



Public Works Agenda Item

Meeting Date:	March 11, 2025
Agenda Item:	Prairie Street turn lane at Main Street
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BACKGROUND

(Enter the who, what when, where, why)

Councilperson Schanen requested this item to be reviewed by staff and the Public Works Committee. Staff reached out to Strand to get their comments.

Strand evaluated the southbound approach at the Main Street and Prairie Street intersection. It appears to be possible to mark a narrow southbound right-turn bay. The primary limitation would be to what size of vehicle should be accommodated for the westbound right-turn onto Prairie Street. We used pavement widths to sketch out the edge of pavement on an aerial for evaluation.

Attached are PDF's of two alternatives to show impacts to a standard SU truck making the westbound right-turn. A SU is a reasonable representation of delivery vehicles similar to what UPS and FedEx use or small box trucks. The PDF labeled Version 1 is showing a 10-foot turn bay (when measured from the edge of pavement) and a 10-foot southbound through/left lane. There is approximately 14 feet of width (measured to the edge of pavement) for northbound traffic at the stop bar on Prairie Street. A SU truck was evaluated using AutoTurn on the westbound right turn. It showed that to stay entirely on the northbound side of the pavement, the truck will have to overtrack through most or all of the gutter pan and be close to the traffic signal poles in the northeast corner of the intersection.

The PDF labeled Version 2 is showing an 8-foot turn bay (when measured from the edge of pavement) and a 10-foot southbound through/left lane. This would result in 10 feet of total width for the southbound right turn if the 2-foot gutter pan is used for that movement. There is approximately 16 feet of width (measured to the edge of pavement) for northbound traffic at the stop bar. An SU truck evaluated on the westbound right-turn showed that it will be able to stay on the pavement with no encroachment into the gutter pan and stay on the northbound side of the roadway.

The black lines on the PDF are pavement marking lines. We evaluated if the marked on-street parking south of the UW-W parking lot entrance would impact the storage length that would be available. We used a minimum urban turn bay taper to evaluate how close to the on-street parking it would be appropriate to mark the turn bay. It appears that you could mark an 80-foot-long turn bay and not have to impact the on-street parking area. If the parking stalls along the west side of Prairie Street are removed, the turn bay marking could be extended as far north as the parking lot entrance, if desired.

To accommodate a larger design vehicle and provide separate southbound turn lanes, the curb radii at the Main Street intersection would need to be reconstructed. This would include concrete pavement replacement, curb ramp replacement, traffic signal pole relocations, and tree removals.

According to Google Maps Street View, the dedicated turn lane idea was looked at in 2012. Pictures from 2007 and 2018 do not show the dedicated turn lane.

PREVIOUS ACTIONS – COMMITTEE RECOMMENDATIONS

(Dates, committees, action taken)

N/A

FINANCIAL IMPACT

(If none, state N/A)

The fiscal impact to add a dedicated turn lane would be minimal and involve city employee labor time and the cost of paint.

STAFF RECOMMENDATION

Staff is open to the idea of creating a dedicated right turn lane, however, there are concerns.

1. An 80-foot turning lane can stack 4 to 5 vehicles. Does this create enough of a benefit.
2. Anything longer would require the removal of parking stalls that are leased to the University. The University would need to approve this change, which would almost involve a reduction in payment to the City.
3. In Version 1 there is a risk of a traffic signal being hit due to the back wheels tracking in the gutter section.
4. In Version 2, there is a risk of a traffic signal being hit due to vehicles having to use the gutter section in the right turn lane.

ATTACHMENT(S) INCLUDED

(If none, state N/A)

1. Prairie Street Version 1
 2. Prairie Street Version 2
 3. 2012 Turn Lane Markings
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