

APPENDIX A. GDOT ICE Stage 1 - Screening

Basic informational elements usually necessary or helpful to complete ICE Stage 1 include:

- Location, Context, Roadway Functional Classification, and Project Description
- Traffic Data (AADT, DHV, vehicle classification, percent trucks)
- Basic Roadway Characteristics (geometric elements, existing traffic control devices, pedestrian or bicycle features, unique conditions or constraints, etc.) obtained from roadway inventory or online mapping
- Pedestrian and bicycle information, such as activity, volumes, generators, etc. (when available)
- Existing Safety Performance
 - Long-term (minimum 5 years) crash history summary and diagram for intersection(s) under study
 - If available, findings and recommendations from a previously completed Road Safety Audit or other expressed safety concerns about the location(s), such as feedback from the local maintenance office or the general public
 - Connection to the emphasis areas, goals or strategies included in the latest [Georgia Strategic Highway Safety Plan \(SHSP\)](#). Specifically, describe how the project addresses the Serious Crash Type – Intersection Safety emphasis area

Much of the information listed above may be obtained from the GDOT Crash, Road & Traffic Data group at <http://www.dot.ga.gov/DS/Data>.

An explanation of various intersection control types can be found on the Intersection Descriptions tab of the GDOT ICE Spreadsheet Tool.

[Exhibit 1-A](#) provides a flow chart of the ICE Stage 1 process and [Table 1-A](#) provides a description for each step in the flow chart.

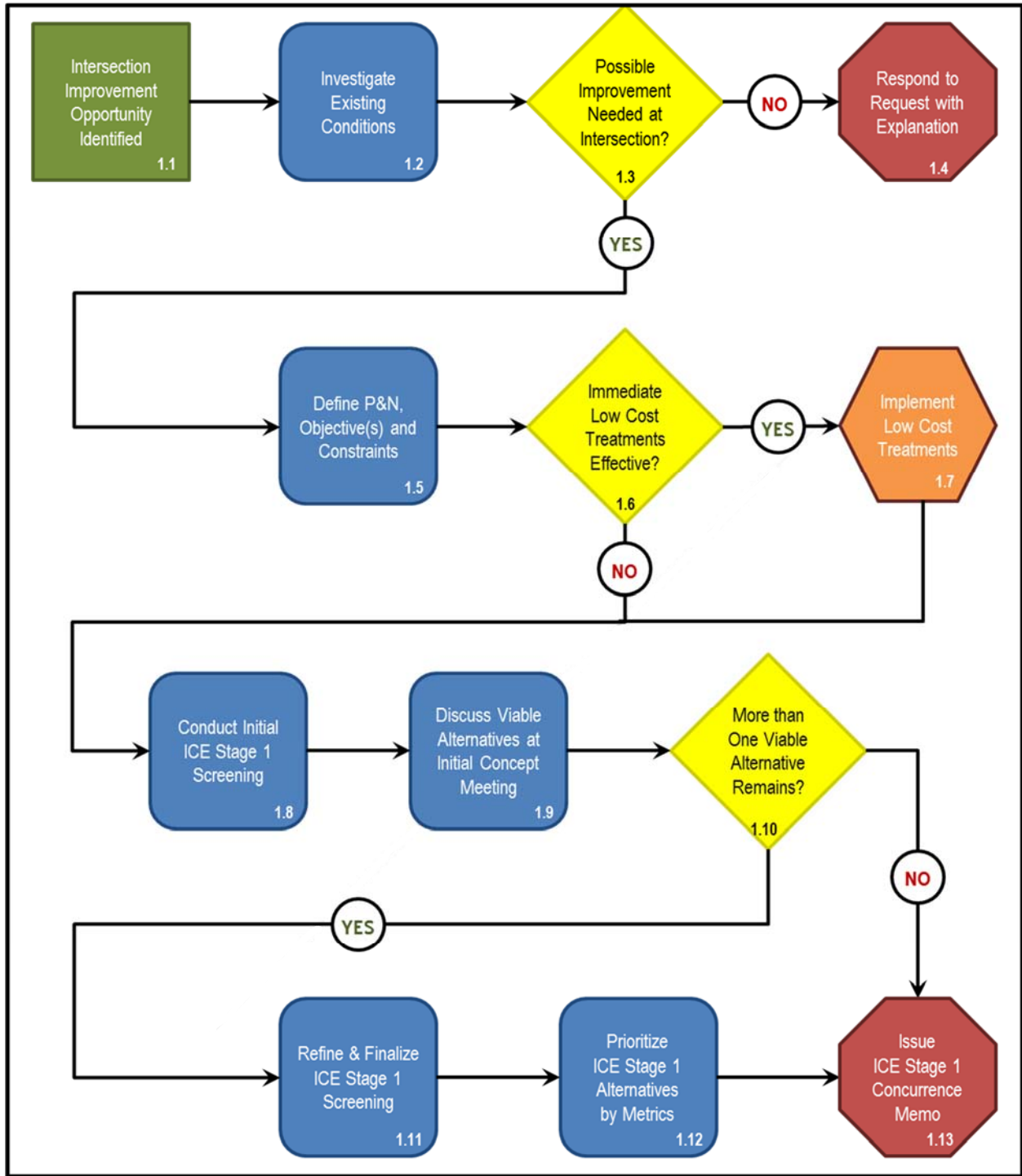



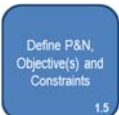




Exhibit 1-A. ICE Stage 1 Flow Chart

Procedural steps required to complete ICE Stage 1 (refer to Exhibit 1-A. ICE Stage 1 Flow Chart):

	<p>Step 1.1. The opportunity for an intersection improvement is identified, potentially for any number of reasons – as a candidate for HSIP, due to corridor widening or reconstruction, based on a petition for new highway access, or because a community requested a change in control. When the project involves more than one intersection, or a series of intersections along a corridor, the approach to ICE as a consolidated effort (all intersections together) or as separate efforts (one for each intersection) should be discussed in advance with the District Traffic Engineer or the State Traffic Engineer, as appropriate.</p>
	<p>Step 1.2. Following the identification of an intersection improvement opportunity, it is necessary to collect certain minimum information about the existing conditions. This includes the location and description, traffic data, basic roadway characteristics, pedestrian and bicycle influences, and historic safety performance.</p>
	<p>Step 1.3. The first decision point of an ICE is to determine whether or not an intersection improvement is needed. This determination is meant to screen out unreasonable requests for changes, mainly from external sources. If an intersection improvement is not needed, an explanation to the requestor should be sent (Step 1.4 on flow chart). For GDOT-sponsored projects, proceed to Step 1.5.</p>
	<p>Step 1.5. Once a determination is made that a possible intersection improvement is needed, the Purpose and Need (P&N) of the project must be defined, and specific objectives and constraints for the intersection(s) identified. This will inform the initial and final screening that takes place in subsequent ICE steps.</p>
	<p>Step 1.6. In some cases, it may be possible to improve safety and operations with “low cost” treatments, such as enhanced applications of or adjustments to traffic control devices (i.e., signing and pavement markings), re-timing existing signals, trimming vegetation – types of work often accomplished with in-house forces as part of routine maintenance activities. These low cost treatments should be implemented immediately if practical (Step 1.7 on flow chart), while the remaining steps of ICE proceed.</p>
	<p>Step 1.8. The next step is to conduct the initial, high-level screening of the many different geometric and control alternatives. A corresponding ICE Stage 1 Screening Decision Record is provided (see GDOT ICE Spreadsheet Tool) for consistency of approach and documentation. The emphasis of this process is on eliminating non-competitive options and identifying which alternatives merit further consideration based on their practical feasibility.</p> <ul style="list-style-type: none"> • Each alternative should be evaluated for its appropriateness in meeting the project need in a balanced manner and in scale with the project. • The safety performance of each alternative should be considered, with emphasis on the difference in severe crashes (i.e., those resulting in fatalities and injuries). Strongest consideration should be given to the alternatives associated with the largest expected reduction in or fewest expected number of severe crash outcomes. • Suitability for pedestrians and bicycles should be assessed for each alternative (with emphasis on convenience and accessibility); refer to DPM Chapter 9 Complete Streets Design Policy. If available, the assessment should consider pedestrian and bicycle network information from local or community plans and planning documents. • The operational assessment should consist of evaluating whether operations are preserved or improved for each alternative. Note that warrant analyses (for traffic signals or multiway stop) per the MUTCD remain applicable. Additionally, the motorized users assessment should consider suitability of each alternative for transit (if applicable) and freight or other large vehicle operation (refer to DPM Section 3.2 Design Vehicles for more information regarding selection of appropriate Design Vehicle). • The final assessments should consist of evaluating each alternative against general site characteristics, constraints and context. Included in this category are right-of-way, type(s) of development and access, environmentally sensitive areas, and potential impacts to major utilities.






	<p>Step 1.9. With results from the initial screening, the possible alternatives are discussed at the Initial Concept Meeting (consult GDOT PDP Manual for more information). Projects that may not always require an Initial Concept Meeting, such as some HSIP projects, may proceed to Step 1.10. However, in these cases, it is still advisable to solicit informal input on possible alternatives from other GDOT offices.</p>
	<p>Step 1.10. Based on the consensus from the Initial Concept Meeting, if only a single alternative is viable the process skips directly to the end of Stage 1 to Step 1.13; if more than a single alternative are viable, proceed to step 1.11.</p>
	<p>Step 1.11. Using the feedback from the Initial Concept Meeting, refine the alternatives, update the corresponding analyses and review the initial screening from Step 1.8. After incorporating new information and making any necessary adjustments, finalize the Stage 1 screening by updating the decision process.</p>
	<p>Step 1.12. Upon completing the decision process from Step 1.11, list the recommended alternatives, summarize based on the results of the high-level screening analyses.</p>
	<p>Step 1.13. Document the final ICE Stage 1 recommendations in the ICE Stage 1 Screening Decision Record. For corridor projects prepare a concurrence memo (may complete Multi-File ICE Summary and use as concurrence memo), and attach the output from the GDOT ICE Spreadsheet Tool and appropriate backup material. If ICE Stage 1 results in only one feasible alternative, then an ICE waiver may be submitted in lieu of completing ICE Stage 2. The waiver must clearly explain why there is no other feasible alternative. If a waiver is not submitted, then formal documentation of ICE Stage 2 is still required.</p>

Table 1-A. ICE Stage 1 Procedural Steps