

BASELINE ENGINEERING, INCORPORATED

Land Development Professional Services

May 19, 2016

Kathy Thompson, Planner
City of Buckley

Via E-mail: cityplanner@cityofbuckley.com



RE: Couls Cottage Housing – Traffic Response Letter
Permit #SCH-3089
BASELINE Project No. 14-087

Kathy:

With regards to the above referenced project a quick and simple analysis with concerns over traffic can be answered in part by review of collected and reported data through the Institute of Transportation Engineers (ITE) Trip Generation Manual.

Attached please find copies of pages 262 through 265 of the 6th edition volume 1 of 3. Page 262 explains the data and typical characteristics associated with traffic and single-family detached housing. Page 263 graphs collected data and renders an average rate for "Average daily trips (ADT's) on a weekday. The reported value is 9.57 ADT's per dwelling unit. This then would equate to $12 \times 9.57 = 114.8$ total average trips for the proposed 12 lot development.

Page 264 graphs the results of studies pertaining to AM Peak Hour trips for weekdays. Again the report shows an average rate of 0.75. Thus $12 \times 0.75 = 9.00$ average AM peak trips for the overall proposed development.

Page 265 graphs the results of studies pertaining to PM Peak Hour trips for weekdays. Again the report shows an average rate of 1.01. Thus $12 \times 1.01 = 12.12$ average PM peak trips for the overall proposed development.

Based on these numbers, we find the project under the thresholds of requiring any additional traffic reports and/or analysis.

Should you have any questions or require any additional information and/or documentation, please do not hesitate to contact me.

Thank you.

Terrell C. Ferguson, PLS
14087trafficltr.doc

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Land Use: 210

Single-Family Detached Housing

Description

Single-family detached housing includes all single-family detached homes on individual lots. A typical site surveyed is a suburban subdivision.

Additional Data

The peak hour of the generator typically coincides with the peak hour of the adjacent street traffic.

The sites were surveyed from the late 1960s to the mid-1990s throughout the United States and Canada.

The number of vehicles and the number of residents have a high correlation with average weekday vehicle trip ends. The use of these variables is limited, however, because the number of vehicles and residents is often difficult to obtain or predict. The number of dwelling units is generally used as the independent variable of choice because it is usually readily available, easy to project, and has a high correlation with average weekday vehicle trip ends.

This land use includes data from a wide variety of units with different sizes, price ranges, locations, and ages. Consequently, there is a wide variation in trips generated within this category. As expected, dwelling units that were larger in size, more expensive, or farther away from the central business district (CBD) had a higher rate of trip generation per unit than those smaller in size, less expensive, or closer to the CBD. Other factors, such as geographic location and type of adjacent and nearby development, may also have had an effect on the site trip generation.

Single-family detached units have the highest trip generation rate per dwelling unit of all residential uses, because they are the largest units in size and have more residents and more vehicles per unit than other residential land uses; they are generally located farther away from shopping centers, employment areas, and other trip attractors than are other residential land uses; and they generally have fewer alternate modes of transportation available, because they are typically not as concentrated as other residential land uses.

Source Numbers

1, 4, 5, 6, 7, 8, 11, 12, 13, 14, 16, 19, 20, 21, 26, 34, 35, 36, 38, 40, 71, 72, 84, 91, 98, 100, 105, 108, 110, 114, 117, 119, 157, 167, 177, 187, 192, 207, 211, 246, 275, 283, 293, 300, 319, 320, 357, 384, 435

Single-Family Detached Housing (210)

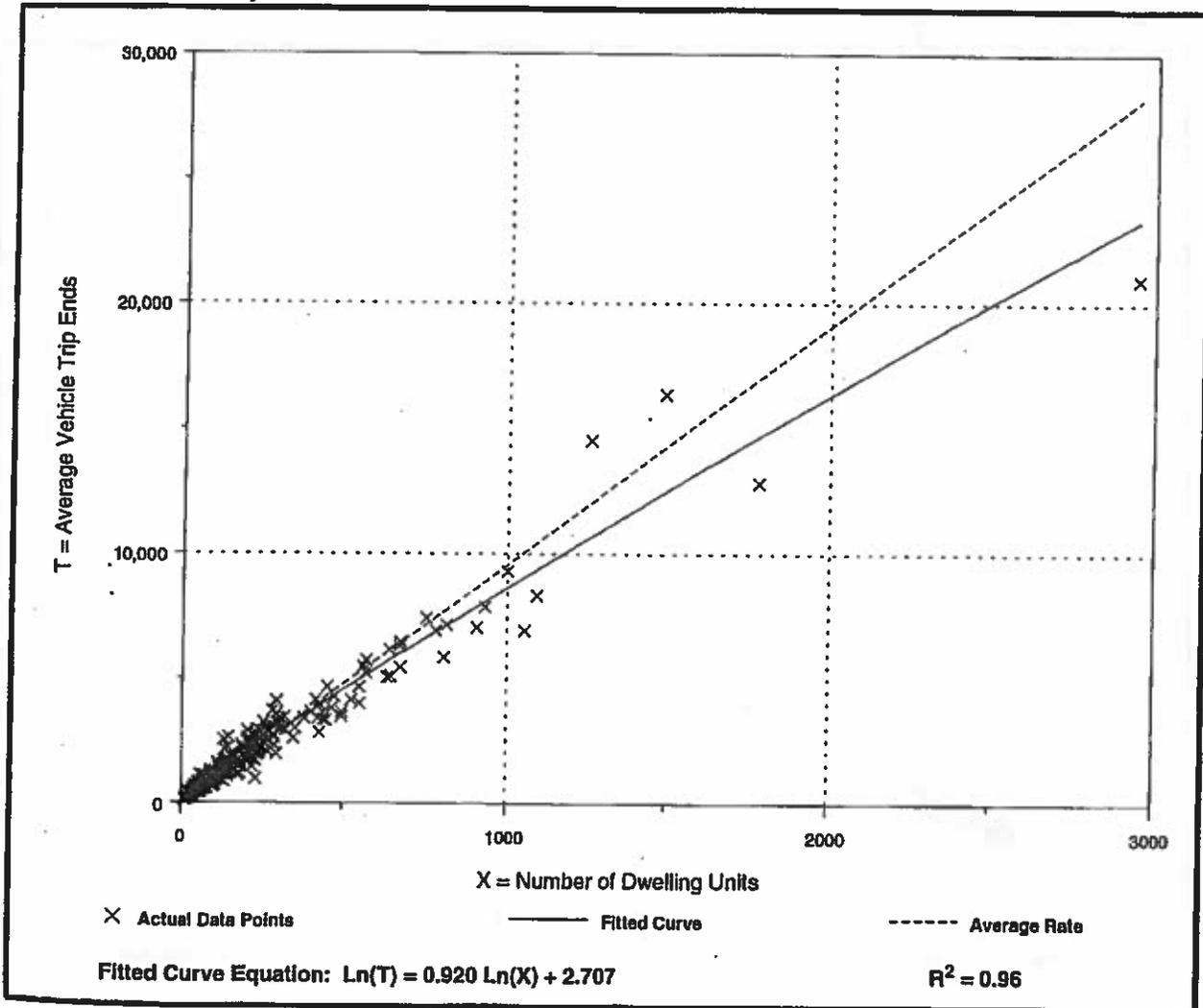
Average Vehicle Trip Ends vs: Dwelling Units
On a: Weekday

Number of Studies: 348
Avg. Number of Dwelling Units: 198
Directional Distribution: 50% entering, 50% exiting

Trip Generation per Dwelling Unit

Average Rate	Range of Rates	Standard Deviation
9.57	4.31 - 21.85	3.69

Data Plot and Equation



Single-Family Detached Housing (210)

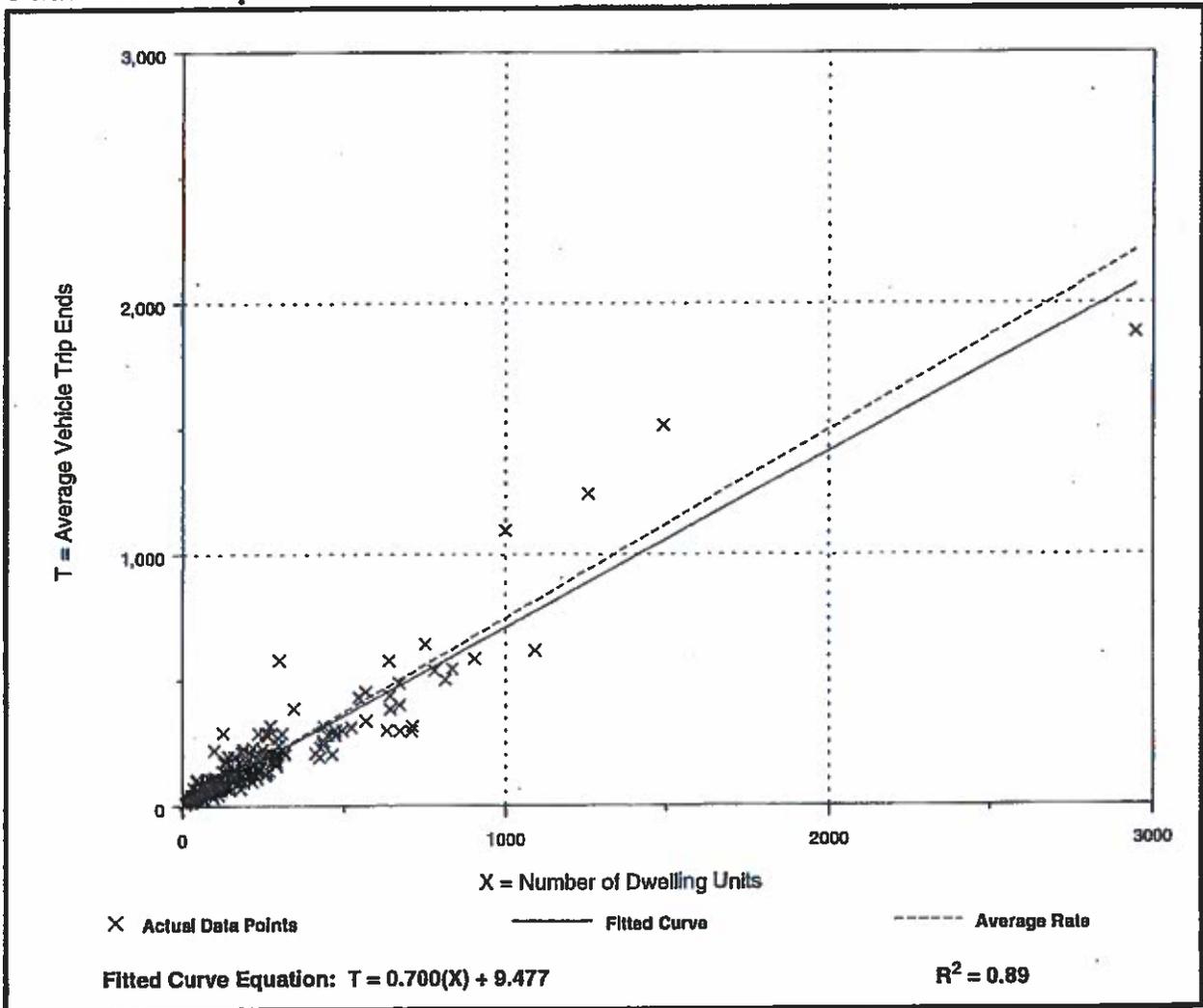
Average Vehicle Trip Ends vs: Dwelling Units
On a: Weekday,
Peak Hour of Adjacent Street Traffic,
One Hour Between 7 and 9 a.m.

Number of Studies: 271
 Avg. Number of Dwelling Units: 202
 Directional Distribution: 25% entering, 75% exiting

Trip Generation per Dwelling Unit

Average Rate	Range of Rates	Standard Deviation
0.75	0.33 - 2.27	0.90

Data Plot and Equation



Single-Family Detached Housing (210)

Average Vehicle Trip Ends vs: Dwelling Units
On a: Weekday,
Peak Hour of Adjacent Street Traffic,
One Hour Between 4 and 6 p.m.

Number of Studies: 294
 Avg. Number of Dwelling Units: 216
 Directional Distribution: 64% entering, 36% exiting

Trip Generation per Dwelling Unit

Average Rate	Range of Rates	Standard Deviation
1.01	0.42 - 2.98	1.05

Data Plot and Equation

