BRACKETT AVENUE - UPDATE
LEE STREET TO DONNELLAN LANE
(3/15/2013)

History

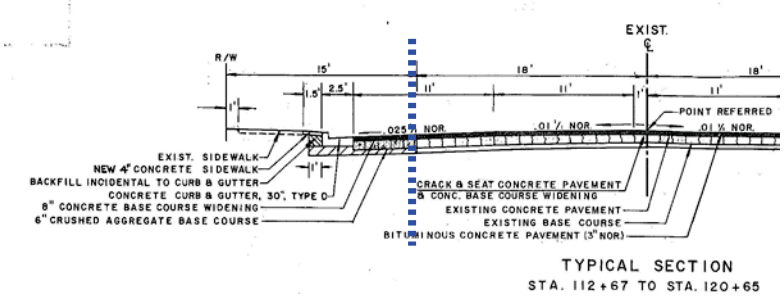
Brackett Avenue and Harding Avenue (a.k.a "Plank Street Hill") was designated as State Highway #12 when the federal highway system was created in the early 1900's. The Highway #12 designation was removed in the late 1960's when the Clairemont Avenue beltline was constructed – at which time Brackett Avenue was signed as Business Highway 12. The City received connecting highway aids to maintain the road from the Wisconsin Department of Transportation (Wis/DOT), until the North Crossing (Hwy. #312) was constructed. The jurisdiction for Brackett Avenue was transferred from the State to the City in 1996 – at which time maintenance aids from the state were discontinued.

Recent Construction

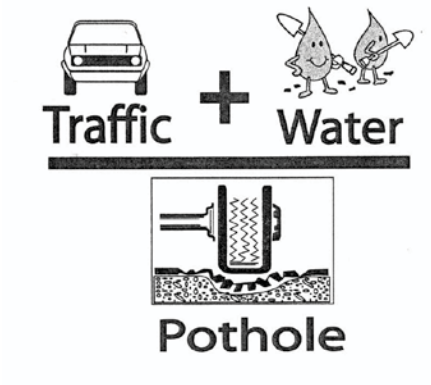
The section from Lee Street to Donnellan Lane was widened by Wis/DOT in 1985 through Sate Project No. 7095-05-71 using Federal funding for improving the intersection alignment at Brackett Avenue and Rudolph Road. The old concrete pavement was cracked with a machine and overlaid with a 3" asphalt mat, along with widening the street from 6 to 10 feet on each side, to accommodate the traffic capacity needs. A project paid for 100% by the City in 1999 consisted of grinding off the asphalt surface and placing an overlay to address problems similar to what is being experienced this spring.

What is the problem ?

The land adjacent to the portion of Brackett Avenue with the pothole problem is all hard surface (asphalt & concrete – with no vegetative buffer) from the building front to building front. Water drains overland from the buildings to the sidewalk, then across the sidewalk, to the curb and then to the storm sewer system inlets. The slope of the curb is very flat (0.30 to 0.36%), and is uneven due to settlement of the asphalt overlay. There are a limited number of catch basin inlets and the water must run overland for long distances – which is difficult to control during constantly changing freeze/thaw conditions. The storm sewer system is also undersized as is evidenced by the intersection flooding that occurs during rainfall in the summer. The problem is compounded because when the road was widened as part of the State project in 1985 there are varying road sections, with the joint where the road was widened being directly under the "wheel path" of vehicles traveling in the outside (curb) lane.



During freeze thaw periods in the spring deteriorating roads are a result of the following equation:



For the reasons described above the primary cause of the problem this time of year is water in the outside wheel path of a vehicle traveling in the curb lane - which is the joint where the road was widened.

The patching doesn't work – why not ?

Until the water can be removed from the pothole area – the patch material will not stay in place as long as it is continually pounded by the traffic. We cannot seem to catch a break this year and the pavement is always wet. The City received some form of precipitation on 22 of the 28 days in February and 7 of the 15 days in March – coupled with swings in temperatures throughout the day, from below freezing in the morning to above freezing in the late afternoon – causing snow to melt and run into the recently patched area, only to refreeze overnight.

Why don't you fix it right now ?

The City crews patrol this section of roadway throughout the day, on evenings and weekends. The material used is a cold temporary patch mix material because hot mix asphalt is not produced during the winter. The more durable hot-mix plant manufactured patching material will be used when it becomes available – which is not expected until early May

What are the short term plans ?

City crews will be conducting additional snow hauling from the curb area in the coming weeks in an attempt to remove the excessive water and runoff from the adjoining properties to dry the "wheel path" area before patching. After the snow is removed, crews will attempt to dry the drainage areas and "roll" in the cold patch material. The Street Division may also be using quick setting concrete in selected problematic locations where the asphalt patch is not holding. Motorists can expect delays as the road is reduced down to one through lane in each direction.

When the hot-mix asphalt material is available in the spring, Street Division crews will be removing the cold material and replacing it with compacted and rolled hot-mix asphalt. The joints in the Rudolph Road intersection will also be temporarily filled.

What are the long term plans ?

A project to completely reconstruct Brackett Avenue from Lee Street to Donnellan Lane is currently being designed by the Engineering Division and is planned for construction in the summer of 2014. The project will consist of the following key elements:

- New and upgraded storm sewer system
- Sanitary sewer and water main replacement
- Drainage improvements behind the sidewalk to intercept private property runoff before it reaches the sidewalk
- Steeper sloped curb lines
- Additional catch basin inlets
- Landscape buffer strips
- New sidewalk
- Remove asphalt overlays
- New concrete pavement – full width
- Upgraded street lighting - LED