DAVA & ASSOCIATES, INC.

PLANNING
ENGINEERING
SURVEYING

310 East Union Street
Prescott,AZ 86303

(928) 778-7587

FAX:(928) 778-1047
www.davacivil.com

July 6, 2015

Mr. Larry Tarkowski
Town Manager
Town of Prescott Valley
7501 East Civic Circle
Prescott Valley, Arizona 86314

Re: The Significance of Roundabout Designations in the PVTC Master Plans

Dear Mr. Tarkowski:

This letter has been prepared to support past and potentially pending near-term future decisions by the Town of Prescott Valley to phase construction of improvements to various roundabout designated intersections located in Prescott Valley Town Center (PVTC), such that these intersections are initially improved by the Town in a manner which accommodates anticipated near-term future demands and incorporates safety improvement measures which may be warranted at the time, while at the same time maintaining a conventional, non-circular intersection configuration. This letter additionally acknowledges a professional opinion recently shared with Town Management, that providing acceptable levels of service for vehicular traffic and safe and reasonably convenient ways to cross the street for pedestrian traffic, can be accomplished at any of the intersections considered in this letter, with either a roundabout/circular configuration, or a conventional/non-circular configuration. In short, this letter provides justification for taking more into consideration when determining how the four (4) subject intersections listed below, should be initially and ultimately improved, than simply the roundabout designations that appear in a PVTC Master Circulation Plan adopted by the Town in 2007.

Subject Intersections

The intersections to which the opinions expressed in this letter exclusively apply, are listed below

- Lakeshore Drive and Civic Circle West/Interim Main Street
- Lakeshore Drive at Civic Circle East
- Civic Circle at Viewpoint Drive
- Civic Circle at Civic Drive

Two exhibits have been prepared to supplement this letter. **Exhibit A** has been prepared to recognize the PVTC boundary; the location of each above-listed roundabout designated intersection; and the form of traffic control under which each of these intersections currently operates. **Exhibit B** provides a reference copy of the PVTC Master Circulation Plan as it appears in Section 6.1.2.7 (labeled Exhibit CIR-9) of the Town's current General Plan.

These intersections have been designated as future roundabouts since the Town's 2007 adoption of a Prescott Valley Town Center Master Circulation Plan. The PVTC Master Circulation Plan, in turn, was supported by traffic impact analysis performed by Kimley-Horn and Associates, Inc. (Kimley-Horn), and documented in a Kimley-Horn-authored report entitled *Master Circulation Plan Evaluation – Revision No. 2 (for) Prescott Valley Town Center, June 2007* (the 2007 TIA). The 2007 TIA, for which I was largely responsible in my former role as a Traffic Engineer and Project Manager for Kimley-Horn, concluded that roundabouts at these intersections would provide more than enough capacity to provide acceptable levels of service through full build-out of PVTC, and recognized that recommending roundabouts for these intersections would satisfy what was then a Town directive to incorporate roundabouts into the PVTC master plan.

Opinion Development Process

The process followed to reach the opinions expressed in this letter is summarized below:

1. Reviewing the Town's "on-file" version of the 2007 TIA, to confirm the accuracy of my recollection of factors influencing the determination that roundabouts should be designated for these intersections, as well as my recollection of the traffic modeling conclusions. Through this review it was additionally concluded that, had roundabout designations not been so heavily influenced by the Town's desire at the time to incorporate roundabouts into the master plan, non-roundabout alternatives would have been given more consideration in the traffic impact analysis report.
2. Reviewing technical review comments on a pre-final version of the above-referenced report, prepared by Stantec Consultants, as a third party reviewer retained by the Town for this specific purpose.
3. Reviewing a Roundabout Feasibility Analysis for the intersection of Windsong Drive and Loos Drive/Civic Drive, also prepared by Kimley-Horn in 2007, which concluded that a conventionally configured intersection in combination with minor approach stop sign control at first, and in combination with a traffic signal when warranted, would perform better at this location than a roundabout. The Town ultimately concurred and the intersection is now operating under traffic signal control.
4. Reviewing the entire Circulation Element of the Town's General Plan 2025.
5. Requesting current hourly traffic count data from the Town for the various street segments leading up to the subject intersections; information that I have since concluded does not exist. In order to determine what type of traffic control and/or safety measures should be provided at and/or near the Lakeshore Drive/Civic Center West intersection, if a roundabout is not built with the pending Lakeshore widening project, current traffic count data, including AM and PM peak hour turning movement volumes should be collected and evaluated in this context.

6. Requesting traffic collision history from the Town, for each of the subject intersections, and reviewing a very abbreviated 4-year summary of reported collisions. Information I have been provided indicates that several collisions have occurred at either one or both of the two existing Lakeshore Drive/Civic Circle intersections over the past few years; however, the information does not fully distinguish those incidents which have occurred at the Civic Circle West intersection, from those which have occurred at the Civic Circle East intersection, nor does it indicate the type or severity of any of the incidents. More detail about the incidents is needed to determine whether safety improvement measures beyond widening Lakeshore Drive are warranted at this time.
7. Learning from Fain Signature Group, and the Town, that the land use assumptions upon which the 2007 traffic impact analysis (including the resultant roundabout recommendations) was largely based, significantly overstate the currently envisioned intensity of commercial (shopping center) development that will occur immediately north and south of Lakeshore Drive, between Glassford Hill Road and Civic Circle West. This being the case, northbound and southbound through movements across Lakeshore Drive at Civic Circle West will likely be significantly less than originally predicted, suggesting that even less of the capacity that would be provided by a roundabout at this location than indicated by traffic modeling performed in 2007 will actually be used.
8. Learning from Fain Signature Group, and the Town, that the permanent alignment of Main Street north of Sundogs Boulevard is likely to run along a generally north south route that will cross Lakeshore Drive less than 500 feet to the west of Main Street's existing/interim alignment which intersects Lakeshore Drive directly across from Civic Circle West. This being the case, it seems that further consideration should be given to the Main Street realignment implications of either building, postponing, or excluding altogether, the construction of a roundabout at the intersection of Lakeshore Drive and Civic Circle West.
9. Reviewing current construction plans prepared by DAVA & Associates, Inc. (a project in which I personally had no involvement) for a two-lane roundabout at the intersection of Lakeshore Drive and Civic Circle West/Interim Main Street. This review was performed only to the extent necessary to determine the limits of roundabout specific construction on Lakeshore Drive; determination that may be useful in the future, if and when the desire to identify the closest possible point, to the west of Civic Circle West, that cross street access could be provided (for future Main Street) without interfering with traffic operations at the Lakeshore/Civic Circle West intersection, should the Lakeshore/Civic Circle intersection ultimately be converted to a roundabout.

Conclusion

Through this process I was able to identify several reasons that support flexibility in mandating roundabout construction at the subject intersections, so long as appropriate in lieu measures are taken to address current and future capacity and safety needs, in accordance with the same standards and policies which apply to intersections located outside Prescott Valley Town Center.

In closing, it is anticipated this letter will provide the Town with adequate justification for taking more into consideration when determining how the subject intersections should be initially and ultimately improved, than simply the roundabout designations that appear in the

PVTC Master Circulation Plan. Should there still be questions regarding my opinion on this matter, please contact me at (602) 568-2721 at your earliest convenience.

Sincerely,

Tove White

Tové Christina White, P.E.

DAVA & Associates, Inc.

Registered Professional Engineer (Civil)
CERTIFICATE NO.
27781
TOVE CHRISTINA WHITE
Date Signed 7/6/15
ARIZONA U.S.A.

Expires 3/31/18

Attachments: Exhibits A and B

cc: Norm Davis, PE, Public Works Director
Richard Parker, Community Development Director
Vickie Anderson, Community Development Administrative Supervisor