

## **BROADWAY CORRIDOR DESIGN**

### **IDEAS FOR NARROWING THE ROADWAY**

by W. Eugene Caywood, 10/23/14

More creativity is needed in narrowing the roadway to avoid demolishing buildings. The questions and ideas below have not been adequately considered, in my view. Doing so could result in changes that save considerable width in critical locations. The bulk of the impacted buildings are west of Campbell, so this effort at creative thinking has been focused in that section. The key to reducing the roadway width in that area, as it turns out, is to eliminate or move turn lanes and bus pullouts, consideration of which follows below:

1. **RIGHT TURN LANES - HIGHLAND:** The consultants have shown right turn lanes both EB and WB on Broadway at Highland. Why are these needed, especially EB since Highland ends less than a mile to the south? Won't anyone dropping their kids off at Miles turn right at Vine so they can let the kids off on the side of the street where the school is located? That a separate lane isn't needed is borne out by the Traffic Engineering Study (Exhibit 13) which shows only 60 a.m. peak hour right turns and 20 p.m. peak hour right turns. Assuming a 90 second cycle for traffic signals, the larger a.m. number works out to only 1.33 vehicles turning right in each cycle. This does not, in my view, justify the destruction of historically significant buildings to provide an exclusive turn lane.

The right turn from WB Broadway, as might be expected with cars trying to get to the UA, does have a higher volume – 105 turns in the a.m. peak and 45 in the p.m. peak. However, even this larger a.m. volume amounts to an average of only 2.33 cars per traffic signal cycle, not a quantity that necessitates a separate right turn lane when the cost is the demolition of historic structures.

2. **LEFT TURNS – HIGHLAND.** Do we really need left turn lanes on Broadway at Highland? Think about what the traffic is doing there. Not many people turn south from WB Broadway because the street ends 3/4 mile away. Those that do need to turn south can use the left turn lane the school district has requested a block east at Vine. In like manner, few turns are made north from EB Broadway onto Highland since the road ends less than 3/4 mile away in the UA campus. Those that do turn there either have a destination in Rincon Heights, so could use Park or Santa Rita instead, or have a destination at a UA parking lot and could use another left turn location to get there. The peak-hour turning volumes shown in the Traffic Engineering Study (Exhibit 13) reflect these observations. There are only 45 WB left turns in the a.m. and 35 in the p.m., and only 50 EB left turns in the a.m. and 45 in the p.m. – an average of less than one car in each direction per signal cycle.

3. **LEFT TURNS – VINE.** If the left turn bays at Highland are eliminated, how about adding an EB left turn lane at Vine to compliment the WB left turn lane needed there for the school buses? It is easy to add the EB turn lane without any (or much) additional widening as the median already has to widen out to provide room for the WB turn lane requested for the school buses.

4. **LEFT TURNS – CHERRY.** Why do we have to have left turn lanes at Cherry? The street ends a half mile to the south and 4 blocks to the north - it doesn't even get to the signal at 6th Street anymore. WB people wanting to go south into Miles neighborhood can use the left turn lane at Vine provided for the school buses, or perhaps at Warren if one is provided there. EB people accessing Rincon Heights and the UA can use any other left turn bay along this section of Broadway.

5. **LEFT TURNS – WARREN.** If desired, it would also be possible to provide a left turn bay at Warren, possibly in conjunction with a Kino remote left turn for WB Broadway traffic.

5. BUS PULLOUT LOCATION AND NUMBER: The premise the consultant team is currently working under is that bus pullouts will be provided only at signalized intersections. At locations in between, buses will stop in the travel lane. Between Euclid and Campbell the only other signal is at Highland. Highland is a critical location in terms of the desire to keep the roadway narrow so as to minimize the taking of historic buildings on the north and minimize impacts to the Miles School property on the south. So the question becomes, do we have to have bus pullouts at Highland?

My answer would be no for two reasons. First, since we are adding a third lane in each direction, there should be adequate space for auto drivers to bypass stopped buses at Highland without an undue wait for traffic to clear in the adjoining lane allowing them to pull around. Second, since traffic is very light on Highland, the amount of green time provided for Broadway traffic should be long enough for traffic backed up behind a stopped bus to clear before blocking crossing Highland traffic when the light finally turns green for Highland.

6. TRANSIT MODE INTEGRATION – LOCAL AND LIMITED: Little or no effort has gone into the idea of integrating Local transit and Limited transit in the same lane. Were there plenty of right-of-way and no desire to save existing adjacent buildings, the “Ultimate [Future] Transit Concept” proposed by the consultants would work well. It assumes Limited service (BRT or LRT) in two center lanes with stops at platforms in the median, and Local service in the right hand lanes with bus pullouts. But the problem is that this results in two sets of transit stops taking additional land and eliminating more buildings. Creative thinking is needed to integrate Local and Limited transit in the same lane. This may, at times, result in delays to the Limited vehicles, but that should be an acceptable trade off versus destroying more buildings.

CONCLUSION: The combination of actions resulting from the above ideas/suggestions would save considerable width along most of the stretch of roadway west of Campbell, saving most, if not all, of the buildings currently shown as having to be demolished. This scenario is illustrated on the accompanying drawing. Given time constraints, only curbs, left turn pavement markings and minimum right-of-way lines have been shown on the drawing.