



MEMORANDUM

To: PMC	Date: January 10, 2008
Attn: Mark Teague	Project: Highland Park Subdivision
From: Kamesh Vedula	Traffic Impact Study
Re: ADT calculation for Mission De Oro Drive	Job No.: 45-5245-01
	File No.: C907mem005.doc
CC: Russ Wenham	

INTRODUCTION

This memorandum has been prepared by Omni-Means to present the following

- Methodology used in calculating the Average Daily Traffic (ADT) for the Mission de Oro Drive immediately north of Browning Street
- Analyze the daily traffic operations (ADT computed in the step above) to the ADT-based LOS thresholds shown in Table 1.

**TABLE 1
LEVEL-OF-SERVICE CRITERIA FOR ROADWAYS**

Roadway Type	Total Daily Vehicles in Both Directions (ADT)				
	LOS A	LOS B	LOS C	LOS D	LOS E
2-Lane Collector	6,000	7,500	9,000	10,500	12,000

ADT = Average Daily Traffic, LOS = Level of Service

Note: 1. Based on "Highway Capacity Manual", Transportation Research Board, Fourth Edition, 2000.

- The daily traffic operations will be quantified for the following five scenarios:
 - Existing Conditions
 - Short Term No Project Conditions (Existing + Approved/Pending Projects Scenario)
 - Short Term Plus Project Conditions (Existing + Approved/Pending + Project Scenario)
 - Cumulative No Project (Year 2025) Conditions
 - Cumulative Plus Project (Year 2025) Conditions

METHODOLOGY

In the absence of the actual count data, Omni-Means derived the ADT for the Mission de Oro Drive immediately north of Browning Street by using the ratio of ADT to PM peak hour (worse case volume) segment volume obtained from the actual counts at the following locations:

- Hilltop Drive immediately north of Dana Drive and the Hilltop Drive/Dana Drive intersection (21,480 (ADT)/1,883 (PM peak hour volume) = 11.40)
- Churn Creek Road immediately north of Dana Drive and the Churn Creek /Dana Drive intersection (19,620 (ADT)/1,675 (PM peak hour volume) = 11.71)

- Tanglewood Drive immediately east of Buckthorn Drive and the Tanglewood Drive/Buckthorn Drive intersection (1,300 (ADT)/127 (PM peak hour volume) = 10.23)

The segment in question here (Mission de Oro Drive immediately north of Browning Street) serves a mixture of retail and residential uses. Therefore, an average of daily to peak hour ratios for the Hilltop Drive and Churn Creek Road segments which predominantly serve retail uses and Tanglewood Drive segment which serves residential was used in calculating the daily to peak hour ratio for the Mission de Oro Drive segment. The average daily to peak hour ratio for the three locations equates to 11.12. This ratio is applied to the peak hour volumes for the Mission de Oro Drive immediately north of Browning Street for the *Existing, Short Term No Project* Conditions and *Cumulative No Project* conditions to derive the ADT volume. The project ADT obtained from the daily trip generation and trip distribution is added to both Short Term and Cumulative “no project” conditions to derive the “plus project” daily volumes.

LOS THRESHOLDS CALCULATIONS

Daily traffic operations for the Mission de Oro Drive segment was analyzed by comparing ADT volumes for various scenarios to the ADT-based LOS thresholds (outlined in Table 1). Table 2 contains a summary of the LOS conditions for the Mission de Oro Drive segment.

**TABLE 2
ROADWAY LOS**

Segment	Segment Type	Scenario	Average Daily Traffic	Level of Service
Mission De Oro - north of Browning Street	Two Lane Collector	Existing	1430	A
		Short Term No Project	1840	A
		Short Term Plus Project	3650	A
		Cumulative No Project	3150	A
		Cumulative Plus Project	5120	A

As shown in Table 2, the Mission de Oro Drive segment immediately north of Browning Street would operate at acceptable LOS A for all of the study scenarios on a daily basis.