



Engineering & Planning, Inc.

1172 SW 30th Street, Suite 500 • Palm City • Florida • 34990

(772) 286-8030 • www.mackenzieengineeringinc.com

To: Mr. Bradley Geist
Mr. Francis A. LeCates, Jr.
Mr. Grier Pressly
Mrs. Katie Pressly
Mr. John Schaefer
Mr. and Mrs. Edmund Spivack

From: Shaun G. MacKenzie, P.E.

Date: January 30, 2019

Re: Carriage House

Shaun G. MacKenzie
Florida P.E. 61751
CA#29013

MacKenzie Engineering and Planning, Inc. (MEP) reviewed numerous documents related to the proposed Carriage House. Based on our review, we have numerous concerns regarding the submittal.

1. The traffic analysis shows that South County Road in front of the project **fails** (Applicant's traffic study – Table 4) without the project. Based on the proposed reduced trip generation rate, the project is considered not significant. The study did not use the conservative 250 member number nor the more conservative trip generation rate based on square feet; For events, the arrival rate is expected to be greater than a quality restaurant. This may cause the project's impact be significant on the projected failing segment of South County Road.
2. The submittal has no plan for lunchtime parking. No evaluation of on-street parking availability was performed.
 - a. The parking plan is entirely reliant on the availability of on-street parking within the adjacent area.
 - b. No consideration was given to the approved Palm House Hotel, which is approved for 79 hotel rooms, a 185 seat restaurant and functions of up to 150 people.
 - c. The Palm House Hotel only has 67 space parking lot and relies on on-street parking, specifically for the restaurant portion of the use.
 - d. The restaurant generates more parking demand and traffic than the hotel and therefore cannot be considered ancillary from a traffic and parking perspective.
 - e. The 150 person function area was considered ancillary as well. A 150 person function area has the potential to generate an average of 75 peak hour trips and therefore also a parking demand of 75 parking spaces, both of which are higher than estimated in the Kimley-Horn report.

- f. The traffic analysis should have considered all three uses independently and applied an estimated co-location or internal capture factor to determine the impact of the hotel.
 - g. The applicant's traffic analysis significantly underestimates the potential traffic impact of the hotel, and therefore underestimates the traffic that will utilize the South County Road & Royal Palm Way intersection and adjacent streets. During events and mealtimes, the hotel is expected to utilize a significant amount of on-street parking that Carriage House is proposing to use for its parking.
3. The arrivals at the club will be concurrent rather than distributed because it is a social club with set meeting dates. The trip generation and queuing analysis are based on spread out or distributed arrivals.
 4. Based on the concurrent arrival pattern, the valet may be overwhelmed by the 200+ membership arrival during the peak and back out onto Royal Palm Way.
 5. The approval should be contingent on the approval of a lease and continued operation at 205 Royal Palm Way for the valet pick-up and drop-off.
 6. The approval should also be contingent upon the lease of the lot at 230/240 Royal Palm Way.
 7. The traffic examined a 79 room hotel for the Palm House Hotel, but not the attached 185 seat restaurant or 150 person meeting room.
 8. The intersection analysis incorrectly used a 0 second yellow change interval and 0 second all-red interval in the intersection analysis. It also did not include the impacts of pedestrians on vehicular capacity at the intersection, specifically the reduced right-turn capacity of drivers that must wait for pedestrians to safely cross at the cross-walk.
 9. The intersection analysis did not account for on-street parking and therefore provides overly optimistic results at the intersection and overly optimistic queuing results. Including the factors identified in 2., 7. and 8. could result in failure of the intersection.
 10. The applicant is assuming that the parking lots for the valet and parking will be completely empty. However data from ITE and ULI estimate that 25 percent of the parking will still be in use by the office users and the valets will not be able to effectively over-park the lot.
 11. Any valet in front of the Club on the failing segment of South County Road will significantly impact the failing segment of South County Road.
 12. The applicant did not include the traffic impact of the valet between 205 Royal Palm Way and 230/240 Royal Palm Way, which will add an additional 100 percent of the traffic impact to Royal Palm Way to account for the valet traveling back forth between the sites. This results in the project traffic significantly impacting Royal Palm Way between 205 and 230/240 Royal Palm Way.
 13. Additionally, the driveway volumes at 205 Royal Palm Way will be higher than what is shown in the traffic study because of the valet trips.