



MEETING NOTES

Subject: 2019 AGC Update, For Information Only meeting for the July 2020 (SFY 2021) letting

Date: Friday October 4, 2019 – 1:00 to 3:00 PM

Location: 800 Lincoln Way, Ames, Materials East and West Conference Rooms

Attendees: Attendees List is a separate PDF.

Attachments: Attendees List.
Presentation PDF
Handout

The information shared at this meeting is for information only and is subject to change. Some of the information provided is rough estimate at this time.

Jason Holst provided the overview of the July 2020 letting project with some support from other team members from the DOT and GEC (HDR).

Slide 2: Green illustrates work already let. Purple illustrates work in the next letting.

The anticipated schedule includes:

Letting July 2020 with a substantial completion of November 2022 for final I-80/I-380/US 218 lanes, ramps, and outside shoulders. Intent is to have no major traffic impacts after calendar 2022.

Some work, such as Park Road Bridge over I-80 and median barrier rail, may be completed in 2023 without LDs, if there are no daytime lane closures.

Purpose of end of calendar 2022 for mainline and ramps is due to a DOT assessment of user benefits and traffic delay impacts looked at for the INFRA Grant federal funding. The INFRA Grant funding helps with reducing the handing off of the baton to possibly 4 different contractors over 4 years, by combining the last four lettings into 1 letting.

Slides, 3, 4, 5:

Ultimate lanes are 6-basic lanes on I-380 through the project with auxiliary lanes between interchanges, and 8 basic lanes on I-80 through the project plus auxiliary lanes (up to 10-basic lanes on I-80). There are a couple open median sections on US 218 and I-380.

Slide 6: The new interchange is a Turbine interchange, which eliminates loops and improves capacity.



Slide 7: These quantities are high-level, rough order-of-magnitude. Earthwork is not yet broken out by stage, but it is anticipated that contractor furnished borrow will be necessary early in the project and there will be waste late in the project. A lot of final pavement going in. The current rough program estimate is around \$180M and is being updated this fall.

Slide 8: Bridge Overview:

1. July 2020 letting bridges are highlighted. Prior let bridges are indicated.
2. East leg I-80 over Clear Creek will be 3 phases.
3. The I-80 bridge shape over Ramp G is two bridges.
4. There are several ramps. Ramps F and E are flyovers.

Slide 9: Shoring:

1. East leg of I-80 is up to 7.5' higher between I-380 and the RR.
2. West leg is up to 7' lower between Jasper Ave (a.k.a. Park Rd) and I-380. This requires coordination with utility crossings and culverts (gapped sheetpiling...).
3. North leg is 7' higher over the creek and RR.
4. MSE wall on Ramp E due to elevation differences.
5. View Block Wall down in the SE Quadrant (adjacent to the City Park).

Holding times:

1. East Leg I-80: 30 – 60 days (30 days median, 60 days EB/WB lanes)
2. North Leg I-380: 30 days
3. Ramp E: South Abutment is 30 days with wick drains. North abutment/MSE wall fill is 60 days.
4. Ramp F South Abutment: 60 days with wick drains (this is for paving. The bridge pile are designed for down drag).

Slides 10 through 13: High level staging map:.

Jason presented Stage 1, Stage 2 and Stage 3 for the SFY 2021 updated staging. These are the high-level maps, and more detailed staging breakdown is shown later.

1. Red color: WB I-80 and Ramp A work is needed to be able to shift Ramp A traffic to the north so that WB I-80 traffic can be shifted further north, to allow room for I-80 median work to begin.
2. Cyan color is anticipated calendar year 2021 work.
3. Orange color is work to be constructed in calendar 2022. Southbound to eastbound ramp, Ramp F, is open in this stage. Westbound off-ramp to Ireland is to be stage constructed (note this ramp is being used as a detour for one of the closed loops).



4. Various temp connections will be required to stage the ramps.
5. Question: PCC or HMA? Preliminary determination is PCC for the final pavement.
6. Question: How much of the paving is night work and how much is daytime work? DOT anticipates it will be a mixture of both. Some nighttime work may be needed to meet the schedule and some nighttime work may be required due to limitations of daytime lane closures. Will discuss further on later slides.
7. Ireland Avenue EB on-ramp to be closed for a few months to allow for final paving on I-80 eastbound. It is not easy to stage construct this ramp due to elevation differences at the tie-in with I-80 EB. (this is part of the NW loop closure detour and must be completed before the loop is closed).
8. Question: Is the 80/380 Ramp A current temporary pavement needed for the final? It is used for staging traffic to construct the I-80 median ultimate section, so we can shift I-80 westbound traffic to the north and open up the middle.

Slide 14: I-80 over Clear Creek view with contractor access:

1. Ingress/Egress arrows shown on either side of the fill area. Access would not be allowed to this area from the SB to EB loop because trucks would need to cross 3 lanes of I-80 EB traffic to get here from the loop. Lane closure will likely not be possible in the daytime, but ingress/egress to/from the median/shoulder might be possible.
2. The shoring adjacent to new median pavement is leave-in-place, so as to not cause any issues with damage to new pavement due to pulling/vibration.

Slide 15: I-380 north leg Stage 2A (north is to the right). Showing existing shoring. Concerns with winter snow maintenance, stalled vehicles, crashes, emergency access, so don't want this configuration to begin until spring 2021, and this NB I-380 work needs to be completed in November 2021 (No long chutes over the winter. Although short chutes would be allowed in the winter, there is around 7' vertical grade differential in this location, so it will be difficult to open up areas to create shorter chutes in this area).

Slide 16: Configuration of Ramp H and Ramp A tying into NB I-380 (north is to the right, Ramp H flies over Ramp A so that Ramp A is in the middle and Ramp H is on the outside). Horizontal and vertical geometric components to get Ramps A and H to the median to construct the NB creek bridge (shown in red). Plan is to open up Ramp H as soon as possible and there will be several temporary tie-ins during construction for staging.

Slide 17: Ramp F and Ramp C temporary connections from SB I-380 (north is to the right). Horizontal and vertical geometric components for staging this, to be able to get to the SB creek bridge (shown in red).



Slide 18: due to merge and weave concerns during staged construction, new Ramp F will not be open until EB I-80 is completed, as soon as late calendar 2021.

General discussion before we got into the more detailed preliminary staging that begins on slide 20.

1. Question: How much pipe is there in this project? There will be quite a bit of this quantity left (no high-level number given).
2. Reshown slide 5. Due to median side subdrain drainage needs, median drainage will need to be intakes (median ditch not deep enough to outlet the subdrains).
3. Winter maintenance and safety reasons to reduce winter chutes. DOT will provide expectations and allowances such as maximum chute lengths, required minimum lane and shoulder widths for area to not be considered a chute, refuge needs between chutes, etc. There will be a penalty to not meet these expectations.
4. Question: How much aesthetic is on this project? Special aesthetic barrier, piers, pier caps...

Aesthetic Barrier: concern from contractors with matching existing colors/patterns. Proprietary slip forms, cost, slower production. The vertical face slows down the slipping process due to risk of slump.

Piers: expensive forms. Take longer to form. More coordination for ability to use the same forms for each bridge element.

5. Mass concrete slows down the process. Anything that can be looked at with structural element size limits and/or specification for when it applies, can really help. It may be worth looking at bridge widths, etc. Each set of forms is very costly; shorter pier construction time helps cycle forms more efficiently.
6. Question: Can we do anything to allow more bridge sub-structure work over the first winter 2020/2021? Can parts of Ramp F begin sooner, such as abutment work and some of the piers? The draft staging shows the Ramp F bridge not starting until calendar 2021, but if some of the pile driving and substructure work can begin in fall 2020, that would really help.

Slides 20 through 32, Jason went over the more detailed breakout of the Preliminary Staging as it is laid out at this time. Various questions and comments.

1. Ramp F south abutment work and approach:
 - a. How far are we away from having a design for south abutment of Ramp F? Steve Maifield noted it is still in the works. Might want to consider the drainage through there as it relates to the Ramp G being dug out.



- b. Wick drain work in this area and other work will be difficult to access with Ramp B traffic. DOT should be aware that this and other areas will be difficult to access.
2. What work will be allowed over the first winter? I-80 east leg median bridges over clear creek could be done over the 2020/2021 winter if the stage 1 work is done to get the traffic reconfigured. In the same period, there is some work on some of the Ramp F flyover bridge foundations that could begin, and possibly on Ramp E, but that would need to be looked at.
3. Jason noted there is a pre-letting construction schedule. Will the DOT share this pre-letting? The DOT will check with Construction regarding adding disclaimers and will provide the schedule.
4. Reiterating the need to get to sub-structure and pier work as soon as possible, due to size of the structures, design for mass concrete, tying up forms, etc.
5. There is a potential premium cost to the accelerated work. May need double the amount of form liners, equipment, etc.
6. Slide 14 cross-section showed area where MSE mesh wall might not be needed anymore because there may be room for sloped fill, but contractor should consider that a mesh wall instead of sloped fill will provide better access, which could help the bottom line. What type of fill? Class 10. Specific material not noted.
7. When we start the project with large fills and large work elements, production rates are better. As we reduce the amount of work to complete, the area comes more confined also and production rates may decrease. Less work in the later part of the project does not mean faster schedule.
8. Question: Can we propose additional work to be added to the current contracts to benefit this future project? (put some of the proposed fall 2020 paving on Ramp A into the current contract...). Most likely no, unless there is a VE reason on the current contract to do so. Otherwise new work should be competitively bid. We could competitively bid work to be done next spring if that makes sense to do so. Submit VE or other suggestions through the RCE.
9. Contractor recommended a by Ton or CY bid item for construction entrance versus Linear Feet. In some areas, quite a bit of fill is needed to create the construction entrance. The current LF practice is difficult to bid and adds risk.
10. What are some other risks? Traffic control and night work drives the risk and price. Contractor must guess how many nights, how many closures, how many lanes... If DOT can provide more details in the plans, that would reduce some of the risk/guess work.
11. Request for DOT to consider design of shoring that will be permanent.
12. Question: What ground improvements are anticipated? Wick drains. Nothing for light weight foam concrete or rigid inclusions.
13. Question: Can we reduce the speed limits? Might help slowing traffic down with also having ingress/egress. The DOT is currently looking at this.



14. Material or Labor Shortages? Unknown at this time, if emergency lettings due to flooding again then this could be an issue.
15. Question: Can we look at message boards for ingress/egress into the median? Let traffic know that trucks are leaving and entering at lower speeds from the inside lane? Location specific. DOT noted concern that drivers are already not paying attention to existing signing.
16. Question: Can the DOT build in ingress/egress lanes into the project design for use? This will help with knowing the quantity needed for the fill (per ton request) and all contractors would be bidding the same thing. DOT asked how much distance and room is needed and if needs to be pavement. It depends on the situation and equipment.
17. Question: Can we get more police presence out there? We think that would really help slow people down entering or exiting the work zone. DOT will follow-up with the RCE on this.
18. Can plans better show what is to be PCC and what is to be HMA. Can DOT add shading/pattern?
19. Question: Can the DOT note the allowable access per daytime and nighttime in the plans? Would help to show each Ingress/Egress is either via a shoulder closure (under permitted times X) or via single lane closure (under permitted times Y) in the J sheets.
20. Need of 3' of space on the back side behind TBR to run a paver. Some of the design is at 2'.
DOT follow-up. There are areas where only 2' will be obtainable in the next letting design. Although it is not desirable, other contractors have made this work with 2' on other DOT projects. It is understood that production rate may be slower.