

April 7, 2006

Roanoke Investments, LLC
c/o Nick Robinson
P.O. Box 5684
Cary, North Carolina 27512

Subject: Traffic Assessment - The Bluffs
Old Graham Road – Chatham County

Dear Mr. Robinson:

This letter summarizes a traffic assessment prepared by Ramey Kemp and Associates, Inc. (RKA) for The Bluffs development to be located on the east side of Old Graham Road (SR 1520) at Rock Rest Road (SR 1547). Based on the Sketch Plan, the development will include a total of 112 single-family homes on approximately 597 acres. Access for the development is provided to Old Graham Road via one exiting connection and one proposed connection. An exiting connection to Old Graham Road is provided via existing Rock Rest Road and one proposed new driveway will be located on Old Graham Road approximately 750 feet south of Rock Rest Road.

Exiting Traffic Volumes

Based on North Carolina Department of Transportation (NCDOT) Average Daily Traffic (ADT) maps, Old Graham Road carried approximately 510 vehicles per day (vpd) in 2004. Typically, roadways such as Old Graham Road would be expected to carry approximately 8,000 to 9,000 vpd before the roadway reached and exceeded capacity. Rock Rest Road currently provides access to a few residences east of Old Graham Road and no traffic volume information was available for this roadway from the NCDOT ADT maps. It is anticipated that this roadway carries much less traffic than Old Graham Road.

Future Traffic Volumes

Traffic volumes along Old Graham Road are expected to increase in the future due to completion of several adjacent developments. The Grantham Property, Page Property, Chapel Ridge, and Meadowview are future developments to be located along the west side of Old Graham Road just south of the proposed site. In addition, the Womble property is located along the east side of Old Graham Road immediately south of the site. Traffic studies have been completed for each of these developments by Ramey Kemp & Associates, Inc.

Roadway improvements were recommended as part of the traffic studies for these developments to mitigate impacts of the traffic generated by each development.

The heaviest traveled section of Old Graham Road would be located south of the Meadowview development. On this section of Old Graham Road, Chapel Ridge is expected to contribute approximately 2,000 vpd, while Meadowview is expected to contribute approximately 3,100 vpd. The remaining developments are smaller and combined will contribute approximately 900 vpd to this section of roadway. In total, traffic from the adjacent developments is expected to contribute approximately 6,000 vpd to Old Graham Road in the future when all developments are completely built out.

Trip Generation

Trips generated by the proposed development were calculated utilizing methodology contained within the Institute of Transportation Engineers (ITE) *Trip Generation Manual*, 7th Edition. At full build out it is estimated that the proposed development will generate approximately 1,154 total site trips (577 enter and 577 exit) during an average 24-hour weekday period. Of this total, approximately 88 total site trips (22 enter and 66 exit) will occur during the weekday a.m. peak hour. Approximately 119 total site trips (75 enter and 44 exit) will occur during the weekday p.m. peak hour. Refer to Table 1 for a detailed breakdown of the entering and exiting site traffic.

**TABLE 1
TRIP GENERATION TABLE**

ITE Land Use (Code)	Dwelling Units	Average Daily Traffic (vpd)	AM Peak Hour (vph)		PM Peak Hour (vph)	
			Enter	Exit	Enter	Exit
Single Family Residential (210)	112	1,154	22	66	75	44

Trip Distribution

Site trip distribution percentages were determined based on distribution percentages in previously completed traffic studies for other adjacent developments. Refer to Figure 1 for the trip distribution percentages and Figure 2 for total peak hour site trips.

Future Traffic Conditions With Site Traffic

In the future, traffic generated by The Bluffs is not expected to have a significant impact on study area roadways or intersections. During the a.m. and p.m. peak hours, the development is expected to generate relatively few trips turning onto and from Old Graham Road. The intersections of Old Graham Road at Rock Rest Road and the proposed site driveway would be expected to operate at an acceptable level of service upon full build out of the development.

The Bluffs would be expected to contribute approximately 700 vpd to the section of Old Graham Road south of the Meadowview development. In the future with build out of The Bluffs development, Chapel Ridge, Meadowview, Page Property, Womble Property, and Grantham Property, Old Graham Road would be expected to operate at an acceptable level of service. It should be noted that these development will be constructed over a period of time, and some of the larger developments may not be completed for 10-15 years or longer. The Bluffs is expected to be built out in a few years and result in a relatively minor increase in traffic in the study area.

In summary, The Bluffs development is not expected to have a significant impact on adjacent roadways or intersections. If you should have any questions or comments please free to contact me at (919) 872-5115.

Sincerely,

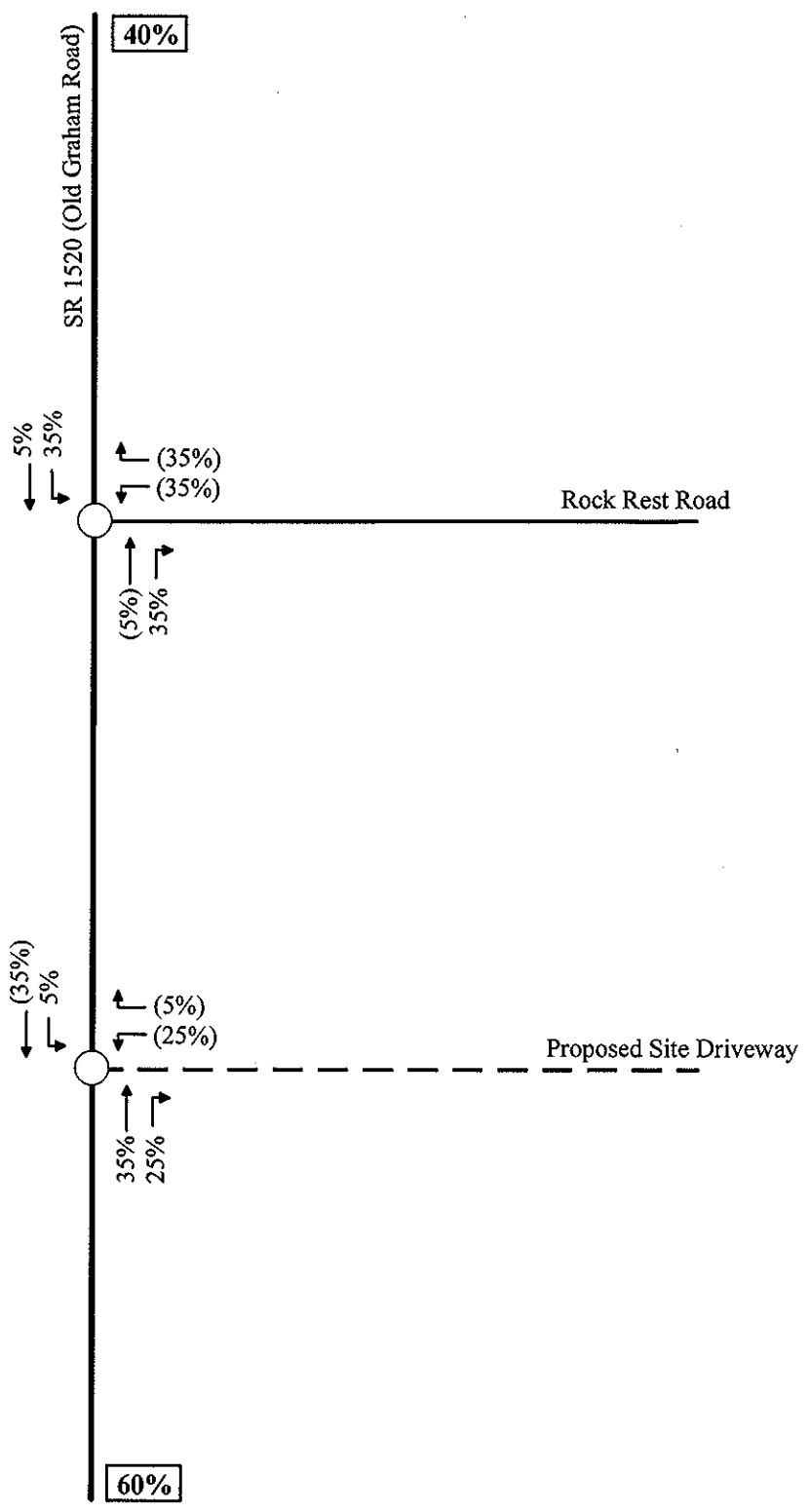
Ramey Kemp and Associates, Inc.



Rynal G. Stephenson, PE
Traffic Engineer

Attachments

cc: Mr. Mark Ashness, PE, ASLA, CE Group, Inc.

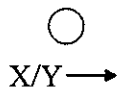
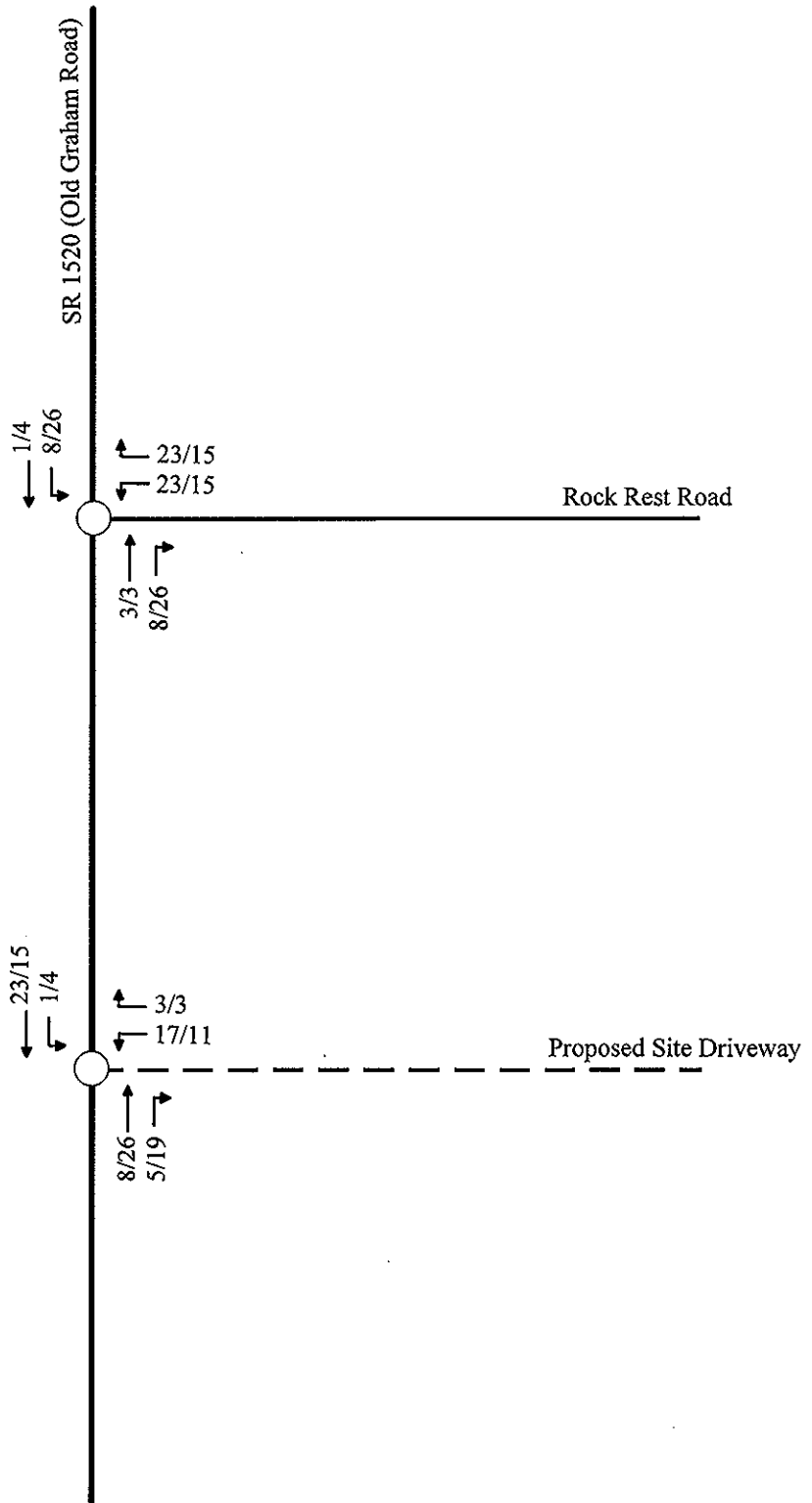


LEGEND

○ Unsignalized Intersection

X (Y) → Entering (Exiting) Site Trip Distribution Percentages

THE BLUFFS RESIDENTIAL DEVELOPMENT CHATHAM COUNTY, NORTH CAROLINA	
SITE TRIP DISTRIBUTION PERCENTAGES	
SCALE: Not to Scale	Figure 1



LEGEND

○ Unsignalized Intersection
 X/Y → AM/PM Peak Hour Site Trips

<p><i>THE BLUFFS RESIDENTIAL DEVELOPMENT CHATHAM COUNTY, NORTH CAROLINA</i></p>	
<p><i>SITE TRIP ASSIGNMENT</i></p>	
<p><i>SCALE: Not to Scale</i></p>	<p><i>Figure 2</i></p>