Trip Generation & Distribution Letter

RP56N05W263150A – River Ranch Subdivision

Clagstone Land LLC.

The purpose of this trip generation and distribution letter is to assist Bonner County Road & Bridge and the county engineer in determining whether a traffic impact analysis will be required for the proposed development. This letter is also to supply Bonner County with the data needed to perform a concurrency analysis using their Travel Demand Model.

Project Location

The project is located off of Highway 2 approximately 0.2 miles West of Bodie Canyon Road. Per the Bonner County GIS website, Highway 2 is owned and maintained by The Idaho Transportation Department, which defines Highway 2 as a Principal Arterial. The proposed access point is approximately:

- 1,700 feet west of Bodie Canyon Rd (Minor Arterial)
- 1,900 feet east of Holly Glenn Rd (Minor Arterial)

Project Action

The existing land use is a vacant lot in the Suburban (S) zoning area. The owner is planning to divide the land into 19 individual lots for single family detached housing development. A new road (Log Drive) is proposed to access each lot with access from Highway 2.
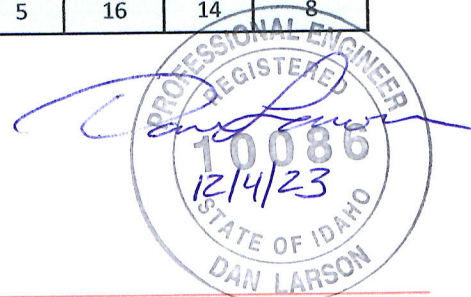
Trip Generation

The number of trips calculated were calculated from 210- Single Family Detached Housing as defined in the Institute of Transportation Engineers Trip Generation Manual (11th Edition) for the weekday and weekday AM Peak hour and weekday PM peak hours.
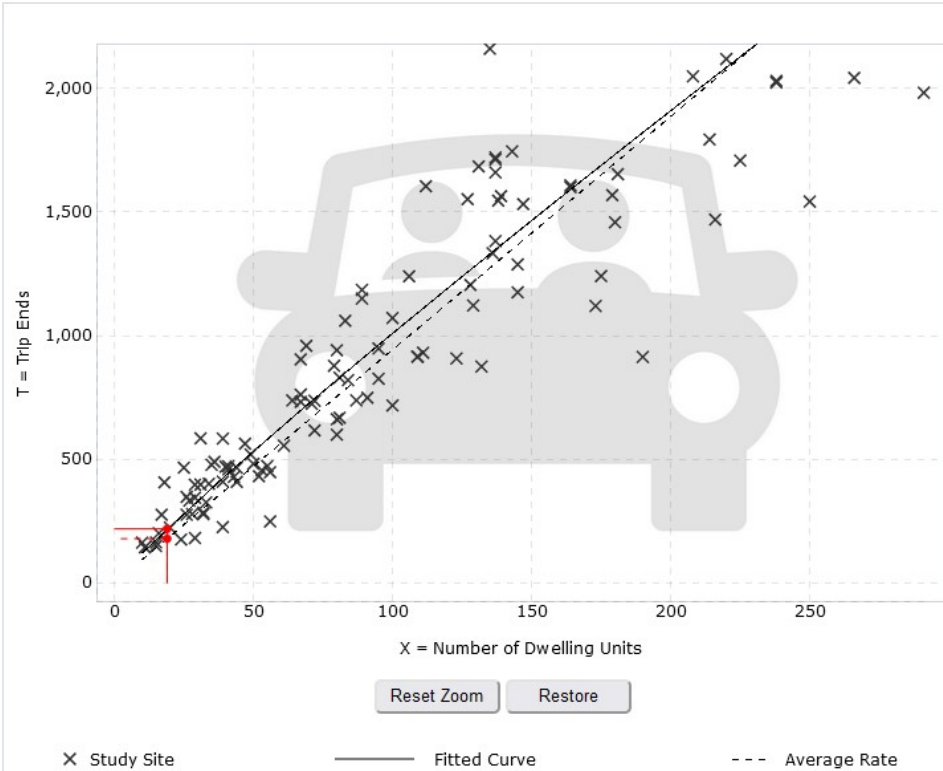
Trip Distribution and Assignment

The methodologies used to distribute and assign project trips are from the 11th Edition of the ITE Manual and are split as percent AM/PM peak hour trips. For further division of trips see attached data.

ITE Code-Description	Units	Total Generated Trips			Total Distribution of Generated Trips			
		Daily	AM Peak Hour	PM Peak Hour	AM in	AM out	PM in	PM out
210 - Single Family Detached Housing	19 DU	219	21	22	5	16	14	8
Total	n/a	219	21	22	5	16	14	8

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ITE Trip Generation – Daily

Data Plot and Equation

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ITE Trip Generation – Peak Hour AM

Data Plot and Equation

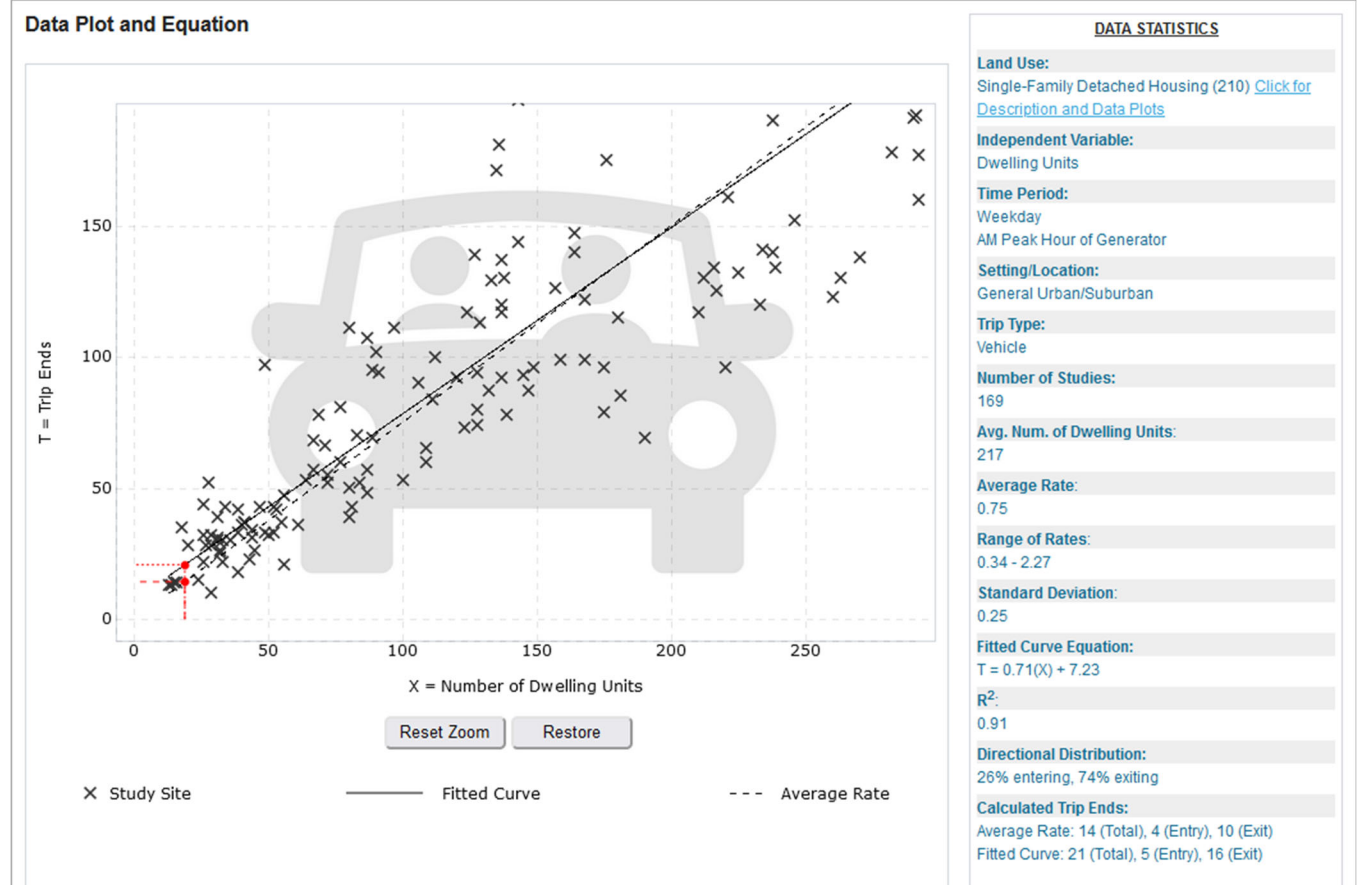Reset Zoom   Restore

X = Number of Dwelling Units
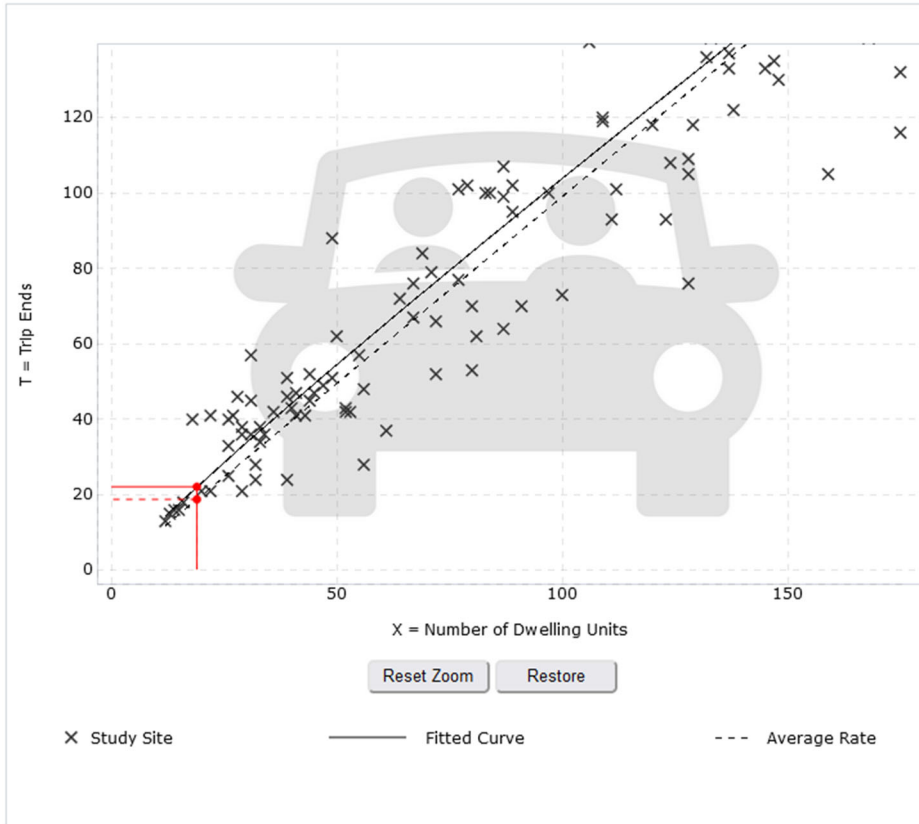
T = Trip Ends

DATA STATISTICS

Land Use:
Single-Family Detached Housing (210) Click for Description and Data Plots

Independent Variable:
Dwelling Units

Time Period:
Weekday
AM Peak Hour of Generator

Setting/Location:
General Urban/Suburban

Trip Type:
Vehicle

Number of Studies:
169

Avg. Num. of Dwelling Units:
217

Average Rate:
0.75

Range of Rates:
0.34 - 2.27

Standard Deviation:
0.25

Fitted Curve Equation:
$T = 0.71(X) + 7.23$

R^2:
0.91

Directional Distribution:
26% entering, 74% exiting

Calculated Trip Ends:
Average Rate: 14 (Total), 4 (Entry), 10 (Exit)
Fitted Curve: 21 (Total), 5 (Entry), 16 (Exit)

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ITE Trip Generation – Peak Hour PM

Data Plot and Equation

X Study Site   —— Fitted Curve   --- Average Rate

DATA STATISTICS

Land Use:
Single-Family Detached Housing (210) Click for Description and Data Plots

Independent Variable:
Dwelling Units

Time Period:
Weekday
PM Peak Hour of Generator

Setting/Location:
General Urban/Suburban

Trip Type:
Vehicle

Number of Studies:
178

Avg. Num. of Dwelling Units:
203

Average Rate:
0.99

Range of Rates:
0.49 - 2.98

Standard Deviation:
0.28

Fitted Curve Equation:
$Ln(T) = 0.93 \, Ln(X) + 0.36$

R^2:
0.92

Directional Distribution:
64% entering, 36% exiting

Calculated Trip Ends:
Average Rate: 19 (Total), 12 (Entry), 7 (Exit)
Fitted Curve: 22 (Total), 14 (Entry), 8 (Exit)

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