


MEMO

To: Eric Lee, City of Davis
Kemble Pope, Trackside Center, LLC
Steve Greenfield, P.E. Cunningham Engineering

From: Jonathan Flecker, P.E. 

Date: August 22, 2017

Re: Trackside Center - Supplemental Information Regarding Southbound Access in lieu of Northbound Access

We have qualitatively reviewed the impact of shifting access for the Trackside project from northbound only along the alley to southbound only. Under the current layout all intersections will operate at LOS C or better under Existing plus Project conditions. Under Cumulative plus Project conditions the 3rd Street / F Street intersection will decline to LOS F conditions in the p.m. peak hour without and with the project. The worst delays include the eastbound and southbound approaches to the intersection.

If the project access to the site is shifted to the north, traffic patterns from the downtown Davis area would also shift with project traffic from west and north Davis turning onto 4th Street instead of 3rd Street to enter the alley. This traffic is mostly associated with the residential portion of the project as on-site parking is unavailable for the retail customers. Additionally, the X-permit parking travel patterns will also shift, with vehicles entering from the north along 4th Street and exiting onto 3rd Street. With this shift in direction, the 3rd Street / F Street intersection may operate incrementally better as vehicles leaving the site heading west or north would travel through the intersection along 3rd Street or make a right turn onto F Street. Left turning traffic heading towards I-80 would affect the intersection; however, this approach has less delay than the eastbound and southbound approaches which are more affected under the current northbound driveway alignment.

The change in direction along the alley is not expected to be noticeable as the same number of vehicles would be expected to enter from one side and depart at the other. With a southbound directional flow, all vehicles leaving the alley turn onto 3rd Street. 3rd Street is a major east-west bikeway for downtown and UC campus traffic. Clear lines of sight need to be maintained to allow all users to be seen.

Changing the direction of flow to southbound may be constructive to reducing traffic along the alley as customers to the retail elements are likely to approach the site along 3rd Street due to the building location. Intuitively, Motorists would be more likely to find a parking space along the street or within a parking lot / structure rather than thinking they may get 'lucky' by circling around the block to enter the alley to find a 'close-in' space.

Bicycle Contra Flow Along Alley

The current alignment includes development of a contra flow bicycle lane along the project frontage on the west side of the alley, between the alley 'lane' and the 'X' permit / commercial parking area. By flipping the access southbound the contra flow lane would be removed as bicycle traffic will be in the direction of travel and would be part of the alley traffic. A northbound bike lane could be installed along the east side of the alley, consistent with directional travel with striping to delineate each direction. Given the expected low volume of auto and bicycle traffic on the alley, the installation of bike facilities would not appear necessary while also setting a precedent for bike lanes in other low speed alleys.

Pedestrian Access

Pedestrian access along the alley would continue to be mostly limited to pedestrians accessing the project, and primarily from 3rd Street or the 'X' and commercial parking spaces along the project frontage. The sidewalk along the project frontage will provide a separate facility. There is not expected to be any change regardless of the direction of automobile travel within the alley.

Conclusions

The Trackside Center project was analyzed with access to the alley and residential parking spaces from 3rd Street one-way to 4th Street. Under this scenario the roadway network will operate acceptably with sidewalk available for pedestrians along the 3rd Street and alley project frontages. Bike lanes will be maintained along 3rd Street and a contra-flow bike lane is proposed along the alley project frontage to provide site access for bicyclists riding southbound in the alley.

Shifting the access 180 degrees and providing access from 4th Street southbound to 3rd Street is a viable alternative that would not affect level of service conditions at any of the study intersections. Under this alternative the contra flow bicycle lane would be removed and a northbound bicycle lane could be added along the east side of the alley, consistent with correct directional travel. Pedestrian access would remain as proposed with sidewalk access to the site along 3rd Street and the alley frontage.

KDA