

TRAFFIC IMPACT STATEMENT

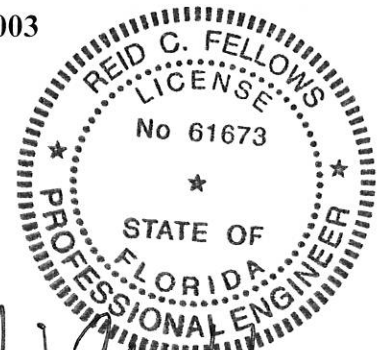
FOR

**PALM PORT APARTMENTS
MAJOR SITE AND DEVELOPMENT
(MAS) PLAN APPROVAL**

(PROJECT NO. 1906.02)

PREPARED BY:
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June 19, 2019



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I. INTRODUCTION

TR Transportation Consultants, Inc. has conducted a traffic impact statement (TIS) for projects seeking Major Site and Development (MAS) plan approval. The subject site is located at the southwest corner of West Price Boulevard and Citizens Parkway in the City of North Port, Florida. This report has been completed with regards to the City's pre-application comments for this project and based on the guidelines established by the City of North Port for developments seeking the aforementioned approval. **Figure 1** illustrates the approximate location of the subject site.

Based upon the site plan, the subject site will be developed with six (6) apartment buildings containing a total of 126 dwelling units. Each apartment building is proposed to consist of three (3) habitable floors. Access to the subject site is proposed to Citizens Parkway.

This report examines the impact of the development on the surrounding roadways. Trip generation and assignments to the various roadways within the study area will be completed.

II. EXISTING CONDITIONS

The subject site is currently vacant. The site is bordered by a canal to the west, West Price Boulevard to the north, Citizens Parkway to the east, and by Fire Rescue Station No. 84 to the south.

Citizens Parkway is a two-lane divided local roadway that extends from West Price Boulevard to Toledo Blade Boulevard. Citizens Parkway has a posted speed limit of 25 mph and is currently under the jurisdiction of City of North Port. According to the *Future Roadway Jurisdictional Map 3-2(a)*, prepared by the City's Planning and Zoning Department, Citizens Parkway will be a privately maintained roadway.



III. PROPOSED DEVELOPMENT

Based upon the site plan, the subject site will be developed with six (6) apartment buildings containing a total of 126 dwelling units. Each apartment building is proposed to consist of three (3) habitable floors. **Table 1** summarizes the land uses utilized for trip generation purposes for the subject site.

Table 1
Land Uses
Palm Port Apartments

Land Use	Size
Apartments	126 Dwelling Units

Access to the subject site is proposed to Citizens Parkway.

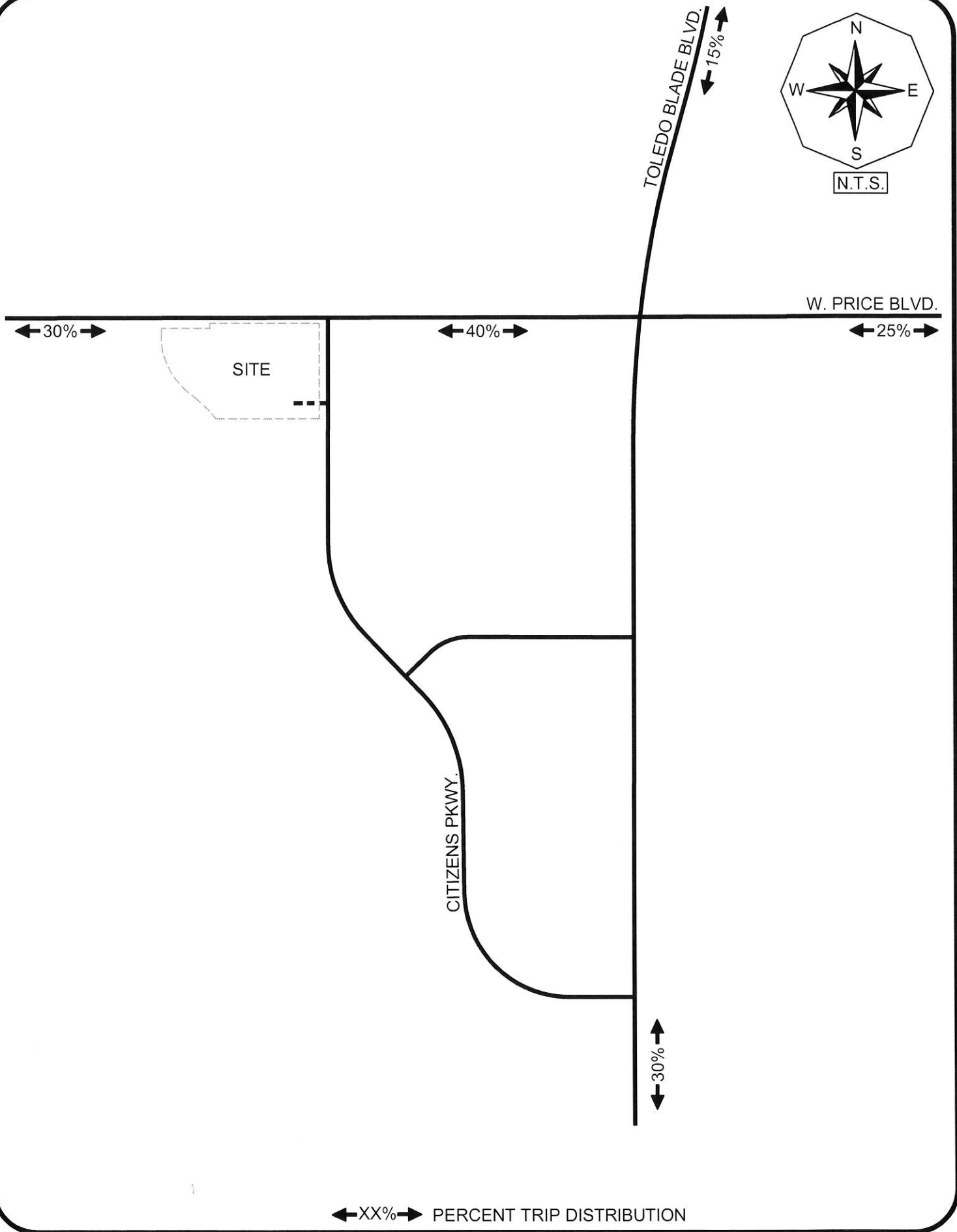
IV. TRIP GENERATION & DISTRIBUTION

The trip generation for the proposed development was determined by referencing the Institute of Transportation Engineer's (ITE) report, titled *Trip Generation Manual*, 10th Edition. Land Use Code 221 (Multifamily Housing Mid-Rise) was utilized for the trip generation purposes of the proposed three story apartment buildings. The equations from this land use are included in the Appendix of this report for reference. **Table 2** outlines the anticipated weekday A.M. and P.M. peak hour trip generation of the development as currently proposed. The daily trip generation is also indicated in this table.

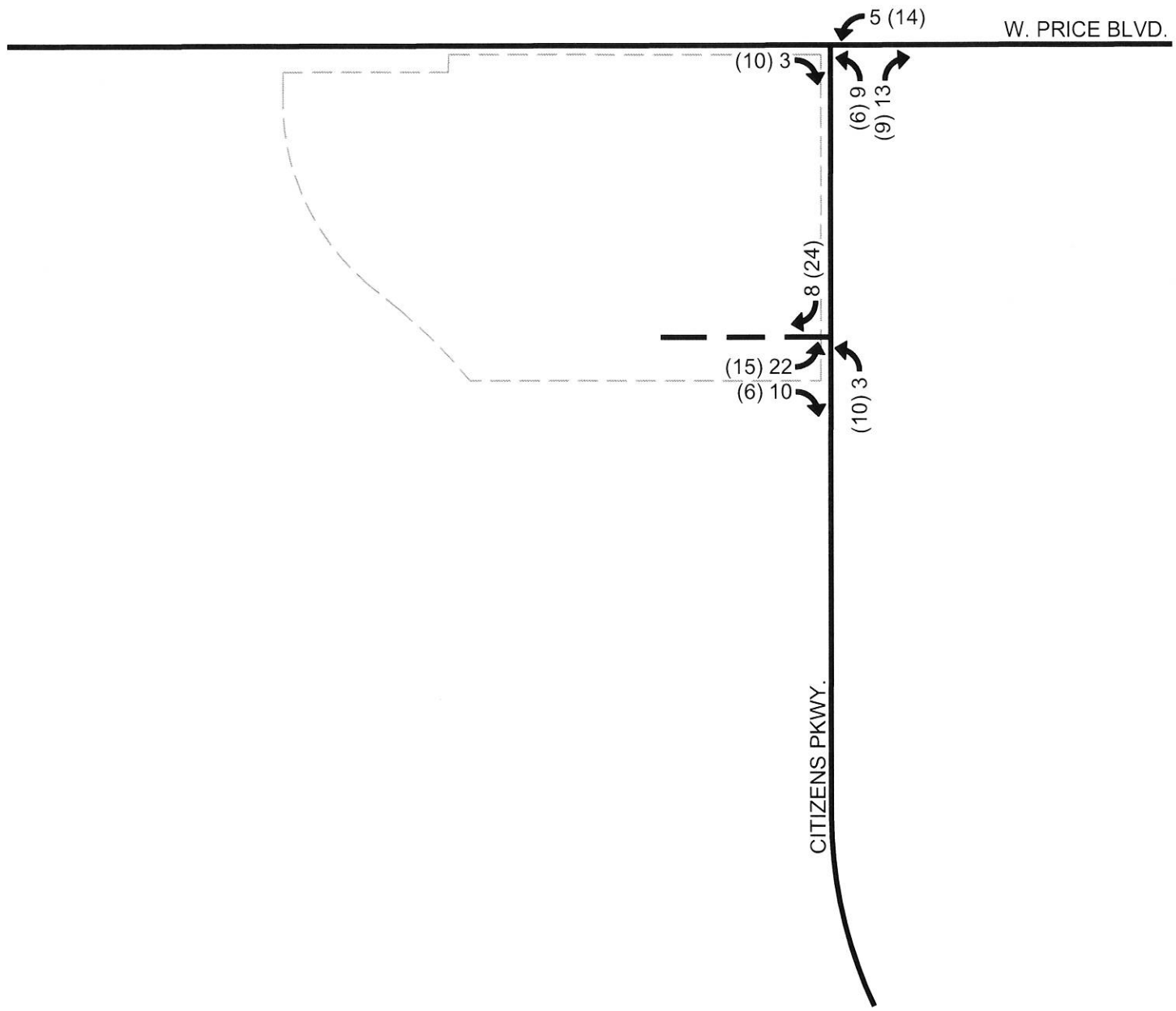
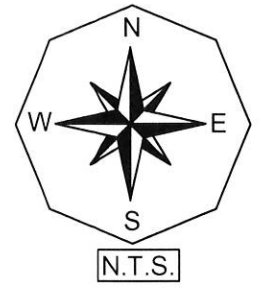
Table 2
Trip Generation
Palm Port Apartments

Land Use	Weekday A.M. Peak Hour			Weekday P.M. Peak Hour			Daily (2-way)
	In	Out	Total	In	Out	Total	
Multifamily Housing Mid-Rise (126 Dwelling Units)	11	32	43	34	21	55	685

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LEGEND

- ← 000 WEEKDAY AM PEAK HOUR SITE TRAFFIC
- ← (000) WEEKDAY PM PEAK HOUR SITE TRAFFIC

The trips the proposed development is anticipated to generate, were assigned to the site access drive and the surrounding roadway network based upon the routes drivers are anticipated to utilize to approach the subject site. Based on current and projected population in the area and other existing or planned competing/complementary uses in the area, a distribution of the site traffic was formulated. The anticipated trip distribution of the development traffic is shown on **Figure 2**. In addition, **Figure 3** was created to illustrate the site traffic assignment at the proposed site access drive to Citizens Parkway.

V. TURN LANE ANALYSIS

Turn lane analysis was conducted at the proposed connection to Citizens Parkway based on the right turn lane warrants contained within the *National Cooperative Highway Research Program Report (NCHRP) 279*. Based on the evaluation, a separate southbound right turn lane or a taper will not be warranted at the proposed connection to Citizens Parkway due to low volume of turning traffic expected. A separate northbound left turn lane will also not be warranted based on above referenced document. Note, Citizens Parkway currently only serves Fire Rescue Station No. 84 and the City's school bus storage facility, both of which are low peak hour generators. Therefore, no turn lane improvements will be warranted at the proposed connection to Citizens Parkway.

VI. CONCLUSION

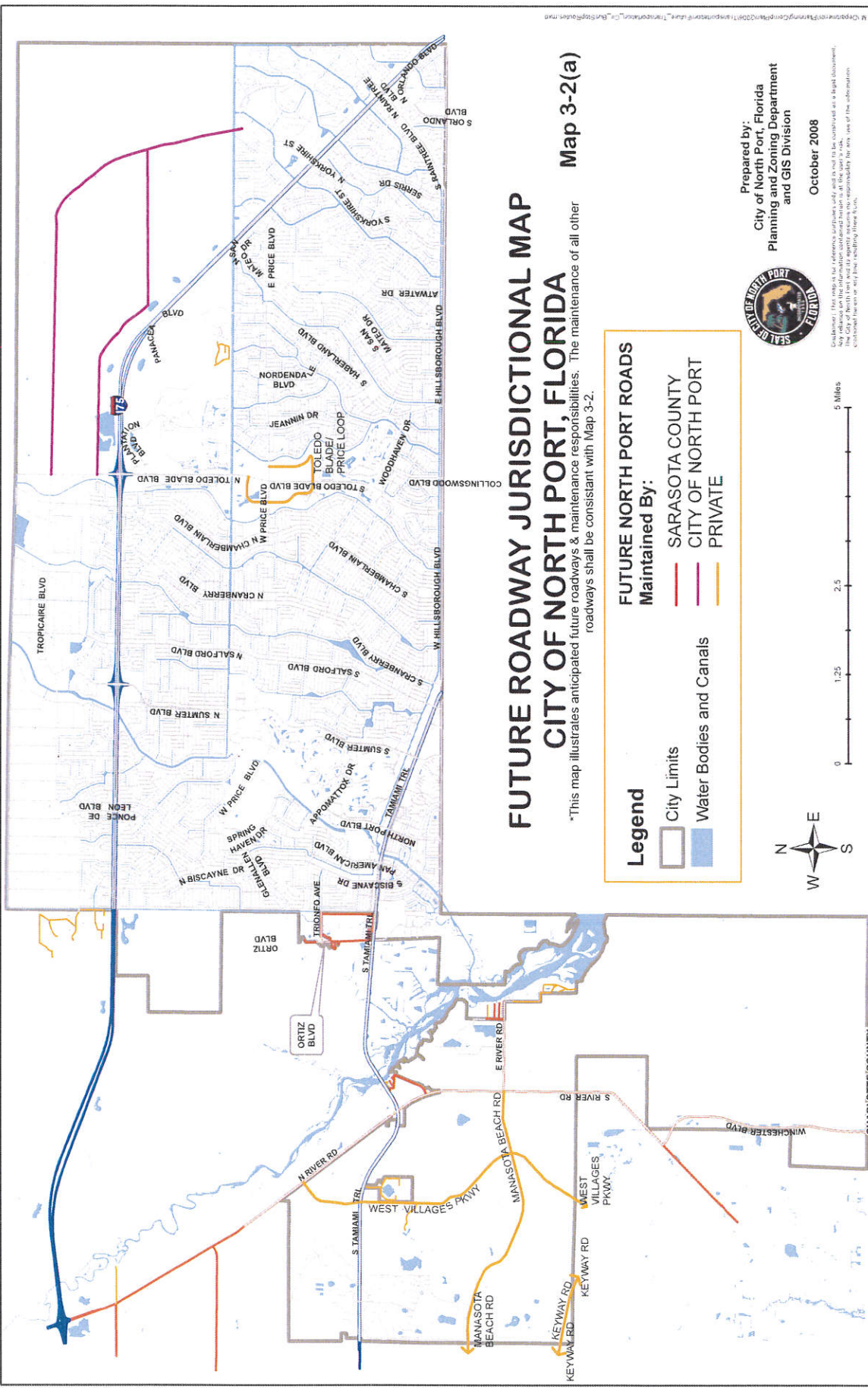
The proposed development is located at the southwest corner of West Price Boulevard and Citizens Parkway in the City of North Port, Florida. The subject site will be developed with six (6) apartment buildings containing a total of 126 dwelling units. Based on the results of the turn lane analysis conducted as part of this report, separate turn lanes will not be warranted at the proposed connection to Citizens Parkway.

APPENDIX

CITY'S MAP 3-2
EXISTING ROADWAY
JURISDICTIONAL MAP

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CITY'S MAP 3-2(a)
FUTURE ROADWAY
JURISDICTIONAL MAP



FUTURE ROADWAY JURISDICTIONAL MAP

CITY OF NORTH PORT, FLORIDA

*This map illustrates anticipated future roadways & maintenance responsibilities. The maintenance of all other roadways shall be consistent with Map 3-2.

Map 3-2(a)

Legend

City Limits

Water Bodies and Canals

FUTURE NORTH PORT ROADS Maintained By:

SARASOTA COUNTY

CITY OF NORTH PORT

PRIVATE



Prepared by:
City of North Port, Florida
Planning and Zoning Department
and GIS Division
October 2008



Disclaimer: This map is for informational purposes only and is not to be construed as a legal document. Any reliance on the information contained herein is at the user's risk. The City of North Port, Florida, and its employees assume no responsibility for any use of the information contained herein or any other resulting from its use.

NCHRP 279

✓ NATIONAL COOPERATIVE
HIGHWAY RESEARCH PROGRAM REPORT

279

INTERSECTION CHANNELIZATION DESIGN GUIDE

IDAHO TRANSPORTATION DEPARTMENT
RESEARCH LIBRARY

TRANSPORTATION RESEARCH BOARD
NATIONAL RESEARCH COUNCIL

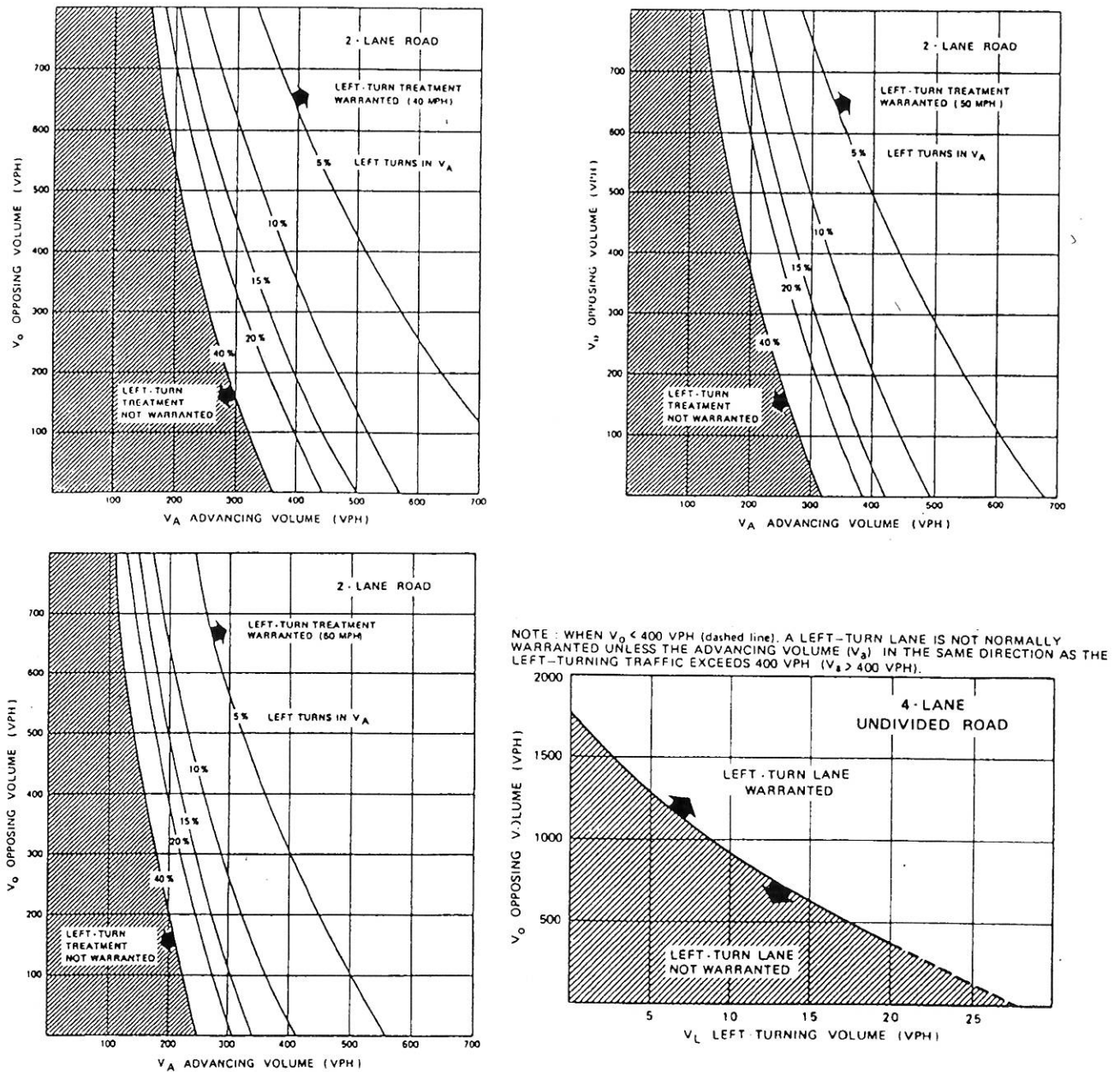


Figure 4-12. Volume warrants for left-turn lanes at unsignalized intersections. (Source: Ref. 4-7)

a partially shadowed left-turn lane, as illustrated in Figure 4-14. With partially shadowed left-turn lanes, the offset created by the approach taper does not entirely protect or "shadow" the turn lane.

Length of Lane

The left-turn lane length is among the most important design element of left-turn lanes. Its design is directly tied to the particular function of the lane, which is based on prevailing speeds,

traffic volumes, and traffic control. The design basis for length can be deceleration, storage, or a combination of both.

Left-turn lanes on high-speed highways should be designed to accommodate vehicle deceleration and braking. The channelization principle of removing slow or decelerating vehicles from through traffic applies at such locations. Figure 4-15 illustrates the functional basis for design of deceleration-based left-turn lanes according to AASHTO. The assumed "reasonable" driver behavior includes deceleration in gear for 3 sec., followed by comfortable braking completely within the turning lane. Where constraints exist and speeds are moderate, an al-

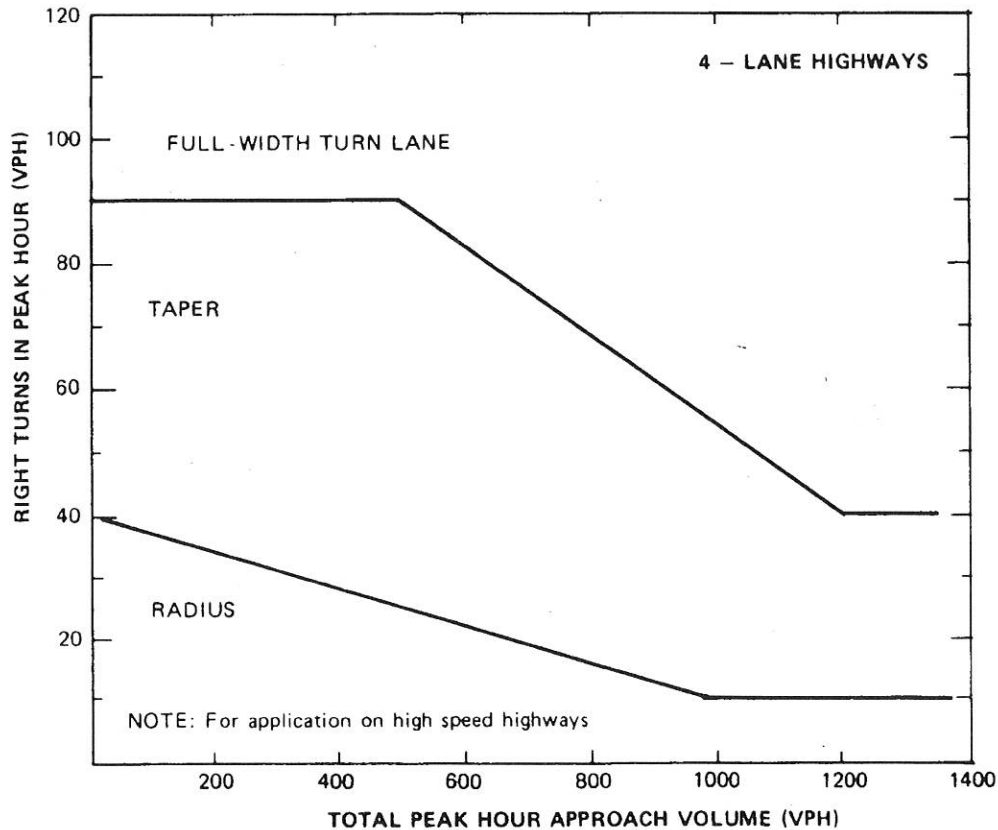
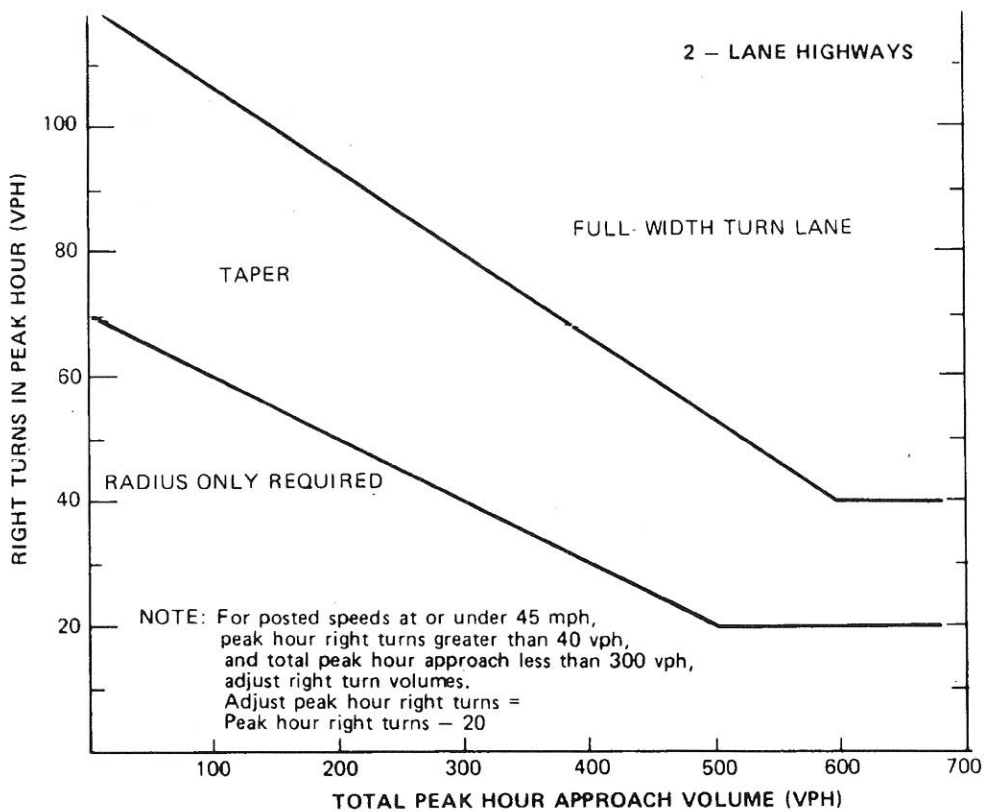


Figure 4-23. Traffic volume guidelines for design of right-turn lanes. (Source: Ref. 4-11)

TRIP GENERATION EQUATIONS

Multifamily Housing (Mid-Rise) (221)

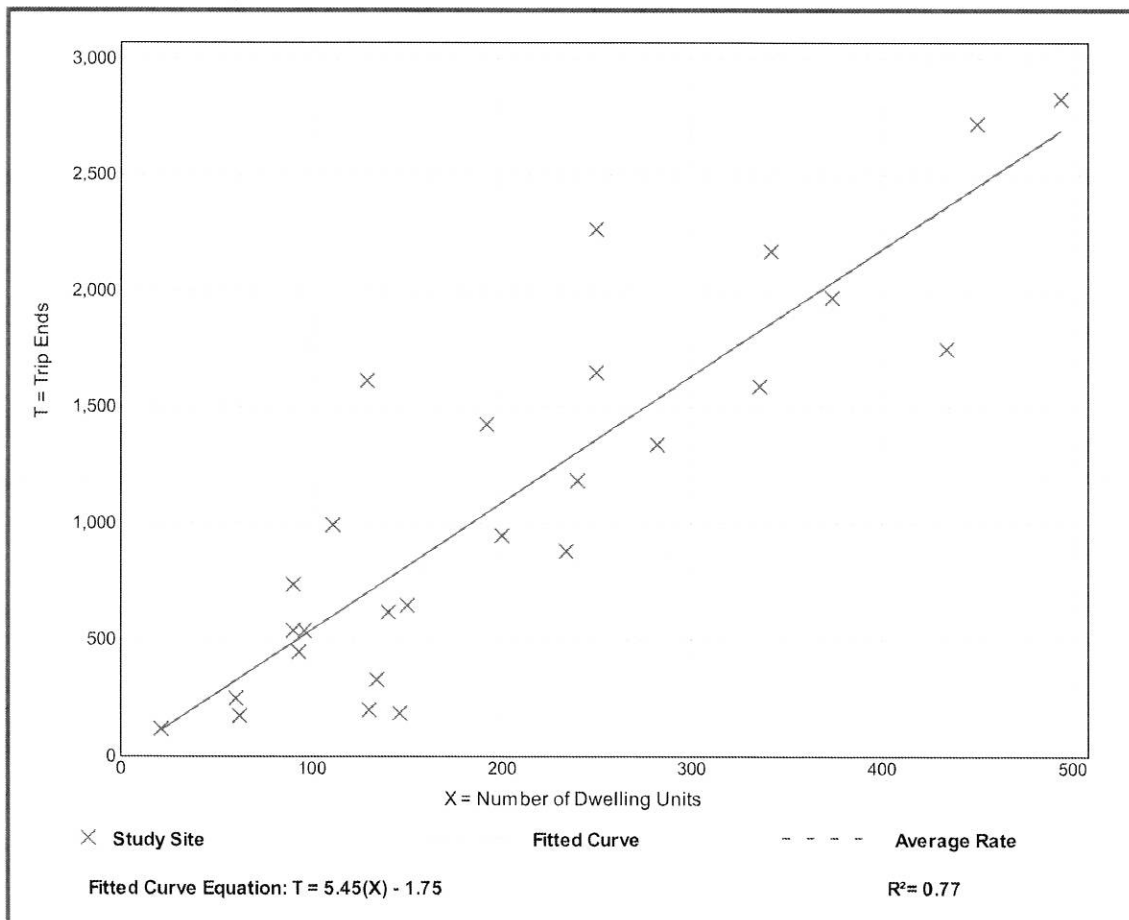
Vehicle Trip Ends vs: Dwelling Units
On a: Weekday

Setting/Location: General Urban/Suburban
Number of Studies: 27
Avg. Num. of Dwelling Units: 205
Directional Distribution: 50% entering, 50% exiting

Vehicle Trip Generation per Dwelling Unit

Average Rate	Range of Rates	Standard Deviation
5.44	1.27 - 12.50	2.03

Data Plot and Equation



Multifamily Housing (Mid-Rise) (221)

Vehicle Trip Ends vs: Dwelling Units

On a: Weekday,

Peak Hour of Adjacent Street Traffic,
One Hour Between 7 and 9 a.m.

Setting/Location: General Urban/Suburban

Number of Studies: 53

Avg. Num. of Dwelling Units: 207

Directional Distribution: 26% entering, 74% exiting

Vehicle Trip Generation per Dwelling Unit

Average Rate

0.36

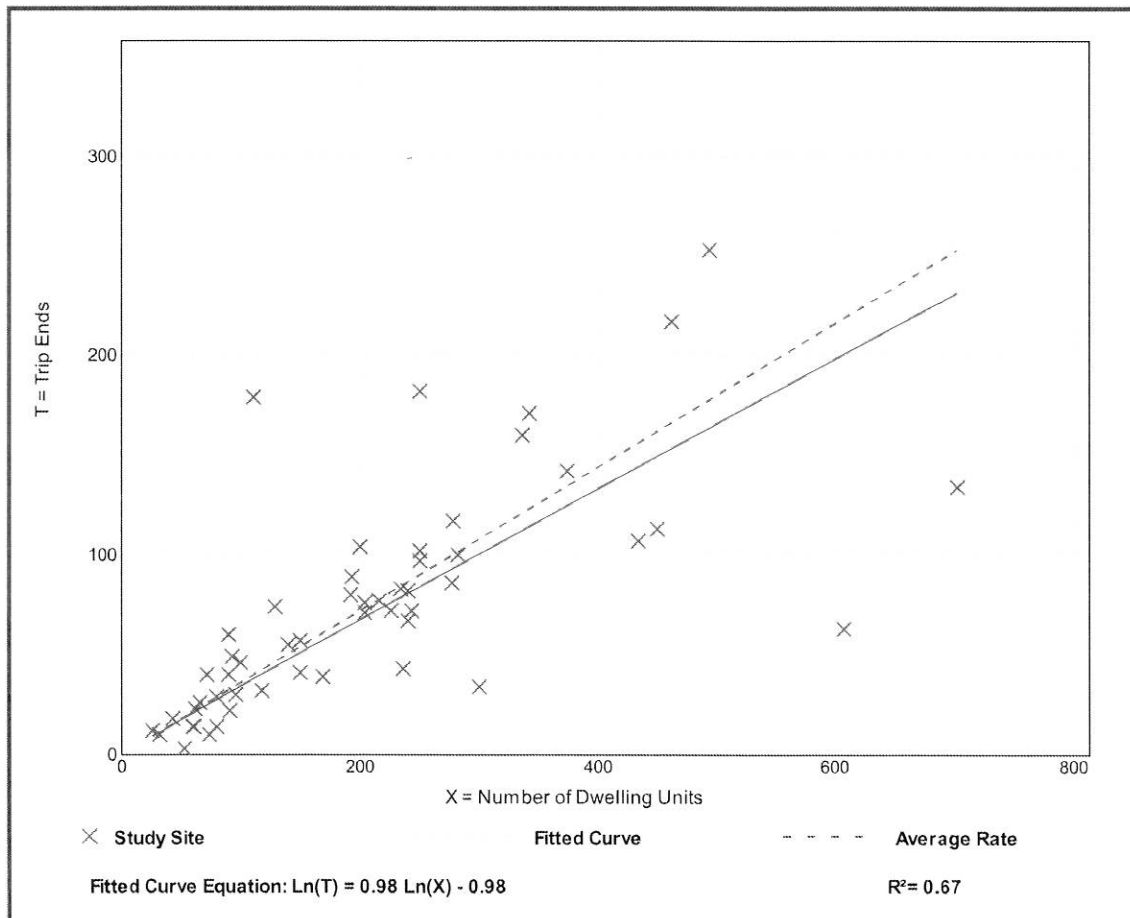
Range of Rates

0.06 - 1.61

Standard Deviation

0.19

Data Plot and Equation



Multifamily Housing (Mid-Rise) (221)

Vehicle Trip Ends vs: Dwelling Units

On a: Weekday,

Peak Hour of Adjacent Street Traffic,

One Hour Between 4 and 6 p.m.

Setting/Location: General Urban/Suburban

Number of Studies: 60

Avg. Num. of Dwelling Units: 208

Directional Distribution: 61% entering, 39% exiting

Vehicle Trip Generation per Dwelling Unit

Average Rate

0.44

Range of Rates

0.15 - 1.11

Standard Deviation

0.19

Data Plot and Equation

