

## **Concept Development**

Concept Development Initiation includes all the necessary tasks to develop and execute a task order.

Data Collection efforts include gathering the data and information needed to develop the Purpose and Need Statement and concur that the problem exists within the limit of the project. The data should include but not be limited to the following: As-Built plans, Drainage inventory, Base Mapping and other maps, Management System Input, Traffic/Crash Data, ITS Facilities, ROW and Access, Utility information and Environmental Screening.

Data Analysis is performed upon the conclusion of the data collection efforts and provides the foundation for the development of alternatives. Analysis of traffic, crash and bridge data are performed that support the preparation of the Purpose and Need Statement, and it is the Purpose and Need Statement that focuses the development of alternatives to address the specific project needs.

Alternatives Analysis is performed to assure each developed conceptual alternative addresses the project need and is in compliance with design standards with respect to safety, capacity, Context Sensitive Design, environment and operational improvements. Alternative analysis may reveal the need for revision, integration or elimination of alternatives to assure its consistency with environmental, community and budget constraints in need of further assessment. For example, analysis of substandard features may emphasize if there is any additional contributing factor to the identified problem that may need to be added to the project as part of the study. Additionally during Alternatives Analysis, public outreach efforts should be conducted to gain local feedback on the proposed alternatives.

The Preliminary Preferred Alternative (PPA) is the selected alternative identified among the many alternatives developed to address the Purpose and Need Statement. It is selected from an alternative analysis comparison. Identifying a PPA initially requires data analysis, environmental document classification determination, alternative analysis and input from internal/external stakeholders to conclude if the selected alternative provides reasonable cost for derived benefit. The draft PPA shall be presented to the general public for comment and feedback at a Public Information Center.

The Concept Development Report is an official document compiled as a package describing the problem, collected data, the findings of the evaluation of all alternatives developed, the finalized PPA and other documented information associated with the project location.

Prior to the conclusion of Concept Development, approvals are necessary to graduate the project to the Preliminary Engineering Phase. These approvals include the Preliminary Engineering Scope Statement Approval, Concept Development Report Approval by FHWA, and Capital Program Screening Committee presentation and approval.

If a consultant designer is required, a Preliminary Engineering Solicitation Package shall be prepared at the conclusion of Concept Development and shall lay out the Department requirements for a consultant designer to perform Preliminary Engineering. Once completed, it is submitted to Procurement to post on the NJDOT Website for consultant submission. Once a consultant designer is selected, a scope, schedule and budget will be negotiated prior to the agreement execution and start of Preliminary Engineering.