

AMBIT ENGINEERING, INC. CIVIL ENGINEERS AND LAND SURVEYORS

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Trip Generation Calculation
Site Redevelopment
10 Lee Road
Madbury, NH

The purpose of this calculation is to identify the net change in vehicle trips expected to be generated by the site re-development at 10 Lee Road in Madbury, NH. Currently the lot has 10 units of apartments in three buildings. The plan is to remove one building (2 units removed with the building) and add a new building to contain 11 apartment units, for a new total of 19 units on the lot.

In developing the expected trips Ambit Engineering considered the standard trip generation rates and equations published in the Institute of Transportation Engineers (ITE) Trip Generation Manual, 9th Edition (2012). The land use category that best correlates with the existing use is Apartment (ITE Land Use Code 220). The trip rates, based upon the number of dwelling units within the project are summarized below for the **Weekday AM and PM Peak Hour, Daily Weekday and Saturday Trips:**

Trip Generation Summary

Existing – Weekday AM Peak Hour

Apartment (0.56 trips per dwelling unit)

$0.56 \times 10 \text{ units} = 6 \text{ trips}$

Total

6 trips

Proposed – Weekday AM Peak Hour

Apartment (0.56 trips per dwelling unit)

$0.56 \times 19 \text{ units} = 11 \text{ trips}$

Total

11 trips

Existing – Weekday PM Peak Hour

Apartment (0.67 trips per dwelling unit)

$0.67 \times 10 \text{ units} = 7 \text{ trips}$

Total

7 trips

Proposed – Weekday PM Peak Hour

Apartment (0.67 trips per dwelling unit)

$0.67 \times 19 \text{ units} = 13 \text{ trips}$

Total

13 trips

Existing – Weekday
Apartment (6.63 trips per dwelling unit) 6.63 x 10 units = 66 trips

Total **66 trips**

Proposed - Weekday
Apartment (6.63 trips per dwelling unit) 6.63 x 19 units = 126 trips

Total **126 trips**

Existing – Saturday
Apartment (6.39 trips per dwelling unit) 6.39 x 10 units = 64 trips

Total **64 trips**

Proposed - Saturday
Apartment (6.39 trips per dwelling unit) 6.39 x 19 units = 121 trips

Total **121 trips**

Trip Generation Impact

The increase anticipated with this project is 5 additional trips in the AM peak hour and 6 additional trips in the PM peak hour. Weekday total trip increase is 60 trips and Saturday total trip increase is 57 trips. The anticipated increase in traffic is negligible and does not substantially alter the traffic conditions. The adjacent street network is designed for uses such as the proposed project.

Please feel free to call if you have any questions or comments.

Sincerely,

John Chagnon

John Chagnon, Project Manager

