

April 25, 2014

Mr. Troy Attaway, P.E.
Public Works Director
City of Winter Park
401 Park Avenue South
Winter Park, Florida 32789

Subject: Lee Road Extension Traffic Analysis Review

Dear Mr. Attaway:

Comprehensive Engineering Services, Inc. (CES) has reviewed the traffic analysis submitted for the extension of Lee Road and the development of the site which includes a Whole Foods on the east side of US 17/92 in the City of Winter Park. In addition, we have met with the Developer's Engineers to obtain a more complete understanding of the traffic impacts and the methodology used in their analysis. The primary purpose for the proposed Lee Road extension is to provide relief to congestion along US 17/92 and to enhance access to the site at the US 17/92 intersection. For the Florida Department of Transportation (FDOT) to allow this connection, improvements that mitigate the added delay associated with the additional signal time to service the fourth leg of the intersection are required. FDOT has indicated that the only way to mitigate the added approach to the intersection is for Lee Road to be extended further to the east to provide relief for delay associated with the movements to and from Lee Road and Webster Avenue.

The Developer's team analyzed three alternatives for the extension of Lee Road to the east which are depicted in the attachment listed as Figure 3 from the Developer's Traffic Analysis Report and include:

1. 2004 PD&E Alignment – The FDOT has completed a Project Development and Environmental (PD&E) report for improvements along the US 17/92 corridor that included the extension of Lee Road to Denning Drive at the intersection with Solana Avenue as the preferred alignment.
2. Alignment A – Lee Road would extend eastward to connect to Denning Drive at the Carver Street intersection. This proposed extension would restrict traffic on Lee Road from turning left onto northbound Denning Drive or eastbound through onto Carver Street.
3. Alignment B – Lee Road would extend eastward to a point midway between US 17/92 and Denning Drive then turn to the south and connect to Webster Avenue. This alternative would also prohibit southbound lefts from US 17/92 onto Webster Avenue.

We reviewed the analysis completed by the Developer's team as it relates to overall traffic operations, access and for the potential of "cut-through" traffic to nearby residential areas including but not limited to North Park Avenue, Palmer Avenue and Carver Street. We offer the following recommendations for consideration of each alternative.

1. For the first alternative based on the 2004 PD&E, consideration should be given to utilizing a roundabout for the intersection of Lee Road with Denning Drive, Solana Avenue and Railroad Avenue. This alternative offers the best connectivity to the neighborhoods to the north and east which may be desirable to some and undesirable to others that are concerned about cut-through traffic. The roundabout may help mitigate this concern for some.
2. For Alignment A, We concur that with this alternative the eastbound lefts and through movements be prohibited at the intersection with Carver Street to mitigate cut-through traffic concerns. However, elimination of these movements may be undesirable to some residents who wish to shop at the proposed development.

3. For Alignment B, We concur with the recommendation that the southbound lefts from US 17/92 be prohibited at Webster Avenue. This Alternative would result in the most mitigation to existing traffic operational concerns on US 17/92. It would have the most noticeable improvements to the ongoing issues that result in delay caused by the northbound US 17/92 left turns at Lee Road and the southbound US 17/92 left turns at Webster Avenue. The queues associated with these movements significantly reduce the overall operational performance of these intersections and can also inhibit northbound/southbound traffic flow along US 17/92 between these intersections. This Alternative also gives the most reduction in perceived cut-through traffic into the residential communities to the north and east of the site. There does not appear to be any advantage for additional trips originating from North Park Avenue or Palmer Avenue to utilize this new connection. The traffic analysis prepared by the Developer indicates that a signal is not warranted for the new Lee Road connection to Webster Avenue. However, after construction the intersection should be studied for signalization warrants. It is anticipated that at some time in the future a signal will be warranted.


Regardless of which alignment is selected additional enhancements for pedestrians, access management and landscaping should be included. The access management can be accomplished with landscaped medians and all sidewalks should be 8 foot in width to provide safe and appealing pedestrian travel to the site.

As we analyze these types of developments as it pertains to trip generation and traffic assignment to connected streets, it is important to understand that since this site does not include any new residential development, almost all of the trips are “attracted” to the site or “captured” from adjacent roadways. In addition, since there are many competing similar establishments in the overall area of influence it will mostly attract trips from areas nearby and capture passerby trips already occurring. What this means is that some trips to this site will be much shorter than trips that currently occur to other commercial sites and as it relates to this site, traffic will most likely be reduced in some roadway links. This is best exemplified in this situation, where there are certainly some trips originating from residential areas to the north that currently travel along North Park Avenue and Palmer Avenue to shop at the Whole Foods on Aloma Avenue. Some of these trips will be removed in favor of traveling to the new Whole Foods.

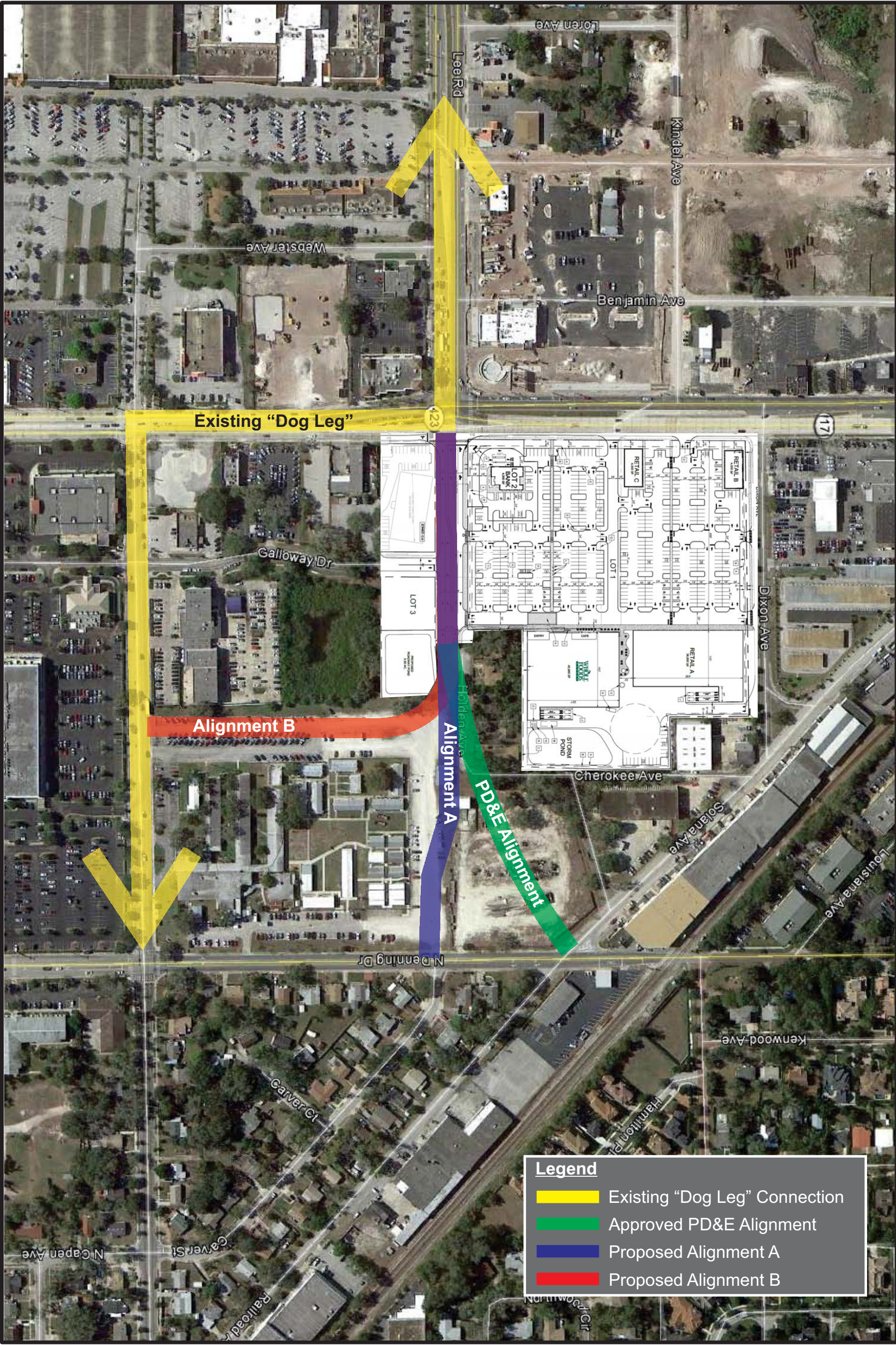
The primary reason that a motorist chooses to “cut-through” parallel streets (that can often be residential) is because of the delay on the primary arterial routes. The US 17/92 congestion associated with eastbound Lee Road traffic which continues to eastbound Webster Avenue and the westbound Webster Avenue traffic which is continuing to Lee Road is the exact type of situation that causes cut-through traffic. The queues associated with these movements often spill over into the through lanes of US 17/92 causing significant delay which pushes traffic into parallel roadways and even further into residential streets. It does not appear that any of the proposed alternatives would result in an actual increase in cut-through traffic and may actually reduce traffic in some links due to the reduction in delay on US 17/92, and as it relates to this development, shorten trip lengths to this destination. Increased development in the vicinity of this site may increase overall traffic on the roadway network in the future. However, the extension of Lee Road to the east on its own should not be the cause of any increased traffic on nearby residential streets. It would actually help disperse traffic more effectively, resulting in reduced risk of a significant impact to only a few streets.

It is our recommendation that Alternative B with the elimination of the southbound left turn movement from US 17/92 to Webster Avenue be the preferred improvement. This alternative provides the most improvement to congestion along US 17/92 and the operations of intersections in the vicinity. This alternative also provides the most direct route for traffic that is currently traveling this way to and from the residential areas of Winter Park and for shopping/dining along South Park Avenue. Another positive consideration for this alignment is that it provides better multimodal connectivity to the Winter Park Village and other new development occurring to the south without relying on access from the already congested US 17/92 corridor.

Comprehensive Engineering Services, Inc.


Christopher A. Simoneaux, P.E.





Legend

- Existing "Dog Leg" Connection
- Approved PD&E Alignment
- Proposed Alignment A
- Proposed Alignment B