This concept tries to provide additional capacity on Cascade Ave., more control of traffic, improved safety for pedestrians, and minimal widening.

The typical cross section of the road includes a median with a minimum width of 6 feet next to the left turn lanes. The width would provide an area wide enough for a pedestrian to stand on. The left turn lanes would be 12 feet wide, which is minimum width. The median would expand to at least 14 feet in areas where there are no left turn lanes.

Two through lanes in each direction would be provided. The through lane next to the curb would be 14 feet wide. The other through lane would be 13 feet wide next to the median and 12 feet wide next to the left turn lane. There would be no parking on either side of the street. Possible bicyclists would use a traffic lane.

The left turn lanes will provide a storage area for traffic waiting to turn left and will virtually eliminate the through traffic delays associated with the left turns. Equally important is the elimination of through traffic bypassing left turning traffic by swerving to the curb lane to pass on the right. This maneuver is of special concern where pedestrians are crossing.

Pedestrians crossing Cascade Ave at an intersection will only have to cross ½ of the roadway at a time. Even though by law pedestrians have the right of way at an intersection, it is safer if pedestrians can cross one direction at a time. With this cross section, pedestrians will have to cross 2 lanes of traffic at a time, both traveling in the same direction. Observations of traffic have shown motorists are more likely to yield to a pedestrian on a divided roadway than on an open roadway. Observations and crash data have also shown that pedestrians face a problem on multilane approaches when traffic in one lane stops, but traffic in the adjacent same direction lane does not.

Pedestrians crossing Cascade Ave at locations other than an intersection may have a safer environment. While these crossings will always be hazardous and should be discouraged, they will always occur with the location of area parking generators and routes. Pedestrians will have the benefit of a median waiting area, but will have to cross two lanes of same direction traffic at a time.

The four lane section is likely to result in an increase in speed. The more open area, fewer conflicts with slower vehicles, no friction from parked cars and the ability to pass other vehicles will all contribute to the speed increase.
Parking on Cascade Ave will be eliminated in the areas of the four lane roadway. There currently are about 93 parking spaces on Cascade Ave between Spruce St. and 6th St.

The medians also help define the location and limits of intersections. Cascade Ave motorists will be more aware of the intersections and their potential conflicts. The median also better defines the lanes at an intersection, both for through traffic and entering traffic. Where there are 2 lanes and a left turn lane in one direction and 2 lanes in the other direction, a median is very important in helping define turning paths for vehicles. The median is also a barrier and prevents mid block left turns further reducing conflicts.

The width of the median and the need to maintain intersection sight distance will limit the areas where any raised beautification efforts can take place. Low level planting areas and a few open areas for taller plantings, etc would be available.

Two lanes of traffic in each direction are considered to meet capacity needs of traffic when volumes exceed 10,000 to 12,000 Average Daily Traffic (ADT). Streets with one lane of traffic in each direction and with turn lanes and proper traffic control at intersections have successfully carried 18,000 ADT. The need for 4 lanes considers peak hour percentages, annual traffic variation, composition of traffic and purpose of traffic.

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