

**MEMORANDUM****TO:** Davis Buckley**FROM:** Robert Schiesel, P.E.  
Lou Slade, P.E., PTOE**DATE:** September 14, 2007**SUBJECT:** Florida Rock Revised Plans  
Transportation Analysis

Gorove/Slade Associates, Inc. conducted a traffic impact study for the subject site in conjunction with the Planned Unit Development (PUD) and Zoning Map Amendment application (Z.C Case No. 04-14C) of Florida Rock Properties, Inc. As part of the public review of that application, the traffic impact study was reviewed and supported by the District Department of Transportation (DDOT) after revisions. The revised Traffic Impact Study (TIS) for the Florida Rock PUD is attached to this memo.

In its deliberations of the Florida Rock PUD application, the Zoning Commission of the District of Columbia made several comments about the proposed project. Responding to the concerns and comments from the Zoning Commission, Florida Rock is proposing a modified development program.

This memorandum summarizes an assessment of the potential impacts of the proposed modified development on the surrounding network, based on the conclusions drawn in the existing Traffic Impact Study.

***Development Program Comparison***

Table 1 provides a comparison of the current development program (as of September 11, 2007) of the proposed Florida Rock PUD, and the program from a prior submittal.

**Table 1 – Development Program Comparison**

Land Use	December 11, 2006 Approx. Gross Floor Area	September 11, 2007 Approx. Gross Floor Area
Apartment	203,300 SF (160 Units)	323,433 SF (248 Units)
Hotel	242,400 SF (240 Rooms)	246,190 SF (240 Rooms)
Office	608,100 SF	464,937 SF
Retail	61,800 SF	80,840 SF
<b>Total</b>	<b>1,115,600 SF</b>	<b>1,115,400 SF</b>

Other than the land use amounts, no other aspect of the plan that significantly influence traffic patterns has changed. The number of parking spaces, the location and control of garage access points, the site circulation, the loading dock configuration, and the total amount of parking spaces remain the same.

### ***Trip Generation Analysis***

Trips generated by the two programs shown in Table 1 were estimated using a combination of the Institute of Transportation Engineers (ITE) Trip Generation 7<sup>th</sup> edition rates and mode split assumptions from the "Development-Related Ridership Survey II", conducted by the Washington Metropolitan Area Transit Authority (WMATA). This is similar to the methodology employed in the trip estimates contained in the existing Traffic Impact Study. Table 2 summarizes the trip generation for both development programs.

**Table 2 – Trip Generation Comparison**

PUD Component	ITE Code	Amount		Trip Generation					
				AM Peak Hour			PM Peak Hour		
				In	Out	Total	In	Out	Total
December 11, 2006 Program									
Apartment	220	160	Units	16	66	82	69	37	106
Alt. Mode Reduction (48%)				(8)	(32)	(39)	(33)	(18)	(51)
Hotel	310	240	Rooms	91	66	157	74	78	152
Alt. Mode Reduction (25%)				(23)	(17)	(39)	(19)	(20)	(38)
East Office Building	710	288.3	kSF	385	53	438	68	334	402
Alt. Mode Reduction (30%)				(116)	(16)	(131)	(20)	(100)	(121)
West Office Building	710	319.8	kSF	418	57	475	74	363	437
Alt. Mode Reduction (30%)				(125)	(17)	(143)	(22)	(109)	(131)
Retail	814	61.8	kSF	18	17	35	75	95	170
Alt. Mode Reduction (30%)				(5)	(5)	(11)	(23)	(29)	(51)
Total (12/11/2006 Program)				651	173	824	243	632	875
September 11, 2007 Program									
Apartment	220	248	Units	25	100	125	100	54	154
Alt. Mode Reduction (48%)				(12)	(48)	(60)	(48)	(26)	(74)
Hotel	310	240	Rooms	91	66	157	74	78	152
Alt. Mode Reduction (25%)				(23)	(17)	(39)	(19)	(20)	(38)
East Office Building	710	229.3	kSF	320	44	364	57	279	336
Alt. Mode Reduction (30%)				(96)	(13)	(109)	(17)	(84)	(101)
West Office Building	710	235.6	kSF	327	45	372	58	285	343
Alt. Mode Reduction (30%)				(98)	(14)	(112)	(17)	(86)	(103)
Retail	814	80.8	kSF	22	22	44	95	120	215
Alt. Mode Reduction (30%)				(7)	(7)	(13)	(29)	(36)	(65)
Total (9/11/2007 Program)				550	179	729	255	565	820
Difference (9/11/07 – 12/11/06)				(102)	6	(95)	11	(67)	(56)

As shown in Table 2, the September development program generates 12% fewer a.m. peak hour trips, and 6% fewer in p.m. peak hour trips.

The September 2007 development program has the same site driveways and access patterns. Thus, because it generates the same or less trips than the December 2006 program, and site access remains the same, the roadway capacity calculations contained in the traffic impact study based on the 2006 program are still valid for the September 2007 program.



### ***Parking Requirement Comparison***

The Florida Rock PUD will provide approximately 1,000 underground parking spaces, similar to the amount of parking as previously proposed. The primary change to the parking garage in the newly proposed plan is how the spaces are assigned to each use. Table 3 shows a comparison of the required parking per land use (as per zoning regulations) and the assigned parking per land use for both the newly proposed plan and the previous development program.

**Table 3 – Parking Comparison**

Land Use	Number of Spaces			
	12/11/06 Development Program	12/11/06 Final Ratio at Build-Out	9/11/07 Development Program	9/11/07 Final Ratio at Build-Out
<b>Office</b>	608.1 kSF		464.9 kSF	
Provided	506	0.83 spaces	378	0.81 spaces
Required	337	per 1,000 SF	257	per 1,000 SF
Difference	+169		+121	
<b>Retail</b>	61.8 kSF		80.8 kSF	
Provided	79	1.28 spaces	103	1.27 spaces
Required	79	per 1,000 SF	103	per 1,000 SF
Difference	+0		+0	
<b>Residential</b>	160 Units		248 Units	
Provided	259	1.62 spaces	348	1.40 spaces
Required	54	per dwelling unit	62	per dwelling unit
Difference	+205		+286	
<b>Hotel</b>	240 Rooms		240 Rooms	
Provided	166	0.69 spaces	181	0.75 spaces
Required	82	per guest room	80	per guest room
Difference	+84		+101	
<b>Total</b>				
Provided	1,010		1,010	
Required	552		502	
Difference	+458		+508	

### ***Cascade Plaza Trip Generation***

Comments were made regarding the amount of traffic using the central Cascade Plaza. The placement of garage locations and traffic circulation within the site will ensure an insignificant amount of traffic uses the plaza. The prior traffic study showed a conservative trip generation estimate of 134 vehicle trips in the AM peak hour, and 135 in the PM peak hour, mostly generated by pick-up/drop off activity at the hotel valet and office and residential buildings facing the plaza. This equates to approximately one vehicle every thirty seconds. Most likely the amount of vehicles using the plaza will be less, given the conservative trip estimate and the likely-hood that the same vehicle will account for two vehicle-trips (a pick-up/drop-off movement).

In addition, the Cascade Plaza will be using pavers, lighting, and vertical elements to intuitively separate pedestrian and vehicular traffic and indicate to drivers that they are entering a pedestrian-oriented zone. Illuminated glass elements imbedded with the cascade travel way, changes to the texture of the surface and the dynamic design of cascade pattern will provide immediate visual identification about the nature of this space as being a special area that is a pedestrian area that also accommodates vehicular traffic. The shape and roadway geometry of the plaza does not allow for vehicles to attain high speeds, and allows for good visibility between drivers and motorists (even at night). This design allows for the Cascade Plaza to fill essential traffic needs while minimizing possible pedestrian and vehicular conflicts.

## SUMMARY

Based on this comparison of the September 2007 development program for the Florida Rock PUD with the program previously proposed in December 2006, the conclusions reached in the traffic impact study for the prior submittal are still valid:

*"Based on the capacity analysis results contained in this report, prior transportation studies performed near the site, and a review of the site plan, the proposed Florida Rock mixed-use development will have no negative impact on the surrounding local roadway network. The parking provided, circulation within the site, loading operations, and access to Potomac Avenue from site driveways is acceptable for each phase of the project.*

*The close proximity and quality of access to Metrorail significantly reduces potential traffic impacts. In addition, the connection to the Anacostia Riverwalk Trail provides an additional transportation feature to site residents, visitors and office tenants."*