

TO PB & PETER NOURSE

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City of Rochester Planning Board
Attn: Planning Department
31 Wakefield Street
Rochester, NH 03867

March 22, 2012

RE: Traffic Narrative
Thompson Investment Castings
41 Old Dover Road

Mr. Chairman and Members of Rochester Planning Board,

In support of the major site plan review for Thompson Investment Castings we are supplying this Brief Traffic Narrative which addresses the increases which will be seen through the further development of the site.

Design Objectives:

Using the Institute of Transportation Engineers (ITE) Trip Generation Manual (7th Edition), we have estimated the existing traffic generation of the prior user of the building based on a Manufacturing Use of 16,400 Sq.Ft., and the proposed Manufacturing use of 32,600 Sq.Ft. This is done using ITE Code 140 for the purposes of comparing the change in volume so as to analyze the need for mitigation.

Existing Traffic Generation:

The AM Peak (7-9AM) and the PM Peak (4-6PM) was analyzed for the existing use being that entering and exiting the site closely relates to this timeframe and is in direct correlation to the Old Dover Road corridor peak usage. The existing use is 16,400 Sq.Ft., with an AM rate of 0.73 Trips and a PM rate of 0.74 Trips / 1000 SF.

AM Peak ~ 12T	<u>9T</u> Entering (77%)	<u>3T</u> Exiting (23%)
PM Peak ~ 12T	<u>4T</u> Entering (36%)	<u>8T</u> Exiting (64%)
Total Daily Trips ~ 63T	<u>32</u> Entering (50%)	<u>31</u> Exiting (50%)

We have estimated that 80% of the traffic turning into and from the site will be from the North (Major Intersection) while 20% is turning into and from the South.

MB
3/27/12

Proposed Traffic Generation:

The AM Peak (7-9AM) and the PM Peak (4-6) was analyzed as is consistent with the existing analysis, using the proposed total area of 34,600 SF at an AM rate of 0.73 Trips and a PM rate of 0.74 Trips / 1000 SF.

AM Peak ~ 25T	20T Entering (77%)	5T Exiting (23%)
PM Peak ~ 25T	9T Entering (36%)	16 Exiting (64%)
Total Daily Trips ~ 132T		

The distribution is estimated to be 80% North, 20% South as is consistent with the existing analysis.

Comparison & Analysis:

Both the AM Peak and PM Peak are well below the 100 Trip benchmark typically used by NHDOT to trigger further turning analysis. The total daily trips are also well below the typical daily trigger for further turning analysis. Both the AM Peak and PM Peak increased by 13 Trips which is a large percentage of increase; however the volume of increase is very low.

Left hand turns out of the site in the afternoon May be challenging and may equate to a low level of service for the employees of Thompson Investment Casting. This is due to the frequent high wait times and extremely long queuing caused by the Old Dover Road / Hancock Street signalized intersection. This wait time does not cause any direct impact on the existing infrastructure or cause any safety concern. Additionally there is no mitigation for this situation other than reconfiguration of the major intersection.

Left hand turns into this site during the troublesome PM Peak hour are estimated to be 2 Trips total and will be relatively unimpeded.

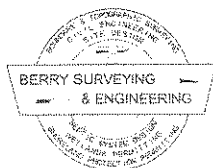
Right hand turns in and out of the site will be unimpeded

Conclusion:

As can be seen the total increase in trips during the peak hour is small and falls well below the Impact Analysis threshold. As with many establishments the level of service for cars making a left hand turn at the end of the day will be low. This has no impact on the surrounding infrastructure.

Berry Surveying & Engineering


David A. Berry PE



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Manufacturing (140)

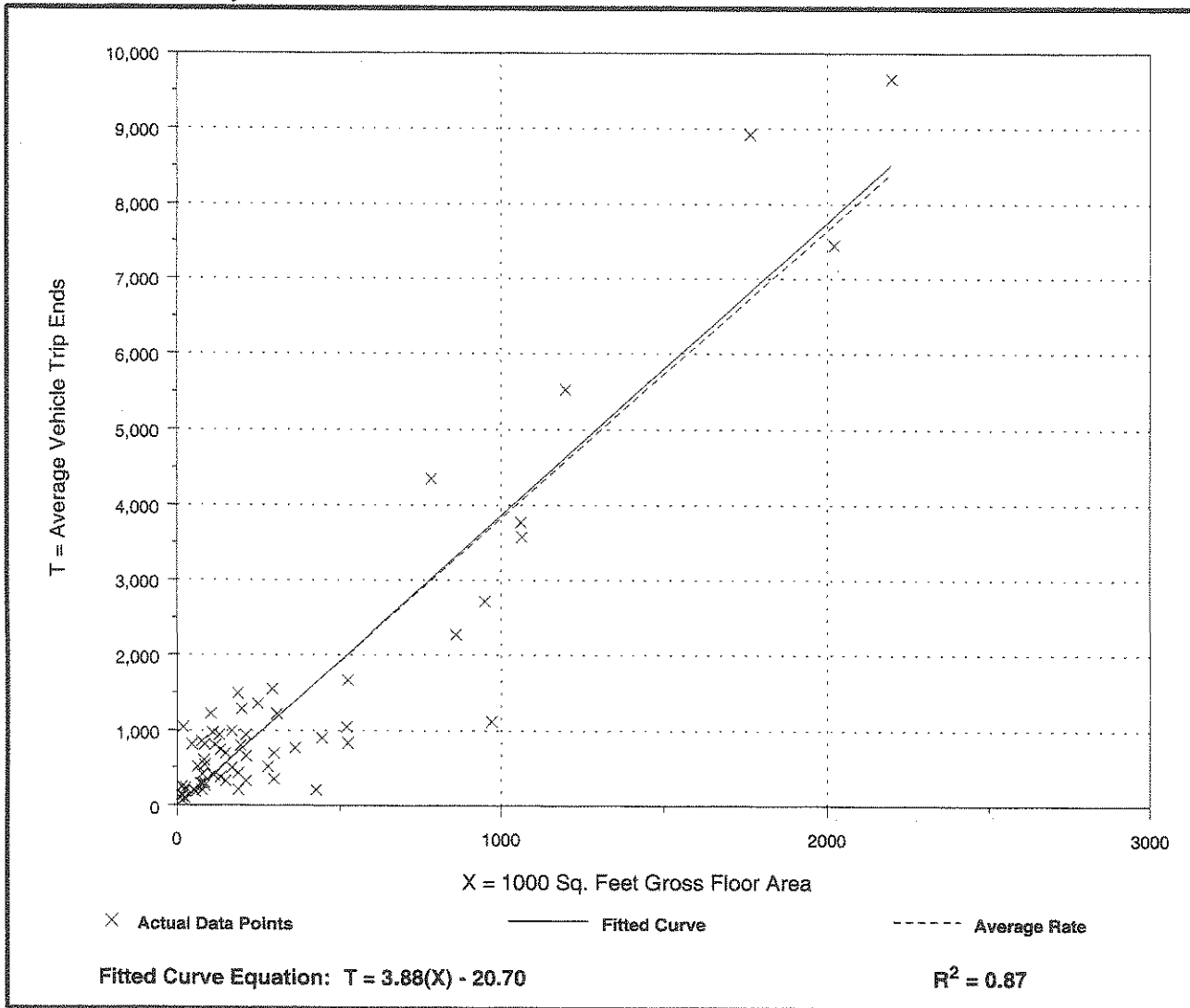
Average Vehicle Trip Ends vs: 1000 Sq. Feet Gross Floor Area
On a: Weekday

Number of Studies: 62
Average 1000 Sq. Feet GFA: 349
Directional Distribution: 50% entering, 50% exiting

Trip Generation per 1000 Sq. Feet Gross Floor Area

Average Rate	Range of Rates	Standard Deviation
3.82	0.50 - 52.05	3.07

Data Plot and Equation



Manufacturing (140)

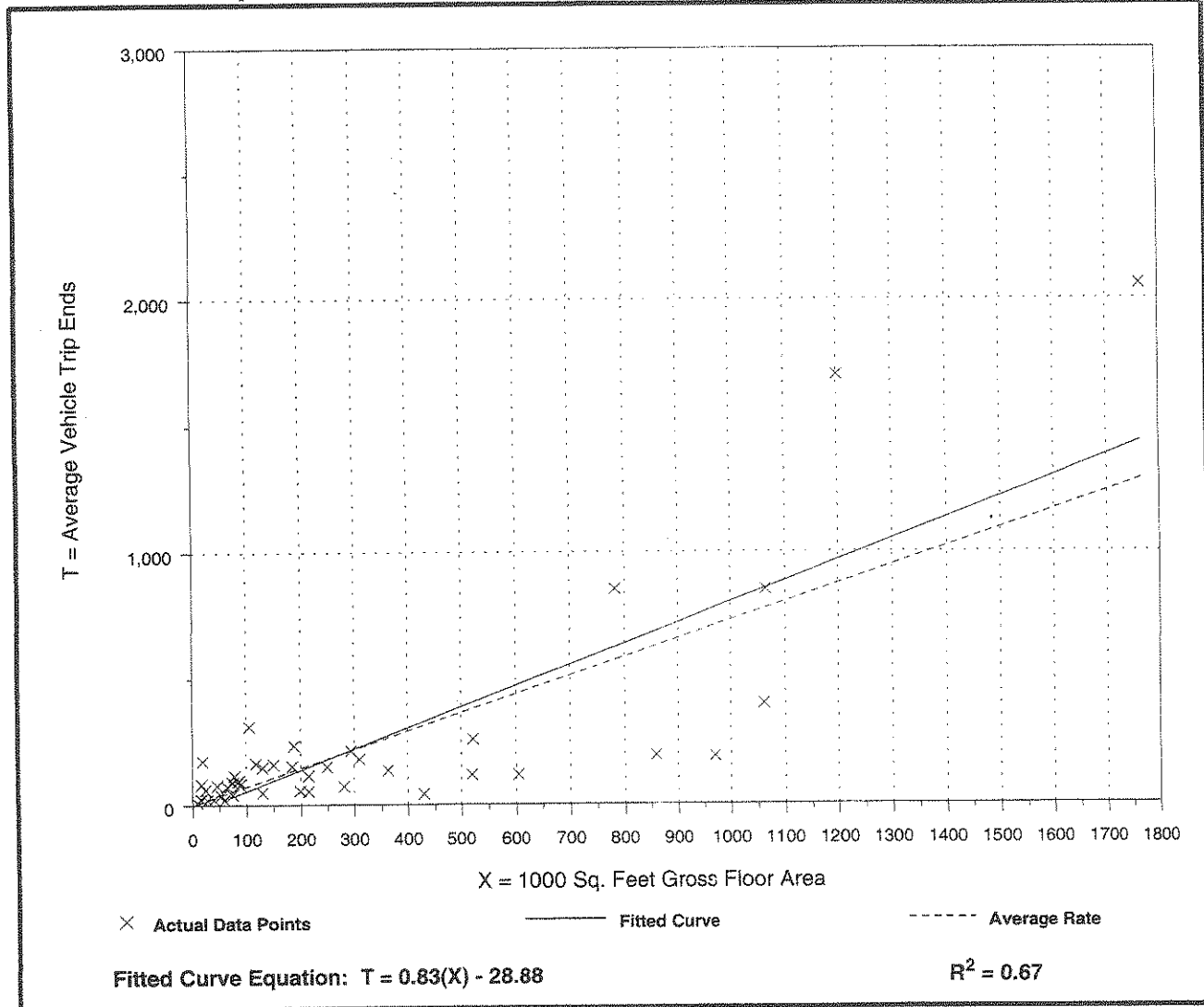
Average Vehicle Trip Ends vs: 1000 Sq. Feet Gross Floor Area
On a: Weekday,
Peak Hour of Adjacent Street Traffic,
One Hour Between 7 and 9 a.m.

Number of Studies: 50
Average 1000 Sq. Feet GFA: 297
Directional Distribution: 77% entering, 23% exiting

Trip Generation per 1000 Sq. Feet Gross Floor Area

Average Rate	Range of Rates	Standard Deviation
0.73	0.10 - 8.75	1.04

Data Plot and Equation



Manufacturing (140)

Average Vehicle Trip Ends vs: 1000 Sq. Feet Gross Floor Area
On a: Weekday,
Peak Hour of Adjacent Street Traffic,
One Hour Between 4 and 6 p.m.

Number of Studies: 54
Average 1000 Sq. Feet GFA: 325
Directional Distribution: 36% entering, 64% exiting

Trip Generation per 1000 Sq. Feet Gross Floor Area

Average Rate	Range of Rates	Standard Deviation
0.74	0.07 - 7.85	1.01

Data Plot and Equation

