

TH 43 in Winona Reconstruction Constructability Review

Contractor Feedback

1. It is anticipated that this project will be constructed in one construction season with final cleanup the following season. What risks do you see that would make one season difficult to achieve? How can these risks be mitigated?

Contractor: We believe this project could be completed in one construction season. There could always be extreme weather conditions that could change that, but overall this feels like a project that could be completed in one season.

- a. What are your biggest concerns with trying to complete the project in one construction season?

Contractor: Weather and private utility work that needs to be coordinated. The work in Stage 4 might be time-consuming and difficult to complete late in the year, since bituminous production for small patching gets lower in the fall. Can the transition from one side of TH 43 to the other near State Farm Insurance be eliminated? It creates issues with an access in the middle of a crossover and would be much more efficient to construct the entire west side of TH 43 in one shot.

- b. Explain the feasibility of completing it in one year. What operations could be carried over to a second year? How long do you think this second-year work would take?

Contractor: It seems to be feasible. Relocate utilities in advance as much as possible.

2. The project is staged so that at least one lane of TH 61 and TH 43 in each direction is maintained at all times throughout construction.

- a. What are the biggest challenges with maintaining through traffic at all times? During which stages of construction is maintaining TH 61 and/or TH 43 traffic the most challenging? Do you have suggestions for how to mitigate these challenges?

Contractor: Maintaining TH 61 and TH 43 traffic should be feasible. It would really help if the contractor would be allowed to close two local streets at once, even if it was restricted to night or evening work for certain critical pieces of the project. Oftentimes it really saves time if we can close a couple of consecutive intersections and then install utilities through all of them at once, or potentially pave a couple at the same time.

It would also help if we maintain the two existing free rights (NW & SE quadrant) at the TH 61/43 intersection for as long as possible.

- b. How beneficial would it be to the contractor to allow a short-term (several days) closure of Sarnia Street to complete that work? How long would the Sarnia St. construction take if it was closed?

Contractor: It would take about 3 weeks. There are lots of short operations that need to take place. There is also concrete work that involves curing time, which affects the overall duration.

- c. It will be critical to maintain left turn lanes as much as possible on TH 43 during construction at the public road intersections. Are there areas where this will be particularly difficult or what can be done to improve this?

Contractor: Instead of northbound left turns (particularly into the hospital), take a right onto Bruski and follow the frontage roads to Riverbend and then allow straight through movement. This could also work for the Parks Avenue north access. SB is more challenging.

3. During the construction there will be grade raises at the roundabout locations. The most significant grade raise will be the TH 61 at TH 43 roundabout. What issues do you see related to grade differences between the existing and proposed roadway while trying to maintain traffic?

- a. What areas are of most concern and what would you suggest in order to provide for a safe construction zone and safety of the traveling public?
Contractor 1:2 slopes along construction are reasonable. Install block or other materials to support any exposed fill sections.
4. The staging plan will provide access to area businesses during construction. It is critical that the entrance to the Winona Health Emergency Room remains open at all times. It is anticipated that during construction of the west side and the east side of TH 43 only one public street would be allowed to be closed at a time. Is it reasonable to expect only one access be closed at any one time or are there issues that you see where we might need to close additional accesses?
 - a. Do you have any recommendations related to providing access to area businesses during construction? What areas will be the most difficult to maintain access to and what can the project team do to address these concerns?
Contractor: State Farm/Dental is the only significant one that needs access. Try to modify the staging so that the crossover is not right near this driveway. The gas stations/subway to the south will be able to maintain the right in.
 - b. What are your thoughts on the overall staging plan?
Contractor: Looks pretty good overall.
5. There is a 7' X 5' double cell box culvert that is being replaced at the north end of the project at Gilmore Creek. The new box culvert will be a 16' X 6' single cell box culvert with a 1' bury. It is proposed to construct this box culvert ½ at a time based on the roadway construction staging. Construction cannot take place within the creek between March 1st and June 1st. The design flow rate of 113 cfs from Lake Winona to Gilmore Creek needs to be maintained. It is anticipated that we would leave the north 7' X 5' box culvert open during construction. Upon completion of construction, the old culvert can be removed or left in place and filled.
 - a. Do you agree with the proposed culvert staging or do you recommend an alternative that would make it easier to install or reduce the time for the installation?
Contractor: Leaving a portion of the box culvert in place is a good idea. Try to complete the east half of the culvert as early as possible and then patching over the top of it so that the contractor can complete as much of the west half of the roadway as possible in one shot. Having the crossover right near the business access will make construction more difficult.
 - b. What concerns do you have with maintaining traffic on TH 43 in this tight area & constructing it ½ at a time. What concerns do you have with grade differences or the date restrictions?
Contractor: It would be nice to get at the box culvert prior to June 1 so that the east half could be completed right away.
 - c. If a short-term closure of one or both directions of TH 43 to expedite the culvert replacement were allowed, how long would that work take?
Note: Closure won't be allowed.
6. There will be new City water main and sanitary sewer installations as well as private utility relocations. The sanitary sewer will be an open cut installation and the water main will be directionally drilled. What concerns do you have with the utility relocation and/or installation?
Contractor: The contractor will just have to coordinate with them throughout the project. Relocate as many as possible in advance. The phasing for the 12" gas main relocation near the box culvert appears to be reasonable and is fairly typical for this type of project. Just make sure that it is not a surprise for the contractor and adequate time is allowed for it.
7. What size of staging areas are necessary for this project? Do you see any areas that seem suitable? If the Contractor is required to obtain staging areas for their use what are your concerns?
Contractor: One area noted as a possibility is in the northwest quadrant of the Mankato/Frontenac intersection, since it is a nice open area. Note: This is a city park and staging will not be allowed here. We don't see any concerns with finding staging areas for

the project. That is something that the contractor can work out. Oftentimes we work with local businesses and property owners to store materials/equipment on their property or lot temporarily.

8. Do you have any other overall feedback that you would like to share regarding the staging or construction of this project?

Contractor: Try not to be too restrictive with the bituminous ride specs. This is a lower speed urban roadway and being overly restrictive is unnecessary, understanding that much of this may be out of the control of the project team.