

Construction Guideline

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Purpose

The purpose of this document is to provide an overview of the construction process. This guide is primarily intended for Division of Project Management (DPM) Project Managers, Division of Construction Services and Materials staff, Division of Capital Program Support staff, Bureau of Construction Services Procurement staff, NJDOT Subject Matter Experts (SMEs), Contractors and other stakeholders involved in the project delivery process. The following documents can be referenced for additional information:

- Construction Network Diagram
- Construction Activity Descriptions
- Construction Work Breakdown Structure (WBS) Dictionary

The primary objectives of the Construction Phase are to advertise, award and construct the project.

Construction Process Overview

The Construction Phase formally begins after the construction authorization is received. After the Designer prepares and submits the advertising package, the Department can begin to review process package components and formal approval is received to advertise the project for bids. Interested contractors review the contract documents and prepare and submit a bid. For larger or unusual projects, the Department may require a pre-bid meeting with the prospective bidders.

Once bids are prepared and received, the Department can open the bids and begin the process of reviewing the bids for proper conformity. Part of this process involves the Deputy Attorney General (DAG), who performs a legal review of all the bids. After all bids are reviewed, the project can be awarded. In general, the construction project is awarded to the contractor who submits the lowest bid. The contract award process is similar to many of the other Department agreement processes. The contract is sent to the selected contractor, who signs and returns it to the Department. After the Contract is executed, the contractor receives the Notice to Proceed (NTP). The NTP document gives the contractor formal permission to begin construction.

The Construction work is performed in accordance with predetermined standards embodied in the Plans and specifications, in approved construction drawings and in any special provisions required by the nature of the project. It is the responsibility of all interested parties involved in the construction project to seek construction quality. The Regional Construction Engineer will make the determination regarding assignment of the Field Manager and Resident Engineer (RE) for a project.

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Construction Guidance Documents and Websites

Several guidance documents and websites are available to assist stakeholders in the Construction Phase. They can be accessed either by the Department's internet or intranet websites.

The [Construction Procedures Handbook](#) is a practitioner's guide, designed to assist construction personnel in performing their assigned duties. It is used as a reference for Construction Procedures, Office Procedures, Inspection Reports, and pertinent Capital Program and Department Policies, Procedures, and Administrative Directives. This handbook also provides specific information about the Division of Construction Services & Materials, job assignments, specifications, Plans, mathematics, materials and other sources of information. The 2007 Standard Specifications (<http://www.state.nj.us/transportation/eng/specs/2007/Division.shtml>) for Road and Bridge Construction Specifications are the directions, provisions, and requirements that outline the description of work, method and manner to perform the work, the acceptance criteria and measurement and payment statement for a particular item of work. A specification is a description of the physical and/or functional characteristics and the requirements to be satisfied by a product or service and the procedure to determine whether the requirements are satisfied.

Construction Phase guidance web pages include:

- Bureau of Construction Services
 - <http://www.state.nj.us/transportation/business/procurement/ConstrServ/>
- Bureau of Construction Management
 - <http://njdotintranet.dot.state.nj.us/divbur/cpm/constr/>
- Capital Project Delivery
 - <http://www.state.nj.us/transportation/capital/pd/>

The Bureau of Construction Services website includes links for Notices, Contractor Prequalification, Current Advertised Projects, Bid Openings, Awarded Projects, Contractors Prequalified Listing, & Planned Advertisements. The Construction Management website includes links for Construction Project Status, Construction Procedures, Construction Advisories, and Subcontracting. The Capital Project Delivery website established a consistent method for delivery of NJDOT capital projects.

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Perform Construction

All of the activities in the Construction Phase are important; however, none is longer in duration and more complex than the Perform Construction activity. This activity encompasses the actual construction work performed by a contractor. Department Capital Construction projects can range from simple roadway resurfacing to new roadway and bridge construction. Many of the Department's construction projects are completed within a single construction season, but a medium to large size rehabilitation or new construction project can last several years.

Construction work begins with construction start up. During this time, the contractor can assemble construction equipment and material. During construction, safety is crucial. Along with inspecting the construction work, inspectors also perform work zone safety inspections. The contractor's work is monitored during construction to ensure that the product conforms to the Plans and specifications. Several key activities occur concurrently with the Perform Construction activity. The activities are:

- Provide Environmental Permit Notifications
- Prepare Working Drawings
- Prepare Value Engineering Construction Proposal
- Prepare Contractor Evaluations

The above-reference activities vary in duration based on project specific parameters.

The Construction Phase is formally finished when the:

- Contractor's work is accepted.
- Agreements (funding, contractor, consultant, etc.) are closed.
- Final audit is completed.

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