

Memo



To: File – 16042_TIS_Office Building on Kenwood Road
From: Jamal A. Adhami
cc:
Date: November 11, 2016
Re: Traffic Analysis – Proposed Office Building, Kenwood Road, Hamilton County, OH

Introduction

This memorandum report is prepared to update the analysis completed for the proposed Office Building on Kenwood Road south of the intersection with Galbraith Road.

The development is proposed along the east side of Kenwood Road along south of the signalized intersection with Galbraith Road. The latest site plan shows 32,437 SFT of Office Building with full access drive on Kenwood Road.



Figure 1
Site Plan

The location of the Proposed Development is Shown in Figure 1.

This memorandum report will analyze the following.

1. Trip Generation and Distribution.
2. Exclusive Turn Warrants at Drive A.

Trip Generation

The proposed development includes 32,437 SFT of office Building. The new trips are estimated using the 9th edition of ITE Trip Generation Manual. Table 1 summarizes the new trips generated by the new development and also provide comparison of these trips with the estimated trips provided in the previous report dated 02/11/2009.

Table 1 – Trip Generation

Use LU Code #710	GFA SFT	AM In	AM Out	AM Total	PM In	PM Out	PM Total
General Office Building	32,437	68	9	77	20	95	115
Trip Generation Previous Report							
General Office Building	27,000	58	8	66	19	90	109

The estimated new trips generated by the proposed development as per the updated site plan are marginally higher than the new trips estimated in the report completed in February of 2009.

Figure 2 below shows existing southbound and northbound trips on Kenwood Road in the vicinity of Drive A and Figure 3 shows the new trips at Drive A. The traffic volumes shown in these Figures are used to evaluate exclusive turn lane warrants in the subsequent section of this report.

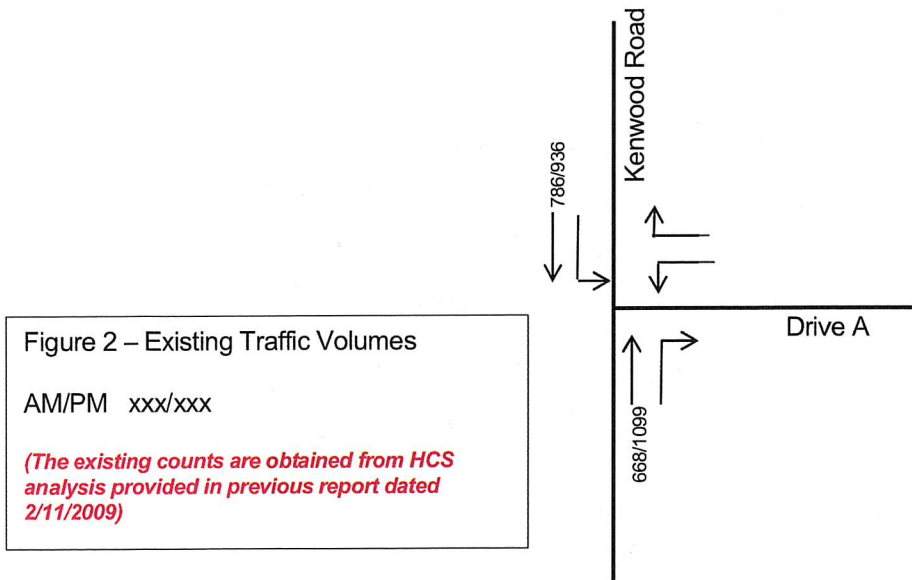
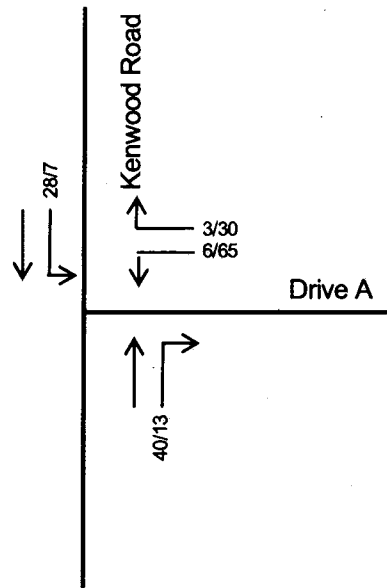


Figure 2 – New Trips

AM/PM xxx/xxx



Turn Lane Warrants

Turn Lane Warrant for the southbound left turn movement from Kenwood Road to eastbound on Drive A was examined. Traffic volumes shown in Figures 2 and 3 were used to evaluate exclusive left and right turn lane warrant at Drive A.

Table 2 provides summary of Turn Lane Warrants and Turn Lane Warrants are included as an Attachment B..

Table 2 – Intersection of Kenwood Road and Drive A Turn Lane Warrants					
	Scenario	Turning Volume	Advancing Volume	Opposing Volume	Lane Required AM/PM
2016 Build Traffic Volumes					
NB Right Turn	2016 AM/PM	40/13	708/1112	N/A	No/No
SB Left Turn	2021 AM/PM	28/7	814/946	708/1112	Yes/No

The results of the Turn Lane warrants indicate an exclusive southbound left turn lane from Kenwood Road to eastbound on Drive A is warranted. However, northbound right turn lane at Drive A is not warranted.

Storage Length Calculation

Storage turn lane lengths were determined using ODOT Location and Design Manual turn lane length methods. The findings are shown in Tables 3. .

Table 3. Storage Length Calculations – Drive A at Kenwood Road						
MOVEMENTS	Time Period	Hourly Volume 2016	STORAGE ODOT Criteria (FT)	Existing Storage Length (Ft)	Blocked	Recommended Storage (Ft.)
SB Left Turn Lane (35 mph)	AM	28	50	N/A	No/No	50' Plus 50' Taper
	PM	7	50		No/No	

Conclusions

The analysis completed in this memorandum report indicates that the recommendations of the previous report completed in February of 2009 are valid and can be implemented as approved by Hamilton County Engineer's Office.

Attachment A
Site Plan

No.	05-457
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Appendix B

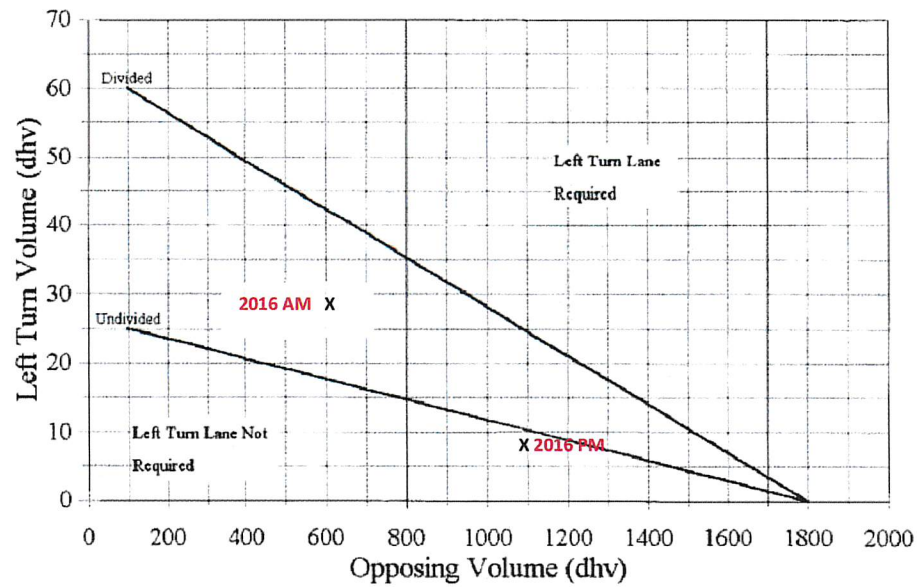
Turn Lane Warrants

Intersection of Kenwood Road and Drive A

Southbound Left Turn Lane

	Adv. Traffic	Opp. Traffic	Left Turns
2016 (AM/PM)	814/946	708/1112	28/7

4-Lane Highway Left Turn Lane Warrant



October 2004

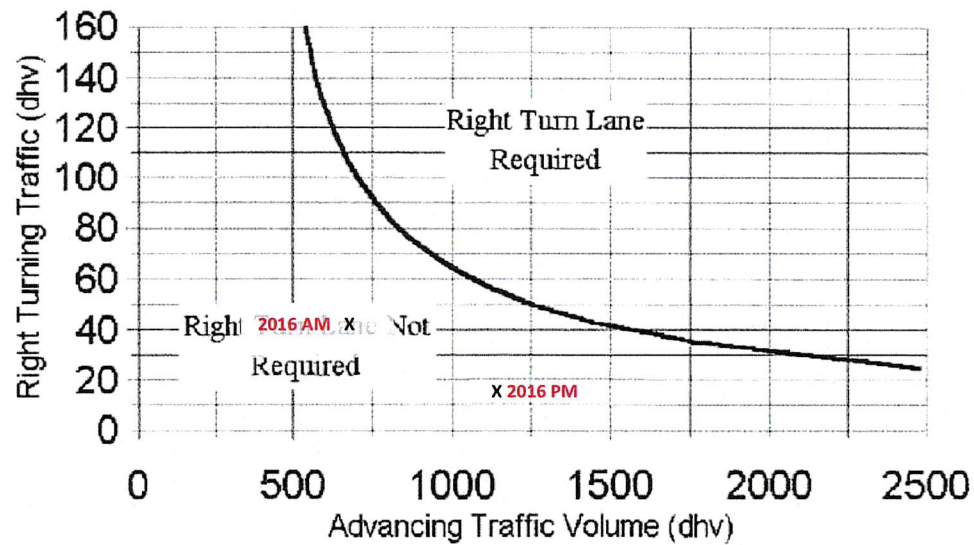
4-LANE LEFT TURN
LANE WARRANT

401-5CE
REFERENCE SECTION
401.6.1

Intersection of Kenwood Road and Drive A Northbound Right Turn Lane

2016 (AM/PM)	Adv. Traffic 708/112	Right Turns 40/13
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4 Lane Highway Right Turn Lane Warrant (=<40 mph or 70 kph Posted Speed)



October 2004

4-LANE RIGHT TURN LANE
WARRANT (LOW SPEED)

REFERENCE SECTION
401.6.3

401-6CE

