

GUIDANCE FOR MERGER CONCURRENCE POINT 2A MEETING Bridging Decisions and Alignment Review

Purpose

The purpose of this meeting from the hydraulic designer's perspective is to provide technical expertise and recommendations for the appropriate location and size of hydraulic conveyance structures, and to provide hydraulically relevant comments regarding the project alignments. During the meeting the merger team will reach concurrence on the preferred method of surface water crossings (bridge versus culvert) and the preferred bridge length(s) where a bridge is recommended. This information along with the comments regarding project alignments will then be used to determine the LEDPA. It is important to remember the primary purpose of the meeting is to determine which surface water impacts can reasonably be avoided by bridging and other fill avoidance means. It is not the intent of the meeting to discuss minimization efforts that can be achieved later, such as final bridge and culvert geometries (including span arrangement, shape, and size). These items will be addressed as the project develops and discussed at later concurrence meetings.

Location of meeting

At a minimum, an office meeting with the merger team will be required to discuss the preliminary recommended structures at each crossing. If a field meeting is required, it is usually held prior to the office meeting. The hydraulic designer is responsible for providing a summary of recommended hydraulic crossing types and sizes, as well as any accompanying data and meeting materials that will be beneficial to reaching concurrence. The hydraulic designer is required to attend all meetings (including the pre-CP2A meeting, if held); the hydraulic reviewer should also attend. [*Avoidance and Minimization Tracking for Projects going through Merger*](#) should be referenced prior to the office meeting as well.

MEETING PACKET

The hydraulic designer is responsible for providing and verifying all information in the meeting packet relating to the major drainage structures. This information typically comes from the Hydraulic Planning Report (HPR); however, the HPR is a document written by and for engineers, and care should be taken to convey the necessary information for CP2A in a way that is easily understandable by non-engineers. Bridge sizes should be presented as a total overall length. Specifics such as bridge span lengths, girder type, and culvert sill height, which may have been assumed in preparation of the HPR, should not be included in the recommended structure sizes as presented in the meeting packet. Additionally, any mention of structure sizes (particularly culverts/pipes) should be clearly labeled as "preliminary", since they are subject to change during final design. The only commitment relative to major drainage structure size that is being made at this stage will be minimum bridge lengths; culvert and pipe sizes are presented as preliminary information only. The "Preliminary Hydraulic Recommendations for Major Crossings" table provides a summary of the hydraulic recommendations but should not be reproduced in its entirety since it also contains additional information that while useful to the hydraulic engineer, does not need to be presented for CP2A. The packet should also contain plan view representations (to scale) showing the location of the recommended drainage structures. Bridges, culverts, and pipes should be depicted with the appropriate skew.

Review of the meeting packet should include the Hydraulics Unit and/or Hydraulics GEC reviewer. The NEPA/SEPA Lead should coordinate the meeting packet submittal schedule with the Project Manager; unless directed otherwise, it is recommended that the meeting packet be submitted for review a minimum of two (2) weeks prior to the pre-CP2A meeting, or at least four (4) weeks prior to any scheduled CP2A meeting if a pre-CP2A meeting is not held. Distribution of the meeting packet to the Merger Team should be coordinated with the Project Manager and is to occur no later than two weeks in advance of the first meeting (whether field meeting or office meeting). *It is the PEF's responsibility to resubmit with adequate time for review (and revisions, if necessary) prior to posting, to avoid delay of the meeting or the need for revised materials to be provided at the meeting.*

PRE-CP2A MEETING

A pre-CP2A meeting is optional, but is generally advised. The purpose of this meeting is to present a dry run of the office meeting presentation and slides, and provide an opportunity for NCDOT/GEC reviewers to provide comments on the presentation and meeting packet. Presentation/slides and meeting packet should be complete for the meeting. Any questions on sizes for major drainage structures that the Department will put forth as its recommended structures, particularly those that differ from what was recommended in the HPR, should be resolved at this meeting.

FIELD MEETING

The hydraulic designer should confirm if a field meeting is planned. In general, it should be anticipated that crossing sites on new location may require a field meeting; however, final determination is up to the Merger Team. If a field meeting is scheduled, the design team should be prepared to guide meeting participants to any of the sites; the hydraulic designer may be tasked with this role. Typically, Merger Team members have certain sites in mind that they would like to visit, and do not need to visit all of them in the field; it can be helpful to get an idea of which sites those are ahead of time. It is customary to begin the meeting in an easily-accessible area (a shopping center parking lot, for example) near the project, where the hydraulic designer should confirm which sites the Merger Team wishes to visit, and set the itinerary accordingly to ensure that site visits can be accomplished for all of the desired sites. If adequate time is a constraint, optional sites should be saved for later as time allows. The hydraulic designer should participate in discussions, either to provide justification for the recommendations, or to accurately record and respond to any comments from the Merger Team on the structure sizes.

After the field meeting, the hydraulic designer is responsible for investigating (as directed by NCDOT) any changes in structure type/size requested by the Merger Team prior to the office meeting and obtaining approval on revised recommendations from the hydraulic reviewer. It is advised that the hydraulic designer confirm with the hydraulic reviewer ahead of time the revised structure types/sizes to evaluate. Reevaluation of recommendations is a multi-discipline effort, and some requested revisions may not be desirable due to safety, practicality, etc. The design team, of which the hydraulic designer is a part, should present to the Project Manager any reasons why the requested revisions may not be desirable, or even feasible. While such reasons could be hydraulically-related, they could also be related to other disciplines such as roadway design or construction. Revisions to the meeting packet are not required for increases in bridge length; however, for those structures that were recommended as culverts/pipes that will now be bridges, it is advisable to provide updated data in a revised packet or a supplement (as well as the presentation slides) for the office meeting. It should be noted that recommendations put forth for concurrence may differ from the hydraulic recommendations in the HPR; however, the HPR is a record of the preliminary hydraulic recommendations, and should not be revised simply to match the recommendations resulting from the CP2A process.

OFFICE MEETING

The meeting presentation is typically led by the design team's NEPA/SEPA Lead, although the hydraulic designer often provides assistance for the discussions of the major drainage structures. The hydraulic designer is an active participant, and should ensure that the essential information is accurately conveyed. The hydraulic designer also should be prepared to respond to comments and questions from the Merger Team regarding the Department's recommendations for major drainage structures. While not required for meeting presentation, the design team may find it helpful to have things like photos and preliminary roadway profiles available to assist in responding to questions. Questions regarding further minimization efforts such as sills, low flow barrels, or anything else that is highly dependent on final design should be responded to in general terms regarding NCDOT standard practice and deferred to the CP4B meeting, where they can be discussed in more detail.

The hydraulic designer should also review the language to be used in the Merger CP2A Concurrence form prior to the meeting to ensure that it is not overly-specific, given the preliminary nature of the recommendations. Span lengths, girder types, sills, etc. should not be specified.

DELIVERABLES

CP2A Merger Meeting packet, per coordination with the Project Manager (recommended at least two weeks prior to pre-CP2A meeting and four weeks prior to CP2A meeting):

An electronic copy (PDF) of the CP2A Merger Meeting packet will be provided by the NEPA/SEPA Lead to NCDOT for review.

FOLLOW-UP

The Merger Team may request that NCDOT consider alternate structure layouts prior to concurrence. The hydraulic designer is responsible for evaluating and ensuring the hydraulic feasibility of any of these alternate structure layouts that NCDOT directs the design team to evaluate, with the hydraulic reviewer involved in approval of any alternate structure layouts carried forward.

Draft field/office meeting minutes should be prepared by the design team and forwarded by the NEPA/SEPA Lead to NCDOT for internal review by the Hydraulics Unit, as well as PMU and EAU-ECAP (Centrally-managed) or Division (Division-managed) prior to distribution to attendees. The hydraulic designer should review the draft minutes for accuracy prior to submittal to NCDOT. Draft minutes should be labeled "draft", and contain both the dates of the meeting(s) and the minutes. After distribution to attendees, and a 2-week comment period, minutes should be finalized with any applicable comments and redistributed. One set of meeting minutes may be used for both the field meeting and office meeting, unless directed otherwise.