

THE LINK APARTMENTS

(formerly Liberty Multifamily Development)

TIA Supplement – Cut-Through Analysis

January 2026

Prepared By:



250 E Elizabeth St, Ste 114 ~ Harrisonburg, Virginia

Following initial presentation of the proposed apartment project, public sentiment raised the concern of increased “cut-through” traffic on Paul St ... traffic originating on Liberty St that would be enticed to utilize Paul St as a preferred route for destinations located north-northeast of MLK Jr Way. This supplemental study is provided in effort to address this concern. As the Paul St extension does not presently exist, this traffic currently travels via the direct connection to MLK Jr Way, located approximately 0.02 miles south of the proposed Paul St extension. Both routes are included below in Figure 1. Projecting the probability of new cut-through traffic via this created route requires an analysis of those factors typically influencing traffic routing behavior. In this situation, those can largely be distilled down to, in order of ascending priority: nuisance factors, travel distance, and travel time.

Figure 1 – Cut-Through Analysis Vicinity



In terms of driving, nuisance factors include those elements that create variance in travel time (e.g., railroad crossings, work zones), create stoppage (e.g., stop signs, traffic signals), are cumbersome to traverse (e.g., speed bumps or speed humps), are potential hazards, etc. Here, the existing route contains a number of elements that can be deemed a nuisance, including three stop-controlled intersections (Paul St & S Main, Paul St & Mason St, and Paul St & Ott St), two speed humps, and one signalized intersection. Additionally, the portion of Paul St between Mason St and Ott St can feel hazardous at times; with unmarked parking on both sides of the street, a driver must sometimes pause between parked vehicles to allow another driver to pass in the opposite direction. Finally, between Ott St and MLK, Jr Way, there is no sidewalk, while there are numerous pedestrians. In contrast, the traditional route requires traversing three signalized intersections (S Main St & MLK, Jr Way, MLK & Mason St, and MLK & Paul St), with significant pedestrian crossings at the intersection of MLK & Mason St, but relatively little else; only one of the traffic signals requires a turning movement (S Main St & MLK, Jr Way), and it includes a flashing yellow that helps to mitigate its presence. Nuisance factors are subjective in nature, but there is little present to suggest the traditional route as a more cumbersome path of travel than the cut-through alternative.

In terms of travel distance, the cut-through route would be approximately 700 LF shorter than the traditional route, ~3650 LF versus 4,350 LF. This is a relatively minor differential, and not likely to influence driving choices in this vicinity.

For shorter routes absent of other determining factors, travel time is the most influential impactor on a driver's route choice. In order to compare the routes in question, travel time runs were completed in accordance with guidance provided in the VDOT *Traffic Operations and Safety Analysis Manual (TOSAM)*. This included collecting ten time runs for each route, with data collected over two weekdays (Oct 1-2), during peak hours, when JMU was in full-session and no other traffic impacts were present. As the Paul St Extension is not yet constructed, routes were chosen to accomplish equitable distances and traffic control; starting from the stop-controlled intersection of W Grattan & S Main to insert a left-turn movement onto one-way S Main St in lieu of crossing at Paul St for the cut-through route, and then utilizing a starting location on S Liberty St to create an equitable distance factor for the traditional route comparison.

Once data was collected, the highest and lowest values were deleted from each route and the remaining eight values were analyzed for means and median times. Results show that even during peak hours, the

traditional route for traffic had faster median and mean times. As the traditional route is more heavily influenced by peak hour traffic than the cut-through route, it can be assumed that the deltas in travel time are even greater during off-peak hours. Tabulated data is presented below, in Table 1.

Table 1 – Time Run Analysis

Run	AM Peak Hour		PM Peak Hour	
	From Site to East			
	Traditional	Cut-Through	Traditional	Cut-Through
1	3:18	3:18	2:52	3:05
2	2:23	2:36	2:29	3:12
3	2:21	3:08	2:54	3:20
4	2:09	3:14	2:07	2:45
5	2:24	2:49	2:33	2:58
6	2:15	3:21	2:18	3:02
7	1:36	2:30	3:05	3:07
8	1:30	2:27	2:35	2:35
9	2:33	2:29	2:52	3:09
10	2:12	2:39	3:27	2:32
MED	2:18	2:44	2:43	3:03
AVG	2:14	2:50	2:42	2:59

Red – indicates time eliminated from calculations as outlier.

Green – indicates lower median or average travel time.

In sum, without the creation of enhanced travel time, significant travel distance savings, or reduced travel nuisances, this supplemental analysis finds no evidence that any significant traffic will opt for the cut-through route over the existing, traditional route. The existing traffic calming measures located on Paul St are expected to continue in their effectiveness to deter cut-through traffic. Should additional traffic calming measures be sought, however, creation of a 4-way stop at the intersection of Paul St & Myers Ave could be an option. Currently, the stop-control is only on the Myers Ave approaches, but sight distance is somewhat limited on the Paul St approaches, and thus may be warranted for their own stop-control following additional analysis. Additional analysis should be performed prior to implementation.

