Simplified Systems Engineering Analysis Form (SSEAF)

Refer to Section 4.2 of the TDOT ITS Project Development Guidelines. Attach or make available any documents referenced in this form when submitting.

23 CFR 940 COMPLIANCE INFORMATION

Please answer each question briefly (often one paragraph is enough). If the question cannot be fully answered *now*, but will be answered during the project implementation, please indicate the step at which it will be answered.

1 - Identification of portions of the Regional ITS Architecture (RA) being implemented:

Instructions: Contact your MPO to get this information from your Regional ITS Architecture ("RA"). In the RA, the project might be identified specifically by name and agency, or by a more generic description (e.g. "Arterial Traffic Management"). If listed in the RA, document which inventory elements, market packages, subsystems, and/or information flows are being completed in this project. If there is ***no*** *information in your RA, arrange with your MPO to provide them this information when your project is designed; they will use it in the next update of the RA.*

2 - Identification of participating agencies roles and responsibilities:

Instructions: Can you identify all stakeholders that must participate in the implementation phase of this project? What are their roles/responsibilities? Have they committed to the responsibilities? Some of this information might appear in your RA (e.g., "Operational Concepts" or other sections). If this will be defined in later phase of the project (e.g., Concept of Operations), the RA may be a good source to start definition.

3 - Requirements definitions:

Instructions: Are the system requirements (functional and performance) already well-defined ***in writing****? If yes, indicate where they can be found (e.g., Std. Specs). If they will be defined in later phase of the project, the applicable high-level functional requirements in the RA may be a good starting point for writing them. The focus is on "****what****" functions must be performed – ****not*** *on "****how****" the technology will be used to perform them.*

4 - Analysis of alternative system configurations and technology options to meet requirements:

Instructions: Have you considered alternative designs yet? This could include system configurations, different organizational roles; alternative hardware, software, or communications technology; If you can not yet make a choice of available alternatives, this analysis will occur in later phase of the project (High-Level Design).

5 - Procurement options:

Instructions: Have you considered different procurement options for each of the project phases (design, implementation, operation, and management)? These options could include: off-the-shelf vs. custom, lease vs. buy, fixed-price vs. cost-reimbursable, etc. Procurement options must consider the level of staff technical expertise, existing agency procurement practices, who will be the project manager, and whether you need a systems engineer and/or system integrator.

6 - Identification of applicable ITS standards and testing procedures:

Instructions: Do you know yet if any ITS Communications Standards are applicable to this project? If they are applicable, will you use them? If your RA identifies specific Architecture Flows, you can ask your MPO to produce a "Standards Report" for those Flows; it will identify ITS Standards to consider.

7 - Procedures and resources necessary for operations and management of the system:

Instructions: Can you identify all stakeholders that must participate in operations, management and maintenance of the system throughout its life cycle? What are the roles, responsibilities, and resources required from each stakeholder? Examples include: money, special equipment, staff time, special expertise, provision of data, and many more. You should consider hardware, software, and communications issues.

Agency Representative	Signature	Date
MPO/RPO Representative	Signature	Date

FOR TDOT USE ONLY:

☐ Low Risk ☐ High Risk – Systems Engineering Analysis (SEAR) is required

TDOT Representative	Signature	Date