Appendix H:
Transportation Memorandum

THIS PAGE INTENTIONALLY LEFT BLANK

Kimley»Horn

May 25, 2022

Ms. Tsui Li
Project Manager
First Carbon Solutions
(transmitted via email)

RE: ***3090 Browns Valley Road Subdivision – Transportation Study – Napa, CA***

Dear Ms. Li:

Eden Bridge Homes is proposing to develop 11 single family detached homes and a public cul-de-sac (project) at 3090 Browns Valley Road in Napa, CA. The existing site includes one single family detached home that includes a barn and shed structures that would be demolished as part of the project. Kimley-Horn has been asked to prepare a transportation study that evaluates the project's potential impact related to vehicle miles traveled (VMT) as part of CEQA documentation for the project. This memorandum summarizes the results of the VMT evaluation.

Project Description

Currently, the proposed project would redevelop the existing home, barn, and shed structures at 3090 Browns Valley Road into 11 single family detached homes. The homes would each range from 2,770 square feet to 3,937 square feet and each include 4 to 5 bedrooms. Project access would be through a newly constructed public cul-de-sac off of Brown Valley Road between Thompson Avenue and Robinson Lane on the north side. The site plan dated December 22, 2021 and prepared by RSA+ Consulting Civil Engineers + Surveyors + Land Planners (RSA+) is included in **Attachment A**.

Vehicle Miles Traveled

The City of Napa has not adopted VMT screening criteria but follows the State of California Governor's Office of Planning and Research (OPR) *Technical Advisory on Evaluating Transportation Impacts in CEQA*[1]. Per OPR, many agencies use "screening thresholds" to determine if a project should expect to cause a less than significant VMT impact without conducting a detailed VMT evaluation. One of the screening thresholds is for small projects. Per OPR, projects that generate fewer than 110 daily trips generally may be assumed to cause a less than significant VMT impact.

The proposed project would consist of a net increase of 10 single family residential units (i.e., 11 single family homes minus the existing 1 single family home). To estimate the number of daily trips generated by the 10 single family homes, the Institute of Transportation Engineers (ITE) *Trip*

[1] *Technical Advisory on Evaluating Transportation Impacts in CEQA*, Governor's Office of Planning and Research, December 2018.

Generation Manual, 11th Edition[2] was used. This is the standard reference in the transportation planning industry for estimating vehicle trips. The proposed project can be categorized as land use code 210, Single-Family Detached Housing. For this land use, the weekday daily vehicle trips are based on number of dwelling units (see **Attachment B**). Using the average rate of 9.43 daily vehicle trips per dwelling unit, the proposed project would result in 94 daily vehicle trips generated.

Since the proposed project would generate 94 daily vehicle trips, it meets the 110 daily trip threshold to qualify as a small project for the purposes of VMT screening criteria per OPR. Therefore, this project is considered a small project and can be assumed to cause a less than significant VMT impact.

Sincerely,

Ben Huie, P.E.
California Professional Engineer #C76682

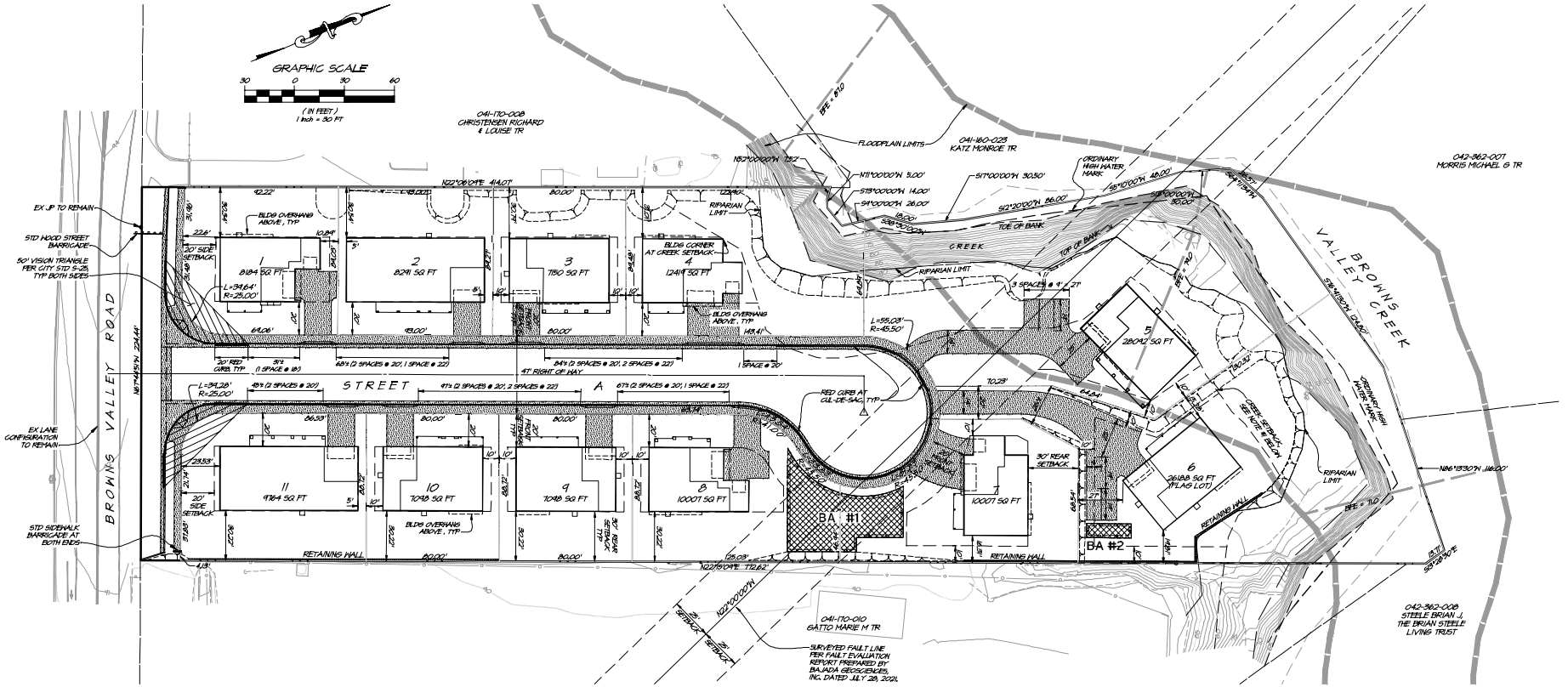
[2] *Trip Generation Manual, 11th Edition*, Institute of Transportation Engineers, 2021.

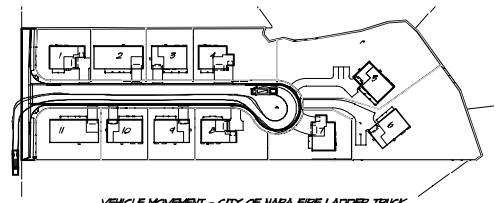
Attachments

Attachment A – Site Plan

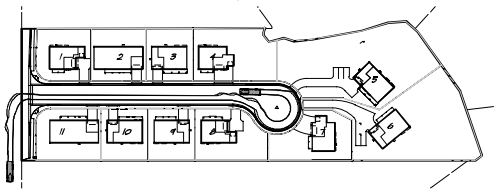
Attachment B – ITE Trip Generation Manual, 11th Edition – Land Use Codes 210

Attachment A





VEHICLE MOVEMENT - CITY OF NAPA FIRE LADDER TRUCK
SCALE: 1" = 100'



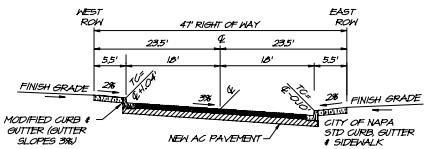
VEHICLE MOVEMENT - CITY OF NAPA REFUSE COLLECTION TRUCK
SCALE: 1" = 100'

PARKING TABLE

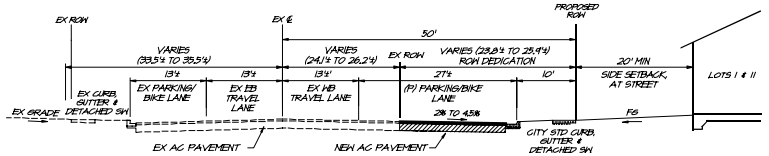
LOT	PLAN TYPE	# OF BEDROOMS	PARKING SPACES REQUIRED	PARKING PROVIDED			
				GARAGE	DRIVEWAY	ON-STREET	TOTAL
1	2B	5	6 [1,2]	3	2	1	6
2	1D	4	5 [1,2]	2	2	1	5
3	3A	5	6 [1,2]	3	2	1	6
4	2C	5	6 [1,2]	3	3	1	7
5	3A	5	6 [1,2]	3	3	0	6
6	3B	5	6 [1,2,3]	3	3	0	6
7	2C	5	6 [1,2]	3	3	0	6
8	2A	5	6 [1,2]	3	2	1	6
9	3B	5	6 [1,2]	3	2	1	6
10	3C	5	6 [1,2]	3	2	1	6
11	1A	4	5 [1,2]	2	2	1	5
EXTRA						10	10
		TOTAL	64	31	26	18	75

1. PARKING SPACES REQUIRED FOR DETACHED, SINGLE FAMILY HOMES PER NAPA MUNICIPAL CODE 17.54.040 "PARKING REQUIREMENTS".
2. PARKING SPACES REQUIRED FOR SINGLE FAMILY HOME GUEST PARKING PER NAPA MUNICIPAL CODE 17.54.040 "PARKING REQUIREMENTS".
3. PARKING SPACES REQUIRED FOR FLAG LOT PER NAPA MUNICIPAL CODE 17.52.140 "FLAG LOTS".
4. ADDITIONAL PARKING IS AVAILABLE ALONG THE NEW FRONTAGE OF BROWNS VALLEY ROAD BUT IT IS NOT INCLUDED IN THE TOTALS ABOVE.

NOTES:
1. ALONG THE CREEK, THE STRUCTURAL SETBACK SHOWN ABOVE WAS CALCULATED FROM THE TOE OF THE CREEK BANK AND IS EQUAL TO TWO TIMES THE DEPTH OF THE BANK PLUS 20 FEET PER MUNICIPAL CODE SECTION 17.52.110.
2. THE PROJECT PROPOSES TO UTILIZE SMALL LOT DEVELOPMENT STANDARDS THROUGH A USE PERMIT FOR LOTS 1-3 AND 9-11. THESE LOTS HAVE LESS THAN 10,000 SQ FT LOT SIZE AND MINIMUM 5' SIDE SETBACKS PER MUNICIPAL CODE SECTION 17.52.410.



TYPICAL STREET A SECTION
NOT TO SCALE



TYPICAL SECTION @ BROWNS VALLEY ROAD
SCALE: 1" = 10'

BROWNS VALLEY ROAD SUBDIVISION
SITE LAYOUT
NAPA CALIFORNIA

RSA+ CIVIL ENGINEERS • SURVEYORS • PLANNERS
1195 FOURTH STREET NAPA, CA 94559
OFFICE 707.252.8301
www.RSAcivil.com
RSA+ CONSULTING CIVIL ENGINEERS • SURVEYORS • PLANNERS

NO	DATE	REVISIONS	BY	APP'D

REGISTERED PROFESSIONAL ENGINEER
ROBIN MASON BOBBS
No. 80885
CIVIL
STATE OF CALIFORNIA

DATE: DECEMBER 22 2021
DRAWN: DEL
DESIGNED: RAY
CHECKED: DMD
JOB NO.: 4210080

SHEET NO.
TM3
3 OF 6 SHEETS

N:\2021\4210080_Browns_Valley_Road_Subdivision\TM\Exhibits.dwg 12/29/2021 11:12AM Elliot COMPLIANT RSA+

Printed on Recycled Paper Please Continue the Cycle

PRELIMINARY - NOT FOR CONSTRUCTION

Land Use: 210
Single-Family Detached Housing

Description

A single-family detached housing site includes any single-family detached home on an individual lot. A typical site surveyed is a suburban subdivision.

Specialized Land Use

Data have been submitted for several single-family detached housing developments with homes that are commonly referred to as patio homes. A patio home is a detached housing unit that is located on a small lot with little (or no) front or back yard. In some subdivisions, communal maintenance of outside grounds is provided for the patio homes. The three patio home sites total 299 dwelling units with overall weighted average trip generation rates of 5.35 vehicle trips per dwelling unit for weekday, 0.26 for the AM adjacent street peak hour, and 0.47 for the PM adjacent street peak hour. These patio home rates based on a small sample of sites are lower than those for single-family detached housing (Land Use 210), lower than those for single-family attached housing (Land Use 251), and higher than those for senior adult housing -- single-family (Land Use 251). Further analysis of this housing type will be conducted in a future edition of *Trip Generation Manual*.

Additional Data

The technical appendices provide supporting information on time-of-day distributions for this land use. The appendices can be accessed through either the ITETripGen web app or the trip generation resource page on the ITE website (https://www.ite.org/technical-resources/topics/trip-and-parking-generation/).

For 30 of the study sites, data on the number of residents and number of household vehicles are available. The overall averages for the 30 sites are 3.6 residents per dwelling unit and 1.5 vehicles per dwelling unit.

The sites were surveyed in the 1980s, the 1990s, the 2000s, and the 2010s in Arizona, California, Connecticut, Delaware, Illinois, Indiana, Kentucky, Maryland, Massachusetts, Minnesota, Montana, New Jersey, North Carolina, Ohio, Ontario (CAN), Oregon, Pennsylvania, South Carolina, South Dakota, Tennessee, Vermont, Virginia, and West Virginia.

Source Numbers

100, 105, 114, 126, 157, 167, 177, 197, 207, 211, 217, 267, 275, 293, 300, 319, 320, 356, 357, 367, 384, 387, 407, 435, 522, 550, 552, 579, 598, 601, 603, 614, 637, 711, 716, 720, 728, 735, 868, 869, 903, 925, 936, 1005, 1007, 1008, 1010, 1033, 1066, 1077,1078, 1079

Single-Family Detached Housing
(210)

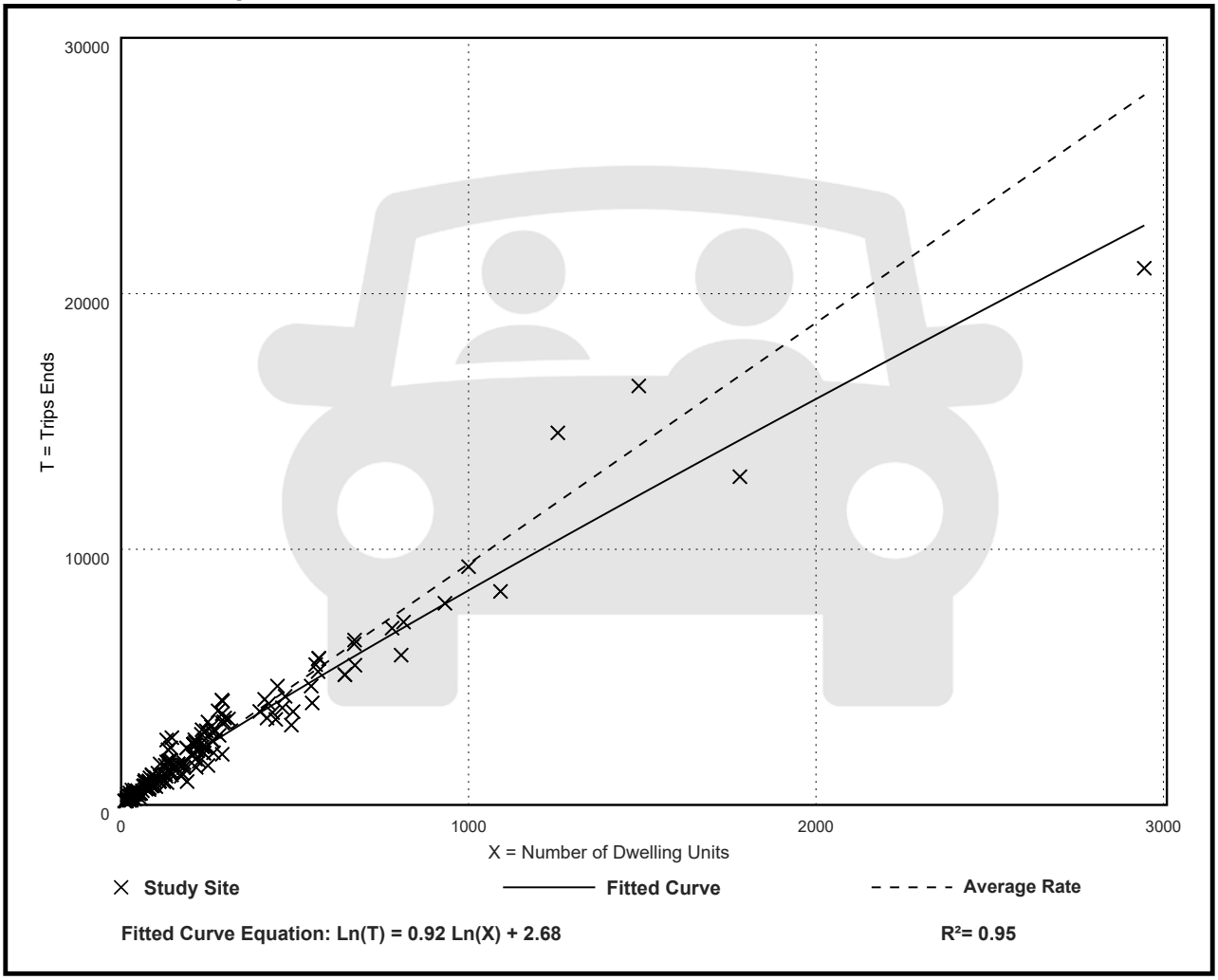
Vehicle Trip Ends vs: Dwelling Units
On a: Weekday

Setting/Location: General Urban/Suburban
Number of Studies: 174
Avg. Num. of Dwelling Units: 246
Directional Distribution: 50% entering, 50% exiting

Vehicle Trip Generation per Dwelling Unit

Average Rate	Range of Rates	Standard Deviation
9.43	4.45 - 22.61	2.13

Data Plot and Equation



Fitted Curve Equation: Ln(T) = 0.92 Ln(X) + 2.68

R^2= 0.95