



Date: December 8, 2006
To: Tammie Williamson, AICP
WPDRD Assistant Director
CC: George Zapalac, WPDRD Division Manager
Reference: Northcross Mall Redevelopment

Council requested that the Transportation Review Section review the Traffic Impact Analysis (TIA) for Northcross Mall, dated October 2005, prepared by Lance Hartland, P.E. HDRIWHM Transportation Engineering. The purpose of a transportation impact analysis is to determine the impact of increased traffic resulting from a proposed development and the appropriate actions by the developer necessary to mitigate the impact. The analysis results in a rating from 'A' to 'F', with all ratings from 'A' to 'D' being acceptable. Based on staff's analysis of 11 intersections, the proposed development of Northcross Mall does not have a negative impact on traffic. The following comments itemize staff's analysis.

TRIP GENERATION

The trip calculation for each use is obtained using a set of nationally applied formulas established by the Institute of Transportation Engineers (ITE). The use of these standards represents best industry practices. All calculations related to current use of the Northcross Mall site are based on the currently occupied retail space, and exclude vacant retail rental space.

Northcross Mall is located at the southwest corner of the intersection of Anderson Lane and Burnet Road. The property is currently developed with retail uses, a conference center, a church and an ice skating rink. The existing trip generation for the site was established based on counts taken at the site driveways. The table below shows the trip generation for the existing land uses:

Table 1. Existing Land Use Trip Generation				
<u>Land Use</u>	<u>Size (sf)</u>	<u>ADT*</u>	<u>AM Peak</u>	<u>PM Peak</u>
Occupied Retail	222,424	8,065	252	690
Conference Center	20,215			
Church	11,904			
Ice Skating Rink	15,000			
TOTAL	269,543	8,065	252	690

* ADT= Average Daily Trips

Based on the standard ITE trip generation rates, redevelopment of the site will generate approximately 7,121 additional adjusted average daily trips (ADT).

In calculating the number of ADT's for this review, trip generation was adjusted to account for "internal" capture (trips within the property from one use to another without using the public street system), and "pass-by" trips (traffic that is already using the surrounding roads). Calculation of the reductions for pass-by and internal capture were based on ITE's Trip Generation Handbook.

The following table shows the percentage of reductions taken for the individual uses.

Table 2. Pass-By and Internal Capture Reductions				
	Pass-By		Internal Capture	
	AM Peak	PM Peak	AM Peak	PM Peak
Discount Superstore	17%	17%	15%	15%
Specialty Retail Center	34%	34%	15%	15%
Shopping Center	34%	34%	15%	15%
Pharmacy with Drive Thru	0	0	0	0
Health Fitness Club	0	0	0	0
Ice Skating Rink	0	0	0	0
Recreation Community Center	0	0	0	0
High Turnover Restaurant	43%	43%	15%	15%

The table below shows the adjusted trip generation by land use for the proposed development

Table 3. Proposed Adjusted Land Use Trip Generation				
<u>Land Use</u>	<u>Size (sf)</u>	<u>ADT*</u>	<u>AM Peak</u>	<u>PM Peak</u>
Discount Superstore	225,085	7,805	293	613
Specialty Retail Center	43,327	1,077	0	66
Shopping Center	73,172	3,110	73	286
Pharmacy with Drive Thru	14,490	981	26	106
Health Fitness Club	7,805	202	6	27
Ice Skating Rink	25,321	630	0	60
Recreation Community Center	30,000	686	49	49
High Turnover Restaurant	5,465	354	51	30
TOTAL Proposed	424,655	15,186	498	1,237
TOTAL Existing	269,543	8,065	252	690
NET INCREASE	155,122	7,121	246	547

City Staff raised questions about the TIA submitted with the site plan related to the proposed land uses and square footages associated with those uses. In response, the applicant demonstrated that the proposed uses would result in fewer trips than projected by the original TIA. In fact, the audit conducted of the original TIA submission and review confirmed that the approved site plan trips are fewer in number than those shown on the site plan TIA.

ASSUMPTIONS

To get a more realistic look at what future traffic may be at the analyzed intersections, a traffic growth rate is required to be included as part of the analysis of the TIA. The estimated traffic growth rate for the area is as follows.

Table 4. Traffic Growth Rates per Year	
Roadway Segment	%
All Roads	2%*

* Average growth of the area surrounding the subject property as calculated from Texas Department of Transportation data

In addition to these growth rates, background traffic volumes for 2005 included estimated traffic volumes for the following new projects:

SP-04-0683C Tetco #75
 SP-02-0333C Rockwood Bus Plaza

EXISTING AND PLANNED ROADWAYS

W. Anderson Lane – This roadway is classified as a four lane divided major arterial within the vicinity of the site. The 2005 traffic counts on this roadway were 26,089 vehicles per day (vpd).

Burnet Road – Burnet Road is classified as a four lane divided major arterial within the vicinity of the site. Traffic volumes for this facility north of 183 were approximately 33,936vpd and 22,089 south of RM 2222 in 2005

Northcross Drive – This roadway is classified as a divided commercial collector based on its size, at 80' of right-of-way, and the uses that abut it

Foster Lane – Foster Lane is classified as a commercial collector between Shoal Creek and Northcross Drive based on its size, at 70' of right-of-way, and the uses that abut it

Rockwood Lane – This facility has 60' of right-of-way and 40' of pavement and is classified as a commercial collector based on its connection to Anderson Lane, pavement width and uses that abut it.

Richcreek Road – This roadway is classified as a neighborhood collector with 60' of right-of-way at its intersection with Burnet Road

INTERSECTION LEVEL OF SERVICE (LOS)

Level of service is a grading system for intersections with A being the best and F being the worst. The level of service measure incorporates several factors including speed, volume of traffic, geometrics of the roadway, ability to maneuver, safety, and driver comfort. By City of Austin standards anything below a level of service D is failing.

The TIA analyzed 11 intersections, 6 of which are or will be signalized. Existing and projected levels of service are as follows, assuming that all improvements recommended in the TIA are built:

Table 5. Level of Service				
Intersection	2005 Existing		2007 Site + Forecasted	
	AM	PM	AM	PM
Burnet Road and W. Anderson Lane*	D	D	D	D
Burnet Road and Northcross Drive*	B	B	B	B
Burnet Road and Richcreek Road*	A	A	A	A
Northcross Drive and W. Anderson Lane*	A	B	A	B
Driveway B and W. Anderson Lane*	B	B	B	B
Rockwood Lane and W. Anderson Lane*	A	A	A	B
Driveway A and W. Anderson Lane	A	A	A	B
Burnet Road and Driveway C	A	A	A	A
Burnet Road and Driveway D	A	A	D	B
Driveway E and Northcross Drive	A	A	A	A
Northcross Drive and Foster Lane/Driveway F	A	A	A	B

* = SIGNALIZED

As shown in the above table all of the intersections analyzed in the TIA function at an acceptable level of service after the site is constructed. Therefore, the developer was not required to contribute funds to make any traffic improvements related to the redevelopment of the site.

If you have any questions or require additional information, please contact me at 974-2788.

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 Watershed Protection and Development Review