

General Project Milestones

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OVERVIEW

GDOT projects progress through a series of milestones throughout their development. Understanding the purpose of these milestones and the role of the environmental process is critical to successful project delivery. Project milestones are summarized in the discussions below. The discussions focus on the project's environmental milestones and how they relate to milestones for project delivery using the Plan Development Process (PDP). The discussions highlight how the project team uses these milestones to coordinate throughout the key stages of the PDP.

Plan Development Process Manual,
Georgia Department of Transportation

Tracking Milestones

- > Where applicable, the discussions in this guidebook indicate how the milestones relate to the activities tracked through GDOT's schedule management tool, *Primavera P6*. GDOT uses Primavera P6, or simply P6, to act as a quantitative schedule management tool, based on dates, durations and dependencies, that allows the project team to track baseline schedules. This information feeds into the *Preconstruction Status Report (PSR)*, which is a summary of project management and key schedule milestones. Upon development, the Project Manager (PM) disseminates the baseline schedule with these key schedule milestones to the environmental team. The Office of Environmental Services developed the *P6 Team Member Guide* to define how the individual activities are entered into this tool.

P6 Team Member Guide
GDOT Office of Environmental Services

PROGRAMMING ACTIVITIES

As the PDP notes, projects are identified by the Director of Planning, GDOT Districts, and local governments in the rural programming process and by Metropolitan Planning Organizations (MPOs) in the urban planning process. Once identified, the project is programmed, identifying fiscal year programming funds.

Programming

Programmed projects are included in GDOT's Construction Work Program. If it is a rural project, it is added to the State Transportation Improvement Program (STIP) or the Long-Range Program. If it is an urban project, the project must be approved by the MPO and added to its Long-Range Transportation Plan and/or its Transportation Improvement Program (TIP).

Project Team Initiation Process

Prior to Preliminary Engineering Authorization, the GDOT PM and Subject Matter Experts (SMEs) from various GDOT offices conduct the Project Team Initiation Process (PTIP). PTIP provides input early to assist in the development of a project's scope, schedule, and budget. At PTIP, the Office of Environmental Services (OES) provides high-level input on project conditions and risks by gathering desktop/windshield data and committee reviews.

Scheduling

Once PTIP is completed, the PM requests a draft schedule from the Office of Program Control (OPC). OES personnel review the draft schedule to determine if it includes appropriate activities and durations. Activities may be included or deleted based on knowledge of the project area drawing on information gathered through PTIP. The Schedule Review Committee requires OES concurrence for schedule approval.

CONCEPT STAGE MILESTONES

After Preliminary Engineering funds are authorized, the Concept Stage begins. The goal of the Concept Stage is to develop the Concept Report to describe the recommended project "footprint," including termini, and a recommended Build Alternative. Important Concept Stage environmental milestones are discussed below.

Receive Environmental Survey Boundary

The Environmental Survey Boundary (ESB) is an enclosed boundary shape which represents a conservative, concept-level approximation of the project's footprint. The Environmental Analyst receives the ESB from design and provides it to the project's Ecologist, Historian, and Archaeologist to begin Environmental Resource Identification. Design is responsible for ensuring that the ESB is adequate. ESB Guidance is available [here](#):

Environmental Survey Guidance, Georgia Department of Transportation

Primavera P6 **RECEIVE ENV STUDY AREA LAYOUT/START ENV STUDIES**
Activity # 11412

Environmental Resource Identification

The Environmental Analyst, Ecologist, Historian, and Archaeologist identify environmental resources in the project area using the ESB. As resources are identified and survey reports are prepared, reviewed and approved, Environmental SMEs submit boundaries for the environmentally sensitive areas (ESAs) to Design. This milestone is complete when environmental survey reports are approved through GDOT or through the appropriate resource agency and ESA boundaries are submitted.

Primavera P6 **ENV RESOURCE ID COMPLETE**
Activity # 11499 – Resource delineations to Design (copy OES if consultant) or
Notify Design of ‘no resources in survey area’

Practicable Alternatives Review Activities

During the Concept Stage and prior to the Concept Report approval, the Ecologist will work with design to determine if a Section 404 permit is anticipated. Per Local Coordination Procedures, the interagency consultation on alternatives is initiated for major widening and new location projects. This will form the basis of the Practicable Alternatives Review (PAR) process. A PAR report is prepared for all projects requiring a Regional General Permit 35 or an Individual Permit.

Public Involvement

Depending on the project’s public involvement plan, project development may require public involvement activities. If multiple alternatives are under consideration, then public involvement is held during the Concept Stage to evaluate public opinion on the alternatives. However, public involvement also may occur during the Preliminary Design or Final Design. The most common type of public involvement activity is a Public Information Open House (PIOH), a meeting where the public is invited to review a public meeting layout, ask GDOT personnel questions, and submit formal comments. Projects may require multiple public involvement efforts throughout their development.

Primavera P6 **PIOH SUMMARY**
Activity # 09000 (as needed)

Concept Report Approval

Activities typically completed before Concept Report Approval include environmental resource identification, the PAR, and public involvement (where multiple alternatives are under consideration). The State Environmental Administrator, a signatory on the Concept

Report, may decide not to sign the Concept Report if alignment-related activities are incomplete. The PM must coordinate with the State Environmental Administrator if the Concept Report is expected to advance while these activities are outstanding. In which case, these activities would be completed during Preliminary Design.

PRELIMINARY DESIGN MILESTONES

Preliminary Design begins after the Concept Report is approved. Some environmental activities have been initiated during the Concept Stage. The main goal of Preliminary Design is to reach the Preliminary Field Plan Review and complete right-of-way (ROW) plans for property acquisition activities to begin.

Constructability Review

The PM schedules a Constructability Review for projects that could have staged construction activities due to significant horizontal or vertical grade changes, major utility relocations, staged bridge or culvert construction, or any other complicated construction activity. The Environmental Analyst and relevant Environmental SMEs should participate in the review to help identify and discuss construction impacts to ESAs. The review is scheduled at around 30% plan completion.

Avoidance and Minimization Measures Meeting

After Environmental SMEs complete resource identification (and resources are present) and design develops preliminary cross section plans, the Avoidance and Minimization Measures Meeting (A3M) is held. At a minimum, the A3M involves the PM (responsible for scheduling the meeting), design, the Environmental Analyst, and Environmental SMEs. A major component of the A3M is the A3M Tracking List. The tracking list is used to capture all notes, discussions, and decisions relevant to environmental resources to provide a clear record of efforts to avoid and minimize impacts.

Primavera P6 CONDUCT AVOIDANCE AND MIN. MEASURES MEETING (A3M)

Activity # 20937 (A3M) – Held if environmental resources in the project area

Receive Preliminary Plans (or Tech Plans)

After incorporating the results of the A3M, design provides the Environmental Analyst and Environmental SMEs with preliminary plans. These plans are used to develop environmental technical studies and agency coordination. They form the basis for assessing impacts to environmental resources.

Primavera P6 RECEIVE PRELIMINARY PLANS TO BEGIN TECHNICAL STUDIES

Activity # 13417

Once provided, the PM and design need to avoid “Hot Button Changes.” If these issues cannot be avoided, the Environmental Analyst needs to be contacted immediately. Hot Button Changes are listed below:

- > Change in ROW, easement, cut/fill limits within an ESA;

- > Addition of or changes to drainage structure within an ESA;
- > Alignment (horizontal or vertical) or edge of pavement shift (horizontal or vertical);
- > Project limit increases beyond the ESB;
- > Updated traffic volumes;
- > Addition or removal of a thru, auxiliary, or passing lane;
- > Adding a signal; and/or
- > New displacements, access removal, and/or adding an offsite detour.

Public Hearing Requirements

For projects requiring an Environmental Assessment (EA) or an Environmental Impact Statement (EIS), FHWA reviews the *draft* EA or EIS and, upon approval, GDOT conducts any required public hearing activities, such as advertising to request a Public Hearing Open House (PHOH) and/or holding a PHOH. FHWA may approve the draft environmental document before environmental technical studies and agency coordination are complete.

Primavera P6 **PUBLIC HEARING HELD**

Activity # 14347 (as needed)

Environmental Technical Studies Complete

The environmental technical studies complete milestone occurs when all Environmental SME technical studies are complete, and any require agency coordination is complete. This includes the Air Quality Assessment and the Noise Assessment (noise is only required for federal-aid projects).

Primavera P6 **ENV TECHNICAL STUDIES COMPLETE**

Activity # 13499 – Consultation Complete

Federal aid → Federal Highway Administration (FHWA); State funded → USACE

Preliminary Field Plan Review Activities

The Preliminary Field Plan Review (PFPR) occurs after environmental technical studies and agency coordination is complete (unless the project team has decided to advance earlier). The project team must be aware that the decision to advance to PFPR prior to the completion of environmental technical studies is a risk-based assessment. Risk is defined as an uncertain event or condition that holds a chance for failure. If failure occurs (i.e., expected outcome is not realized), future objectives are affected (e.g., completion of ROW plans). In the context of project delivery, failure may result in the need to re-design a project or the purchase of property not needed for the project.

The Environmental Analyst submits a draft Environmental Commitments Table (or Green Sheet) to the PM before the PM schedules the PFPR. Once scheduled, the PM circulates the PFPR plans to all GDOT offices. These plans and the Green Sheet are reviewed for comment by the environmental team (including environmental consultants and in-house staff). The Environmental Analyst participates in all reviews, during the office “page turn” review and during the field visit. Depending on the ESAs present, relevant Environmental SMEs may also be required to participate.

Once the preliminary design has changed to address comments from the PFPR, the Design Phase Leader will submit corrected PFPR plans to the Environmental Analyst and the Environmental SMEs to ensure that additional survey, documentation, and agency coordination is not needed as a result of the changes. As previously noted, all project team members need to be aware of Hot Button Changes during the PFPR. These changes are likely to result in delays in the project schedule.

Environmental Document Approval (Federal-aid)

Once technical studies and the PFPR are complete, the Environmental Analyst can complete the environmental document for federal-aid projects. For Categorical Exclusions and Programmatic Categorical Exclusions, the environmental document is submitted for review once technical studies and PFPR are complete. The milestone is complete upon FHWA approval of CEs or GDOT approval of PCEs. For EAs and EISs, FHWA reviews the *final* environmental document once public hearing requirements are complete and agency coordination is complete, and the milestone is complete upon FHWA approval.

Primavera P6 NEPA DOC SUMMARY

Activity # 14311 – Federal aid only, to be completed prior to Environmental Certification for ROW

FINAL DESIGN MILESTONES

Final Design begins with corrected PFPR plans. It includes completing ROW acquisition (if needed) and letting the project to construction contractors for bid.

Environmental Certification for ROW

For federal-aid projects, OES will coordinate with design to complete a Certification for ROW Authorization. The Environmental Analyst will review the ROW plans to ensure that all resource delineations are correctly shown and that the impacts and survey areas reported in the technical studies and environmental documents match the plans.

Primavera P6 ENV CERTIFICATION FOR ROW AUTHORIZATION COMPLETE

Activity # 70300 – Federal aid only

Receive Lockdown Plans

Design provides the environmental team with lockdown plans. Once plans are locked down, no more changes will occur within ESAs. If Hot Button Changes develop, they must be

communicated to the environmental team prior to lockdown plan submittal. Changes that include these issues are likely to result in delays in the project's letting. To remain on schedule for the letting, Hot Button Changes must be received four weeks prior to lockdown to ensure that studies are updated in time for the submittal of applications to agencies. Additionally, the date for lockdown plans varies based on the type of permit.

Primavera P6	OES RECEIVES & REVIEWS PLANS FOR APPLICATIONS [AKA "LOCKDOWN"]
Activity #	88222 – Change requiring agency consultation must be addressed prior to lockdown

Permit/Buffer Variance Applications

At this milestone the Ecologist secures the Section 404 permit and/or buffer variances, if required. The applications for these permits/variances require plan submittals to verify impacts to ESAs. Designers must adhere to GDOT's Lockdown Plan Schedule so permit and buffer applications can be submitted at the appropriate time before let.

Primavera P6	404 AND BUFFER VARIANCE (BV) PERMITS
Activity #	88231 – Change requiring agency consultation must be addressed prior to lockdown

Final Field Plan Review Activities

The Final Field Plan Review (FFPR) occurs when the final construction plans, including check quantities and special provisions, are complete. No later than 24 weeks prior to the project's management directed let date. It requires the same level of review and involvement from the environmental team members as the PFPR. All project team members need to avoid Hot Button Changes during the FFPR. By FFPR, environmental team members have typically begun final technical studies (addendum and reevaluations) and permitting. Any Hot Button Changes can result in delays in the project's letting. At the PM's discretion, multiple FFPRs may be held if the ROW acquisition period is lengthy.

Environmental Certification for Let

Environmental Certification for Let the environmental team's last review of the plans before letting, when construction contractors bid on the project. It ensures that all preconstruction commitments are complete and that the plans and contract documents convey all requirements and reflect the latest technical studies and environmental documents.

Primavera P6	ENV CERTIFICATION FOR LET COMPLETE
Activity #	95200

Guidebook Revision History

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