

final report

December 9, 2014

## Trip Generation and Distribution

*Jefferson Commerce Center  
6023 Jefferson Boulevard  
Louisville, KY*

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Prepared for

Louisville Metro Public Works

**JACOBS**

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## Table of Contents

INTRODUCTION .....	2
Figure 1. Site Map.....	2
EXISTING CONDITIONS .....	2
Figure 2. Existing (2014) Peak Hour Volumes.....	3
TRIP GENERATION .....	3
Table 1. Peak Hour Trips Generated by Site.....	3
Figure 3. Peak Hour Trips Distribution Percentages.....	4
Figure 4. Peak Hour Trips Generated by Site.....	4
APPENDIX .....	5

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## INTRODUCTION

The development plan for Jefferson Commerce Center shows a 403,000 square foot distribution facility. Access to the center will be through a single entrance on Jefferson Boulevard. The purpose of this study is to examine the traffic generated by the proposed plan. For this study, the impact area was defined to be the proposed intersection with Jefferson Boulevard. A map of the site is shown in **Figure 1**.



Figure 1. Site Map

## EXISTING CONDITIONS

Jefferson Boulevard is a Metro maintained road with an estimated 2014 ADT of 11,700 vehicles per day at the proposed entrance, as estimated from the turning movement count. The road is a four lane highway with twelve-foot lanes with curb and gutter through the study area. A left turn lane exists at the proposed entrance. The speed limit is 35 mph. There are sidewalks.

A.m. and p.m. peak hour traffic counts for the proposed intersection were made on November 19, 2014. The a.m. peak hour occurred between 7:15 and 8:15 a.m. The p.m. peak hour occurred between 4:30 and 5:30 p.m. **Figure 2** illustrates the existing a.m. and p.m. peak hour traffic volumes.

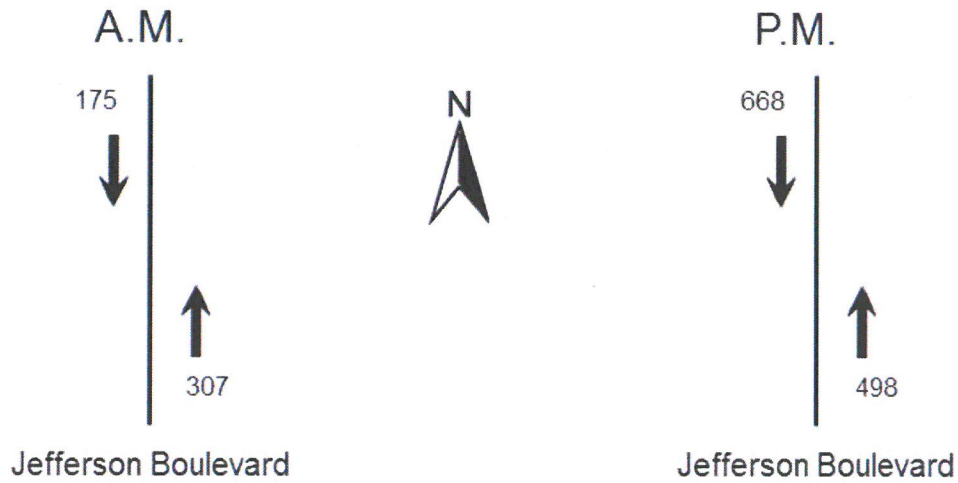


Figure 2. Existing (2014) Peak Hour Volumes

### TRIP GENERATION

The Institute of Transportation Engineers Trip Generation Manual, 9<sup>th</sup> Edition contains trip generation rates for a wide range of developments. The land use of “Warehousing (150)” best describes this development. The trip generation results are listed in **Table 1**. The results of the trip generation analysis are that this development will generate 178 a.m. peak hour trips and 145 p.m. peak hour trips. The trips for the development were assigned to the highway network with percentages shown on **Figure 3**. **Figure 4** shows the trips generated by this development and distributed throughout the road network during the peak hours.

Table 1. Peak Hour Trips Generated by Site

	A.M.			P.M.		
	Total Trips	Entering	Exiting	Total Trips	Entering	Exiting
403,000 square feet warehousing	178	141	37	145	36	109

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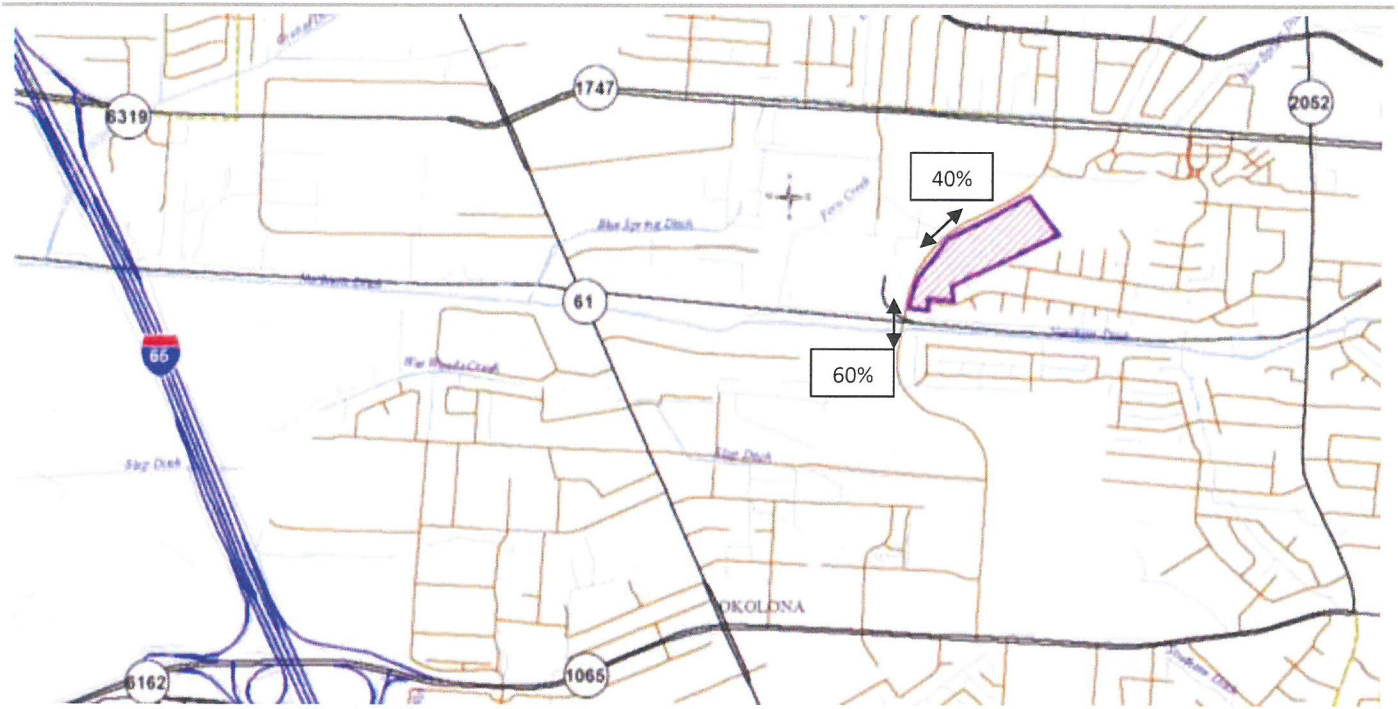


Figure 3. Peak Hour Trips Distribution Percentages

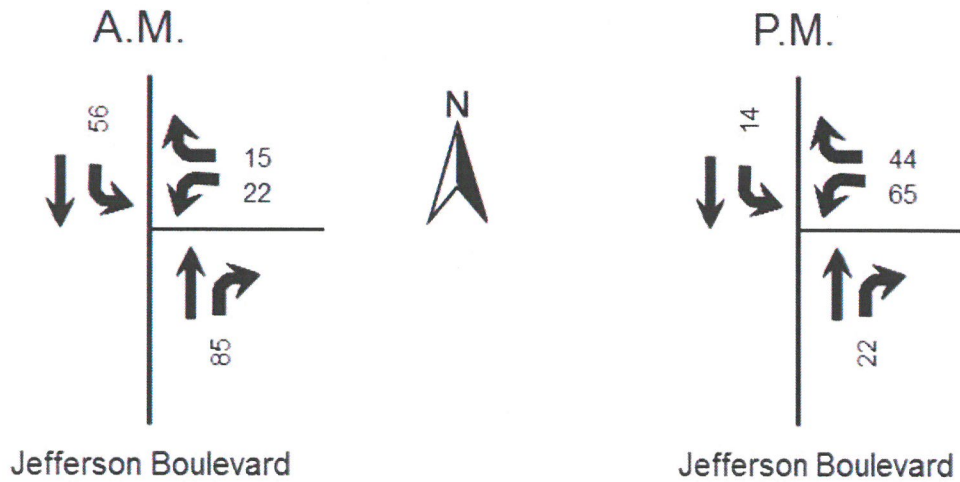


Figure 4. Peak Hour Trips Generated by Site

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**APPENDIX**

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Traffic Counts

11.19.14

Interval Start Time	<i>Jefferson Blvd.</i>				<i>Jefferson Blvd.</i>			
	From North				From South			
	Left	Thru	Right	Peds	Left	Thru	Right	Peds
7:00		28				50		
7:15		41				78		
7:30		51				98		
7:45		47				81		
8:00		36				50		
8:15		40				52		
8:30		56				64		
8:45		67				48		
<b>AM TOTALS</b>		<b>366</b>				<b>521</b>		
16:00		121				120		
16:15		189				125		
16:30		172				128		
16:45		164				128		
17:00		146				111		
17:15		186				131		
17:30		159				94		
17:45		137				117		
<b>PM TOTALS</b>		<b>1274</b>				<b>954</b>		

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