



Civil and Transportation Engineering

1383 Laurel Street San Carlos, California Transportation Demand Management Plan

February 5, 2022

Project Description

The proposed development project consists of a four story building located on the northeast corner of Laurel Street and Belmont Avenue containing 15 residential dwelling units and 1,500 square feet of commercial floor space. There will be 16 parking spaces for vehicles and seven bicycle parking spaces, four for short term parking and three for long term parking. The building will be located 300 feet from El Camino Real where there are bus stops for the Samtrans ECR bus route.

Vehicle Trip Generation

The development is projected to generate eight trip ends during the weekday morning peak traffic hour, 10 trip ends during the afternoon peak traffic hour, and 115 trip ends on a daily basis on an average weekday. The estimate takes into consideration the effect that income has on vehicle trip generation. The National Household Travel Survey of 2017 contains data on trip generation based on income level. A detailed description of the estimated vehicle trip generation and the NHTS data are contained in the Appendix.

Parking Generation

The estimate of peak parking demand is base in part on data contained in the Institute of Transportation Engineers, *Parking Generation*, ©2020 and Assembly Bill No. 2345 which amends Sections 65400 and 65915 of the California Government Code. The total estimated peak parking demand is 16 vehicles and and the proposed development is providing 16 spaces. A detailed description of the parking generation estimate is provided in the Appendix

Trip Reduction Measures

The San Carlos Municipal Code Chapter 18.25, Transportation Demand Management, describes 22 trip reduction measures that can be implemented by a proposed development to reduce vehicle trip generation. See Table A on the following page for the proposed trip reduction measures.

1383 Laurel Street, San Carlos
Transportation Demand Management
Trip Reduction Measures
TABLE A

	Code Requirement	Project Provided	C/CAG Peak Hour Trip Reduction Credits	Project Peak Hour Trip Credits
A	Passenger Loading Zone for carpool and vanpool drop-off located near main building entrance.	None. Not applicable to residential use.	N/A	0
B	Direct Route to Transit	The project site is one block (300') from El Camino Real on Belmont Avenue which has sidewalks. There are bus stops on El Camino Real on both sides of the street for Samtrans Route ECR which connects to the San Carlos Caltrain Station at San Carlos Avenue.	N/A	0
C	Pedestrian Connections	The project site located on the northeast corner of Laurel Street & Belmont Avenue. Both streets have pedestrian sidewalks on both sides of the streets.	N/A	0
D	Bicycle Connection	There are no designated bike lanes on either Laurel Street or Belmont Avenue	N/A	0
E	Land Dedication for Transit/Bus Shelter	The two bus stops on El Camino Real have bus benches for waiting riders.	N/A	0
F	Long-Term Bicycle Parking	The project will provide a room for bicycle storage for three long-term parking.	One peak hour trip credit for each three bike racks.	1
G	Short-Term Bicycle Parking	The project will provide a room for bicycle storage for four short-term parking.	One peak hour trip credit for each three bike racks.	1
H	Free Preferential Carpool and Vanpool Parking	None. Not applicable to residential use.	N/A	0
I	Showers/Clothes Lockers	Each residential unit will have one or more full bathrooms with shower/tub.	10 peak hour trip credits for each new shower/changing room, plus five additional trip credits when installed in combination with five or more bike lockers.	15
J	Transportation Management Association	None. Not applicable to residential use.	N/A	0
K	Paid Parking at Prevalent Market Rates	Resident parking is free.	N/A	0
L	Alternative Commute Subsidies/Parking Cash Out	None. Not applicable to residential use.	N/A	0
M	Carpool and Vanpool Ride Matching Services	None. Not applicable to residential use.	N/A	0
N	Guaranteed Ride Home	None. Not applicable to residential use.	N/A	0
O	Shuttle Program	None. Not applicable to residential use.	N/A	0
P	Information Boards/Kiosks	A transit information board will be provided in the lobby of the building for residents and one transit information board will be provided in the commercial space.	One peak hour trip credit for each transit information center amenity	2
Q	Promotional Programs	None. Not applicable to residential use.	N/A	0
R	Compressed Work Week	None. Not applicable to residential use.	N/A	0
S	Flextime	None. Not applicable to residential use.	N/A	0
T	On-Site Amenities	None. Not applicable to residential use.	N/A	0
U	Telecommuting	None. Not applicable to residential use.	N/A	0
V	Other Measures	None. Not applicable to residential use.	N/A	0

Total Peak Hour Trip Credits: 19
PM Peak Hour Trip Ends: 10
Net Peak Hour Trip Ends: -9

Vehicle Accessibility

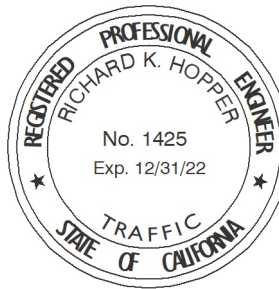
Attached is a plan showing the accessibility of vehicles to exit and enter the building off of the alley behind the building. The passenger design vehicle is the one prescribed by the American Association of State Highway and Transportation Officials (AASHTO) in their publication, *A Policy on Geometric Design of Highways and Streets*, © 2018. The parking maneuverability within the structure complies with City of San Carlos parking design standards, SCMC Figure 18.20.100-F(1). The minimum backup space provided is 25'-9 3/4" and the city standard is 24'.

Conclusions

The Transportation Demand Management Plan complies with Chapter 18.25 of the San Carlos Municipal Code. The trip credits reduce the vehicle trip generation projections to less than 0 and the proposed parking supply meets the projected parking demand.

Richard K Hopper

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APPENDIX

**1383 Laurel Street
San Carlos
Vehicle Trip Generation
Wednesday, March 2, 2022**

LAND USE	LU CODE	SIZE	UNITS	TRIP GENERATION RATE*									TRIP GENERATION VOLUME								
				A.M. PEAK HOUR			P.M. PEAK HOUR			AWDT	A.M. PEAK HOUR			P.M. PEAK HOUR			AWDT				
				IN	OUT	TOTAL	IN	OUT	TOTAL		IN	OUT	TOTAL	IN	OUT	TOTAL					
Multifamily Housing (Low Rise)	220	13	DU	0.10	0.30	0.40	0.32	0.19	0.51	6.74	1	4	5	4	2	7	88				
Multifamily Housing (Low Rise)	220	2	DU	0.10	0.30	0.40	0.32	0.19	0.51	6.74	0	1	1	1	0	1	13				
61% of published rates and volumes*																					
Small Office	712	1,370	KSF	1.37	0.30	1.67	0.73	1.43	2.16	14.34	2	2	0	2	1	2	20				
Total:											3	5	8	6	5	10	115				

Source: ITE Trip Generation, 11th Edition, © 2021

Source: ITE Trip Generation, 11th Edition, © 2021

* 2017 NHTS for income below \$25,000 per year

BMR Units
BMR Units

**1383 Laurel Street
San Carlos
Parking Generation
3/5/22**

Projection of Peak Parking Demand

LAND USE	LU CODE	SIZE	UNITS	Mid-Week Rate	Peak Generation
Multifamily Housing (Low Rise)	220	13	DU	1.13	15
Multifamily Housing (Low Rise)	BMR*	2	DU	0.50	1

Source: ITE Parking Generation, 5th Edition, © 2020 Update

Total: 16

* California Code 65915(p)(2)(A)

Required Parking Supply

Dwelling Unit Type	Number of Units	Required Parking per Unit	Required Parking	Reference
1 BR	7	1	7	SCMC Table 18.20.040-A(1)
1 BR BMR	1	1	1	SCMC Table 18.20.040-A(3)
2+ BR	6	1.5	9	SCMC Table 18.20.040-A(1)
2 BR BMR	1	1	1	SCMC Table 18.20.040-A(3)
Guest Parking	15	1 per 4 DU	4	SCMC Table 18.20.040-A(1)
Total:			22	
TDM Plan	-25%		-5.5	SCMC 18.20.050-A
			-6	SCMC 18.20.040-B(1)
Total Required Parking With TDM			16	

AASHTO P DESIGN VEHICLE
TURNING TEMPLATE

EXISTING 3-STORY
OFFICE BLDG. AND
PARKING LOT

20' WIDE ALLEY

PROPOSED
4-STORY BLDG.

STAIR

STAIR

ELEV.

LAUREL STREET - 61' ROW

BELMONT AVENUE - 60' ROW

PARKING ACCESSIBILITY
1383 LAUREL STREET
SAN CARLOS, CALIFORNIA

PROJECT	202201
DATE	03/05/2022
SCALE	1/16"=1'-0"
Sheet	1 of 1