The concept is to lower the grade of Cascade Ave to permit pedestrians to cross on an at grade level. The lowering could be for one intersection such as Third Street, or for a short distance such as from 3rd Street to 4th Street. Several options exist and the benefits and problems would be similar but change in size, amount or scope.

Lowering the grade for a full block would allow pedestrians to cross at grade at several locations on bridges over the depressed roadway. This obviously would eliminate many of the vehicle/pedestrian conflicts. It might also provide a better or more pleasing view between North Hall and the main campus without traffic and parked vehicles.

With a vertical curve on either end and at the bottom, all with an appropriate design speed and slope, the length of the total construction would be 500 feet either side of the lowest portion of the underpass. With a one block lowered section, the intersection at 2nd Street would be lowered and the two streets would be on downgrades, which is not good design practice. The east touchdown would be west of 6th Street. The intersections of 3rd Street, 4th Street, and 5th Street with Cascade Ave. would all be eliminated. A bridge could connect 3rd Street across Cascade Ave if the UWRF concept of extending the internal street system further west cannot be achieved.

An alternate concept would be to have the lowered grade in effect only from 4th Street halfway to 3rd Street which would put the intersection of 2nd Street back to existing grade, but at the beginning of the vertical curve with potential sight distance concerns.

With the alternate concept, cul-de-sacs would need to be built on 3rd, 4th, and 5th Streets. Vacation of streets or connecting streets for a loop are options. Pedestrian bridges could be built at several locations. Pedestrians would have limited locations to cross Cascade Ave. At grade pedestrian bridges could be built at 4th Street and in front of North Hall. Elevated pedestrian bridges could be built at 3rd Street and 5th Street. At grade crossings would be made at 2nd Street and at 6th Street Because of the retaining walls for Cascade Ave., there would be no other crossings between 2nd Street and 6th Street.

Utilities would need to be lowered or relocated from west of 2nd Street to 6th Street. The grades would create problems in maintaining gravity flow for sanitary sewer. Water lines would need
sufficient horizontal and vertical cover to keep from freezing. Storm Water management would be a significant design problem and some pumping would probably be necessary.

In addition to storm water, snow removal would be a difficult task. Snow storage, even for a short time, would be difficult without extra width of the road surface. Freeze-thaw cycles would need to be monitored so road icing did not occur. The intersection at 2nd Street, on the end of the vertical curve would be of special concern.

There would be no parking on Cascade Ave without significantly increasing the width of the road for parking and sidewalks and increasing the length of the pedestrian bridges. The extra width would increase costs of bridges and the roadway as well as increase snow and ice concerns.

This concept would result in a loss of approximately 94 parking spaces, if parking were not included. With parking included, parking would increase by about 35 spaces. However, a person parking at the bottom of the grade would have a two block walk simply to get out of the “hole”.

All trees along Cascade Ave in the construction area would likely be lost either due to retaining wall construction or utility relocation.

Total costs have not been estimated yet. Pedestrian bridges will cost between $700,000 and $1.5 million

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