies of the contract(s) shall be provided to the Town Planning Division.

[54] California Energy Commission (CEC). 2018. Sonoma Clean Power Authority 2017 Power Content Label. July. Website: https://ww2.energy.ca.gov/pcl/labels/2017_labels/Sonoma_2017_PCL.pdf. Accessed March 9, 2020.

Environmental Issues	Potentially Significant Impact	Less than Significant Impact with Mitigation Incorporated	Less than Significant Impact	No Impact
8. Hazards and Hazardous Materials *Would the project:*				
a) Create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials?	☐	☒	☐	☐
b) Create a significant hazard to the public or the environment through reasonably foreseeable upset and accident conditions involving the release of hazardous materials into the environment?	☐	☐	☒	☐
c) Emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school?	☐	☐	☐	☒
d) Be located on a site which is included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5 and, as a result, would it create a significant hazard to the public or the environment?	☐	☐	☐	☒
e) For a project located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project result in a safety hazard or excessive noise for people residing or working in the project area?	☐	☐	☒	☐
f) Impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan?	☐	☐	☒	☐
g) Expose people or structures, either directly or indirectly to a significant risk of loss, injury, or death involving wildland fires?	☐	☐	☒	☐

Environmental Evaluation

Setting

Hazards analyzed in this section include hazardous materials, wildfires, and hazards based on proximity to airport and airstrip operations. Hazardous materials, as defined by the California Code of Regulations, are substances with certain physical properties that could pose a substantial present or future hazard to human health or the environment when improperly handled, disposed, or otherwise managed. Hazardous materials are grouped into the following four categories, based on their properties:

- Toxic—causes human health effects
- Ignitable—has the ability to burn
- Corrosive—causes severe burns or damage to materials
- Reactive—causes explosions or generates toxic gases

A hazardous waste is any hazardous material that is discarded, abandoned, or slated to be recycled. The criteria that define a material as hazardous also define a waste as hazardous. If improperly handled, hazardous materials and hazardous waste can result in public health hazards if released into the soil or groundwater or through airborne releases in vapors, fumes, or dust. Soil and groundwater having concentrations of hazardous constituents higher than specific regulatory levels must be handled and disposed of as hazardous waste when excavated or pumped from an aquifer. The California Code of Regulations, Title 22, Sections 66261.20–24 contain technical descriptions of toxic characteristics that could cause soil or groundwater to be classified as hazardous waste.

The analysis of potential hazardous material impacts relies primarily upon a Phase I Environmental Site Assessment (ESA) prepared by EBA Engineering on April 8, 2019 (Appendix E). The Phase I ESA determined that the existing single-family and associated outbuildings were constructed prior to 1978 and as a result, asbestos-containing materials (ACMs) and lead-based paint could have been used.

To address airport safety hazards, Sonoma County has prepared a Comprehensive Airport Land Use Plan that identifies the location of airports in the county, and established spheres of influence, where more stringent planning regulations and restrictions apply. The nearest airport to the project site is the Charles M. Shultz Sonoma County Airport, roughly 0.87 miles to the south.

The Town of Windsor has prepared a Local Hazard Mitigation Plan (LHMP) to address various types of hazards. The LHMP focuses on strategies and feasible actions to reduce the impacts from hazards.

Would the project:

a) Create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials?

Less than significant impact with mitigation incorporated. Residential development typically does not involve the regular use, storage, transport, or disposal of significant amounts of hazardous materials. The neighborhood market portion of the project would not involve routine use or transport of hazardous materials. However, project construction and operations would involve the minor routine transport and handling of minimal quantities of hazardous substances such as diesel fuels, lubricants, solvents, asphalt, pesticides, and fertilizers.

Handling and transportation of these materials could result in the exposure of workers or residents to hazardous materials. However, the project would not create a significant hazard to the public or the environment, because project construction and operations would comply with applicable federal, state, and local laws pertaining to the safe handling and transport of hazardous materials. In

addition, the project does not propose commercial or industrial uses, such as gas stations or dry cleaners, that typically use or transport significant amounts of hazardous materials.

Based on historical aerial photos the single-family home on the project site was built prior to 1968.[55] Therefore, the presence of asbestos-containing materials (ACMs) and lead-based paint within building materials is likely. Demolition and removal of these structures could release asbestos and lead into the local environment, which would be a potentially significant impact. MM HAZ-1 would require a comprehensive ACM survey and lead-based paint survey to identify the presence and location of ACMs and lead-based paint on the project site. If ACMs and lead-based paint are determined to be on-site, these structures would be removed in accordance with Federal and State regulations applicable to the abatement of asbestos-containing materials and lead-based paint. As a result, implementation of MM HAZ-1 and applicable regulations would reduce potential impacts to less than significant level.

b) Create a significant hazard to the public or the environment through reasonably foreseeable upset and accident conditions involving the release of hazardous materials into the environment?

Less than significant impact. As described in Impact 8a, the proposed project would involve the minor use of hazardous materials typically required during construction, such as diesel fuel and other motor lubricants. Contractors would comply with applicable federal, state, and local laws pertaining to the safe handling and transport of hazardous materials, which would minimize potential spill occurrences. Spills that may occur during construction activities would likely be minimal and potential adverse effects would be localized. Plans and specifications typically require contractors to clean up immediately any spills of hazardous materials. Additionally, MM HAZ-1 would ensure any potential impacts from lead-based paint and ACMs are removed by certified professionals in accordance with Federal and State regulations. Therefore, impacts would be less than significant.

c) Emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school?

No impact. The closest school to the project site is Windsor High School, located approximately 1.38 miles to the northwest. Therefore, the project would not emit or handle hazardous materials, substances, or waste within one-quarter mile of a school and no impact would occur.

d) Be located on a site which is included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5 and, as a result, would it create a significant hazard to the public or the environment?

No impact. The Phase I ESA evaluated the project site for recognized environmental conditions, which include the presence of hazardous material sites. The Phase I ESA evaluation included a search of federal, state, and local databases kept on hazardous material sites, including the State's Cortese, GeoTracker, and EnviroStor list maintained in accordance with Government Code Section 65962.5. The Phase I ESA determined none of the databases have a record of any hazardous material sites

[55] EBA. Phase I Environmental Site Assessment, page 6. 2019.

located on the project site. As such, the project would have no impact on hazardous material sites and impacts would be less that significant.

e) For a project located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project result in a safety hazard or excessive noise for people residing or working in the project area?

Less than significant impact. The nearest public airport to the project site is the Charles M. Schulz Sonoma County Airport, approximately 0.87 mile south of the project site. Although there are no public or public use airports in the Town of Windsor, the project site is located within Sonoma County Airport Safety Zone TPZ-B – Traffic Pattern Zone. Under this safety zone, there are no restrictions on land use type or residential unit density.[56] No impacts would occur.

f) Impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan?

Less than significant impact. The primary evacuation routes out of the Town of Windsor are Highway 101, Redwood Highway, Windsor River Road, Conde Lane, and Shiloh Road.[57] The project would not modify any existing roadways or identified evacuation routes in a way that would impede emergency access or evacuation, such as permanent road closure or lane narrowing. In addition, all project site access driveways would be designed to meet requirements for emergency vehicle use and access. As demonstrated in Exhibit 10, project site access driveways and internal circulation would be wide enough to accommodate fire truck turning radii movements consistent with the Windsor Fire Department standards. Therefore, impacts would be less than significant.

g) Expose people or structures, either directly or indirectly, to a significant risk of loss, injury, or death involving wildland fires?

Less than significant impact. The project site is not located within fire hazard zone or wildland urban interface zone as designated by CALFIRE.[58] The project is located in an urban area and is surrounded by urban development and infrastructure. These land use types typically are not associated with wildland fires and usually preclude the possibility of exposure to such threats. However, recent wildfire events in Sonoma County have demonstrated that even urban areas are vulnerable to wildfires, particularly those close to undeveloped areas.

Projects are reviewed by the Windsor Fire Protection District for compliance with the California Fire Code, adopted and amended by the Town, and with National Fire Protection Association regulations. The project is expected to comply with the 2016 California Building and Fire Codes as adopted and amended by the Town, which are designed to reduce potential fire hazards to the most current standards. In addition, the project would be required to pay fire protection fees consistent with the Windsor Municipal Code Chapter 6-1-305. As discussed under Impact 8g and 16d, access to the

[56] Sonoma County. Airport Safety Zones Charles M. Schulz - Sonoma County Airport. Accessed January 21, 2019. Website: https://sonomacounty.ca.gov/PRMD/Long-Range-Plans/Comprehensive-Airport-Land-Use/Airport-Safety-Zones-County-Airport/

[57] Town of Windsor. 2017. Local Hazard Mitigation Plan, page 12.

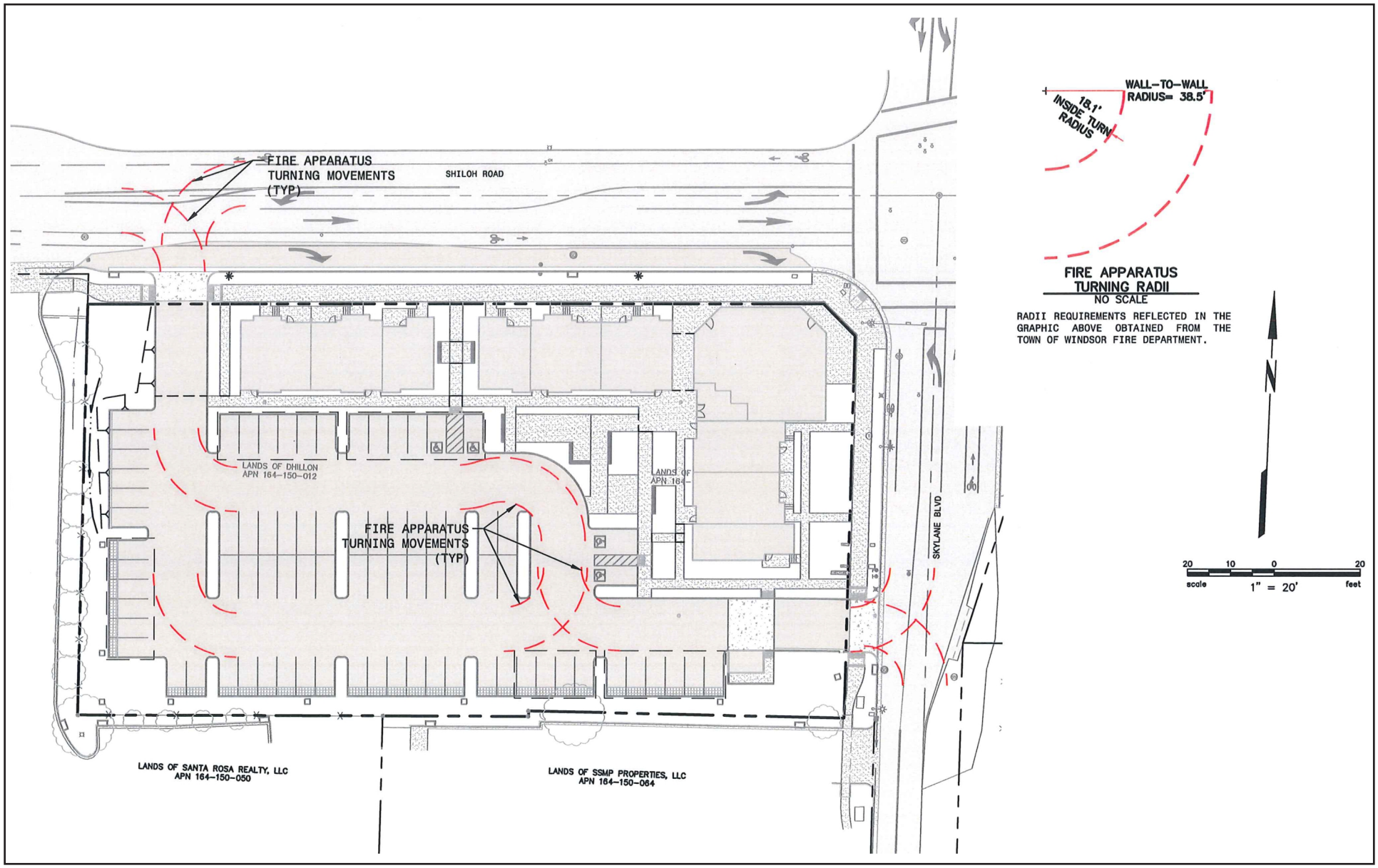
[58] California Department of Forestry and Fire Protection (CAL FIRE). Sonoma County FHSZ Maps. Accessed January 28, 2019. Website: http://www.fire.ca.gov/fire_prevention/fhsz_maps_sonoma

project site is designed to facilitate the arrival of emergency vehicles and evacuation of the project site if necessary. Compliance with the Town's adopted building and fire codes plus street standards would reduce potential impacts from wildfires to less than significant.

Mitigation Measures

MM HAZ-1 Prior to the issuance of demolition permits for the existing residence and associated buildings on the project site, the applicant shall retain a licensed professional to conduct asbestos and lead paint surveys. These surveys shall be conducted prior to the disturbance or removal of any suspect asbestos-containing materials and lead-based paint, and these materials shall be characterized for asbestos and lead by a reliable method. All activities involving asbestos-containing materials and lead-based paint shall be conducted in accordance with governmental regulations, and all removal shall be conducted by properly licensed abatement contractors.

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Source: BKF Engineers/Surveyors/Planners, July 2019.

FIRSTCARBON SOLUTIONS™

Exhibit 10
Fire Apparatus Turning Movement

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Environmental Issues	Potentially Significant Impact	Less than Significant Impact with Mitigation Incorporated	Less than Significant Impact	No Impact
9. Hydrology and Water Quality *Would the project:*				
a) Violate any water quality standards or waste discharge requirements or otherwise substantially degrade surface or ground water quality?	☐	☐	☒	☐
b) Substantially decrease groundwater supplies or interfere substantially with groundwater recharge such that the project may impede sustainable groundwater management of the basin?	☐	☐	☒	☐
c) Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river or through the addition of impervious surfaces, in a manner which would:	☐	☐	☒	☐
(i) result in substantial erosion or siltation on- or off-site;	☐	☐	☒	☐
(ii) substantially increase the rate or amount of surface runoff in a manner which would result in flooding on- or off-site;	☐	☐	☒	☐
(iii) create or contribute runoff water which would exceed the capacity of existing or planned stormwater drainage systems or provide substantial additional sources of polluted runoff; or	☐	☒	☐	☐
(iv) impede or redirect flood flows?	☐	☐	☐	☒
d) In flood hazard, tsunami, or seiche zones, risk release of pollutants due to project inundation?	☐	☐	☐	☒
e) Conflict with or obstruct implementation of a water quality control plan or sustainable groundwater management plan?	☐	☐	☒	☐

Environmental Evaluation

Setting

The project site does not contain creeks or other blue-line surface waters, although FCS' biological resources survey identified an indentation that collects water on the site and could possibly constitute a jurisdictional body of water. According to the Town of Windsor, there are five major creeks that flow through the Town: Windsor Creek, East Windsor Creek, Pool Creek, Pruitt Creek, and Starr Creek. The closest creek to the project site is Pool Creek, approximately 695 feet to the north.

The Sonoma County Water Agency (SCWA, or "Sonoma Water") provides potable water service to the Town of Windsor and the primary source of its water is the Russian River. In addition, the Town owns five off-river groundwater wells that provide both potable and raw water.[59] The SCWA receives its water supply from the Russian River while groundwater wells extract from the Santa Rosa Plain Sub-basin. [60] The majority of the Town's water supply comes from the Russian River and delivered by the SCWA via the aqueducts.[61] Supporting information is provided in Appendix F.

Would the project:

a) Violate any water quality standards or waste discharge requirements or otherwise substantially degrade surface or ground water quality?

Less than significant impact. The proposed project has the potential to release water pollutants during both construction and operation that may violate water quality standards and degrade surface or groundwater quality. During construction activity, runoff carrying eroded soils and pollutants could enter storm drainage systems and enter the Russian River, increasing sedimentation and degrading downstream water quality. These sediments also would be carried downstream and discharged into the San Francisco Bay and Pacific Ocean, degrading surface water quality, or allowed to seep into the associated groundwater table. This would represent a potentially significant construction impact related to surface and groundwater quality.

Under the National Pollutant Discharge Eliminations System (NPDES) General Construction Permit (NPDES No. CAS000002, Order No. 99-08-DWQ) process, projects that disturb one or more acres of lands are required to obtain a permit before the start of construction activity. As the project would disturb approximately 1.75 acres, it would be required to comply with this regulation. Accordingly, the Town of Windsor Municipal Code Title IX, Chapter 4 includes stormwater discharge requirements designed to achieve compliance with the North Coast RWQCB NPDES permit and Waste Discharge Requirements for MS4 Discharges (Order No. R1-2015-0030; NPDES No. CA0025054). The project would be required to prepare and implement a SWPPP during construction in accordance with Federal and State requirements. The SWPPP would identify structural and non-structural BMPs intended to prevent erosion during construction. These BMPs include erosion control, revegetation, stream setbacks, and parking lot cleaning, which are detailed in the Town's Phase II NPDES Storm Water Management Plan. Discharges to the Town's stormwater conveyance system that would not be covered by the MS4 general NPDES permit would be required to obtain coverage under an individual NPDES permit or comply with individual Waste Discharge Requirements, as approved by the North Coast RWQCB. Compliance with these requirements would reduce construction related adverse water quality impacts to a less than significant level.

Under existing conditions, the 1.75-acre project site is almost completely composed of pervious surfaces. The project would develop the project site and install an on-site stormwater drainage system consisting of bioretention basins, inlets, and underground piping. The project would result in

[59] Town of Windsor. Town of Windsor 2040 General Plan, Page 2-79
[60] California Department of Water Resources, Evaluation of Ground Water Resources in Sonoma County Volume 2: Santa Rosa Plain, DWR Bulletin 118-4, 1982.
[61] RMC. 2011. Town of Windsor Water Master Plan Update, page 22.

an increase of impervious surfaces, such as the parking lot and pavement, and potentially create more stormwater pollutants that could degrade surface or groundwater quality. However, as shown in Exhibit 9 the project's stormwater system would include BMPs such as bioswales, planters, and rain gardens throughout the project site that mimic stormwater benefits of the natural environment, reduce peak runoff flow, and remove pollutants from stormwater flow. These standard best practices would ensure the project is consistent with the Town of Windsor Municipal Code Section 9-4-300, and would reduce potential impacts to less than significant.

b) Substantially decrease groundwater supplies or interfere substantially with groundwater recharge such that the project may impede sustainable groundwater management of the basin?

Less than significant impact. The project would connect to existing Town water lines contained in Skylane Boulevard and would remove the existing groundwater well. As described further in Impact 14, the project would not significantly increase population such that groundwater use would drastically increase resulting in substantially decreased groundwater supplies. The project site is within the Town's Urban Growth Boundary and is designated Retail Commercial by the General Plan, allowing residential mixed-use development; as such, its water demand is accounted for in the 2015 SCWA Urban Water Management Plan (UWMP)projections. The UWMP forecasts a surplus of water under 2040 conditions and, therefore, adequate water supply would be available and the project would not significantly decrease groundwater supplies.

The proposed project would decrease the amount of pervious surfaces on the site. However, pursuant to the Windsor Municipal Code Title IX Chapter 3, the project would be required to include stormwater best management practices that limit the volume and flow rate of stormwater on-site by providing opportunities for groundwater infiltration. In addition, the project would include bioretention basins that would provide further opportunity for groundwater infiltration. As such, the proposed project would not significantly interfere with groundwater recharge. Therefore, impacts would be less than significant.

c) Substantially alter the existing drainage pattern of area, including through the alteration of the course of a stream or river or through the addition of impervious surfaces, in a manner which would:

(i) result in substantial erosion or siltation on- or off-site;

Less than significant impact. Although the project would not alter the course of any streams or rivers, the project would substantially alter the existing natural drainage pattern on-site. As part of construction, the entire 1.75-acre project site would be graded and a stormwater system would be installed. In addition, implementation of Mitigation Measures BIO-2, which calls for a formal jurisdictional delineation, and compliance with the associated permit requirements would reduce impacts from erosion, sedimentation, runoff, and accidental spills, as well as reduce impacts to wetland habitat to a less than significant level.

As described in Impact 10a the project would be required to implement a SWPPP as part of its Construction General Permit. The SWPPP is designed to ensure that erosion and siltation are prevented or minimized to the maximum extent feasible during construction. Furthermore, the

project would be required to comply with applicable North Coast RWQCB regulations and the Town's regulatory policies pertaining to stormwater runoff. A Sediment Control Plan would be prepared and submitted to the Town demonstrating the project's temporary BMPs that would prevent construction related pollutants from impacting stormwater. For example, the construction contractor would be required to straw wattle or similar measures to collect sediment prior to stormwater discharge. As a result, construction impacts to drainage patterns resulting in erosion or siltation would be less than significant.

At operation, the project's bioretention basin and stormwater BMPs would be designed to prevent pollutants from entering the Town's stormwater system and be treated on-site. As shown in Exhibit 9, the project would include 1,680 square feet of bioretention areas, permeable pavers, and landscaping that would be designed to treat stormwater on-site. As a result, the project would not result in substantial erosion or siltation. Therefore, impacts would be less than significant.

(ii) substantially increase the rate or amount of surface runoff in a manner which would result in flooding on- or off-site;

Less than significant impact. As described in Impact 9b, the 1.75-acre project site is almost completely composed of pervious surfaces. The project would increase the amount of impervious surfaces which could increase the rate or amount of surface runoff in a manner that could result in flooding.

However, as shown in Exhibit 9, the project would include stormwater infiltration areas and BMPs throughout the project site consistent with the Town's storm drainage system, which is designed to capture, direct, and convey peak storm event flows away from buildings. The project's bioretention areas would include bioswale soil mix with a porosity of at least 60 percent in order to achieve the required stormwater capture volume consistent with the Town's LID Technical Design Manual.[62] As result, the project would not significantly alter the drainage pattern of the project site. Therefore, impacts would be less than significant.

(iii) create or contribute runoff water which would exceed the capacity of existing or planned stormwater drainage systems or provide substantial additional sources of polluted runoff; or

Less than significant impact. The project would increase the amount of surface runoff generated on the project site because of an increase in impervious surfaces compared to existing conditions. Consistent with the Construction General Permit, the project would implement a SWPPP during construction, which would identify structural and non-structural BMPs intended to prevent significant polluted runoff during construction. In addition, the project would install an on-site storm drainage system consisting of stormwater infiltration area, inlets, and underground piping. The storm drainage system would be designed to detain and meter the release of peak runoff in order to avoid inundating downstream waterways in a manner that exceeds the capacity of storm drainage facilities. Additionally, the on-site storm drainage system would include stormwater infiltration features intended to prevent pollutants from leaving the project site and reduce peak stormwater flows. Collectively, these features would ensure that the project would not contribute runoff that

[62] BKF. 2019. Stormwater Mitigation Plan, page 8.

would exceed the capacity of downstream stormwater drainage systems or provide substantial additional sources of polluted runoff. Therefore, impacts would be less than significant.

(iv) impede or redirect flood flows?

d) In flood hazard, tsunami, or seiche zones, risk release of pollutants due to project inundation?

No impact. The project site is located in Zone X – Area of Minimal Flood Hazard.[63] As a result, the project site is not located within a designated flood hazard zone. The closest flood hazard zone as designated by FEMA to the project site is the area adjacent to Pool Creek, approximately 600 feet to the north. A seiche is a seismically or wind-induced wave on an enclosed body of water, such as a lake or reservoir. There are no lakes or reservoirs in the vicinity, so there would be no seiche hazard. The project site is more than 17 miles from the Pacific Ocean, so tsunami inundation is unlikely. Therefore, no impacts would occur.

e) Conflict with or obstruct implementation of a water quality control plan or sustainable groundwater management plan?

Less than significant impact. Given that proposed construction would disturb more than 1 acre of land, the project would be required to comply with the terms of the Construction General Permit, which require the preparation and implementation of a SWPPP that includes BMPs to ensure reduction of pollutants from construction activities potentially entering surface waters or groundwater basins. As a result, during construction the project would include BMPs that would reduce impacts to water quality and prevent pollutants from obstructing a groundwater management plan.

As discussed under Impact 10(b), the Town lies within the Santa Rosa Plain groundwater basin. The project does not propose the use of new groundwater wells and would connect to existing water lines within Skylane Boulevard. There are no constraints on the Town of Windsor's use of groundwater since the groundwater supply is not part of an adjudicated groundwater basin.[64] In addition, the Town's water supply is almost entirely from surface water provided by the SCWA. Furthermore, the project site is designated for urban development in the General Plan and as such, was included in the future water supply evaluation for the Town of Windsor. As such, during operation the project would not conflict with or obstruct a water quality control plan or sustainable groundwater management plan. Therefore, impacts would be less than significant.

Mitigation Measures

None.

[63] Federal Emergency Management Agency (FEMA). Flood Map Service Center: Search by Address. https://msc.fema.gov/portal/search?AddressQuery=1200%20Shiloh%20Road%2C%20Windsor%2C%20CA#searchresultsanchor.
[64] RMC. 2011. Town of Windsor Water Master Plan Update, page 22.

Environmental Issues	Potentially Significant Impact	Less than Significant Impact with Mitigation Incorporated	Less than Significant Impact	No Impact
10. Land Use and Planning *Would the project:*				
a) Physically divide an established community?	☐	☐	☐	☒
b) Cause a significant environmental impact due to a conflict with any land use plan, policy, or regulation adopted for the purpose of avoiding or mitigating an environmental effect?	☐	☐	☒	☐

Environmental Evaluation

Setting

The project site is designated Retail Commercial by the Windsor 2040 General Plan. This designation is intended to provide convenience goods for surrounding residential neighborhoods and offer a range of local-serving, retail and service activities, restaurants, offices, and business services. In addition, this designation also allows for residential uses up to 16 dwelling units per acre.

The project site is designated Community Commercial by the Town of Windsor Zoning Code. According to the Town of Windsor Municipal Code, the Community Commercial zoning designation is, "applied to areas appropriate for a range of local- and community-serving retail and service land uses, including restaurants, shops, personal and business services."

Would the project:

a) Physically divide an established community?

No impact. The physical division of an established community would occur if construction of a large linear feature such as a railroad or interstate highway occurred or removal of access that would impact mobility such as a bridge. The project site does not serve as a linkage between established communities. The proposed project would develop a neighborhood market and 27 rental units on a 1.75-acre site that contains one existing single-family home. Currently, a gravel driveway provides access to the project site from Shiloh Road. As part of the project, one driveway would allow access from Shiloh Road and one driveway would allow access from Skylane Boulevard. In addition, the project would include sidewalks along the frontages with Shiloh Road and Skylane Boulevard, which would improve pedestrian access. As a result, the project would not physically divide an established community and impacts would be less than significant.

b) Cause a significant environmental impact due to a conflict with any land use plan, policy, or regulation adopted for the purpose of avoiding or mitigating an environmental effect?

Less than significant impact. The Windsor 2040 General Plan currently designates the project site as Retail Commercial. As described previously, this designation is intended to provide convenience goods for surrounding residential neighborhoods and offer a range of local-serving, retail and service activities, restaurants, offices, and business services. In addition, this designation also allows for residential uses up to 16 dwelling units per acre. Furthermore, development with the Retail Commercial designation is usually located along major arterial streets and transit routes. This project would be consistent with this designation because it would result in the development of 27 dwelling units on a 1.75-acre site (15.7 du/acre) and be located adjacent to Shiloh Road.

The project site is designated Community Commercial by the Town of Windsor Zoning Code. According to the Town of Windsor Municipal Code, the Community Commercial zoning is, "applied to areas appropriate for a range of local- and community-serving retail and service land uses, including restaurants, shops, personal and business services." Because the neighborhood market is less than 6,000 square feet, it qualifies as a "convenience store" (3,500 square feet or less) under the Town of Windsor Zoning Code. Convenience stores are permitted within the Community Commercial zoning when they comply with the requirements for a neighborhood market, which includes hours of operation between 7:00 a.m. and 9:00 p.m. Therefore, the project would require a Use Permit to accommodate the proposed hours of operation from 5:00 a.m. to 10:00 p.m. A Use Permit would also be required to allow a neighborhood market of less than 6,000 square feet and for a reduction in parking. As such, the project would be consistent with the 2040 General Plan land use and Zoning Code designations and impacts would be less than significant.

Noise Land Use Compatibility

The Town of Windsor establishes noise and land use compatibility guidelines in the Public Health and Safety Chapter of its General Plan.[65] These guidelines reflect the levels of noise exposure that are generally considered to be compatible with various types of land uses. These standards are shown in Table 20.

For a discussion of the characteristics of noise and further information regarding the applicable noise regulatory framework, refer to the Noise impact discussion in Section 12 of this document.

Table 20: Town of Windsor Acceptable Exposure for Community Noise Environments

Land Use Category	Noise Exposure Levels (L_{dn} or CNEL, dBA)			
	Normally Acceptable[1]	Conditionally Acceptable[2]	Normally Unacceptable[3]	Clearly Unacceptable[4]
Residential—Low Density Single Family, Duplex, Mobile Homes	50–55	55–70	70–75	75–85
Residential—Multi-Family	50–60	60–70	70–75	75–85

[65] Town of Windsor. 2018. Town of Windsor 2040 General Plan. Noise Section of Public Health and Safety Chapter. April. Website: https://www.townofwindsor.com/843/Planning-Documents. Accessed January 15, 2019.

Land Use Category	Noise Exposure Levels (L_{dn} or CNEL, dBA)			
	Normally Acceptable[1]	Conditionally Acceptable[2]	Normally Unacceptable[3]	Clearly Unacceptable[4]
Transient Lodging, Motels, Hotels	50–60	60–70	70–80	80–85
Schools, Libraries, Churches, Hospitals, Nursing Homes	50–60	60–70	70–80	80–85
Auditorium, Concert Halls, Amphitheaters	NA	50–65	NA	65-85
Sports Arenas, Outdoor Spectator Sports	NA	50–70	NA	70-85
Playgrounds, Neighborhood Parks	50–70	NA	70–80	80–85
Golf Courses, Riding Stables, Water Recreation, Cemeteries	50–70	NA	70-85	NA
Office Buildings, Business Commercial and Professional	50–65	65–75	75-85	NA
Industrial, Manufacturing, Utilities, Agriculture	50–70	70–75	75-85	NA

Notes:
Land Use Acceptability Interpretation/Conditions:
1 Normally Acceptable: Specified land use is satisfactory, based upon the assumption that any buildings involve are of normal conventional construction, without any special noise insulation requirements.
2 Conditionally Acceptable: New construction or development should be undertaken only after a detailed analysis of the noise reduction requirements is made and needed noise insulation features included in the design. Conventional construction, but with closed windows and fresh air supply systems, will normally suffice.
3 Normally Unacceptable: New construction or development should generally be discouraged. If new construction or development does proceed, a detailed analysis of the noise reduction requirements must be made and needed noise insulation features included in the design.
4 Clearly Unacceptable: New construction or development should generally not be undertaken.
Source: Town of Windsor General Plan Public Health and Safety Chapter, Figure 7-4. 201.

The land use category listed in the Town's noise and land use compatibility guidelines that most closely applies to the proposed project is "Residential – Multi-Family." Under this designation, noise environments up to 60 A-weighted decibel (dBA) community noise equivalent level (CNEL) are considered to be normally acceptable, while noise environments from 60 dBA to 70 dBA CNEL are considered to be conditionally acceptable, for this type of land use. Additionally, the Town of Windsor requires new residential projects to maintain interior noise levels due to exterior noise sources to 45 dBA CNEL or less.

The dominant noise sources in the project vicinity were from vehicular traffic on Shiloh Road and Skyline Boulevard. To document noise levels from these sources, an ambient noise monitoring effort was conducted and traffic noise modeling was performed.

The existing noise levels on the project site were documented through a noise monitoring effort performed at the project site. Noise monitoring location and measurements are described in detail in Appendix G. The noise monitoring results show that existing daytime hourly average ambient noise levels on the project site range from 48 dBA to 53 dBA equivalent sound level (L_{eq}). These noise

measurement results indicate that the existing ambient noise levels are below the Town's normally acceptable land use compatibility threshold of 60 dBA CNEL for new multi-family residential land use developments.

The Federal Highway Administration (FHWA) highway traffic noise prediction model (FHWA RD-77-108) was used to evaluate existing and cumulative (year 2040) traffic noise conditions in the vicinity of the project site. The projected traffic noise levels along roadways adjacent to the project site were analyzed to determine compliance with the Town's land use compatibility standards. The daily traffic volumes were obtained from the traffic analysis prepared for the project by TJKM.[66] The resultant noise levels were weighed and summed over a 24-hour period in order to determine the CNEL values. The traffic noise modeling input and output files are included in Appendix G of this document. Table 21 shows a summary of the traffic noise levels for existing no project, existing plus project, cumulative no project, and cumulative plus project conditions as measured at 50 feet from the centerline of the outermost travel lane.

Table 21: Traffic Noise Model Results Summary

Roadway Segment	CNEL (dBA) 50 feet from Centerline of Outermost Lane			
	Existing No Project (dBA) CNEL	Existing Plus Project (dBA) CNEL	Cumulative No Project (dBA) CNEL	Cumulative Plus Project (dBA) CNEL
Shiloh Road - west of Skylane Boulevard	63.7	63.9	65.0	65.2
Skylane Boulevard - south of Shiloh Road	64.2	64.2	64.9	64.9
Shiloh Road - Skylane Boulevard to Conde Lane	65.2	65.3	66.1	66.2
Shiloh Road - Conde Lane to US 101 Off-ramp	65.6	65.7	66.6	66.7

Notes:
[1] Modeling results do not take into account mitigating features such as topography, vegetative screening, fencing, building design, or structure screening. Rather it assumes a worst case of having a direct line of site on flat terrain.
Source: FCS, 2020.

The highest traffic noise levels on roadway segments adjacent to the project site would occur along Shiloh Road under cumulative plus project traffic conditions. Under these traffic conditions, projected traffic noise levels along Shiloh Road west of Skylane Boulevard would range up to 65.2 dBA CNEL as measured at 50 feet from the centerline of the outermost travel lane. The façade of the nearest proposed residential building at the project site would be setback approximately 50 feet from the centerline of Shiloh Road. At this distance, traffic noise levels would range up to approximately 65 dBA CNEL at the ground floor façade of the nearest proposed residential building. These ambient noise levels are within the Town's conditionally acceptable range for multifamily residential land uses.

[66] TJKM. 2020. Transportation Impact Study – Shiloh Mixed Use Project. January.

Based on the U.S. EPA's Protective Noise Levels, with a combination of walls, doors, and windows, standard construction in accordance with building code requirements for multi-family residential developments would provide 25 dBA in exterior-to-interior noise reduction with windows closed and 15 dBA or more with windows open.[67] With windows open, the interior noise levels of the proposed units nearest to and facing Shiloh Road would not meet the State's interior noise standard of 45 dBA CNEL for indoor sleeping areas (i.e., 65 dBA - 15 dBA = 50 dBA). However, the proposed residential buildings would include mechanical ventilation, which would allow windows to remain closed for prolonged periods of time, sufficiently reducing traffic noise levels to meet the interior noise level standard of 45 dBA CNEL (i.e., 65 dBA – 25 dBA = 40 dBA). Air conditioning units would give an occupant the option of controlling noise by keeping the windows shut. Therefore, the project would not result in a conflict with the Town's adopted land use-noise compatibility guidelines and policies and traffic noise impacts to the proposed project to be less than significant.

Existing Stationary Noise Sources

Existing stationary noise sources in the project vicinity include parking lot activity from adjacent commercial land uses, and from truck loading and unloading operations at the ATP Group facility south of the project site. The loudest of these noise sources would be truck loading and unloading activities. Typical noise levels from truck loading and unloading activity can range from 70 dBA to 80 dBA L_{max} as measured at 50 feet. This existing loading area is located approximately 300 feet from the proposed residential unit façades. At this distance, activities at loading and unloading areas could result in intermittent noise levels ranging up to approximately 65 dBA L_{max}. These ambient noise levels are within the Town's conditionally acceptable range for multifamily residential land uses. These noise levels would result in maximum interior noise levels of 40 dBA L_{max} with windows closed and would not exceed the State's interior noise standard of 45 dBA CNEL for indoor sleeping areas. Therefore, implementation of the project would not cause a significant environmental impact due to a conflict with the Town's adopted land use-noise compatibility guidelines and policies and existing stationary source noise impacts to the proposed project would be less than significant.

Mitigation Measures

None.

[67] EPA 550/9-79-100, November 1978

Environmental Issues	Potentially Significant Impact	Less than Significant Impact with Mitigation Incorporated	Less than Significant Impact	No Impact
11. Mineral Resources *Would the project:*				
a) Result in the loss of availability of a known mineral resource that would be of value to the region and the residents of the State?	☐	☐	☐	☒
b) Result in the loss of availability of a locally-important mineral resource recovery site delineated on a local general plan, specific plan, or other land use plan?	☐	☐	☐	☒

Environmental Evaluation

Setting

The General Plan does not identify any mineral resources within the planning area and no impacts to mineral resources would occur within the Town of Windsor.[68]

Would the project:

a) Result in the loss of availability of a known mineral resource that would be of value to the region and the residents of the State?

No impact. The project site does not support any mineral extraction activities, nor do any known mineral deposits exist on-site. Therefore, implementation of the project would not result in the loss of availability of a known mineral resource that would be of value to the region and the residents of the State. Therefore, no impacts would occur.

b) Result in the loss of availability of a locally-important mineral resource recovery site delineated on a local general plan, specific plan, or other land use plan?

No impact. The project site does not support any mineral extraction activities, nor do any known mineral deposits exist on-site. Therefore, implementation of the project would not result in the loss of availability of a known mineral resource that would be of value to the region and the residents of the State. Therefore, no impacts would occur.

Mitigation Measures

None.

[68] Town of Windsor. 2017. Town of Windsor Draft EIR, page 341.

Environmental Issues	Potentially Significant Impact	Less than Significant Impact with Mitigation Incorporated	Less than Significant Impact	No Impact
12. Noise *Would the project result in:*				
a) Generation of a substantial temporary or permanent increase in ambient noise levels in the vicinity of the project in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies?	☐	☒	☐	☐
b) Generation of excessive groundborne vibration or groundborne noise levels?	☐	☐	☒	☐
c) For a project located within the vicinity of a private airstrip or an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project expose people residing or working in the project area to excessive noise levels?	☐	☐	☐	☒

Environmental Evaluation

Setting

This Noise Impact Analysis has been prepared by FCS to determine the off-site and on-site noise impacts associated with the proposed project.

Based on the new CEQA Appendix G checklist questions, the noise land use compatibility discussion is now contained within the Land Use and Planning discussion (Section 10,b) of this document.

Characteristics of Noise

Noise is defined as unwanted sound. Sound levels are usually measured and expressed in decibels (dB), with 0 dB corresponding roughly to the threshold of hearing. Most of the sounds that we hear in the environment do not consist of a single frequency, but rather a broad band of frequencies, with each frequency differing in sound level. The intensities of each frequency add together to generate a sound. Noise is typically generated by transportation, specific land uses, and ongoing human activity.

The standard unit of measurement of the loudness of sound is the decibel (dB). The 0 point on the dB scale is based on the lowest sound level that the healthy, unimpaired human ear can detect. Changes of 3 dB or less are only perceptible in laboratory environments. A change of 3 dB is the lowest change that can be perceptible to the human ear in non-laboratory environments, while a change of 5 dB is considered to be the minimum readily perceptible change to the human ear in outdoor environments.

Since the human ear is not equally sensitive to sound at all frequencies, the A-weighted decibel scale (dBA) was derived to relate noise to the sensitivity of humans, it gives greater weight to the frequencies of sound to which the human ear is most sensitive. The A-weighted sound level is the basis for a number of various sound level metrics, including the day/night sound level (L_{dn}) and the CNEL, both of which represent how humans are more sensitive to sound at night. In addition, the continuous L_{eq} is the average sound energy of time-varying noise over a sample period and the L_{max} is the maximum instantaneous noise level occurring over a sample period.

Existing Noise Environment

The proposed project site is located within the Town of Windsor, in the County of Sonoma, California. Surrounding the project site are commercial or light industrial land uses to the south and west, single-family houses on large lots to the west and east, and Shiloh Road and a hotel to the north. Highway 101 runs in the northwest-southeast direction a 0.45-mile east of the project site.

The existing noise levels on the project site were documented through a noise monitoring effort performed at the project site. Noise monitoring location and measurements are described in detail in Appendix G. A total of three short-term noise measurements (15 minutes each) were taken on Friday, January 25, 2019 starting at 11:50 a.m. and ending at 12:45 p.m., during the midday peak noise hour. The noise monitoring locations are shown in Exhibit 11.

The short-term measurement ST-1 was conducted at the northern boundary of the project site, 30 feet south of the Shiloh Road centerline, and approximately 220 feet west of Skylane Boulevard. The resulting measurement showed that ambient noise levels at this location averaged 67.5 dBA L_{eq}. As was observed by the technician at the time of the noise measurement, the dominant noise source in the project vicinity was vehicle traffic along Shiloh Road.

The second short-term measurement, ST-2, was conducted approximately 20 feet north and 60 feet east of the southwestern corner of the project site. The resulting measurement showed that ambient noise levels at this location averaged 59.0 dBA L_{eq}. As was observed by the technician at the time of the noise measurement, the dominant noise source in the project vicinity was forklift activity and other industrial work to the south of the project site.

The short-term measurement ST-3 was conducted approximately 20 feet north and 50 feet west of the southeastern corner of the project site. The resulting measurement showed that ambient noise levels at this location averaged 58.9 dBA L_{eq}. As was observed by the technician at the time of the noise measurement, the dominant noise source in the project vicinity was vehicle traffic along Shiloh Road and Skylane Boulevard.

Regulatory Framework

The project site is located within the Town of Windsor. The Town of Windsor addresses noise in their General Plan,[69] Zoning Ordinance,[70] and Municipal Code.[71]

Town of Windsor General Plan

The Town of Windsor General Plan contains noise policies in the Noise section of its Public Health and Safety Chapter. These policies serve as guides for identifying noise levels and reducing or avoiding adverse noise effects on residents.

New developments that would cause the ambient sound level to rise by more than 5 dBA will be required to incorporate conditions or design modifications to reduce the potential increase in the noise environment.

The Town establishes noise and land use compatibility guidelines as discussed and analyzed in Section 2.10, Land Use and Planning.

Town of Windsor Zoning Ordinance

The Town's Zoning Ordinance establishes maximum allowable noise levels for various land uses when measured at any receiving property. For residential land uses, the exterior noise threshold is 55 dBA during daytime hours between 7:00 a.m. and 10:00 p.m., and 50 dBA during nighttime hours between 10:00 p.m. and 7:00 a.m. For commercial land uses, the exterior noise threshold is 65 dBA during daytime hours between 7:00 a.m. and 10:00 p.m., and 55 dBA during nighttime hours between 10:00 p.m. and 7:00 a.m.

If the measured ambient noise level exceeds the applicable noise level standard in any of these categories, the applicable standards shall be adjusted to equal the ambient noise level. If the intruding noise source is continuous and cannot reasonably be discontinued or stopped to allow measurement of the ambient noise level, the noise level measured while the source is in operation shall be compared directly to the applicable noise level standards identified above.

According to Ordinance 27.34.110 - Mixed-Use Development, commercial loading areas and refuse storage facilities must be located away from residential units and must be completely screened from view from the residential portion of the project. Where appropriate, the Director may allow the shared use of refuse storage facilities.

Town of Windsor Municipal Code

The Construction Hours Ordinance in Title VII Building and Housing Section 7-1-190 of the Town's Municipal Code restricts construction activities to the hours between 7:00 a.m. and 7:00 p.m., Monday through Friday, and between 8:00 a.m. and 7:00 p.m. on Saturday.

[69] Town of Windsor. 2018. Town of Windsor 2040 General Plan. Noise Section of Public Health and Safety Chapter. April. Website: https://www.townofwindsor.com/843/Planning-Documents. Accessed January 15, 2019.

[70] Town of Windsor. 2000. Town of Windsor Zoning Ordinance. Chapter 27.20 General Property Development and Use Standards. July. Website: https://www.townofwindsor.com/843/Planning-Documents. Accessed January 30, 2019.

[71] Town of Windsor. 2019. Windsor Municipal Code, Title VII Building and Housing Section. Website: https://library.municode.com/ca/windsor/codes/code_of_ordinances. Accessed January 15, 2019.



Source: ESRI Aerial Imagery.

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Exhibit 11
Noise Monitoring Locations

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Would the project result in:

a) Generation of a substantial temporary or permanent increase in ambient noise levels in the vicinity of the project in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies?

Short Term Construction Impacts

Less than significant impact with mitigation incorporated. A significant impact would occur if construction activities would result in generation of a substantial temporary increase in ambient noise levels that would result in annoyance or sleep disturbance of nearby sensitive receptors.

Noise impacts from construction activities associated with the project would be a function of the noise generated by construction equipment, equipment location, sensitivity of nearby land uses, and the timing and duration of the construction activities.

Two types of short-term noise impacts would occur during site preparation and project construction. The first type would result from the increase in traffic flow on local streets, associated with the transport of workers, equipment, and materials to and from the project site. The transport of workers and construction equipment and materials to the project site would incrementally increase noise levels on access roads leading to the site. Because workers and construction equipment would use existing routes, noise from passing trucks would be similar to existing vehicle-generated noise on these local roadways. Typically, a doubling of the average daily trip (ADT) hourly volumes on a roadway segment is required in order to result in an increase of 3 dBA in traffic noise levels; which, as discussed in the characteristics of nose discussion above, is the lowest change that can be perceptible to the human ear in outdoor environments. Project-related construction trips would not be expected to double the hourly traffic volumes along any roadway segment in the project vicinity. For these reasons, short-term intermittent noise from trucks would be minor when averaged over a longer time-period. Therefore, short-term construction-related noise impacts associated with worker commute and equipment transport to the project site would not exceed applicable significance thresholds and would be less than significant.

The second type of short-term noise impact is related to noise generated during construction on the project site. Construction noise levels are rarely steady in nature and, often, fluctuate depending on the type and number of equipment being used at any given time. In addition, there could be times where large equipment is not operating and noise would be at or near normal ambient levels. Construction is completed in discrete steps, each of which has its own mix of equipment and its own noise characteristics. These various sequential phases would change the character of the noise generated on the site and, therefore, the noise levels surrounding the site as construction progresses. Despite the variety in the type and size of construction equipment, similarities in the dominant noise sources and patterns of operation allow construction related noise ranges to be categorized by work phase.

The site preparation phase, which includes excavation and grading activities, tend to generate the highest noise levels because the noisiest construction equipment is earthmoving equipment. Earthmoving equipment includes excavating machinery and compacting equipment, such as

bulldozers, draglines, backhoes, front loaders, roller compactors, scrapers, and graders. Typical operating cycles for these types of construction equipment may involve 1 or 2 minutes of full power operation followed by 3 or 4 minutes at lower power settings.

Construction of the proposed project is expected to require the use of front-end loaders, excavators, haul trucks, water trucks, concrete mixer trucks, and pickup trucks. The maximum noise level generated by each concrete mixing truck is assumed to be 85 dBA L_{max} at 50 feet from this equipment[72]. Each front-end loader would also generate 85 dBA L_{max} at 50 feet. The maximum noise level generated by excavators is approximately 85 dBA L_{max} at 50 feet. Each doubling of sound sources with equal strength increases the noise level by 3 dBA.

A conservative but reasonable assumption is that this equipment would operate simultaneously and continuously over at least a 1-hour period in the vicinity of the closest existing residential receptors, but would move linearly over the project site as they perform their earth moving operations, spending a relatively short amount of time adjacent to any one receptor. Assuming that each piece of construction equipment operates at some distance from the other equipment, a reasonable worst-case combined noise level during this phase of construction would be 90 dBA L_{max} at a distance of 50 feet from the acoustic center of a construction area. The acoustical center reference is used because construction equipment must operate at some distance from one another on a project site, and the combined noise level as measured at a point equidistant from the sources (acoustic center) would be the worst-case maximum noise level. These operations would be expected to result in a reasonable worst-case hourly average of 86 dBA L_{eq} at a distance of 50 feet from the acoustic center of a construction area.

The closest noise-sensitive receptor to the proposed project site is the hotel located north of the project site, approximately 160 feet from the acoustic center of construction activity where multiple pieces of heavy construction equipment would potentially operate at the project site. At this distance, worst-case construction noise levels could range up to approximately 80 dBA L_{max}, intermittently, and could have an hourly average of up to 76 dBA L_{eq}, at the façade of this hotel.

The next closest noise-sensitive receptors to the proposed project site are single-family residences located east of the project site. The closest residence would be located approximately 320 feet from the acoustic center of construction activity where multiple pieces of heavy construction equipment would potentially operate at the project site. At this distance, worst-case construction noise levels could range up to approximately 75 dBA L_{max}, intermittently, and could have an hourly average of up to 71 dBA L_{eq}, at the façade of the nearest single-family residential home.

Although there could be a relatively high single event noise exposure potential causing an intermittent noise nuisance, the effect of construction activities on longer-term (hourly or daily) ambient noise levels would be small but could result in a temporary increase in ambient noise levels in the project vicinity above levels existing without the project. However, the Town of Windsor restricts construction activities to the hours between 7:00 a.m. and 7:00 p.m., Monday through Friday, and between 8:00 a.m. and 7:00 p.m. on Saturday. Limiting construction activities to daytime

[72] Federal Highway Administration (FHWA). 2006. Highway Construction Noise Handbook. August.

hours would reduce the effects of noise levels produced by these activities on longer-term (hourly or daily) ambient noise levels, and would reduce potential impacts that could result in annoyance or sleep disturbances at nearby sensitive receptors. Compliance with the Town's permissible hours of construction, as well as implementing the best management noise reduction techniques and practices outlined in Mitigation Measure (MM) NOI-1, would ensure that construction noise would not result in a substantial temporary increase in ambient noise levels that would result in annoyance or sleep disturbance of nearby sensitive receptors. Therefore, with implementation of MM NOI-1, temporary construction noise impacts would be reduced to less than significant.

Operational/Stationary Source Noise Impacts

Less than significant impact. A significant impact would occur if operational noise levels generated by stationary noise sources at the proposed project site would result in a substantial permanent increase in ambient noise levels in excess of any of the noise performance thresholds established in the Town's Municipal Code. As noted in the characteristics of noise discussion, audible increases in noise levels generally refer to a change of 3 dBA or more, as this level has been found to be barely perceptible to the human ear in outdoor environments. A change of 5 dBA is considered the minimum readily perceptible change to the human ear in outdoor environments. Therefore, for purposes of this analysis, an increase of 5 dBA or greater above ambient noise levels or in excess of the Town's noise performance standards would be considered a substantial permanent increase in ambient noise levels. For receiving single-family residential land uses, the Town has established exterior noise performance standard of 50 dBA during nighttime hours and 55 dBA during daytime hours. For receiving commercial land uses, the Town has established exterior noise limits of 55 dBA during nighttime hours and 65 dBA during daytime hours, and interior noise limits of 50 dBA during both nighttime and daytime hours.

The proposed project would generate noise from parking lot activities, which includes people conversing, doors shutting, engine startup, and slow-moving vehicles; and from new exterior mechanical equipment sources, such as mechanical ventilation systems on the proposed multi-family residential uses.

Parking Lot Activities

Parking lot activities include vehicles cruising at slow speeds, doors shutting, or cars starting, would generate noise levels of approximately 60 dBA to 70 dBA L_{max} at 50 feet. A conversation between two persons at a distance of 3 to 5 feet apart would generate a noise level of 60 dBA L_{eq} at 5 feet, or approximately 40 dBA L_{eq} as measured at 50 feet. The closest noise-sensitive receptor to the proposed parking areas at the project site is the hotel located north of the project site. This hotel is located approximately 215 feet from the acoustic center of the nearest proposed parking area on the project site. At this distance, parking lot activity would result in intermittent noise levels ranging up to 57 dBA L_{max} at the property line of the nearest noise-sensitive receptor. Assuming a minimum of one parking movement per stall per hour, hourly average noise levels associated with daily parking lot activities would be approximately 49 dBA L_{eq} at the property line of this hotel. This would not exceed the Town's established maximum hourly average exterior noise limits of 55 dBA during nighttime hours and 65 dBA during daytime hours for commercial land uses.

The closest residential receptor to the proposed parking areas at the project site is the single-family residential home located east of the project site. This home is located approximately 260 feet from the acoustic center of the nearest proposed parking area on the project site. At this distance, parking lot activity would result in intermittent noise levels ranging up to 56 dBA L_{max} at this nearest residential receptor. Assuming a minimum of one parking movement per stall per hour, hourly average noise levels associated with daily parking lot activities would be approximately 46 dBA L_{eq} at the property line of this home. This would not exceed the Town's established maximum hourly average exterior noise limits of 50 dBA during nighttime hours and 55 dBA during daytime hours for residential land uses. Therefore, the impact of noise produced by project-related parking lot activities to off-site sensitive receptors would be less than significant.

Mechanical Equipment Operations

At the time of preparation of this analysis, details were not available pertaining to proposed mechanical ventilation systems for the project; therefore, a reference noise level for typical mechanical ventilation systems was used. Noise levels from typical residential mechanical ventilation equipment are anticipated to range up to approximately 60 dBA L_{eq} at a distance of 25 feet. Proposed mechanical ventilation systems could be located as close as 140 feet from the nearest off-site noise-sensitive receptor, which is the hotel located north of the project site. At this distance, noise generated by mechanical ventilation equipment would be reduced to below 46 dBA L_{eq} at the nearest noise-sensitive receptor. These noise levels would not exceed the Town's maximum hourly average exterior noise limits of 55 dBA during nighttime hours and 65 dBA during daytime hours for commercial land uses. In addition, the existing measured ambient noise level at the nearest noise-sensitive receptor is documented by the short-term noise measurement ST-1 averaged 67.5 dBA L_{eq}. Therefore, noise levels from proposed mechanical ventilation equipment operations would not exceed existing ambient noise levels as measured at the nearest residential receptor, and would not result in a substantial permanent increase in ambient noise levels in the project vicinity in excess of the Town's applicable thresholds. Therefore, the impact of noise produced by proposed mechanical ventilation equipment operations to off-site sensitive receptors would be less than significant.

Operational/Mobile Source Noise Impacts

Less than significant impact. A significant impact would occur if implementation of the proposed project would result in a substantial increase in traffic noise levels compared with traffic noise levels existing without the project. As noted in the characteristics of noise discussion, audible increases in noise levels generally refer to a change of 3 dBA or more, as this level has been found to be barely perceptible to the human ear in outdoor environments. A change of 5 dBA is considered the minimum readily perceptible change to the human ear in outdoor environments. Therefore, for purposes of this analysis, an increase of 5 dBA or greater above ambient noise levels would be considered a substantial permanent increase in traffic noise levels.

The FHWA highway traffic noise prediction model (FHWA RD-77-108) was used to evaluate existing and cumulative (year 2040) traffic noise conditions in the vicinity of the project site. The daily traffic volumes were obtained from the traffic analysis prepared for the project by TJKM.[73] The resultant noise levels were weighed and summed over a 24-hour period in order to determine the CNEL

[73] TJKM. 2020. Transportation Impact Study – Shiloh Mixed Use Project. January.

values. The traffic noise modeling input and output files are included in Appendix E of this document. Table 22 shows a summary of the traffic noise levels for existing no project, existing plus project, cumulative no project, and cumulative plus project conditions as measured at 50 feet from the centerline of the outermost travel lane.

Table 22: Traffic Noise Model Results Summary Net Increase

Roadway Segment	CNEL (dBA) 50 feet from Centerline of Outermost Lane					
	Existing No Project (dBA) CNEL	Existing Plus Project (dBA) CNEL	Increase over Existing No Project (dBA) CNEL	Cumulative No Project (dBA) CNEL	Cumulative Plus Project (dBA) CNEL	Increase over Cumulative No Project (dBA) CNEL
Shiloh Road - west of Skylane Boulevard	63.7	63.9	0.2	65.0	65.2	0.2
Skylane Boulevard - south of Shiloh Road	64.2	64.2	0.0	64.9	64.9	0.0
Shiloh Road - Skylane Boulevard to Conde Lane	65.2	65.3	0.1	66.1	66.2	0.1
Shiloh Road - Conde Lane to US 101 Off-ramp	65.6	65.7	0.1	66.6	66.7	0.1

Notes:
[1]Modeling results do not take into account mitigating features such as topography, vegetative screening, fencing, building design, or structure screening. Rather it assumes a worst case of having a direct line of site on flat terrain.
Source: FCS, 2020.

The highest traffic noise level increase with implementation of the project would occur along Shiloh Road west of Skylane Boulevard. Along this roadway segment, the proposed project would result in an increase of 0.2 dBA. This increase is well below a 5 dBA increase that would be considered a substantial permanent increase in traffic noise levels compared with traffic noise levels that would exist without the project. Therefore, project-related traffic noise impacts on existing traffic noise levels in the project vicinity would be less than significant.

b) Generation of excessive groundborne vibration or groundborne noise levels?

Less than significant impact. A significant impact would occur if the project would generate groundborne vibration or groundborne noise levels in excess of established standards. The Town of Windsor has not adopted criteria for groundborne vibration impacts. Therefore, for purposes of this analysis, the Federal Transit Administration's (FTA) vibration impact criteria are utilized. The FTA has established industry accepted standards for vibration impact criteria and impact assessment. These guidelines are published in its Transit Noise and Vibration Impact Assessment Manual.[74]

[74] Federal Transit Administration (FTA). 2018. Transit Noise and Vibration Impact Assessment Manual. September.

Groundborne noise is an effect of groundborne vibration and only exists indoors, since it is produced from noise radiated from the motion of the walls and floors of a room, and may also consist of the rattling of windows or dishes on shelves. In general, if groundborne vibration levels are do not exceed levels considered to be perceptible, then groundborne noise levels would not be perceptible in most interior environments. Therefore, this analysis focuses on determining exceedances of groundborne vibration levels.

Although groundborne vibration can be felt outdoors, it is typically only an annoyance to people indoors where the associated effects such as the shaking of a building can be notable. When assessing annoyance from groundborne vibration, vibration is typically expressed as root mean square (rms) velocity in units of decibels of 1 micro-inch per second. To distinguish these vibration levels referenced in decibels from noise levels referenced in decibels, the unit is written as "VdB."

In extreme cases, excessive groundborne vibration has the potential to cause structural damage to buildings. Common sources of groundborne vibration include construction activities such as blasting, pile driving and operating heavy earthmoving equipment. However, construction vibration impacts on building structures are generally assessed in terms of peak particle velocity (PPV). For purposes of this analysis, project related impacts are expressed in terms of PPV.

Short-term Construction Vibration Impacts

Of the variety of equipment that would be used during construction, small vibratory rollers would produce the greatest groundborne vibration levels. Impact equipment such as pile drivers is not expected to be used during construction of this project. Small vibratory rollers produce groundborne vibration levels ranging up to 0.101 inch per second (in/sec) peak particle velocity (PPV) at 25 feet from the operating equipment.

The nearest off-site structure to the project site construction footprint are the hotel buildings located north of the project site. This nearest off-site structure would be located approximately 65 feet from the nearest construction footprint where the heaviest construction equipment would potentially operate. At this distance, groundborne vibration levels would range up to 0.024 in/sec PPV from operation of the types of equipment that would produce the highest vibration levels. This is well below the FTA's Construction Vibration Impact Criteria of 0.2 in/sec PPV for buildings of non-engineered timber and masonry. Therefore, the impact of groundborne vibration levels on off-site receptors would be less than significant.

Operational Vibration Impacts

The project does not include any permanent noise sources that would expose persons in the project vicinity to groundborne vibration levels that could be perceptible without instruments at any existing sensitive land use in the project vicinity. Therefore, operational vibration impacts on proposed on-site receptors would be less than significant.

c) For a project located within the vicinity of a private airstrip or an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project expose people residing or working in the project area to excessive noise levels?

Less than significant impact. The nearest airport to the project site is the Sonoma County Airport, which is located approximately 0.75 mile southwest of the project site. Because of its distance from the airport's runways, and the orientation of the runway relative to the project site, the project site is located outside of the airport's 55 dBA CNEL noise contours. While airport noise would be audible when planes fly over, it would be less than significant. No private airstrips are located within the vicinity of the project site. Therefore, implementation of the project would not expose persons residing or working in the project site to excessive noise levels associated with private airstrip or public airport noise. Less than significant impacts would occur.

Mitigation Measures

MM NOI-1 To reduce potential construction noise impacts, the following multi-part mitigation measure shall be implemented for the proposed project:

- The construction contractor shall ensure that all equipment driven by internal combustion engines shall be equipped with mufflers, which are in good condition and appropriate for the equipment.
- The construction contractor shall ensure that unnecessary idling of internal combustion engines (i.e., idling in excess of 5 minutes) is prohibited.
- The construction contractor shall utilize "quiet" models of air compressors and other stationary noise sources where such market available technology exists. Motorized equipment shall be fitted with proper mufflers in good working order.
- At all times during project grading and construction, the construction contractor shall ensure that stationary noise-generating equipment shall be located as far as practicable from sensitive receptors and placed so that emitted noise is directed away from the nearest residential land uses. Such equipment shall be acoustically shielded.
- The construction contractor shall designate a noise disturbance coordinator who would be responsible for responding to any local complaints about construction noise. The disturbance coordinator would determine the cause of the noise complaints (starting too early, bad muffler, etc.) and establishment reasonable measures necessary to correct the problem. The construction contractor shall visibly post a telephone number for the disturbance coordinator at the construction site.
- Residences adjacent to the project site shall be notified in advanced by writing of the proposed construction schedule before construction activities commence.
- The construction contractor shall limit noise producing construction activities to the hours between 7:00 a.m. and 7:00 p.m., Monday through Friday, and between 8:00 a.m. and 7:00 p.m. on Saturday.

Environmental Issues	Potentially Significant Impact	Less than Significant Impact with Mitigation Incorporated	Less than Significant Impact	No Impact
13. Population and Housing *Would the project:*				
a) Induce substantial unplanned population growth in an area, either directly (for example, by proposing new homes and businesses) or indirectly (for example, through extension of roads or other infrastructure)?	☐	☐	☒	☐
b) Displace substantial numbers of existing people or housing, necessitating the construction of replacement housing elsewhere?	☐	☐	☒	☐

Environmental Evaluation

Setting

As of January 2019, the Town of Windsor had an estimated population of 28,565.[75] The Town anticipates growing to 31,749 people and would add 1,140 housing units by 2040.[76] The Town of Windsor projected regional housing needs in its 2040 General Plan Housing Element. The Town of Windsor's share of the 2015-2023 Regional Housing Needs Assessment (RHNA) is 440 housing units.[77]

Would the project:

a) Induce substantial unplanned population growth in an area, either directly (for example, by proposing new homes and businesses) or indirectly (for example, through extension of roads or other infrastructure)?

Less than significant impact. Direct population growth would occur if a project creates housing units used for permanent housing. This project would develop 27 dwelling units and a neighborhood market on a 1.75-acre site. Using the Town of Windsor's average household size of 3.13 persons, the project could directly increase population by as many as 85 people,[78] a 0.3 percent increase relative to the Town's estimated 2018 population of 28,565.[79]

The Town of Windsor's Growth Control Ordinance seeks to maintain an average annual population growth of 1.5 percent.[80] As described previously, the project would only increase population by

[75] State of California, Department of Finance. 2019. E-5 Population and Housing Estimates for Cities, counties and the State – January 1, 2011-2019.
[76] Town of Windsor. 2017. Town of Windsor General Plan Draft EIR, page 263.
[77] Association of Bay Area Governments (ABAG). 2013. Regional Housing Needs Plan.
[78] Calculation: 27 dwelling units X 3.09 persons/household ≈ 83.
[79] State of California Department of Finance. 2018. E-5 Population and Housing Estimates for Cities, Counties, and the State, January 2011-2018, with 2010 Census Benchmark. May.
[80] Town of Windsor. 2018. Town of Windsor 2040 General Plan. April 4.

approximately 0.3 percent and would not affect the Town's ability to stay within its set population growth. In addition, the project would be consistent with the General Plan land use designation of Community Commercial which allows for 16 dwelling units per acre. As a result, the project would not substantially increase population growth beyond what was planned for in the General Plan. Therefore, the project would not induce substantial direct population growth within the Town.

Indirect population growth would occur if a project creates employment opportunities and/or removes barriers to growth. For example, construction of a large office building or factory could create many new jobs and attract a substantial amount of people to relocate to the area. The project site is within the Town's limits and urban growth boundary. Surrounding the project site are urban and commercial uses already receiving urban services and utilities (major roadways, potable water, sewer, electricity, natural gas, etc.), to which the project would connect. As a result, the project would not require additional infrastructure that would initiate development beyond the site.

The project would require temporary construction workers that could come from the local labor pool because the project is relatively small (27 dwelling units). These workers would not affect population growth or have to relocate beyond the existing community. The neighborhood market would result in three jobs which would be provided by the local labor pool. Therefore, the project would not induce substantial indirect population growth within the Town. Impacts would be less than significant.

b) Displace substantial numbers of existing people or housing, necessitating the construction of replacement housing elsewhere?

Less than significant impact. Project construction would require removing the existing single-family home. Based on the Town of Windsor 2019 average household estimate of 3.13 persons per household,[81] the existing single-family home on-site contains approximately three residents, so the project would result in the displacement of three people. However, the project would ultimately result in a net gain of 26 dwelling units. Therefore, the project would not displace substantial numbers of existing housing and impacts would be less than significant.

Mitigation Measures

None.

[81] State of California Department of Finance. 2018. E-5 Population and Housing Estimates for Cities, Counties, and the State, January 2011-2018, with 2010 Census Benchmark. May.

Environmental Issues	Potentially Significant Impact	Less than Significant Impact with Mitigation Incorporated	Less than Significant Impact	No Impact
14. Public Services *Would the project result in substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities, need for new or physically altered governmental facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times or other performance objectives for any of the public services:*				
a) Fire protection?	☐	☐	☒	☐
b) Police protection?	☐	☐	☒	☐
c) Schools?	☐	☐	☒	☐
d) Parks?	☐	☐	☒	☐
e) Other public facilities?	☐	☐	☒	☐

Environmental Evaluation

Setting

The Sonoma County Fire District (SOCO Fire) provides fire protection and emergency response services to approximately 70,000 people.[82] The SOCO Fire District serves has eight stations located throughout the service area, which includes the Town of Windsor, Larkfield, Wikiup, Mark West, Mountain, Middle Rincon, Bennett Valley, Bellevue, Graton Casino, Fulton, and the surrounding unincorporated county areas. There are two stations in the Town of Windsor: Station 1 (Headquarters) on 8200 Old Redwood Highway, approximately 1.6 miles northeast of the project site, and Station 3 at 8600 Windsor Road, approximately 1.4-mile northwest of the project site. Both stations are staffed full-time.[83] The SOCO Fire District has an average response time of five minutes to respond to calls for service.[84]

Law enforcement services for the project area are provided by the Windsor Police Department (WPD). The Police Department is staffed by Sonoma County Sheriff's Department employees through a negotiated contract between the County and the Town of Windsor. Law enforcement services include but are not limited to patrol duties, traffic enforcement, school resource officer, special event security, group/committee participation, conduct investigations and K9 Unit. The Police Department is located at 9291 Old Redwood Highway, approximately 2.7 mile north of the project site. The WPD has a goal to respond to "priority one" calls within 6 to 8 minutes including the time it takes for the call to service to be made and the dispatcher to dispatch a deputy. The WPD exceeded this goal by responding to priority one calls in the 2016 fiscal year on average in 5 minutes and 40 seconds and 5 minutes and 49 seconds in the 2017 fiscal year.[85]

[82] Sonoma County Fire District. Website: https://www.sonomacountyfd.org/our-partnership.
[83] Ibid.
[84] Personal Communication. Windsor Fire Protection District. March 2019.
[85] Windsor Police Department. 2019. Service Plan Performance Outcome Objectives.

Would the project result in substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities, need for new or physically altered governmental facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times or other performance objectives for any of the public services:

a) Fire protection?

Less than significant impact. Development of the project would result in an increase of 85 new residents and the related increase in population is expected to result in an increased demand for fire protection. The closest fire station to the project site is Station 3 at 8600 Windsor Road, approximately 1.4-mile northwest of the project site. At this distance, based on an average travel speed of 35 mile per hour (mph), the SOCO Fire District could respond to a call for service after being dispatched in approximately 2 minutes and 24 seconds. As required by the most recent adopted California Fire Code, the project would be required to include site-specific design features such as: ensuring appropriate emergency access, requiring structures to be built with approved building materials, and installation of fire sprinklers as applicable. Conformance with this code reduces the risks associated with fire hazards. In accordance with standard Town requirements, the project applicant would be required to pay development impact fees for fire protection services. Therefore, project impacts on fire protection services would be less than significant.

b) Police protection?

Less than significant impact. Development of the project would result in an increase of 85 new residents and the related increase in population would result in an increased demand for police protection. Based on an average travel speed of 35 mph a police car could respond to the project site in approximately 4 minutes and 38 seconds. In addition, based on the WPD response times it is expected that the WPD would be able to serve the project without requiring additional facilities. As such, impacts on police protection services are considered less than significant.

c) Schools?

Less than significant impact. The Windsor Unified School District provides education for those students in kindergarten through 12th grade who reside in the Town of Windsor. As a residential project, the project would be required to pay school impact fees at the time building permits are approved. Pursuant to Government Code Section 65995, payment of school impact fees would be considered full mitigation for school impacts; therefore, project impacts related to schools are considered less than significant.

d) Parks?

Less than significant impact. Implementation of the project would result in an increase of 85 new residents and in which would increase use of existing parks and recreational facilities. Section 2.15, Recreation, describes town parks and recreational facilities in more detail. As detailed in the Town of Windsor's Fee Schedule, residential development fees are charged for park and recreation facilities, which are based upon the number of dwelling units and dwelling unit type. In accordance with the

General Plan, the project will either contribute land or pay in-lieu park fees. Furthermore, the project includes park-like features, such as outdoor seating, a rooftop terrace, and open space areas. As such, impacts would be less than significant.

e) Other public facilities?

Less than significant impact. The Windsor Regional Library serves the communities of Windsor, Larkfield, Wikiup, and Fulton. The library is located at 9291 Old Redwood Highway, approximately 0.4 mile east of the project site. The Sonoma County Library Facilities Master Plan states that at 7,600 square feet, the Windsor Regional Library is significantly smaller than needed for its current population.[86] The added population from the project would place an additional demand on library services. However, project implementation is not anticipated to require new or expanded facilities associated with library services that would result in substantial adverse physical impacts. In addition, the project is subject to the payment of developer impact fees, a portion of which is related directly to public services such as the library. Therefore, project impacts would be considered less than significant.

Mitigation Measures

None.

[86] MKThink. October 2016. Sonoma County Library Facilities Master Plan.

Environmental Issues	Potentially Significant Impact	Less than Significant Impact with Mitigation Incorporated	Less than Significant Impact	No Impact
15. Recreation				
a) Would the project increase the use of existing neighborhood and regional parks or other recreational facilities such that substantial physical deterioration of the facility would occur or be accelerated?	☐	☐	☒	☐
b) Does the project include recreational facilities or require the construction or expansion of recreational facilities, which might have an adverse physical effect on the environment?	☐	☐	☒	☐

Environmental Evaluation

Setting

The Town of Windsor maintains 19 parks totaling over 110 acres and has access to three regional parks owned and operated by Sonoma County Regional Parks District. Regional parks near Windsor include Foothill, Shiloh, and Riverfront Regional Parks, totaling 1,356 acres.

Policy E.3.3 of the General Plan indicates Windsor should provide 5 acres of neighborhood and community parks, and special recreation facilities per 1,000 residents. The Town's existing parkland ratio is 3.86 acres of parkland per 1,000 residents.

a) Would the project increase the use of existing neighborhood and regional parks or other recreational facilities such that substantial physical deterioration of the facility would occur or be accelerated?

Less than significant impact. The project would include the construction of 27 residential units, which would likely increase demand for park facilities and services. The project includes a neighborhood market and outdoor features such as a rooftop terrace and open space. These amenities would reduce the additional demand for, and increased use, of existing park facilities. In addition, the project is subject to payment of development impact fees, a portion of which applies directly to Park and Recreational Facilities that would allow the Town to provide new recreational opportunities and would ensure that increased demand for recreational facilities would not result in substantial physical deterioration of such amenities. Therefore, impacts would be less than significant.

b) Does the project include recreational facilities or require the construction or expansion of recreational facilities, which might have an adverse physical effect on the environment?

Less than significant impact. As discussed previously, this project would not result in a substantial increase in demand for recreational facilities because it would not create a significant population

increase. In addition, the open space areas included as part of the project would further reduce the demand for park facilities. Therefore, this project would not require the expansion or construction of additional recreational facilities. As a result, impacts would be less than significant.

Mitigation Measures

None.

Environmental Issues	Potentially Significant Impact	Less than Significant Impact with Mitigation Incorporated	Less than Significant Impact	No Impact
16. Transportation *Would the project:*				
a) Conflict with a program plan, ordinance, or policy of the circulation system, including transit, roadway, bicycle, and pedestrian facilities?	☐	☐	☒	☐
b) Would the project conflict or be inconsistent with CEQA Guidelines Section 15064.3, subdivision (b)?	☐	☐	☐	☐
c) Substantially increase hazards due to a geometric design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment)?	☐	☐	☒	☐
d) Result in inadequate emergency access?	☐	☐	☒	☐

Environmental Evaluation

The transportation analysis in this section is based on a Transportation Impact Study (TIS) prepared by TJKM Transportation Consultants, dated January 2020, for the Shiloh Mixed Use Project provided in Appendix H.

The purpose of the TIS is to evaluate potential operational impacts from the addition of project-related traffic, identify short- and long-term roadway circulation needs, determine potential mitigation measures, and identify any critical traffic issues that should be addressed in the on-going planning process. The study was conducted in accordance with the transportation impact criteria established by the Town of Windsor, and is consistent with standard transportation engineering guidelines.

Traffic impacts are evaluated by determining the number of new trips that the project would be expected to generate, distributing these trips to the surrounding street system based on existing or anticipated travel patterns specific to the project, then analyzing the impact the new traffic would be expected to have on critical intersections or roadway segments. In addition, impacts to access for pedestrians, bicyclists, and transit are also addressed.

Analysis Scenarios

The TIS addresses the following four traffic scenarios:

- Existing Traffic Conditions – This scenario evaluates the study intersections based on existing traffic volumes, lane geometry, and traffic controls.

- Existing plus Project Traffic Conditions – This scenario is identical to Existing Conditions, but with the addition of traffic from the proposed project.
- Cumulative No Project Traffic Conditions – This scenario evaluates total traffic volumes and roadway conditions based on the Windsor 2040 General Plan horizon year 2040 without the proposed project.
- Cumulative plus Project Traffic Conditions – This scenario is similar to Cumulative Conditions but includes traffic generated by the proposed project.

Level of Service Analysis Methodology

Level of Service (LOS) is a qualitative index of the performance of an element of the transportation system. It is a rating scale running from A to F, with LOS A indicating no congestion, and LOS F indicating unacceptable congestion and delays. LOS in this study describes the operating conditions for unsignalized and signalized intersections. The Highway Capacity Manual (HCM) is the standard reference published by the Transportation Research Board, and contains the specific criteria and methods to be used in assessing LOS. There are several software packages that have been developed to implement HCM methodologies. For this study, Vistro software is used to calculate the LOS at the study intersections. Table 23 and Table 24 provide LOS definitions for both signalized and stop-controlled intersections. The study intersections were evaluated using the signalized methodology from the HCM. This methodology is based on factors including intersection geometries, traffic volumes, signal timing, phasing, whether or not the signals are coordinated, truck traffic, and bicycle and pedestrian activity. Average stopped delay per vehicle in seconds is used as the basis for evaluation in this methodology. For purposes of this study, delays were calculated using signal timings consistent with the Windsor General Plan EIR.

Table 23: Intersection Level of Service Definitions for Signalized Intersections

LOS	Description
A	Very low control delay, up to 10 seconds per vehicle. Progression is extremely favorable, and most vehicles arrive during the green phase. Many vehicles do not stop at all. Short cycle lengths may tend to contribute to low delay values.
B	Control delay greater than 10 and up to 20 seconds per vehicle. There is good progression or short cycle lengths or both. More vehicles stop causing higher levels of delay.
C	Control delay greater than 20 and up to 35 seconds per vehicle. Higher delays are caused by fair progression or longer cycle lengths or both. Individual cycle failures may begin to appear. Cycle failure occurs when a given green phase does not serve queued vehicles, and overflow occurs. The number of vehicles stopping is significant, though many still pass through the intersection without stopping.
D	Control delay greater than 35 and up to 55 seconds per vehicle. The influence of congestions becomes more noticeable. Longer delays may result from some combination of unfavorable progression, long cycle lengths, or high volumes. Many vehicles stop, the proportion of vehicles not stopping declines. Individual cycle failures are noticeable.

LOS	Description
E	Control delay greater than 55 and up to 80 seconds per vehicle. The limit of acceptable delay. High delays usually indicate poor progression, long cycle lengths, and high volumes. Individual cycle failures are frequent.
F	Control delay in excess of 80 seconds per vehicle. Unacceptable to most drivers. Oversaturation, arrival flow rates exceed the capacity of the intersection. Many individual cycle failures. Poor progression and long cycle lengths may also be contributing factors to higher delay.
Source: Highway Capacity Manual (HCM).	

Table 24: Level of Service Definitions for Stop-controlled Intersections

LOS	Description
A	Very low control delay less than 10 seconds per vehicle for each movement subject to delay.
B	Low control delay greater than 10 and up to 15 seconds per vehicle for each movement subject to delay.
C	Acceptable control delay greater than 15 and up to 25 seconds per vehicle for each movement subject to delay.
D	Tolerable control delay greater than 25 and up to 35 seconds per vehicle for each movement subject to delay.
E	Limit of tolerable control delay greater than 35 and up to 50 seconds per vehicle for each movement subject to delay.
F	Unacceptable control delay in excess of 50 seconds per vehicle for each movement subject to delay.
Source: HCM.	

Significant Impact Criteria/Level of Service Standards

The Town of Windsor's adopted LOS Standard is contained in the Town's General Plan:

The Town shall adopt a level of services standard D for crosstown streets and signalized intersections. The Town shall recognize that reducing congestion must be balanced against improvements costs and community character concerns. The standard shall be used for planning new facilities and for monitoring proposed changes to the General Plan. The standard for local streets should be based on volume threshold instead of level of service designations.

For purposes of this study, off-site traffic impacts are considered potentially significant if:

- The project results in unacceptable LOS E or F at any study intersection; or
- At study intersections operating at an unacceptable LOS E or F without the project, impacts will be potentially significant if the project adds more than five seconds of average delay to the intersection.

Impacts to left-turn vehicle queues would be significant if:

- The 95th percentile queue length can be contained within the available stacking length without the project, and the project causes the queue to exceed the stacking length; or
- The queue length exceeds the available stacking length without the project and the project increases the 95th percentile queue by more than 10 feet, or approximately one-half a car-length.

Roadway Network

The key roadways adjacent to the project site are discussed below and shown in Exhibit 12.

Shiloh Road

Shiloh Road is designated as a two-lane crosstown street bordering the project site that provides one motor vehicle lane and one bicycle lane in both directions for east-west travel, connecting with U.S. 101 to the east and Windsor Road to the west. The Windsor 2040 General Plan identifies the segments east of Skylane Road for future expansion to five motor lanes (two per direction plus a center turn-lane or median) and bicycle lanes. The Windsor Bicycle and Pedestrian Master Plan identifies Shiloh Road as an existing Class II bikeway with bicycle lanes. An existing sidewalk is provided on the north side of Shiloh Road across from the project site but no sidewalks are provided on segments to the east or west. The south side of Shiloh Road, bordering the project site, is not yet equipped with a sidewalk. The posted speed limit is 45 miles per hour (mph) approaching the project site on the eastbound segment to the west of the project site, and 40 mph approaching the project site on westbound segment to the east of the project site.

Skylane Boulevard

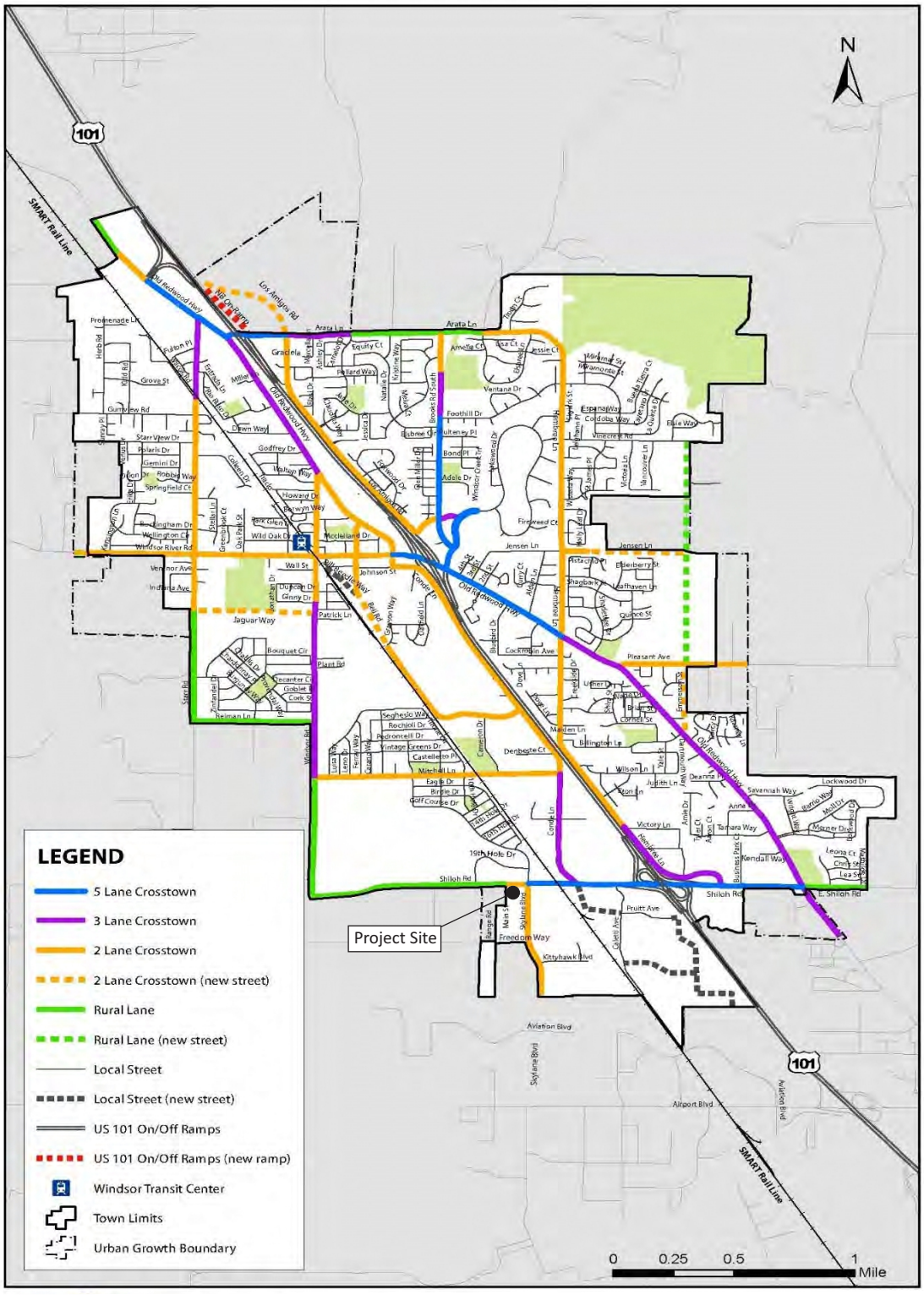
Skylane Boulevard is designated as a two-lane crosstown street bordering the project site to the east that provides one motor vehicle lane in each direction for north-west travel with a 40 mph posted speed limit, connecting with Airport Boulevard to the south. Skylane Boulevard terminates at Shiloh Road where it becomes Golf Course Drive to the north. A sidewalk is provided on the west side of Skylane Boulevard immediately south of the project site but currently terminates at the south edge of the project site. Bicycle lanes are not yet provided on segments of Skylane Boulevard bordering the project site. The Windsor Bicycle and Pedestrian Master Plan identifies Skylane Boulevard as a proposed Class II bikeway with bicycle lanes.

Golf Course Drive

Golf Course Drive is a two-lane north-south local street that provides access to residential areas to the north of the project site. Golf Course Drive becomes Skylane Boulevard to the south of Shiloh Road. A sidewalk is provided on the east side of Golf Course Drive.

Conde Lane

Conde Lane is a two-lane crosstown street north of Mitchell Lane, and a three-lane crosstown street south of Mitchell Lane, with one through lane in each direction. In addition, this roadway includes bicycle lanes and center medians with left-turn pockets at intersections south of Mitchell Lane that



Source: TJKM January 2020.

Exhibit 12
Windsor 2040 General Plan
Circulation System Map

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run parallel to U.S. 101 between Windsor River Road and Shiloh Road. Conde Lane has a posted speed limit of 40 mph and provides a sidewalk on one side for most of its length.

U.S. 101

U.S. 101 is the largest regional freeway in the area, providing north-south access throughout Sonoma County and to the adjacent counties of Marin (south) and Mendocino (north). To the north of Old Redwood Highway, U.S. 101 provides two travel lanes in each direction, and to the south of Old Redwood Highway it provides three lanes in each direction (one of which is a high occupancy vehicle (HOV) lane). The posted speed limit is 65 miles per hour (mph), and access points in the Town of Windsor are found at Arata Lane and Old Redwood Highway in the north and Shiloh Road in the south.

Study Intersections

TJKM evaluated traffic conditions for study intersections, selected based on input from Town of Windsor staff, during the AM peak-hour (7:00 a.m.-9:00 a.m.) and PM peak-hour (4:00 p.m.-6:00 p.m.) peak periods for a typical weekday. All four study intersections are signalized. Exhibit 13 shows the existing motor vehicle lane configurations at each study intersection. The study intersections are:

- Shiloh Road and Skylane Boulevard/Golf Course Drive
- Shiloh Road and Conde Lane
- Shiloh Road and U.S. 101 Southbound Off-Ramp
- Shiloh Road and U.S. 101 Northbound Off-Ramp

Existing Intersection Levels of Service

Peak period counts of motor vehicle, pedestrian and bicycle volumes at each study intersection were conducted on Thursday, December 13, 2018, a weekday with clear weather. Detailed data sheets from the intersection counts are provided in the TIS (Appendix H). Exhibit 14 summarizes the existing peak-hour motor vehicle turning movement volumes at the study intersections. HCM 6th Edition methodology was used to evaluate intersection LOS utilizing Vistro software. Table 25 summarizes the existing motor vehicle LOS at the study intersections under existing conditions based on the counts conducted, current lane geometries, and intersection controls.

Table 25: Existing Conditions – Intersection Level of Service

ID	Intersection	Intersection Control	AM Peak-hour		PM Peak-hour	
			LOS[1]	Average Delay[2]	LOS[1]	Average Delay[2]
1	Skylane Boulevard/Golf Course Drive & Shiloh Road	Signalized	D	35.4	B	13.4
2	Conde Lane & Shiloh Road	Signalized	B	18.0	C	28.6
3	U.S. 101 Southbound Off-ramp & Shiloh Road	Signalized	B	10.1	A	7.6
4	U.S. 101 Northbound Off-ramp & Shiloh Road	Signalized	C	22.2	B	13.8

ID	Intersection	Intersection Control	AM Peak-hour		PM Peak-hour	
			LOS[1]	Average Delay[2]	LOS[1]	Average Delay[2]

Notes:
Bold indicates unacceptable Level of Service (LOS).
[1] LOS = Level of Service;
[2] Average intersection delay expressed in seconds per vehicle for signalized intersections and all way stop controlled intersections.
Source: TJKM 2020.

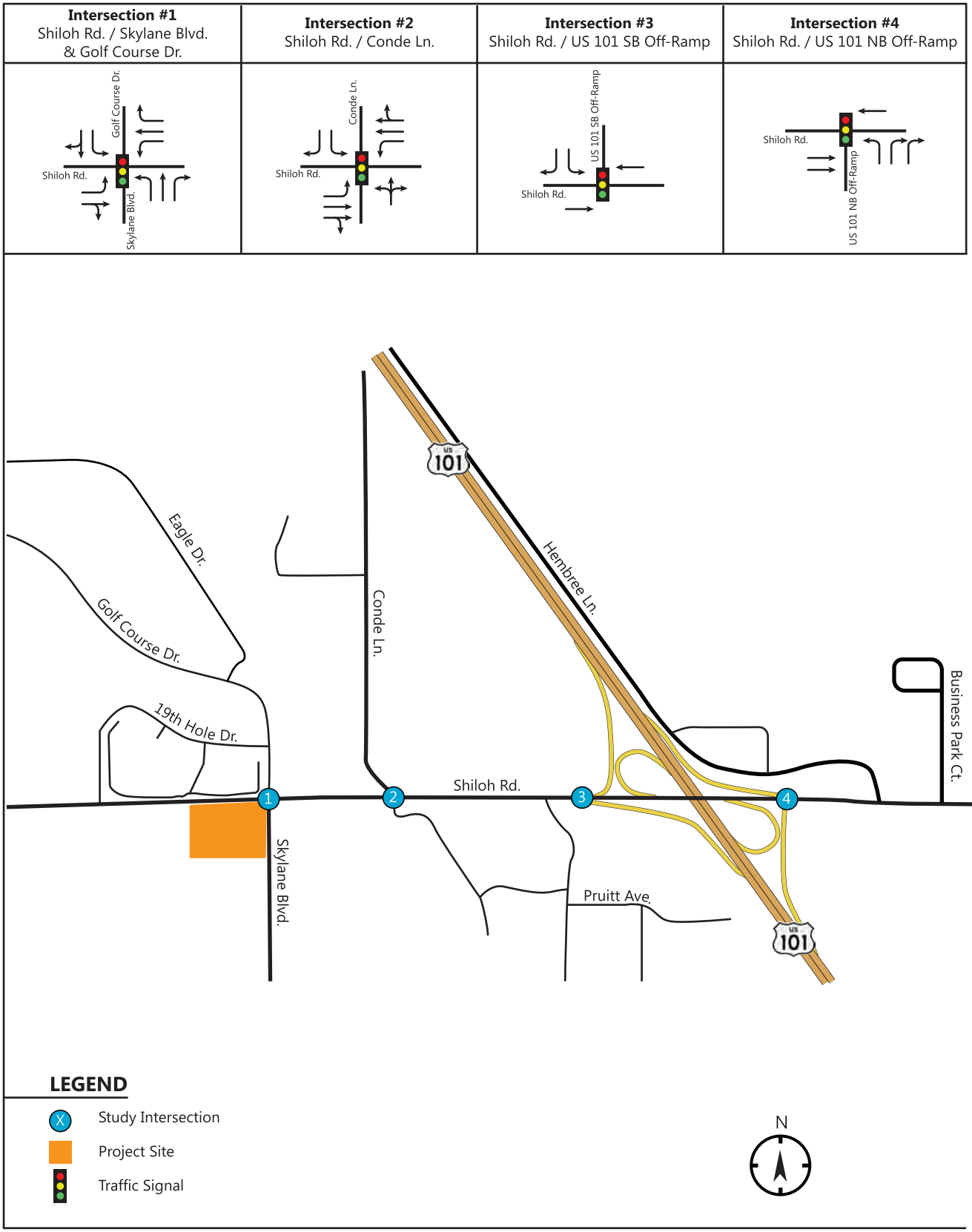
Project Vehicle Trip Generation

Vehicle trip generation is defined as the number of "vehicle trips" produced by a particular land use or project. A vehicle trip is defined as a one-direction vehicle movement. The total number of vehicle trips generated by each land use includes inbound and outbound trips. Project vehicle trip generation was forecasted based on the ITE publication *Trip Generation, 10th Edition*.

- The trip generation forecast for the residential portion of the development is based on the trip generation rate for Multifamily Housing – Low Rise (ITE land use code 220), consistent with the rate used by both the Windsor General Plan traffic forecast and the Windsor traffic mitigation fee program to forecast vehicle trips resulting from multi-family housing.
- The trip reduction forecast for the proposed 2,900-square foot market is based on the vehicle trip generation rate for convenience markets (ITE land use code 851). The convenience markets surveyed by ITE had an average size of 3,000 square feet, similar to the proposed market. A 51 percent reduction for pass-by trips was applied for trips to/from the market during the PM peak-hour consistent with ITE data for convenience markets. ITE does not provide pass-by data for convenience markets during the AM peak-hour, but at locations where ITE data provides both AM and PM peak-hour pass-by rates for convenience markets with gas pumps: ITE data indicates that the AM pass-by rate is 6 percent higher than the PM rate. Based on that data: a 54 percent reduction for pass-by trips to/from the market was applied during the AM peak-hour. For daily trips: a conservative pass-by rate of 45 percent was applied.
- An internal trip credit was applied to reflect a reduction in vehicle trips to/from the proposed residences, given proximity to the proposed market: the residential trip forecast was reduced by 5 percent, a conservatively low reduction. ITE data contained in the *Trip Generation Handbook* identifies internal reductions ranging from 5 to 9 percent for residential development as part of mixed-use developments.

Vehicle Trip Distribution and Assignment

Trip distribution is the process of determining the proportion of vehicles that would travel between the project site and various origins and destinations near the study area. Trip assignment is the process of determining the various paths vehicles would take between the project site and each origin and destination. The trip distribution assumptions for the proposed project were derived from a general knowledge of the study area, and the presumption that the majority of trips to and from the proposed market would be from adjacent neighborhoods. Based on the overall distribution, the

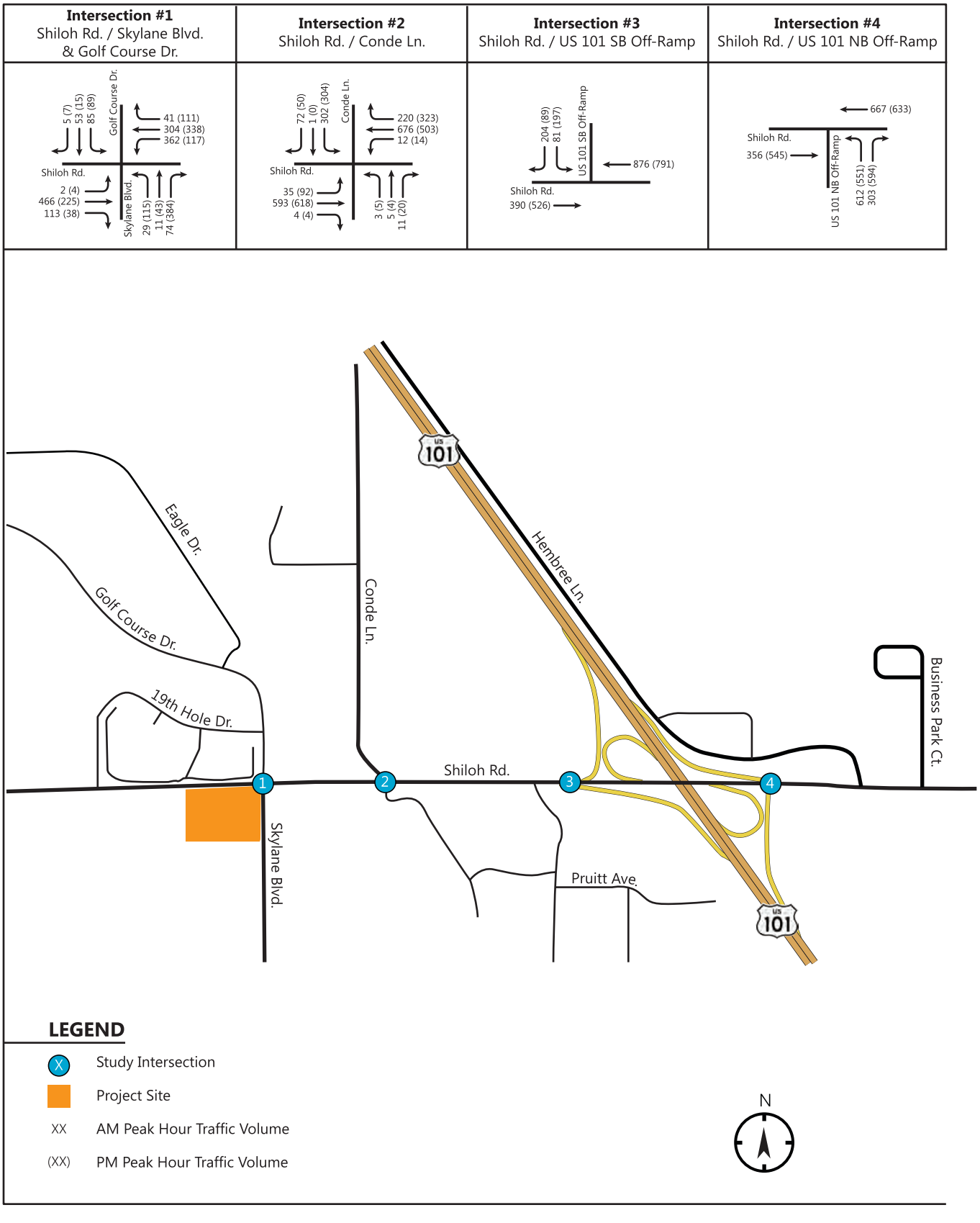


Source: TJKM January 2020.

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Exhibit 13
Study Intersections, Existing Lane Geometrics, and Traffic Controls

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Source: TJKM January 2020.

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Exhibit 14
Existing Traffic Volumes

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assignment of trips to specific routes was predicted based on field review at the proposed project location and existing travel patterns.

Transit Facilities

Sonoma County Transit (SCT) provides fixed route bus service in the Town of Windsor. SCT Route 66, that is named the "Windsor Shuttle," operates weekdays between 7:15 a.m. and 5:08 p.m., and Saturdays between 9:35 a.m. and 3:27 p.m., with frequencies averaging roughly one bus per hour. The project site is located approximately 1,100 feet (less than 0.25-mile) from the nearest bus stop on the south side of Shiloh Road just east of Conde Lane. Access to this bus stop from the project site is via an existing sidewalk on the north side of Shiloh Road and crosswalk across Skylane Boulevard.

Bicycle Facilities

The Caltrans Highway Design Manual (HDM),[87] classifies bikeways into three categories:

- **Class I Multi-Use Path**—completely separated right-of-way for the exclusive use of bicycles and pedestrians with cross flows of motorized traffic minimized.
- **Class II Bike Lane**—a striped and signed lane for one-way bike travel on a street or highway.
- **Class III Bike Route**—signing only for shared use with motor vehicles within the same travel lane on a street or highway.

An existing Class II Bicycle Lane is located along Shiloh Road adjacent to the project site. In addition, a Class II bicycle lane is proposed on Skylane Boulevard south of the Shiloh Road/Skylane Boulevard intersection as part of the Windsor Bicycle and Pedestrian Master Plan. A Class I bicycle lane is proposed along the existing SMART railroad line to the east of the project site.[88]

Pedestrian Facilities

Pedestrian facilities include sidewalks, crosswalks, pedestrian signal phases, curb ramps, curb extensions, and various streetscape amenities such as lighting, benches, etc. The project site does not contain sidewalks except for a pedestrian ramp on the southwest corner of the Shiloh Road/Skylane Boulevard intersection. The existing pedestrian facilities in the study area are as follows:

Shiloh Road – sidewalks exist on the north side of Shiloh Road and west of Skylane Boulevard. No sidewalks exist on the south side of Shiloh Road adjacent to the project boundary.

Skylane Boulevard – no sidewalks exist on Skylane boulevard south of Shiloh Road along the project site frontage. Skylane Boulevard contains sidewalks along the western side of the roadway south of the project site. North of Shiloh Road, Skylane Boulevard contains sidewalks on both sides of the roadway.

[87] California Department of Transportation (Caltrans). 2018. Highway Design Manual, 6th Edition.
[88] Sonoma County Transportation Authority. 2014. Windsor Bicycle and Pedestrian Master Plan.

Would the project:

a) Conflict with a program plan, ordinance, or policy addressing the circulation system, including transit, roadway, bicycle, and pedestrian facilities?

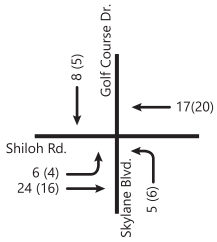
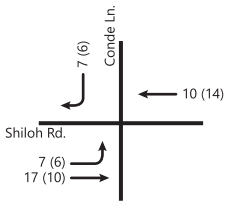
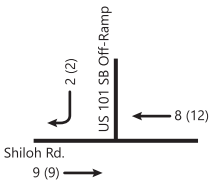
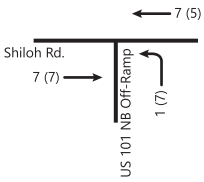
Less than significant with mitigation incorporated. Project peak-hour trip generation is summarized in Table 26. As shown, the proposed project is estimated to generate a net increase of 94 vehicle trips during the AM peak-hour, 78 vehicle trips during the PM peak-hours and 1,390 daily vehicle trips.

Table 26: Project Vehicle Trip Generation

Land Use (ITE Code)	Size	Daily		AM Peak-hour					PM Peak-hour				
		Rate	Trips	Rate	In %	In	Out	Total	Rate	In %	In	Out	Total
Multi-family Housing (220)	27 dwelling units	7.32	198	0.46	23%	3	9	12	0.56	63%	9	6	15
Market (851)	2,900 SF	—	2,211	62.54	50%	91	90	181	49.11	51%	72	70	142
Pass-by trip reduction applied to Market		*-45%*	*-995*	*-54%*	—	*-49*	*-49*	*-98*	*-51%*	—	*-36*	*-36*	*-72*
Mixed use trip reduction applied to Multi-family Housing		*-5%*	*-10*	*-5%*	—	—	*-1*	*-1*	*-5%*	—	—	*-1*	*-1*
Subtotal		—	*1,404*	—	—	*44*	*50*	*94*	—	—	*45*	*39*	*84*
Existing Land Use		—	*14*	—	—	*0*	*0*	*0*	—	—	*4*	*2*	*6*
Net Vehicle Trips		—	**1,390**	—	—	**44**	**50**	**94**	—	—	**41**	**37**	**78**

NOTE:
SF = square feet
Source: TJKM 2020.

The Vehicle Trip Distribution pattern is shown on Table 27. Vehicle trip assignment at each study intersection for the proposed project are illustrated in Exhibit 15.

Intersection #1 Shiloh Rd. / Skylane Blvd. & Golf Course Dr.	Intersection #2 Shiloh Rd. / Conde Ln.	Intersection #3 Shiloh Rd. / US 101 SB Off-Ramp	Intersection #4 Shiloh Rd. / US 101 NB Off-Ramp
			



LEGEND

- X — Study Intersection
- Project Site
- XX — AM Peak Hour Traffic Volume
- (XX) — PM Peak Hour Traffic Volume

N

Source: TJKM January 2020.

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Exhibit 15
Project Trip Assignment

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Table 27: Vehicle Trip Distribution

Origin/Destination	Percent of Project Trips
U.S. 101—South of Shiloh Road	10%
U.S. 101—North of Shiloh Road	5%
East of U.S. 101	15%
Conde Lane—north of Shiloh Road	15%
Golf Course Drive—north of Shiloh Road	15%
Shiloh Road—west of project site	15%
Skylane Boulevard—south of project site	25%
Total	**100%**
Source: TJKM 2020.	

Intersection Levels of Service

Existing Plus Project

The Existing Plus Project Intersection scenario evaluates the addition of project traffic to the study area intersections. Table 28 summarizes the results of the intersection LOS analysis under Existing plus Project conditions and provides a comparison with Existing Conditions.

Table 28: Existing plus Project Conditions – Intersection Level of Service

ID #	Intersection	Control	Peak-hour	Existing Conditions		Existing Plus Project Conditions	
				LOS[1]	Average Delay[2]	LOS[1]	Average Delay[2]
1	Skylane Boulevard/Golf Course Drive and Shiloh Road	Signalized	AM	D	35.4	C[3]	22.9[3]
			PM	B	13.4	B	13.1[3]
2	Conde Lane and Shiloh Road	Signalized	AM	B	18.0	B	18.5
			PM	C	28.6	C	29.0
3	U.S. 101 Southbound Off-ramp and Shiloh Road	Signalized	AM	B	10.1	B	10.4
			PM	A	7.6	A	7.4
4	U.S. 101 Northbound Off-ramp and Shiloh Road	Signalized	AM	C	22.2	C	22.9
			PM	B	13.8	B	14.2

Notes:
Bold indicates unacceptable Level of Service (LOS).
[1] LOS = Level of Service
[2] Average intersection delay expressed in seconds per vehicle.
[3] Improvement in LOS during the AM peak-hour, and reduction in delay during the PM peak-hour, reflects proposed installation of an eastbound right-turn lane on Shiloh Road, approaching Skylane Boulevard, with the proposed project under Existing plus Project Conditions.
Source: TJKM 2020.

As shown in Table 28, all study intersections would continue to operate acceptably at LOS D or better under Existing plus Project Conditions. The project would include the installation of an eastbound right-turn lane on Shiloh Road, approaching Skylane Boulevard, which would reduce delay at the Shiloh Road intersection with Skylane Boulevard/Golf Course Drive. Therefore, at all study intersections, the project's impact on LOS would be less than significant based on the Town's LOS threshold of D or better.

Cumulative Plus Project

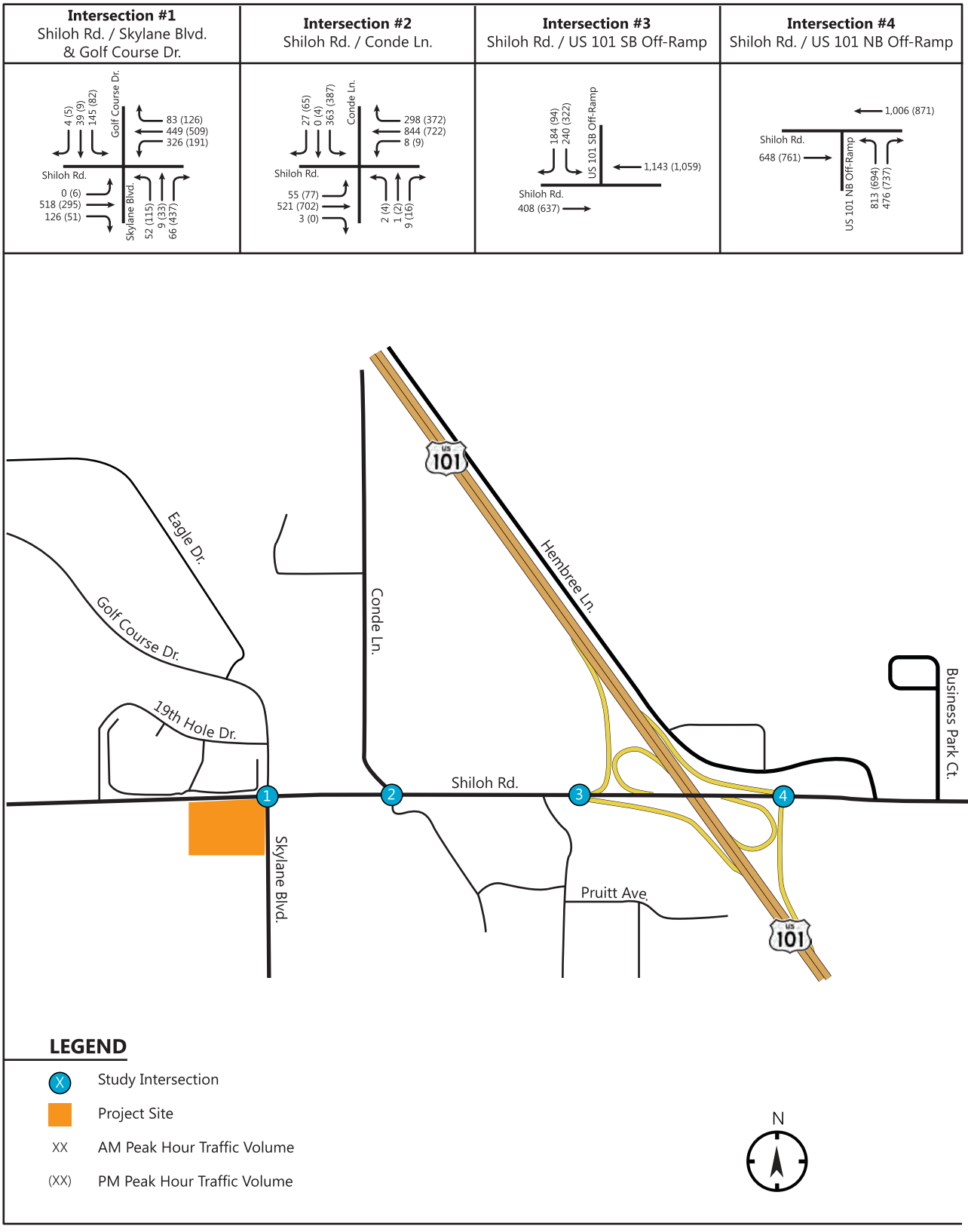
Cumulative baseline traffic volumes (without the proposed project) were derived from the Town of Windsor 2040 General Plan EIR in order to project the future increase in traffic from other new sources. The forecasted a.m. and p.m. turning movements at each study intersection under "Cumulative No Project" traffic volumes are shown in Exhibit 16. Table 29 summarizes the results of the intersection LOS under Cumulative Plus Project conditions, with and without the addition of the project to the anticipated future volume of traffic from other new development.

Table 29: Cumulative (Year 2040) Conditions – Intersection Level of Service Comparison

ID #	Intersection	Control	Peak-hour	Cumulative No Project Conditions		Existing Plus Project Conditions	
				LOS[1]	Average Delay[2]	LOS[1]	Average Delay[2]
1	Skylane Boulevard/Golf Course Drive and Shiloh Road	Signalized	AM	C	23.6	C	17.8
			PM	B	14.2	B	13.8
2	Conde Lane and Shiloh Road	Signalized	AM	C	20.3	C	20.9
			PM	C	23.4	C	24.0
3	U.S. 101 Southbound Off-ramp and Shiloh Road	Signalized	AM	A	6.6	A	6.6
			PM	A	6.9	A	6.9
4	U.S. 101 Northbound Off-ramp and Shiloh Road	Signalized	AM	B	10.6	B	10.7
			PM	B	18.3	B	18.4

Notes:
Bold indicates unacceptable Level of Service (LOS).
[1] LOS = Level of Service;
[2] Average intersection delay expressed in seconds per vehicle.
Source: TJKM 2020.

As shown in Table 29, all study intersections would continue to operate acceptably at LOS D or better under Cumulative Plus Project conditions, with or without the proposed project. Therefore, the cumulative impact of the project on year 2040 traffic conditions would be less than significant.



Source: TJKM January 2020.

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Exhibit 16
Cumulative No Project Peak Hour Traffic Volumes

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Intersection Queue Analysis

Existing Plus Project

Table 30 summarizes the results of the left-turn queue comparison under Existing plus Project Conditions.

Table 30: Existing Plus Project Conditions – 95th Percentile Left-turn Queue Comparison

ID #	Intersection	Left-turn movement	Stacking Capacity (feet)	Existing Conditions		Existing Plus Project Conditions	
				AM Peak-hour	PM Peak-hour	AM Peak-hour	PM Peak-hour
1	Skylane Boulevard/Golf Course Drive and Shiloh Road	Eastbound	*150 ft (with Project)*	3 ft	7 ft	9 ft	4 ft
		Westbound	180 ft	**322 ft**	35 ft	**264 ft**[1]	33 ft
		Northbound	100 ft	32 ft	44 ft	32 ft	44 ft
		Southbound	50 ft	**87 ft**	36 ft	**74 ft**[1]	35 ft
2	Conde Lane and Shiloh Road	Eastbound	85 ft	22 ft	53 ft	27 ft	57 ft
		Westbound	125 ft	9 ft	9 ft	9 ft	9 ft
N/A	Proposed Project Driveway and Shiloh Road	Westbound	*>50 ft (with Project)*	N/A	N/A	<20 ft	<20 ft

Notes:
Bold indicates 95th percentile queues exceeding storage length.
[1] Reduction in left-turn queue lengths at Skylane Boulevard/Golf Course Drive and Shiloh Drive with the project occurs due to provision of eastbound right-turn pocket.
Source: TJKM 2020.

As shown in Table 30, the Skylane Boulevard/Golf Course Drive and Shiloh Road intersection queues in the westbound and southbound directions would exceed storage length in the AM and PM peak-hours under Existing and Existing Plus Project conditions. However, the project's inclusion of an eastbound right-turn pocket on Shiloh Road would reduce these vehicle queues and the project's contribution to left-turn volumes at intersections with left-turn pockets. As a result, the project would not cause the 95th percentile queue length to exceed the available stacking length or increase by more than 10 feet where the queue length exceeds the available stacking length without the project. Therefore, impacts would be less than significant.

Cumulative Plus Project

Table 31summarizes the results of the left-turn queue comparison under Cumulative Conditions.

Table 31: Cumulative Conditions – 95th Percentile Left-turn Queue Comparison

ID #	Intersection	Left-turn movement	Stacking Capacity (feet)	Cumulative No Project Conditions		Cumulative Plus Project Conditions	
				AM Peak-hour	PM Peak-hour	AM Peak-hour	PM Peak-hour
1	Skylane Boulevard/Golf Course Drive and Shiloh Road	Eastbound	*150 ft (with Project)*	0 ft	4 ft	4 ft	5 ft
		Westbound	180 ft	**206 ft**	64 ft	168 ft[1]	58 ft
		Northbound	100 ft	45 ft	49 ft	40 ft	48 ft
		Southbound	50 ft	**100 ft**	38 ft	**81 ft**[1]	36 ft
2	Conde Lane and Shiloh Road	Eastbound	85 ft	34 ft	54 ft	39 ft	59 ft
		Westbound	125 ft	6 ft	7 ft	6 ft	8 ft

Notes:
Bold indicates 95th percentile queues exceeding storage length.
[1] Reduction in left-turn queue lengths at Skylane Boulevard/Golf Course Drive & Shiloh Drive with the project occurs due to provision of eastbound right-turn pocket.
Source: TJKM 2020.

As shown in Table 31, at all study intersections the project contribution to left-turn queues would not cause the 95th percentile queue length to exceed the available stacking length or increase by more than 10 feet where the queue length exceeds the available stacking length without the project. Additionally, the project's inclusion of an eastbound right-turn lane on Shiloh Road would further reduce impacts to vehicle queuing. Therefore, vehicle queuing impacts under Cumulative Plus Project conditions would be less than significant.

Transit Service

As described previously, an SCT Route 66 bus stop is located approximately 1,100 feet (less than one-quarter mile) from the nearest bus stop on the south side of Shiloh Road just east of Conde Lane. Access to this bus stop from the project site is via an existing sidewalk on the north side of Shiloh Road and crosswalk across Skylane Boulevard. Due to the project's proximity to SCT bus stops, project residents would be within acceptable walking and biking distance of transit. The project would not include road closures that could temporarily or permanently impact transit facilities. As a result, existing transit service is adequate to accommodate the project and impacts would be less than significant.

Bicycle Facilities

A curbside bicycle lane would be provided southbound on Skylane Boulevard along the project frontage, while the existing eastbound bicycle lane on Shiloh Road would be reconfigured to accommodate the proposed eastbound right-turn pocket. The TIA determined that the project would need to include a more-protected bicycle lane where the eastbound bicycle lane would cross paths with motorists entering the proposed eastbound right turn lane. Approval of the project will be conditioned on the provision of adequate space for a protected bike lane on Shiloh Road,

consistent with the Windsor Complete Street Guidelines and to the satisfaction of the Town Engineer.. Therefore, the project would not conflict with a program plan, ordinance, or policy regarding bicycle facilities and impacts would be less than significant.

Pedestrian Facilities

The project would provide sidewalks with landscape buffers on both street frontages, allowing direct access to the market and connections with internal on-site walkways. Consistent with the Windsor Complete Streets Guidelines, the project is required to include enhanced crosswalk markings on the west leg of the Shiloh Road and Skylane Boulevard intersection. Additionally, enhanced crosswalk markings would calm traffic and improve pedestrian crossings consistent with the Windsor Complete Streets Guidelines. Furthermore, all curb ramps would be required to be designed to current ADA standard, which require two separate ramps at each crosswalk. As a result, the project would not conflict with a program plan, ordinance, or policy regarding pedestrian facilities and impacts would be less than significant.

b) Would the project conflict or be inconsistent with CEQA Guidelines Section 15064.3, subdivision (b)?

Significance conclusion cannot be determined. In November 2017, the Governor's Office of Planning and Research (OPR) released a technical advisory containing recommendations regarding the assessment of VMT, proposed thresholds of significance, and potential mitigation measures for lead agencies to use while implementing the required changes contained in SB 743. Also in November 2017, the OPR released the proposed text for Section 15064.3, "Determining the Significance of Transportation Impacts," which summarized the criteria for analyzing transportation impacts for land use projects and transportation projects and directs lead agencies to "choose the most appropriate methodology to evaluate a project's VMT, including whether to express the change in absolute terms, per capita, per household or in any other measure." The OPR recommends that for most instances a per service population threshold should be adopted and that a 15 percent reduction below that of existing development would be a reasonable threshold.

As noted in the OPR Guidelines, agencies are directed to choose metrics that are appropriate for their jurisdiction to evaluate the potential impacts of a project in terms of VMT. The current deadline for adopting policies to implement SB 743 was January 2020; the change to VMT was formally adopted as part of updates to the CEQA Guidelines in 2018. However, the Town has not established specific local VMT thresholds, and, until the Town does, there is no guidance on how to evaluate the project in terms of VMT. No determination on the significance of VMT impacts is made in this document since none is legally required.

Although an impact determination is not required, the TIA discusses VMT for information purposes only. The residential portion of the project is anticipated to generate a lower rate of VMT per capita compared to the town-wide average since multi-family residences typically generate lower rates of vehicle trips than single-family dwellings and the project includes a mixed-use component with ground-floor commercial space that is anticipated to reduce the frequency of off-site trips by residents. In addition, by providing a community market in a neighborhood not currently served by other similar markets the project is anticipated to reduce VMT by area residents that would

otherwise travel further by motor vehicle to and from existing markets in other areas further from the site.

c) Substantially increase hazards due to a geometric design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment)?

Less than significant impact. Stopping sight distance adjacent to the project driveways on Shiloh Road and Skylane Boulevard would be adequate given the direct connection of the project driveways with Shiloh Road and Skylane Boulevard with straight segments in both directions. In addition, the proposed internal street layout is not anticipated to obstruct internal visibility. The proposed driveway location on Shiloh Road is visible for over 400 feet from the west (approaching eastbound), exceeding the standard of 360 feet based on the 45 mph speed limit west of the site. The proposed driveway on Skylane Boulevard is visible from over 400 feet from the north (approaching southbound), exceeding the standard of 300 feet based on the 40 mph speed limit on Skylane Boulevard. As a result, the project's sight lines would be consistent with sight distance criteria contained in the Caltrans HDM and the project would not substantially increase hazards to due geometric design. Therefore, impacts would be less than significant.

d) Result in inadequate emergency access?

Less than significant impact. The project would provide two driveways with adequate width to accommodate emergency vehicles. As shown in Exhibit 10, the project would provide internal circulation with adequate width for an emergency response vehicle to navigate through the site. As required by the most recent adopted California Fire Code, the project would be required to include site-specific design features such as: ensuring appropriate emergency access. As a result, the project would result in adequate emergency access and impacts would be less than significant.

Mitigation Measures

None are required.

Environmental Issues	Potentially Significant Impact	Less than Significant Impact with Mitigation Incorporated	Less than Significant Impact	No Impact
17. Utilities and Service Systems *Would the project:*				
a) Require or result in the relocation or construction of new or expanded water, wastewater treatment or storm water drainage, electric power, natural gas, or telecommunications facilities, the construction or relocation of which could cause significant environmental effects?	☐	☒	☐	☐
b) Have sufficient water supplies available to serve the project and reasonably foreseeable future development during normal, dry and multiple dry years?	☐	☐	☒	☐
c) Result in a determination by the wastewater treatment provider which serves or may serve the project that it has adequate capacity to serve the project's projected demand in addition to the provider's existing commitments?	☐	☐	☒	☐
d) Generate solid waste in excess of State or local standards, or in excess of the capacity of local infrastructure, or otherwise impair the attainment of solid waste reduction goals?	☐	☐	☒	☐
e) Comply with federal, state, and local management and reduction statutes and regulations related to solid waste?	☐	☐	☐	☒

Environmental Evaluation

Water Facilities

The WWD owns and operates the Town's potable water system. The Town of Windsor's water supply comes from two primary sources: the Russian River Well Field and surface water (Russian River) delivered via the Santa Rosa Aqueduct managed by the Sonoma County Water Agency (SCWA). The majority of the Town's demands are met by Russian River water extracted from the Town's riverbank wells, with the remaining demand met by water from the Santa Rosa Aqueduct. The Town's water supplies that are diverted from the Russian River are accounted for under water rights currently held by the SCWA.[89] The Town also owns groundwater wells, but four of the five

[89] RMC Water and Environment. 2011. Town of Windsor Water Master Plan.

Town-owned wells are out of service and the one in service is primarily used for raw water irrigation of Esposti Park.[90]

Maximum water allocations for each of the SCWA primary water contractors are set forth within the Restructured Agreement for Water Supply (Restructured Agreement) with the Town. Under this agreement, the average annual water allocation for the Town via the Russian River Well Field (direct diversion) is 4,725 acre-feet per year (AFY) at a maximum average daily flow rate of 7.2 million gallons per day (mgd) in any month. In addition, the Town holds an average annual allocation of 900 AFY through transmission system deliveries via the Santa Rosa Aqueduct at a maximum average daily flow rate of 1.5 mgd in any month. Together, these two allocations provide the Town with 5,625 AFY under average annual conditions and 8.7 mgd under maximum flow conditions under the Restructured Agreement.[91]

The WWD provides water and wastewater reclamation services and operates functionally as a department of the Town of Windsor. The Windsor Public Works Department, Water Division is responsible for the daily operation of the Town's water system, which includes pumping and treatment of more than 1.3 billion gallons of water annually. Windsor has more than 140 miles of distribution mains and more than 5 million gallons of water storage.

Wastewater Facilities

Project site parcel APN 164-150-064 is currently within the sewer service agreement between the County of Sonoma (Sonoma Water), Town of Windsor, and Windsor Water District regarding provision of sewer services to Airport-Larkfield-Wikiup Area. Parcel APN 164-150-012 on the project site is not currently within this agreement. In order for the parcels to be merged and benefit from the same agreement, the agreement would be amended to add APN 164-150-012.

The Windsor Public Works Department, Water Reclamation Division, is responsible for the treatment, storage, and disposal of the Town's wastewater. The Town of Windsor's wastewater treatment plant (WWTP) provides tertiary treatment and ultraviolet light disinfection, and has an average daily dry weather flow capacity of 2.25 mgd. The permitted discharge capacity of the WWTP is 1.6 mgd average daily dry weather flow, per RWQCB Order No. R1-2007-0013. The current average dry weather flow is approximately 1.4 mgd (West Yost 2015). Wastewater in Windsor is delivered to the WWTP by a collection system that includes approximately 92 miles of public branch and trunk sewers, 1,728 manholes, 679 cleanouts, and approximately 7,600 private service laterals.[92]

Sonoma Water provides wastewater treatment services to portions of Sonoma County, including the eastern parcel on the project site (APN 164-150-064). The Airport/Larkfield/Wikiup Sanitation Zone service area covers approximately 2,100 acres. The ALW Zone provides service to approximately 2,700 parcels using a gravity collection system. The Zone has one lift station located on Vista Grande Drive in Wikiup. The Zone's Wastewater Treatment Plant is designed to provide tertiary treatment for an average daily dry weather flow of up to 900,000 gallons per day (gpd) and currently treats approximately 750,000 gpd. The plant includes: a headworks, three aeration ponds, two 95-million-

[90] GHD. 2016. 2015 UWMP for the Town of Windsor Water District.
[91] RMC Water and Environment. 2011. Town of Windsor Water Master Plan.
[92] West Yost Associates. 2015. Town of Windsor 2015 Sewer System Management Plan Update.

gallon storage ponds. Oceanview Reservoir, an additional 100-million storage pond, is located several miles west of the plant. All recycled water produced from this plant is disposed through irrigation.[93]

Solid Waste

Sonoma County Resource Recovery provides residential and commercial solid waste services, transporting waste from the Town of Windsor to the Central Disposal Site landfill in Petaluma operated by Republic Services of Sonoma County, Inc. The landfill's Daily Permitted Capacity of 2,500 tons is the amount that can be safely accepted or processed at the site, while not exceeding the remaining capacity. See Table 32 for details on this landfill.

Table 32: Landfill Facility Detail

Landfill	Distance from Project Site	Remaining Capacity	Daily Permitted Capacity
Central Disposal Site	15.8 miles	9,076,760 cubic yards	2,500 tons/day
Source: California Department of Resources Recycling and Recovery. SWIS Facility Detail: Central Disposal site (49-AA-0001) 2012.			

Electric Power and Natural Gas

Sonoma Clean Power provides the electric generation service while PG&E provides delivery of electricity through the existing grid.[94] PG&E provides natural gas to the Town of Windsor.

Telecommunications Facilities

The following companies offer internet and telecommunications services to the residents of Windsor: AT&T, Comcast, Dish Network, and Frontier Communications.[95]

Would the project:

a) Require or result in the relocation or construction of new or expanded water, wastewater treatment or storm water drainage, electric power, natural gas, or telecommunications facilities, the construction or relocation of which could cause significant environmental effects?

Less than significant impact with mitigation incorporated. As part of construction, any existing water or sewer lines connecting to the existing single-family home would be removed. In addition, the project would provide new water and wastewater lines on the project site that would connect to the existing connections in Skylane Boulevard. Construction of these connections would be required to abide by applicable federal, state, and local regulations, as well as mitigation measures outlined in this document, to avoid significant environmental impact. As described further in Impact 18b, the proposed project would be served by sufficient water supply and would not require new or expanded water distribution facilities. As described in Impact 18(c), the proposed project would be

[93] Sonoma Water. 2016. Airport-Larkfield-Wikiup Sanitation Zone, Sewer System Management Plan.
[94] Sonoma Clean Power. 2019. About Us. Website: https://sonomacleanpower.org/our-vision. Accessed: June 5, 2019.
[95] Town of Windsor. Website: https://www.townofwindsor.com/469/Resident-Information.

served by sufficient wastewater treatment capacity and would not require new or expanded wastewater treatment facilities.

As part of construction activity, the project would install a stormwater bioretention area along the southern boundary of the project site. The project would include new stormwater drainage lines within the project site that would convey all project stormwater to the new retention basin and existing stormwater connections within Shiloh Road and Skylane Boulevard. As discussed under Impact 9, the project would provide a stormwater facility with sufficient capacity to serve the project site. Construction of project stormwater infrastructure would be required to abide by applicable federal, state, and local regulations, as well as mitigation measures outlined in this document, to avoid significant environmental impact. As discussed in Impact 10c), the stormwater system has been designed and sized to appropriately handle stormwater flows generated on the project site and would not require new or expanded off-site stormwater facilities.

The existing-single family home currently connects to electric power lines on Shiloh Road. The project would connect via underground connections and would not include new above-ground power lines. The project would not remove or replace natural gas or telecommunications facilities because none currently are known to exist on-site. The project would connect to electricity, natural gas, and telecommunication facilities located in the immediate proximity of the project site. Electricity and natural gas connections would be coordinated with the utility provider. Construction of these connections would be required to abide by applicable federal, state, and local regulations, as well as mitigation measures outlined in this document, to avoid significant environmental impact.

In summary, the project would not require the relocation or construction of new water, wastewater, storm drainage, electrical power, natural gas, or telecommunications facilities outside of those proposed on-site and considered within this IS/MND. Therefore, impacts would be less than significant.

b) Have sufficient water supplies available to serve the project and reasonably foreseeable future development during normal, dry and multiple dry years?

Less than significant impact. The WWD would provide potable water service to the project site. As described previously, the WWD provides 5,625 AFY of potable water under average annual conditions and 8.7 mgd under maximum flow conditions. Based on the 2015 UWMP, average household water use in the Town of Windsor is estimated to be 101 gallons per day per capita.[96] Based on this amount, the estimated water usage of the 85 new residents due to the project would be approximately 9.6 AFY. As a result, the project's estimated water demand would represent less than one percent of the total Town of Windsor water supply in 2040. As described in the 2015 Urban Water Management Plan, there are sufficient water supplies to serve the Town through the year 2040 in normal, single-dry, and multiple-dry water years. Additionally, the Urban Water Management Plan includes consideration of General Plan build out, such as the development of the project site. This project is consistent with the General Plan designations and as a result, is

[96] GHD. 2016. 2015 UWMP for the Town of Windsor Water District, page lv.

accounted for in the water supply assessment. Therefore, the Town would have adequate water supplies to serve the project.

c) Result in a determination by the wastewater treatment provider which serves or may serve the project that it has adequate capacity to serve the project's projected demand in addition to the provider's existing commitments?

Less than significant impact. Implementation of the project would result in the demand for water and the generation of wastewater. Sewer service would be provided to the project site via connection to an existing sewer main located in Skylane Boulevard under an expanded agreement between Sonoma County and the Town of Windsor.

As discussed previously, the current average daily dry weather flow treated at the Windsor WWTP is 1.4 mgd, while the permitted capacity is 1.6 mgd, leaving excess capacity of 0.2 mgd. The Town of Windsor would have sufficient capacity to serve the General Plan area, which includes the project site, with implementation of General Plan policies PFS-3.1 through 3.4 and PFS-3.7 through 3.9. These policies would ensure the wastewater system, treatment, and discharge capacity would be sufficient to the serve the Town and would include new development fees to fund necessary improvements.[97] In addition, the project is consistent with the General Plan land use designations for the project site and as a result, would be accounted for in the wastewater capacity analysis of the General Plan buildout. Therefore, the project would be served by sufficient wastewater treatment capacity and would not result in the need for additional wastewater capacity. Impacts would be less than significant.

d) Generate solid waste in excess of State or local standards, or in excess of the capacity of local infrastructure, or otherwise impair the attainment of solid waste reduction goals?

Less than significant impact. Project construction would require demolishing the existing residence and associated structures, which would create waste. However, this waste would be temporary and not continually produced throughout the life of the project, so impacts would not be significant.

With new residents, demand for solid waste services should increase. It is estimated that the residential part of the project would generate 330 pounds of solid waste per day,[98] or 120,526 pounds per year (60.3 tons).[99] The neighborhood market portion of the project is estimated to generate 90.5 pounds of solid waste per day,[100] or 33,025 pounds per year (16.5 tons).[101] Combined, the project would be expected to generate 421 pounds of solid waste per day, or 153,552 pounds

[97] Town of Windsor. 2017. Rincon Consultants, Inc. General Plan EIR, page 332.
[98] Calculation: (12.23 pounds solid waste/household/day) X 27 units = 330 pounds solid waste/day
[99] California Department of Resources, Recycling, and Recovery. 2019. Estimated Slid Waste Generation Rates. Website: https://www2.calrecycle.ca.gov/wastecharacterization/general/rates. Accessed May 1, 2019.
[100] The proposed market would be 2900 sf. Calculation: (3.12 pounds solid waste/100 sf/day) X 29 = 90.5 pounds solid waste/day
[101] California Department of Resources, Recycling, and Recovery. 2019. Estimated Slid Waste Generation Rates. Website: https://www2.calrecycle.ca.gov/wastecharacterization/general/rates. Accessed May 1, 2019.

per year (76.8 tons). This represents approximately three percent of the Central Disposal Site landfill's maximum permitted daily throughput, and the landfill has ample remaining capacity.

Consistent with California State Assembly Bills 341 and 1826, the project would be required to provide a recycling program that would divert recyclables and organic recyclable materials, such as yard trimmings, from landfills.[102,103] Project waste diversion measures would contribute toward achieving a 50 percent waste diversion as mandated by the California Integrated Waste Management Act. As a result, the project would not generate solid waste in excess of State or local standards, or exceed the capacity of local infrastructure. Therefore, impacts would be less than significant.

e) Comply with federal, state, and local management and reduction statutes and regulations related to solid waste?

No impact. Solid waste disposal would follow the requirements of the franchised waste hauler, Sonoma County Resource Recovery, which must adhere to federal, state, and local statutes and regulations related to the collection of solid waste. The project would comply with all state and local waste diversion requirements, including Town of Windsor Zoning Ordinance Section 27.20.080 regarding Solid Waste and Recyclable Materials Storage, and the California Solid Waste Reuse and Recycling Access Act (Public Resources Code Sections 42900 - 42911). Because solid waste disposal would be in compliance with federal, State, and local statutes and regulations, no impact would occur.

Mitigation Measures

None.

[102] California State Assembly. 2011. Assembly Bill No. 341. October 5.
[103] California State Assembly. 2014. Assembly Bill No. 1826. September 28.

Environmental Issues	Potentially Significant Impact	Less than Significant Impact with Mitigation Incorporated	Less than Significant Impact	No Impact
18. Wildfire *If located in or near state responsibility areas or lands classified as very high fire hazard severity zones, would the project:*				
a) Substantially impair an adopted emergency response plan or emergency evacuation plan?	☐	☐	☒	☐
b) Due to slope, prevailing winds, and other factors, exacerbate wildfire risks, and thereby expose project occupants to, pollutant concentrations from a wildfire or the uncontrolled spread of a wildfire?	☐	☐	☒	☐
c) Require the installation or maintenance of associated infrastructure (such as roads, fuel breaks, emergency water sources, power lines, or other utilities) that may exacerbate fire risk or that may result in temporary or ongoing impacts to the environment?	☐	☐	☒	☐
d) Expose people or structures to significant risks, including downslope or downstream flooding or landslides, as a result of runoff, post-fire slope instability, or drainage changes?	☐	☐	☒	☐

Environmental Evaluation

Setting

A "State Responsibility Area" (SRA) means areas of the State in which the financial responsibility of preventing and suppressing fires has been determined by the board pursuant to Section 4125, to be primarily the responsibility of the State. The project site is not located in designated fire hazard zone in a SRA or "Local Responsibility Area" (LRA). The closest moderate fire hazard zone is located 1.44 miles to the west of the project site. [104]

Would the project:

a) Substantially impair an adopted emergency response plan or emergency evacuation plan?

Less than significant impact. As described in Impact 8f, the project would not modify any existing roadways in a way that would impede emergency access or evacuation. In addition, all project site access driveways would be designed to meet requirements for emergency vehicle use and access. The

[104] California Department of Forestry and Fire Protection (CAL FIRE). Fire Hazard Severity Zones in SRA and LRA.

project's proposed internal roadways would facilitate emergency vehicle access to all buildings. Therefore, impacts would be less than significant.

b) Due to slope, prevailing winds, and other factors, exacerbate wildfire risks, and thereby expose project occupants to, pollutant concentrations from a wildfire or the uncontrolled spread of a wildfire?

Less than significant impact. The project site is relatively flat with no steep slopes. The BAAQMD records meteorological data, including average wind speed. During 2017, the closest station to the site was the Napa station which recorded average wind speeds that range from 5 mph (miles per hour) to 7 mph.[105] The BAAQMD Station in Napa is located in a similar climate as the Town of Windsor and as such, has similar average wind speeds. The project site would be expected to experience similar wind speed conditions as experienced in Napa, California and would not be susceptible to significantly high wind speeds that could exacerbate risk of spreading wildfires. Given that the project site is not located in or near an area of steep terrain nor experiences consistent high winds, the project site would be not be prone to greater wildfire risk than other properties in the vicinity. Therefore, impacts would be less than significant.

c) Require the installation or maintenance of associated infrastructure (such as roads, fuel breaks, emergency water sources, power lines, or other utilities) that may exacerbate fire risk or that may result in temporary or ongoing impacts to the environment?

Less than significant impact. As described previously, the project would install driveways to connect the project site to Shiloh Road and Skylane Boulevard. All new roads would be at least 20 feet wide and consistent with California Fire Code. Additionally, the project would not require emergency water sources, because sufficient water supplies would be provided by the WWD. Therefore, impacts would be less than significant.

d) Expose people or structures to significant risks, including downslope or downstream flooding or landslides, as a result of runoff, post-fire slope instability, or drainage changes?

Less than significant impact. The project site and surrounding area is flat and does not contain steep slopes. Although Sonoma County has experienced significant damage for recent wildfires, the project site has not previously been directly damaged. Additionally, the project site has not been previously affected by fires or contain post-fire slope instability. As a result, it would not expose people to significant risks of downslope or downstream flooding. Therefore, impacts would be less than significant.

Mitigation Measures

None.

[105] Bay Area Air Quality Management District (BAAQMD). 2019. Website: http://www.baaqmd.gov/about-air-quality/current-air-quality/air-monitoring-data/#/met?id=203&style=table&zone=-1&date=2019-09-20&view=monthly. Accessed March 31, 2020.

Environmental Issues	Potentially Significant Impact	Less than Significant Impact with Mitigation Incorporated	Less than Significant Impact	No Impact
19. Mandatory Findings of Significance				
a) Does the project have the potential to substantially degrade the quality of the environment, substantially reduce the habitat of a fish or wildlife species, cause a fish or wildlife population to drop below self-sustaining levels, threaten to eliminate a plant or animal community, substantially reduce the number or restrict the range of a rare or endangered plant or animal, or eliminate important examples of the major periods of California history or prehistory?	☐	☒	☐	☐
b) Does the project have impacts that are individually limited, but cumulatively considerable? ("Cumulatively considerable" means that the incremental effects of a project are considerable when viewed in connection with the effects of past projects, the effects of other current projects, and the effects of probable future projects)?	☐	☒	☐	☐
c) Does the project have environmental effects, which will cause substantial adverse effects on human beings, either directly or indirectly?	☐	☒	☐	☐

Environmental Evaluation

a) Does the project have the potential to substantially degrade the quality of the environment, substantially reduce the habitat of a fish or wildlife species, cause a fish or wildlife population to drop below self-sustaining levels, threaten to eliminate a plant or animal community, substantially reduce the number or restrict the range of a rare or endangered plant or animal, or eliminate important examples of the major periods of California history or prehistory?

Less than significant impact with mitigation incorporated. The proposed project may result in impacts associated with biological and cultural resources that would be significant if left unmitigated. Implementation of mitigation as outlined in this IS/MND (MM BIO-1a, BIO-1b, BIO-2, CUL-1, and CUL-2) would fully mitigate all potential impacts to levels of less than significant. With the implementation of these mitigation measures, the proposed project would have less than significant impacts.

b) Does the project have impacts that are individually limited, but cumulatively considerable? ("Cumulatively considerable" means that the incremental effects of a project are considerable when viewed in connection with the effects of past projects, the effects of other current projects, and the effects of probable future projects)?

Less than significant impact with mitigation incorporated. Implementation of mitigation as outlined in this IS/MND would reduce all potentially significant impacts to less than significant. Given the project's size and impacts with associated mitigation measures, the incremental effects of this project are not considerable relative to the effects of past, current, and probable future projects. Therefore, the proposed project would not result in cumulatively considerable impacts, and impacts would be less than significant.

c) Does the project have environmental effects, which will cause substantial adverse effects on human beings, either directly or indirectly?

Less than significant impact with mitigation incorporated. As described throughout the preceding environmental checklist, the project would not have any substantial environmental effects on human beings, either directly or indirectly. All impacts identified throughout this IS/MND either have been mitigated to less than significant levels or do not require mitigation. The proposed mitigation measures (MM AIR-1, BIO-1a, BIO-1b, BIO-2, CUL-1, CUL-2, GEO-1, GEO-2, GHG-1, HAZ-1, LUP-1, NOI-1, TRANS-1a, TRANS-1b) once implemented would ensure that no substantial adverse effects on human beings would result from the project. Therefore, impacts would be less than significant.

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