

DEPARTMENT OF TRANSPORTATION

State of Georgia

Plan Development Process – 2000

**Manual of Guidance 4050
TOPPS 4050**

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**Director of Preconstruction
Atlanta, Georgia 30334**

This document was developed as part of the continuing work of the Preconstruction Division and is provided as guidance within the Georgia Department of Transportation in fulfilling its mission to provide a safe, efficient, and sustainable transportation system through dedicated teamwork and responsible leadership supporting economic development, environmental sensitivity and improved quality of life. This document is not intended to establish policy within the Department, but to provide guidance in adhering to the policies of the Department.

Your comments, suggestions, and ideas for improvements are welcomed.

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Assistant Director of Preconstruction
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No. 2 Capitol Square, SW
Atlanta, Georgia 30334-1002

DISCLAIMER

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Plan Development Process

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PLAN DEVELOPMENT PROCESS

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Chapter 1

GENERAL

This document sets forth the current procedures and steps necessary for the Georgia Department of Transportation (GDOT) to administer Federal-Aid projects in accordance with the policies and objectives of Titles 23, 40, and 42 United States Code, and to administer State-Aid projects to fulfill the policies and objectives of [Title 32](#), Official Code of Georgia Annotated. The document outlines the current process of project development from project identification through construction award.

A number of additional resources are available to the Project Manager in the carrying out of their responsibilities for project development. You are directed to the Repository for Online Access to Documentation and Standards (R.O.A.D.S) and to its electronic counterpart, Transportation Online Policy and Procedures System (TOPPS) for this guidance. GDOT Management, each Division, and a number of offices have developed their own procedures for accomplishing the mission of the Department. These policies and procedures documents are the contents of the MOG.

The Department has adopted the Plan Presentation Guide (PPG) to give the Project Manager guidance in the way information is to be presented and included in the plan packages. This document should be consulted in order to standardize the appearance of GDOT plans and ensure the appropriate information is included for construction.

It is a goal of the Division of Preconstruction to develop a quality set of right-of-way plans, construction plans, and bid documents through a cooperative effort with its stakeholders that results in a project design and implementation that is the best transportation value for the taxpayers of Georgia.

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Chapter 2

DEFINITIONS

Authorization of a project - The process by which funds are approved for various stages of a project's development, such as design, right-of-way purchase, or construction.

American Association of State Highway and Transportation Officials (AASHTO) – An organization made up state Department's of Transportation and the Federal Highway Administration.

American Association of State Highway and Transportation Officials
444 North Capitol Street, NW
Suite 249
Washington, DC 20001
Telephone: (202) 624-5800, Telefax: (202) 624-5806,
www.aashto.org

Benefit to Cost Analysis (BCA) - A tool for comparing the benefit and costs resulting from a transportation improvement typically through calculation of a benefit/cost ratio (b/c ratio). The BCA can be used to evaluate whether a project should be undertaken and what priority the project should hold.

Certification Acceptance (CA) - The procedure authorized by 23 USC 117(a) for State administration of Federal-Aid projects. For a summary of those projects subject to CA procedures see [Appendix A](#).

Concept – A consensus beginning recommendation, idea, or starting point of a transportation solution to an identified transportation need.

Construction Work Program (CWP) - A listing of State and Federally funded projects approved by the Transportation Board with one or more elements, Preliminary Engineering, Right-of-Way Acquisition, or Construction, scheduled in the current and next five (5) years fiscal years.

Consultant Pre-qualification – The Department has policies for the qualification of consultants prior to consideration for providing engineering services. A copy of the policies, definitions and application forms for consultant qualification are available on the Office of Program Delivery and Consultant Design website:

<http://www.dot.state.ga.us/dot/preconstruction/consultantdesign/index.shtml>

Controlling Criteria – Those controlling design guidelines, as defined by [AASHTO](#) and accepted by the [FHWA](#), that a project should be designed to meet using good engineering judgment. A design exception or variance will be obtained when one or more of these controlling criteria cannot be met. See [Chapter 8](#) for a listing of the controlling criteria.

Context Sensitive Design - Context Sensitive Design is a collaborative approach to design that weaves together design principles, environmental concerns and community quality of life into one complete package. It's balancing the concerns and desires of the community for their environment and way of life with the sound engineering practices endorsed by [AASHTO](#). It is also firmly

involving the public in the decision making process to encourage ownership and responsibility for the final product.

Cooperating Agency - As defined in the Council on Environmental Quality's (CEQ) Regulations for Implementing the Procedural Provisions of the [National Environmental Policy Act \(NEPA\)](#), "any organization other than a lead agency which has jurisdiction by law or special expertise with respect to any environmental impact involved in ...[a] major Federal action significantly affecting the quality of the human environment." The CEQ emphasizes that agency cooperation should begin early in the NEPA process.

Datatrieve – Datatrieve is a former project management system used by GDOT. The current project management system is [TPro](#).

Design Exception – See [Chapter 8](#).

Design Variance – See [Chapter 8](#).

Environmental Justice – The fair treatment and meaningful involvement of all people regardless of race, color, or economic status with respect to the development, implementation and enforcement of environmental laws, regulations and policies. Fair treatment means that no group of people shall bear a disproportionate share of the negative environmental impacts that result from a particular project or program and shall share in the benefits derived from such projects and programs.

Exempt Projects – A Federal aid project that is not subject to [Federal Highway Administration](#) oversight. Exempt projects as used in this document, unless otherwise noted, do not refer to Air Quality Exempt Projects. For further information concerning Exempt Projects see [Appendix A](#).

[Federal Emergency Management Agency \(FEMA\)](#) – The Federal agency charged with the enforcement of Executive Order (EO) 11988. The primary function of the agency is to avoid long and short term adverse impacts associated with the occupancy and modification of floodplains and to restore and preserve the natural and beneficial values served by floodplains. The agency assesses floodplain hazards in all construction of Federal and Federally Aided buildings, structures, roads, or facilities, which encroach upon or affect the base floodplain.

[Federal Highway Administration \(FHWA\)](#) - The Federal Highway Administration (FHWA) is an agency of the U.S. Department of Transportation and is headquartered in Washington, D.C., with field offices across the United States. The FHWA administers the Federal-aid Highway Program.

The FHWA Georgia Division Office is located at:

GEORGIA DIVISION OFFICE (HDA-GA)
61 Forsyth Street, SW, Suite 17T100
Atlanta, Georgia 30303-3104
Telephone: 404-562-3630
www.fhwa.dot.gov

[Federal Transit Administration \(FTA\)](#) – The Federal Transit Administration is the federal agency that helps cities and communities nationwide provide mobility to their citizens. Through its grant programs, FTA provides financial & planning assistance to help plan, build, and operate rail, bus & para-transit systems. The web address is: <http://www.fta.dot.gov>

Final Field Plan Review (FFPR) – A review of final plans and specifications, special provisions, permits, and right-of-way agreements. The Final Field Plan Review (FFPR) shall be held a minimum of 16 weeks prior to letting.

Fiscal Year – The State of Georgia fiscal year is July 1 to June 30. All budgets and state programs, including transportation plans, adhere to this fiscal year. The Federal fiscal year is October 1 to September 30.

Full Oversight Project - Those projects administered by the [FHWA](#), for which the FHWA has full responsibility for review, approval and authorization. For a summary of those projects subject to Full Oversight procedures see [Appendix A](#). A Full Oversight Project was formally known as a “[Non-CA](#)” project.

Functional Classification - A grouping of roads, streets, and highways into an integrated system, within which, each roadway facility is ranked by its relative importance and function in providing access and mobility within the integrated system. Based on guidelines issued by [FHWA](#), the Department ranks roadways as local roads, major or minor collectors, and minor or principal arterials. Functional Classification Systems are developed, in cooperation with local officials, for each county and city and submitted to the FHWA for approval.

[Georgia Department of Transportation](#) is located at:

No. 2 Capitol Square, SW
Atlanta, Georgia 30334-1002
[GDOT Homepage](#)

Georgia Environmental Policy Act of 1991 (GEPA) – This act (Senate Bill 97) passed during the 1991 session of the Georgia Legislature, requires the evaluation and disclosure of environmental effects of proposed state (funded) actions. In general, a proposed action by a government agency must be assessed by the responsible official (the Commissioner is the responsible GDOT official) of that agency to determine and document whether or not the proposed action may significantly affect the quality of the environment. In the event of a determination of a significant adverse effect, the act requires an evaluation of the pros and cons of alternatives that would avoid the adverse impact as well as measures to minimize harm.

Interchange Justification Report (IJR) - An analysis, prepared in accordance with [FHWA](#) guidelines, for any proposed new interchange on the Interstate System. The IJR is typically an Office of Planning activity prepared with the assistance of the Division of Preconstruction. Due to its nature, the IJR provides planning level information for a tentative location with the concept displayed on aerial photography. The Office of Planning submits the IJR to FHWA for consideration.

Interchange Modification Report (IMR) - An operational analysis, prepared in accordance with [FHWA](#) guidelines, for the addition of access points to an existing Interstate interchange. The IMR addresses Interstate access point changes that are needed to improve operations and safety of an existing interchange. The IMR is a Division of Preconstruction activity, prepared with the assistance of the Office of Planning. Due to its nature, the IMR is engineering oriented, providing detailed analyses and preliminary design plans. The Office of Planning submits the IMR to FHWA for consideration.

Let Date - The advertised date that construction bid proposals will be opened for GDOT projects. The Let Date is generally the end of the Plan Development Process.

Local Government Project Agreement (LGPA) – The LGPA delineates the local government’s role in advancing a project through design to construction. The local’s role may include such items as responsibility for design, public and private utility relocations, purchasing of right-of-way, letting, construction supervision, or construction. The LGPA also serves to indicate the local government’s support and financial commitment to the proposed project. The Office of Financial Management normally prepares the LGPA.

Location and Design Approval (L&D):

Federal Aid projects: Location and design approval is granted by the [FHWA](#) with their approval of the project’s environmental document acknowledging that the Department has selected an appropriate location and has committed to a specific design of the proposed project.

State Funded projects: Location and design approval is granted by the Chief Engineer with the certification that the Department has completed the required public involvement process, the [GEPA](#) documentation, has selected an appropriate location, and has committed to a specific design of the proposed project.

Logical Termini - A term used to describe the beginning and ending points of a proposed transportation improvement and whether the selection of these points has a rational basis when viewed in light of the project need and purpose.

Major Investment Study (MIS) – A broad transportation alternatives study performed as a part of the [NEPA](#) process for a major federal aid investment within a Metropolitan Planning Organization that provides information about multi-modal options, estimated costs, potential impacts, and potential benefits. This study is a collaborative effort of the Metropolitan Planning Organization, governmental agencies, and public interest to develop a design concept and scope of investment for a Metropolitan Planning Organization’s transportation plan. The MIS is not usually a separate stand-alone document.

Major Project – A project that significantly changes the function of the facility being improved, or requires the acquisition of significant amounts of right-of-way, or has a significant impact on abutting property, or has significant changes in travel patterns, or has significant social, economic, or environmental effects. A Major Project will not follow “Time Saving Procedures.” A Major Project will require a public hearing or the opportunity for a public hearing and Location and Design Approval.

Management Directed Let Date – The proposed let date assigned by the Director of Preconstruction for a preconstruction project.

Management Directed ROW Date – The proposed right of way authorization date assigned by the Director of Preconstruction for a preconstruction project.

Metropolitan Planning Organization (MPO) – A local government agency charged with the responsibility for the proper transportation planning of a metropolitan area. The MPO performs its mission through a series of committees composed of local professional planning staffs, GDOT planning and design staffs (in cases where the MPO crosses state lines, the DOT staffs of the affected states), local elected officials (both city and county), citizens, and public input.

Minor Project – A project that does not require a significant amount of right-of-way and whose environmental analysis can be accomplished with a “Categorical Exclusion.” Examples of projects that are generally considered minor are Bike/Pedestrian projects, TEA and Ride Sharing projects, Transit enhancements, Transportation studies using capital funds, Turn lane, Intersection improvements, Signal projects, Bridge rehabilitation, Bridge replacements, Signage, Lighting, Landscaping, Traffic barriers, Guardrail projects, Greenway projects, Recreational trail projects, ITS/ATMS projects less than \$1million, and Maintenance resurfacing projects less than \$1million.

National Environmental Policy Act of 1969 (NEPA) – A federal law requiring compliance with a variety of federal environmental laws to insure that information on environmental impacts of any federally funded action is available to public officials and citizens before decisions are made and before actions are taken.

National Highway System (NHS) –The NHS is an interconnected system of principal arterial routes which serve major population centers, international border crossings, ports, airports, public transportation facilities, intermodal transportation facilities, major travel destinations, national defense requirements and interstate and interregional travel. As of January 1999, the NHS contained 161,653 miles of highways, including all Interstate routes, a large percentage of urban and rural principal arterials, the defense strategic highway network, and major highway connectors.

Need and Purpose – A “Need and Purpose” statement should identify and describe the proposed action and the transportation problem(s) or other needs, which the action is intended to address (40 CFR 1502.13). This statement should clearly demonstrate that a “need” exists and should define the “need” in terms understandable to the general public.

Non-Certification Acceptance (Non-CA) Projects – This term is no longer used. See [Full Oversight Project](#).

Plans, Specifications, and Estimates (PS&E) – A plan, specification, and estimate review performed on all [Full Oversight Projects](#) by the [FHWA](#). The Office of Contracts Administration will prepare the PS&E package with input from the Project Manager.

Plan Presentation Guide (PPG) – A guide that sets forth the criteria for the appearance of construction plans. These criteria establish, define, and clarify procedures and standards for plans to be used by the Department. These criteria are not intended to establish design processes; rather, they are guidelines to assure that all drawings have a uniform appearance and include all pertinent information, avoid unnecessary information, and reflect high quality workmanship. The guide is located at: <http://www.dot.state.ga.us/preconstruction/R-O-A-D-S/index.shtml>

Practical Alternatives Report (PAR) – A report prepared for those projects that require an individual U. S. Army Corps of Engineers permit providing an analysis of alternatives to avoid and to minimize harm to wetlands.

Preliminary Field Plan Review (PFPR) – A field review of the preliminary plans and draft special provisions conducted by or for the Office of Engineering Services prior to the development and approval of right-of-way plans. This review should coincide with the finalization of the environmental documentation. The emphasis of this review should be the coordination of right-of-way, utilities, bridges and walls, constructability, signs and signals, drainage, and appropriate environmental(including erosion control)/historic considerations. For Major Projects, the approval of

the Preliminary Field Plan Review (PFPR) Report defines the beginning of Final Design and the completion of the right-of-way plans.

Project Framework Agreement (PFA) - A binding legal agreement between the Department and the Local Government which contains straightforward project phase participation commitments. See [TOPPS 7120-3](#)

Project Management Agreement – The Project Management Agreement (PMA) replaces the Local Government Project Agreement Long Form (LGPALF). The Project Management Agreement is the contract instrument used by the Department to define the responsibilities between the Department and the local government/sponsor for project design and construction where a local government/sponsor desires to design, construct, design and construct, or construct.

Project Management System – TPro, a project database used by the Department as a data management tool for storing, updating, and reporting data in the Department's computer system. Department managers use reports from this database for reviewing and evaluating plan development progress and in making program decisions.

Project Manager – The person, typically in a design office, in responsible charge of a project who makes the day-to-day engineering decisions and is responsible for steering, coordinating, and managing a project through the Plan Development Process. The Project Manager must possess and maintain excellent communications and strong organizational skills to ensure projects are ready-to-let on time. In the Atlanta General Office, the Project Manager may be the Design Group Leader, or Assistant Design Group Leader, but typically is the Design Group Leader. In the GDOT Districts, the Project Manager is the District Preconstruction Engineer. The Project Manager may or may not be the individual doing the actual design.

Project Nomination Review Committee (PNRC) – The committee, chaired by the Director of Planning, Data and Intermodal Development, appointed to review projects nominated for inclusion into the Department's Construction Work Program. The committee consists of the Director of Construction, Director of Preconstruction, Director of Operations, Director of Planning, Data and Intermodal Development, Director of Field Districts, and as a non-voting member, the Chief Engineer. This committee was formerly called State Highway Improvement Plan (SHIP). See [TOPPS 7120-4](#).

Project Schedule – The project schedule includes the planned start and finish dates, based on confirmed assignments and required resources, for each detail activity necessary for the completion of the Plan Development Process. The approved project schedule, called the schedule baseline, provides the basis for measuring and reporting schedule performance.

Project Team - The Preconstruction Project Team is composed of individuals assigned to the Project Manager that possess the various skills necessary to complete the development of a project from concept through final contract documents delivery.

Regional Transportation Plan (RTP) – A long range, multi-modal plan for defined geographic regions in the state. The RTP addresses the regions transportation needs over a twenty (20) year period and is developed in cooperation with local, state and federal planning partners and the general public. Federal regulations require regional transportation plans to ensure a transportation system that serves economic, mobility and accessibility needs, and in non-attainment areas to conform to federal air standards. A RTP must include a financial plan demonstrating the consistency of proposed

transportation investments with existing and projected sources of revenue. The RTP must be updated at least every three years.

Request for Determination of Eligibility (DOE) – Refers to a document submitted to the Historic Preservation Division (HPD) of the Georgia Department of Natural Resources and the [FHWA](#) which discusses the qualities and characteristics of a historic property or site and is used to determine whether a site not already listed in the National Register of Historic Places would qualify for listing and thus require protection under Section 4(f) and consideration under Section 106.

R.O.A.D.S. (Repository for Online Access to Documentation and Standards) – Refers to the centrally located, online access to GDOT design-related documents, standards, and applications. Included on the web page are: NEW GDOT Design Policy and Procedure Manuals, Electronic Data Guidelines, Plan Presentation Guide, Software specific files and documentation, etc.

Schedule Review Committee – A committee chaired by the Director of Preconstruction that reviews and approves all submitted project schedules. Other members of the committee consist of the Preconstruction Office Heads, the Head of the Office of Financial Management, and the State Scheduling Engineer.

Section 404 (b)(1) Guidelines – Guidelines used to evaluate proposed discharges of dredged or fill material in waters of the United States as required by provisions of Section 404 of the Clean Water Act of 1977.

Section 4(f) – A provision of the USDOT Act of 1966 which requires that before land from a significant publicly owned park, recreation area, national wildlife refuge or any eligible historic site can be converted to a transportation use it must be demonstrated that there is no feasible and prudent alternative to this use and that the project includes all possible planning to minimize harm.

Section 6(f) – A provision of the Land and Water Conservation Fund Act which requires that before land from a site which was purchased or improved with funds administered under this act can be converted to another use, the Secretary of the Interior must approve the conversion and replacement land must be provided.

Section 106 – Refers to that section of the National Historic Preservation Act of 1966 which requires that with all federal undertakings, consideration be given to the effects and the minimization of harm to historic resources (architectural and archaeological) that are listed in or eligible for listing in the National Register of Historic Places.

Section 404 Permit – Authorization required by provisions of the Clean Water Act of 1977 before fill can be placed or dredging can take place in waters of the United States (includes wetlands).

Social, Economic, and Environmental Effects (SEE) – Direct and indirect impacts to the community, to highway users, and to the environment.

Specific Activity Agreement (SAA) - A binding legal agreement between the Department and the Local Government that contains current phase cost estimates and project activity deliverable schedules and may supersede PFA commitments due to real site condition changes or [STIP](#) commitment/schedule changes. See [TOPPS 7120-3](#)

State Highway Improvement Plan (SHIP) Committee – See [Project Nomination Review Committee](#)

[\(PNRC\)](#). The SHIP Committee no longer exists.

State Implementation Plan (SIP) – The SIP is prepared by the state designated agency (Environmental Protection Division (EPD) of the Department of Natural Resources) containing procedures to monitor, control, maintain and enforce compliance with National Ambient Air Quality Standards (NAAQS). Transportation plans must be in conformity with air quality goals established in the SIP. Conformity with the SIP is a condition of federal funding of transportation capacity projects in non-attainment areas.

State Transportation Improvement Program (STIP) – The State Transportation Improvement Program includes a list of federally funded and state funded priority transportation project elements (Preliminary Engineering, Right-of-Way, or Construction) proposed to be carried out in the current and next two years (a 3 year plan). It is financially constrained (dollar value of projects programmed is equal to the anticipated revenues per program year), and includes projects consistent with the Statewide Transportation Plan. The STIP is approved by the [FHWA](#) and [Federal Transit Administration \(FTA\)](#) and includes all [TIP](#) projects as adopted by the [Metropolitan Planning Organizations \(MPO\)](#) and approved by the Governor.

Team Leader – The individual appointed by the Project Manager and charged with the responsibility to coordinate the various activities of the Plan Development Process such as a concept meeting.

Time Saving Procedures – Procedures by which a project is advanced to the right-of-way authorization stage, eliminating the public hearing requirements and the approval of a location and design report. Time Saving Procedures are appropriate for those projects for which the right-of-way requirements are not significant and a “Categorical Exclusion” is the appropriate level of environmental analysis. A statement of the appropriateness of time saving procedures will be addressed in the project Concept Report.

TPro – The project management, reporting, and scheduling system portion of the Transportation Information System (TIS) used by GDOT to effectively utilize personnel and fiscal and material resources. TPro is sometimes referred to as the “Project Management System.”

Traffic Engineering Report - A document based on a detailed evaluation and study of an ‘at-grade’ intersection based on current traffic volumes, existing lane configurations, identification of problems associated with traffic control, road geometry (turn lanes), sight distance issues, and accident data evaluation. The report will include a signal warrants analysis and concept signal design (if warranted). Existing condition sketches and figures for any proposed modifications will also be included.

Transportation Explorer (TREN) – Transportation Explorer (TREN) is a web application that connects to the following GDOT databases: Transportation Projects (TPro), Bridge Inventory Maintenance and Management Systems (BIMMS), FleetAnywhere Traffic Interruptions Reports (TIR), Roadway Characteristics (RCFILE), Geographic Information System (GIS), Design Store. These databases contain maps, reports, photos, and plans all accessible through TREN. All of the information shown in TREN is directly from queries to the databases in real-time.

Transportation Improvement Program (TIP) – The Transportation Improvement Program is a short term document covering at least 3 years, the current year plus the next 2 years in the urbanized areas of the State. It is financially constrained, conforming to the [State Implementation Plan \(SIP\)](#) in air quality non-attainment areas and updated at least every 2 years. The TIP includes the list of priority

project elements (Preliminary Engineering (PE), Right-of-Way (R/W), and Construction) to be carried out in each program year. Projects included in the TIP must be consistent with the Transportation Plan adopted by the Metropolitan Planning Organization (MPO). The Governor approves each TIP.

Turnkey Project – A term which describes the timely prosecution of preliminary engineering activities by a professional design/engineering company, including acquisition of required rights of way and/or easement activities, to produce a set of final construction plans and contract documents for letting by the Department.

Utility - All privately, publicly, or cooperatively owned water distribution and sanitary sewer facilities, and systems for producing, transmitting or distributing communication, cable television, power, electricity, light, heat, gas, oil, crude products, steam, waste and storm water not connected with highway drainage, including river gauges, fire and police signals, traffic control devices (including Intelligent Transportation Systems), and street lighting systems, which directly or indirectly serve the public or any part thereof. The term "utility" may also be used to refer to the owner of any above described utility or utility facility.

Value Engineering (VE) – Value Engineering is the systematic application of recognized techniques by an independent multi-disciplined team to identify the function of a product or service, establish a worth for that function, generate alternatives through the use of creative thinking, and provide the needed functions to accomplish the original purpose of the project, reliably, and at the lowest life-cycle cost without sacrificing safety, necessary quality, and environmental attributes of the project.” See [TOPPS 2450-1](#).

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Chapter 3

OVERVIEW

The goal of the plans production team shall be to produce a set of plans for construction that is high quality and contains "ZERO DEFECTS." Properly following the Plan Development Process, using "The Plan Presentation Guide," checklists, and frequent checking of work product will improve coordination and minimize production costs while reducing technical problems, construction supplemental agreements, and the occurrence of liability claims. The maximum economy is achieved when errors are prevented during production instead of being caught during review, in other words - Eliminate REWORK!

Project quality is built-in, not added on. Quality is the direct result of careful, properly sequenced production, and continuous production checking of each work element by the Project Manager.

The Plan Development Process is for the most part a "Linear Process." Care must be exercised throughout the process to ensure the proper level of public participation is maintained and, in the case of federally funded projects or projects that may be converted to federal funds, the future use of federal funds are not jeopardized. According to 23CFR paragraph 771.113, final design activities, property acquisition (with the exception of hardship and protective buying), purchase of construction materials or rolling stock, or project construction shall not proceed until the following have been completed:

- (i) The action has been classified as a Categorical Exclusion (CE), or
- (ii) A Finding of No Significant Impact (FONSI) for an Environmental Assessment document has been approved, or
- (iii) A Final Environmental Impact Statement (FEIS) has been approved and available for the prescribed period of time and a Record of Decision (ROD) has been signed.

Put another way:

- 1. No final design decisions are to be made nor are any final construction plans or final right-of-way plans to be completed or approved prior to completion of the appropriate public involvement process including approval of the final environmental document.**
- 2. No contact initiated by the Department or a Department representative to a property owner for the purpose of purchasing their property shall be made until final right-of-way plans are approved and the final environmental document has been approved or reevaluated as appropriate.**

In rare and unusual circumstances, there is an exception to these rules called "Protective Buying or Advanced Acquisition." This is requested by the property owner or by the Department through the Office of Right-of-Way and approved by the Chief Engineer or the [Federal Highway Administration \(FHWA\)](#) as appropriate on a case-by-case basis.

The completion of Preliminary Design and the start of Final Design are defined as the date the Preliminary Field Plan Review Report is completed and distributed by the Office of Engineering Services.

The [Federal Highway Administration \(FHWA\)](#) will have Full Oversight for:

- All projects on the Interstate System,
- Projects on Federal Lands,
- Projects and access issues associated with the Appalachian Development Highway System (APD),
- Transportation Control Center projects,
- Intelligent Transportation System projects on the National Highway System, and
- Selected High Priority Projects.

In addition to the above, the [FHWA](#) has retained oversight on the National Highway System (NHS) for design standards and will have approval authority of the environmental documents for all federally funded projects.

The [FHWA](#) shall be consulted to determine oversight responsibility on NHS and Non-NHS projects that include unusual hydraulic structures, unusual geo-technical features, vehicular and drainage tunnels, moveable bridges, or bridges with a total deck area over 125,000 square feet.

The Federal Transit Administration will have Full Oversight for all Commuter Rail Projects (similar to the Full Oversight responsibilities the [FHWA](#) has retained on the Interstate System) including approval of environmental documents.

In those Non-attainment areas for air quality where the Georgia Regional Transportation Authority (GRTA) has been given authority over transportation plan development, the Project Manager will ensure they are involved in the Concept Stage of project development.

It is imperative that the Project Manager ensures that current and accurate information and status is entered into the project management system on a bi-weekly basis if not more often. Numerous GDOT personnel throughout the State rely on this information in scheduling their work activities and delivering project information on a timely basis. The Department's management also relies on this information in making decisions on program delivery, discussing the project status with the public and elected officials, and in making schedule commitments.

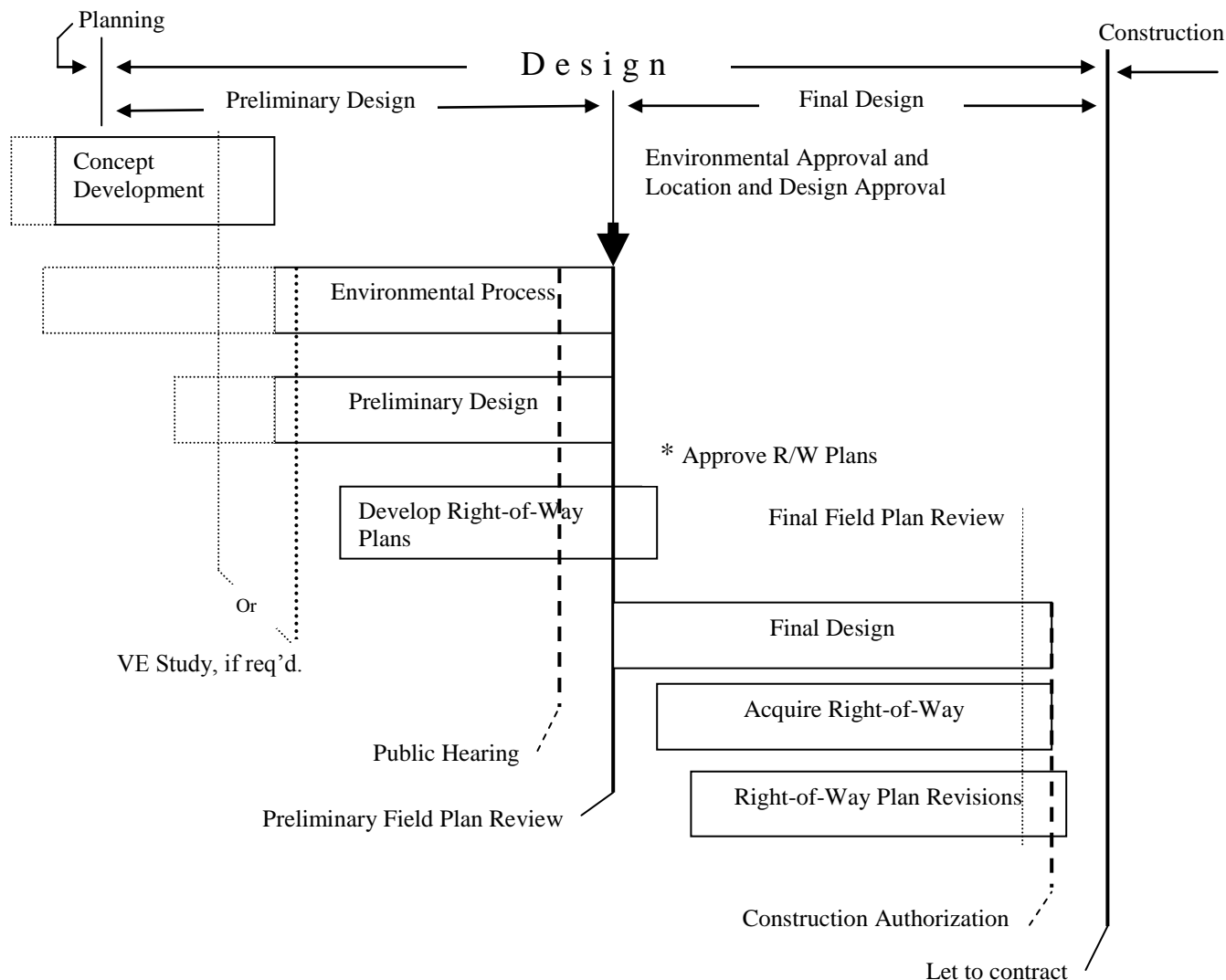
The Plan Development Process will be followed for:

- All construction and right-of-way projects prepared by or for GDOT where GDOT is proposed to let the project to construction,
- All construction projects that require the purchase of right-of-way,
- All construction or right-of-way projects proposed to use Federal funds for construction,
- All construction projects prepared by the Office of Maintenance requiring full size plans,
- All Interstate ITS projects prepared by the Office of Traffic Safety and Design,
- All major construction projects prepared by or for the Office of State Aid as set forth in Project Management Agreements, and
- All projects as required by Project Management Agreements.

All concepts, reports, preliminary and final right-of-way plans, preliminary and final construction plans, and construction documents prepared by or for the Department will be in "English" Units.

As an introduction to the Plan Development Process (PDP), the following chart is intended to show a very basic, conceptualized Plan Development Process.

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Generalized Plan Development Process Flow

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Chapter 4

PROJECT PROGRAMMING and SCHEDULING

Project Identification

During the project planning stage, the Department monitors the existing transportation systems and proposes improvements, in cooperation with local agencies and planning organizations, for inclusion in the Department's Work Program. Any office of the Department, the Commissioner, Deputy Commissioner, Chief Engineer and Division Directors may identify new projects for inclusion in the Work Program. Projects proposed by these sources are generally brought before the [Project Nomination Review Committee \(PNRC\)](#) for action. Specifically excluded from the PNRC process are:

- Routine maintenance projects that are funded through lump sum maintenance funds,
- Highway safety and railroad crossing safety projects where the conditions meet the criteria to be submitted for programming by the State Traffic Safety and Design Engineer,
- Bridge replacement and rehabilitation projects where the bridge condition meets the criteria to be submitted for programming by the State Bridge Maintenance Engineer or the Office of State Aid,
- Projects identified through the [MPO](#) planning process,
- Transportation enhancement projects, and
- Transit projects funded under Title III of 23 CFR.

Offices/Sponsors submitting proposed projects to the [PNRC](#) for inclusion in the Construction Work Program will include a draft "Project Justification" giving the identified need and a proposal to meet that need. For projects identified through the [MPO](#) planning process, the "Project Justification" will be submitted through the Office of Planning. The "Project Justification" is not intended to be the "Need and Purpose Statement" that will be developed later as part of the project's environmental clearance, but a thoughtful presentation to provide the Office/Sponsor's insight into the proposal for consideration by the [PNRC](#). A project's logical termini will be considered as part of the "Project Justification". In addition, the Office/Sponsor shall also provide the project cost estimates for Construction, Right of Way and Utilities. The Offices/Sponsors are required to provide the basis and justification for the cost estimates. The time and effort utilized by Offices/Sponsors to develop a well-prepared "Project Justification" will:

- Give the designer a better idea of the proposed scope, which should make for a better design,
- Provide better identification of environmental scope up front,
- Provide better information with which to prioritize projects,
- Prevent errors in programming of projects,
- Improve connectivity between "Need and Purpose" and concept, and
- Ensure identification of logical termini earlier in the process.

After recommendation by the [PNRC](#) and approval by the Chief Engineer, proposed projects shall be added to the Department's [Construction Work Program \(CWP\)](#) or the Long Range Program in the manner specified by Board Policy. The PNRC may also assign the project to offices for additional study, or reject the project. See [TOPPS 7120-4](#) for a more detailed discussion on the requirements for project submissions to the PNRC.

Programming

All projects except maintenance and safety are approved by the Transportation Board before inclusion in the Department's Construction Work Program. The information gathered by the Offices/Sponsors should be submitted with the project when it is added to the Construction Work Program and included in the project file maintained by the Office of Financial Management (OFM). The Office of Financial Management is responsible for establishing the new project record in the Department's Project Management System.

Projects are programmed by three methods:

1. Projects are added to the six-year [CWP](#) with one or more of the programming elements (Preliminary Engineering, Right-of-Way Acquisition, or Construction) programmed for a specific fiscal year,
2. Projects can be added to the [CWP](#) without action of the GDOT Board. These projects are usually maintenance, safety related, or projects split from those projects already in the CWP, or
3. Project elements added to the Long Range Program, beyond the current sixth (6th) year of the [CWP](#), will not show fiscal years for those elements (Preliminary Engineering (PE), Right-of-Way (ROW), or Construction (CST) identified as Long Range (LR). Project elements shown in Long Range indicate the Transportation Board has not approved funding for those elements.

Management of Long Range Projects

When projects are added or amended to the Long Range Program, and preliminary engineering is not active or proposed to begin within three years, the Director of Preconstruction will automatically assign those projects to the District Office for management. In some cases, depending upon project location and complexity, the Director of Preconstruction may choose to assign a Long Range project to one of the Preconstruction design offices. Annually, the District Offices will review the Long Range projects in their District and submit their priorities and recommendations for advancement into the [STIP](#) or [CWP](#) to the Director of Preconstruction. This review should occur in the first quarter of the fiscal year in preparation for the annual update of the STIP and CWP. When the preliminary engineering is proposed for addition to the STIP, the Director of Preconstruction will determine which office will manage the active project and reassign the project as necessary.

Schedule Development

The timely development of a schedule for a programmed project is highly important. The Department is a complex organization and many project related tasks are performed by persons not directly responsible or accountable to the Project Manager or even within the employ of the Department. The complexity of project development and the numbers of people involved in the process make coordination and anticipation essential for each project task, especially critical tasks.

A project schedule shall comply with the Plan Development Process and shall comply with the programmed fiscal years for the authorization of funds for preliminary engineering, right-of-way acquisition, and construction. The Director of Preconstruction and the Chief Engineer shall approve all exceptions to programmed fiscal years. The Director of Preconstruction will then request the Office of Financial Management to amend the fiscal years in the [Construction Work Program \(CWP\)](#) and [State Transportation Improvement Program \(STIP\)](#).

Sixty (60) days prior to DOT Board approval date, the Office of Financial Management will provide the Director of Preconstruction with the proposed project additions to the [CWP](#). Within 10 working days of receiving this list, the Director of Preconstruction shall assign the project to a design office or District. Within 10 working days after the Commissioner authorizes the addition of a project to the Long Range Program, the appropriate office shall assign a Project Manager for said project.

Within twenty (20) calendar days of the assignment of a Project Manager, the District Planning and Programming Engineer shall, after consulting with the Project Manager, the Office of Environment/Location, and the Office of Right-of-Way, submit a schedule to the Director of Preconstruction (Schedule Version 50 in TPro). The District Engineer will approve this schedule and the State Scheduling Engineer will notify the Assistant Director of Preconstruction, the Project Manager, the Office of Bridge Design, Office of Environment/Location, Office of Right-of-Way, and any other office with significant work activities in the schedule such as the Office of Utilities and Office of Traffic Safety and Design, that the schedule is available for review.

No schedule shall be prepared for projects with all elements programmed in LR unless directed by the Director of Preconstruction. The schedule will then be prepared in accordance with this procedure.

Once each calendar month, the Schedule Review Committee shall convene to review the schedules submitted to the Director of Preconstruction. The Schedule Review Committee may recommend approval of a schedule, approval of a schedule with modifications, or the rejection of a schedule.

The Schedule Review Committee shall consist of:

- The Director of Preconstruction, Chairman
- The Assistant Director of Preconstruction, Vice-Chairman
- The State Scheduling Engineer
- The Preconstruction Office Heads

The Director of Preconstruction will immediately review the Committee's recommendations and forward them to the Chief Engineer for approval, disapproval, or modification.

Immediately after the approval of the Committee's actions, the approved schedules shall be entered into the current schedule, Version 0, in TPro. An initial Management Directed Let Date and a Management Directed ROW Authorization Date will also be entered in TPro. Those schedules not approved shall be returned to the District Planning and Programming Engineer with comments from the State Scheduling Engineer and a corrected schedule shall be developed and resubmitted in accordance with the instructions of the Schedule Review Committee.

Monitoring Schedules

- **Project Manager Responsibilities:**
 - Every Project Manager or their designated representative of a scheduled task or event will constantly review the project schedule and report the progress of task completion in the Department's project management system. This reporting shall occur at least weekly until the task is completed. The Project Manager will ensure the completion of an event is recorded in the project management system within five days.
 - If the Project Manager determines the actual performance of activities is falling behind the project schedule, the Project Manager shall redirect the necessary resources under their control to complete the lagging task as scheduled.

- The Project Manager will analyze the problems causing the delay and document a specific course of action to get the project back on schedule. The Project Managers will quarterly produce a list of projects that have issues that are beyond their control. The Project Manager will submit this list of problem projects to their Office Head for discussion and possible elevation to the Director of Preconstruction.
- For more information on Project Manager responsibilities see Chapter 10.
- **Resource Planning:**
 - The goal of Resource Planning is to gain a macro view of how resources are being used across the organization and to maintain resource optimization.
 - The Statewide Resource Planner, Office Resource Planner, Office Head and Project Manager will collaborate to determine consultant needs for projects.
 - The Statewide Resource Planner will consolidate all division-level consultant needs to develop a GDOT-wide Consultant Acquisition Plan (CAP). The CAP will reflect anticipated consultant needs for next three fiscal years.
 - GDOT Leadership must approve the final CAP before it can be made public. Any unplanned consultant request not listed in the approved CAP must be approved by the Division Director and a GDOT Executive. If the unplanned consultant need is not approved at the time of request, the need is noted and added to a future plan.
 - Resource Planning will be an annual process that aligns with other annual planning and programming activities.
- **District Preconstruction Review Meeting:**
 - Bi-annually, the State Scheduling Engineer shall schedule in each District Office, at the convenience of the Director of Preconstruction and the District Engineer, a district project review meeting to review the status of all projects in the [CWP](#), including problem projects, in that District. It is very desirable to hold one of these meetings in September of each year to provide accurate schedule and status information for input into the preparation of the draft [STIP](#) update that begins within GDOT on October.
 - Two weeks prior to the district project review meeting, the District Planning and Programming Engineer and the Project Managers shall enter into the program management system any comments regarding any project activity that is incomplete, late, or that may delay or prohibit a project being let to construction as currently scheduled. These comments shall state succinctly the status of the work activity, the actions underway to complete the activity, any help or resources needed to complete the activity, and the expected completion date of the activity.
- **Revision of Project Schedules**
 - If a project must be delayed because of inadequate resources or other problems, the State Scheduling Engineer shall request the District Planning and Programming Engineer submit a revised schedule. The procedure for submission, review, and approval shall be as previously outlined for a new schedule.
 - If schedule revisions require changes be made in the [CWP](#) or the [STIP](#), the Director of Preconstruction and the Chief Engineer shall approve all exceptions to programmed fiscal years. The Director of Preconstruction will then request the Office of Financial Management to amend the fiscal years in the Construction Work Program (CWP) and State Transportation Improvement Program (STIP).

- **Let Status Review**

- By the tenth day preceding the Preconstruction Let Status Review Committee meeting (Let Status Meeting), the District Planning and Programming Engineer and the Project Manager shall enter into the program management system any comments regarding any project activity that is incomplete, late, or that may delay or prohibit a project being let to construction as currently scheduled.
- Each participant shall prepare a report for their use at the Let Status Meeting for each project in the current letting and subsequent six (6) lettings. Each participant will be prepared to thoroughly discuss clearly and precisely the status of each critical activity, the actions underway by the task manager to complete the activity, and the expected completion date.
- **“HOLD” Status**
 - A project may be placed on "HOLD" status by the Director of Preconstruction, the Commissioner, Deputy Commissioner, or the Chief Engineer.
 - A project will be removed from "HOLD" status in like manner.
 - When a project is placed on "HOLD" status, all work activity on the project is suspended. When the project is removed from "HOLD" status, the [CWP](#) and the [STIP](#) shall be amended by request of the Director of Preconstruction. The State Scheduling Engineer shall request the District Planning and Programming Engineer to submit a revised project schedule that considers any required updates of previous work and/or the current status of the project.
 - HOLD status is temporary and will only be used in extreme cases and for short durations of time. Projects on HOLD will be reviewed by the Director of Preconstruction annually to determine if they should be restored to active status or recommended for removal from the program.
 - The State Scheduling Engineer shall be notified immediately of any project being placed on HOLD and will be responsible for suspending the remaining scheduled activities. If a project is restored to active status after being on HOLD, the State Scheduling Engineer will have the project rescheduled.
 - In TPro a field called "Letting Responsibility" is used to indicate if a project is local let, force account, GDOT let, or NONE. This field will also be used to note if a project has “HOLD” status.
- **“SHELF” Status**
 - The Director of Preconstruction may place a project on "SHELF" status.
 - The Director of Preconstruction, the Chief Engineer, or the Commissioner may remove a project from "SHELF" status.
 - A project may be placed on "SHELF" status when all work activity on the project has been completed (environmental cleared, right-of-way purchased, construction plans complete, and all agreements and permits are in-hand) and it cannot be let at the present time for some reason or has been let and all bids were rejected.
 - When the project is removed from "SHELF" status, the [CWP](#) and the [STIP](#) may need to be revised or amended. If required, the State Scheduling Engineer will request the District Planning and Programming Engineer to submit a revised project schedule that considers any required updates of previous work and shall coordinate with the Office of Planning and Office of Financial Management to ensure all planning and programming updates are performed.
 - The State Scheduling Engineer shall be notified immediately of any project being removed from “SHELF” status.

- In TPro a field called "Letting Responsibility" is used to indicate if a project is local let, force account, GDOT let, or NONE. This field will also be used to note if a project has "SHELF" status.

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Chapter 5

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CONCEPT STAGE

General

On all federally funded projects, the preliminary engineering funds shall be authorized prior to the scheduled date for beginning concept studies. The Director of Preconstruction may authorize the use of state funds for an early start. The Project Manager, through the Office Head, will request, in writing, to the Director of Preconstruction, authority to use state funds for early studies or preliminary design. Unless approved by the Director of Preconstruction, no work shall be done without authorization.

The concept stage should not be scheduled or started too far in advance of the preliminary design. The benefits of this action are to balance the number of concepts prepared each year, reduce the time between concept and the beginning of preliminary design, allow for more continuous work on a project, and reduce the chances the concept will become outdated.

The [FHWA](#) will be invited to attend and participate in all significant meetings, including the Initial Concept Meeting, the Concept Meeting, and any follow-up Concept Meetings on all projects for which they have Full Oversight responsibilities.

The Georgia Regional Transportation Authority (GRTA) will be invited to attend and participate in all Initial Concept Meetings, the Concept Meetings, and any follow-up Concept Meetings on all projects for which they have oversight responsibilities in non-attainment areas for air quality.

Objectives

The objective of the Concept Stage is to develop a Concept Report that will describe a recommended project “footprint” including logical termini. A project recommendation will be made for a “Build Alternative” or “No-Build Alternative” that addresses the “Need and Purpose” of the programmed project after preliminary traffic and operational studies, accident analysis, determination of project deficiencies, planning requirements, environmental cruise (an on-site, drive thru, screening of the project area), study of alternatives, permit requirements, social and economic considerations, utility considerations, right-of-way impacts, benefit to cost analysis and other analyses have been made.

Prior to the beginning of the concept stage, the design office, as assigned by the Director of Preconstruction, will work with the Office of Planning and the Office of Environment/Location to develop a preliminary “Need and Purpose” document for the proposed project. Some engineering may be required to complete this effort.

Projects Not Requiring Concept Meetings or Concept Reports

Concept meetings or reports are not required for the following projects, but are highly desirable:

- Traffic signal installations for a single intersection
- Safety and Hazardous Location projects (Concept Meeting not required, Concept Report is required)
- Railroad-highway crossing warning projects
- Pavement marking projects
- Sign projects related to construction projects
- Resurfacing projects
- Guardrail projects

- Fencing projects
- Landscaping projects
- Street lighting projects
- Interstate Maintenance/Rehabilitation projects that do not involve capacity improvements, interchange additions, or reconstruction

Initial Concept Development and Initial Concept Meeting

The purpose of the Initial Concept Meeting is to produce a higher quality and more detailed concept for all Major Projects and many Minor Projects by better organizing the Department's resources, identifying the core team and specialty team members, establishing lines of communications and responsibilities between team members, validate the "Need and Purpose" before working on the concept, gain a better understanding of the project corridor, understand the environmental scope, determine the anticipated public involvement approach, identify information that is available, define information that is needed to develop the concept, review the project schedule, and provide a transition between planning and design. The Project Manager is encouraged to review the project location with the Area Engineer prior to the Initial Concept Meeting.

Routine or Minor Projects, such as simple bridge or culvert replacements where the structures are being replaced in kind to current guidelines, may not require an Initial Concept Meeting. The Project Manager will make the determination of need.

Appropriate items to be reviewed, requested, or discussed, as applicable, at the Initial Concept Meeting may include:

- Evaluate the "Need and Purpose." (N&P prepared by consultants or local governments will be reviewed by the Offices of Planning and Environment and Location before presentation at the Initial Concept Meeting),
- Planning concept/modeling data (conforming plan's project description and network schematic showing through lanes)/[STIP](#) project definition,
- Need for an Interchange Justification Report ([IJR](#)) or Interchange Modification Report (IMR), (See TOPPS 3140-1)
- Safety concerns,
- Need for a formal or informal location inspection,
- Review alternates considered to date (ensure alternates considered and rejected are accurately and thoroughly documented),
- Preliminary design traffic ("Build Alternative" and "No-Build Alternatives"),
- Accident data for the previous three years,
- Traffic engineering report (if available),
- ITS opportunities,
- Staging and traffic control,
- Traffic calming techniques to be implemented,
- Maintenance problems, including drainage and pavement problems,
- Proposed design criteria including speed design,
- Proposed type of access control,
- District information on public contacts and concerns to date,
- Evaluate the extent of public outreach efforts and coordination needed. The project team will identify concerned citizens groups and affected communities, including minority and low income neighborhoods and their leaders, local governments, elected officials,
- Coordination with [FHWA](#), [FTA](#), GRTA, and other non-environmental Federal agencies,
- Requirements for:

- Mapping
- Aerial photography
- Tax plats with property owners names
- Photographs or Video logs
- General location and size of utilities,
- Proximity to railroads and railroad right-of-ways,
- Existing structures and their condition,
- Environmental concerns:
 - History
 - Archaeology
 - Neighborhoods
 - Special interest groups
 - Context Sensitive Design
 - Cemeteries
 - Parks and recreation
 - Wetlands and streams, including PAR's
 - Endangered species
 - Erosion and Sedimentation Control
 - Air Quality
 - Noise
- Possible permits required:
 - U. S. Army Corps of Engineers Section 404 Permit
 - Federal Emergency Management Agency (FEMA)
 - Tennessee Valley Authority (TVA)
 - U. S. Coast Guard (USCG)
- Opportunities to accommodate other modes of transportation,
- Coordination with other GDOT and local projects,
- Existing right-of-way.

The Project Manager will determine the participants to attend the Initial Concept Meeting. The suggested participants will be knowledgeable representatives from Office of Road Design or Office of Urban Design (as appropriate), Office of Environment/Location, Office of Right-of-Way, Office of Traffic Safety and Design, Office of Bridge design, [FHWA](#) (required on all [Full Oversight Projects](#)), [FTA](#) (required on all Commuter Rail projects), GRTA (as appropriate), Office of Construction, Office of Maintenance, Office of Materials and Research, Office of Engineering Services, Office of Planning (to invite appropriate Metropolitan Planning Organization (MPO) or Regional Development Commission (RDC) representative), District Engineer, local government technical representatives (District Engineer to invite), and Office of Utilities (they may decide to invite utility company and railroad representatives).

The outcome of the Initial Concept Meeting should be a better understanding of the project scope, identification of information that is available and what is needed, and the next steps to be accomplished in the concept development. The participants should agree on assignments and schedules for detailed concept development.

The Project Manager will update the project management system and provide meeting notes to the participants within 15 working days of the Initial Concept Meeting.

Concept Development Considerations

It is essential that a high quality, comprehensive Concept Report be prepared as early in the process

as possible. The benefits to be derived from a detailed concept include critical coordination with the planning process, better environmental analysis, and better right-of-way, utility, and construction cost estimates. In addition, earlier and better decisions on local government participation can be made. If required, a more detailed concept allows for better negotiations and definition of scope of services with outside consultants.

Also included in the Concept development should be an analysis of the benefit to cost ratio for the project. This can assist the Department in determining early in the project development process whether the benefits from the proposed design equal or exceed the project cost. It can also be used to determine the priority of the project in the [STIP](#) or Regional Transportation Plan. This analysis should be included in the concept report and discussed at the Concept Meeting.

Concept decisions shall be sensitive to environmental resources. Wherever possible, environmental resources are to be avoided, but where avoidance is not prudent, the impacts are to be minimized and mitigated. For those projects that are on new alignment or involve major new location sections, avoidance and minimization alternatives shall be coordinated with [FHWA](#) prior to the finalization of the Concept Report. Concept decisions shall also consider compatibility with adjacent land use (context - rural vs. urban section, historic area, etc. for example), address community issues if present, satisfy the Need and Purpose for the project, be consistent with the [STIP](#), and provide for logical termini.

- Evaluation of Existing Structures

An early decision on the scope of work for major structures including bridges, retaining walls, and noise walls is essential. During Concept Development on all projects including bridges, the Project Manager will request a Bridge Condition Survey from the Office of Maintenance Bridge Maintenance Section. The Office of Maintenance Bridge Maintenance Section will provide the Sufficiency Rating and a recommendation for removal and replacement, widening or rehabilitation on all bridge projects. The Project Manager will ensure that the Office of Bridge Design is copied on all correspondence regarding the condition and recommendation for existing structures.

- Section 404 Permit Considerations

In keeping with Section 404 (b) (1) guidelines, for those projects with potential to impact wetlands and streams, early coordination and a review of the proposed alignment(s) will be made with the team leader and an ecologist from the Office of Environment/Location. The Corps of Engineers and U. S. Fish and Wildlife Service will be invited to attend a field review to investigate the project alignment for potential impacts to wetlands, streams, and endangered species. All reasonable alternatives necessary to minimize these impacts will be considered.

In keeping with Section 404(b)(1) guidelines, for those projects with potential to impacts wetlands, streams, and open waters (Jurisdictional Waters of the US) early coordination and a review of the proposed alignment(s) shall be made with the team leader and an ecologist from the Office of Environment/Location. Special consideration shall be given to avoiding any impacts to Waters of the US, especially longitudinal stream encroachments. If avoidance is not possible, efforts shall be made to minimize impacts. The need for impacts to Waters of the US shall be documented in the report; the report shall include an explanation as to why avoidance was not possible. The Corps of Engineers and US Fish and Wildlife Service shall be invited to attend a field review to investigate the project alignment for potential impacts to Waters of the US and federally protected species. All reasonable alternatives to minimize

these impacts shall be considered.

A Practical Alternatives Report (PAR) shall be prepared for those projects that require an individual Section 404 Permit from the Corps of Engineers. The report shall justify the alignment preferred by the Department and shall include construction cost estimates for the various alternatives considered. The PAR shall address the cultural, social, and economic impacts in addition to the wetland and stream impacts for each alignment studied. There shall be at least two alternatives studied. (The “No Build Alternate” is not an alternate to be considered for a PAR.) The Office of Environment/Location shall contact and coordinate with Federal and State resource agencies and provide assistance to the Project Manager as to what alternatives are to be considered and shall provide the cultural, social, and economic studies portion of the report.

If a PAR is required, the office responsible for preparing the Concept Report shall be responsible for preparation of the Practical Alternatives Report (PAR).

- Stream Buffer Considerations

The Georgia Erosion and Sedimentation Act requires that vegetative buffers be maintained on all streams meeting the definitions of state waters. A 25-foot buffer shall be maintained on warm water streams; a 50-foot buffer shall be maintained on cold water trout streams. Applications for a variance to this stream buffer requirement shall be made to the Georgia Department of Natural Resource’s Environmental Division by the Office of Environment/Location, in consultation with the appropriate design office. This application shall discuss all efforts made to avoid the encroachment as well as efforts made to minimize the impact. All applicable mitigation measures and post construction water quality best management practices shall be documented for each required variance and shall be included in the Stream Buffer Variance application. In consultation with EPD, exceptions may be made for roadway drainage structures.

In order to develop a meaningful concept, reduce the need for later concept rework, and plan a more realistic schedule, some elements of Preliminary plans may be incorporated into the concept. A valid concept addressing horizontal and vertical alignments is required and will contain such information as:

- Discussion and analysis of information identified at the Initial Concept Meeting,
- Design guidelines proposed,
- Context and setting design requirements,
- Landscaping requirements,
- Environmental screening results,
- Design exceptions and design variances expected,
- Coordinated preliminary horizontal and vertical alignments,
- Typical sections,
- Edge of pavements,
- Some preliminary cross section work, including estimated construction limits,
- Preliminary capacity analysis including locations of proposed signalized intersections,
- Interface with adjacent projects,
- Intersection profiles with touch down points,
- Structural concepts (bridges and retaining walls)
- Constructability,
- Right-of-way requirements,
- Utility requirements,

- Preliminary driveway tie-ins,
- Preliminary construction cost, (See [TOPPS 3A-9](#))
- Preliminary right-of-way cost, and (See [TOPPS 3A-9](#))
- Estimated utility cost. (See [TOPPS 3A-9](#))

Concept Team Meeting

The Project Manager shall cause a Concept Team Meeting to be held to present the proposed concept and alternatives and to allow discussion by the attendees. The notice of a Concept Team Meeting will be sent out three (3) weeks prior to the date of the meeting. In order for the representatives to be fully prepared to discuss the project, copies of a draft Concept Report will be included with the notice for the concept team meeting. Attendees are expected to be familiar with the project and to contribute meaningful information to the meeting.

The Project Manager will determine the participants to attend the concept meeting. The suggested participants should include representatives from the Initial Concept Meeting and others as required; Office of Road Design or Office of Urban Design, Office of Environment/Location (to invite appropriate Federal Resource Agencies, see [Appendix C](#)), Office of Right-of-Way, Office of Traffic Safety and Design, Office of Bridge Design, [FHWA](#) (required for all [Full Oversight Projects](#)), [FTA](#) (required for all FTA or commuter rail projects), GRTA (as appropriate), Office of Construction, Office of Maintenance, Office of Materials and Research, Office of Engineering Services, Office of Planning (to invite the appropriate Metropolitan Planning Organization (MPO) or Regional Development Commission (RDC) representative), District Engineer, local government technical representatives (District Engineer to invite), Office of Communications, Project Consultants (if under contract), Office of Utilities (to invite utility and railroad company representatives.). The District Engineer will notify and invite the appropriate Transportation Board members and local elected officials (state, county, and city).

The team leader shall cause minutes of the meeting to be taken, which will be attached to the final Concept Report. Among the items to be discussed at the concept meeting and included in the final Concept Report are:

- Need and Purpose for the project,
- Planning concept/Conforming plan's project description and network schematic showing through lanes)/[STIP](#) project definition,
- Project background,
- Location of environmental resources such as:
 - Wetlands
 - Park lands
 - Potential historic properties and archaeological sites
 - Cemeteries
 - Location of potential hazardous waste sites
 - Underground storage tank sites
- Public input to date,
- Alternatives considered and rejected to date sufficient for inclusion into the environmental document,
- Design guidelines proposed to be used,
- Horizontal and vertical alignments,
- Typical sections,
- VE Study results
- Interchange Modification Report or Interchange Justification Report requirements

- Access control,
- Practical Alternative Report (PAR),
- Type of environmental document required,
- Environmental permits/studies required (Section 404, TVA, 4(f), biological assessments, etc.),
- Determine status and type of Project Framework Agreement
- Right-of-Way requirements/estimate including easements:
 - Potential number of parcels
 - Number of Relocates,
 - Estimated right-of-way cost
 - Who will be responsible for purchasing the right-of-way
- Name, size, and location of utilities along the project (including utility cost estimates),
- Preliminary bridge assessments and structural needs including retaining and noise walls,
- Accident history,
- Potential soil conditions along project,
- Construction limits,
- Maintenance of traffic (detour, closed, or constructed under traffic),
- Maintenance problems existing along the project,
- Preliminary capacity analysis for the “Build Alternative” and “No-Build Alternatives,”
- Potential improvements recommended for intersections along project,
- Constructability of proposed project,
- Preliminary construction cost estimates, (See TOPPS 3A-9)
- Project assignments, and
- Project schedule.

Specific assignments may be made at the concept team meeting requesting information to be provided for the final Concept Report. The team leader will set a deadline for information due in order that the Concept Report can be completed and submitted in a timely manner. The Project Manager will ensure the project management system is updated and current.

The Office of Bridge Design will assist the Project Manager by furnishing cost estimates for structural work needed for the project and alternatives. The Office of Bridge Design will pay particular attention to the constructability of structural elements needed for a project during concept review. In some cases, transportation to the project site, erection of structural elements, and protection of the environment may be significant factors that must be considered early in the concept phase.

The Office of Right-of-Way will assist the Project Manager by furnishing a preliminary right-of-way estimate for the proposed project. This estimate should include an approximation of the number of parcels and of the number and type of relocations. The Office of Right-of-Way shall also make a recommendation as to the type of access control for the project and whether permanent or temporary easements should be used.

The Office of Utilities will assist the Project Manager by furnishing a preliminary utility cost estimate for the proposed project. This cost estimate should include the names of all the utility companies, both public and private, having facilities along or crossing the project and the type of facility present. It would be desirable to know at this time if any of the utilities plan to install any new or upgrades to their facilities within the life of the project. It is also desirable to know as early as possible if the Office of Utilities is planning to use Subsurface Utility Engineering (SUE) on the project.

Concept Report

Based on the results of the concept meeting, the Project Manager will revise the draft Concept Report and drawings as required and upon receipt of the information from the other team members, prepare the Final Concept Report for the project. The report shall follow the format indicated in [Appendix C](#).

All Concept Reports require the approval of the Chief Engineer and additionally the [FHWA](#) will review and approve Concept Reports on all [Full Oversight projects](#). For design exceptions identified during the concept phase on Full Oversight Projects, FHWA requires the review and approval of the design exception prior to approval of the project concept. Chapter 8 describes the process for obtaining approval of design exceptions.

The Assistant Director of Preconstruction will be responsible for obtaining and consolidating comments concerning the proposed concept and preparing a written summary of the report with a recommendation for the Preconstruction Director's review and forwarding to the Chief Engineer for approval. However, the State Traffic Safety and Design Engineer will forward Concept Reports prepared by the Office of Traffic Safety and Design for safety and hazardous location projects to the Chief Engineer for approval.

Concept Report Performance Measures

In accordance with TOPPS Directive [2440-2](#) for the Concept Review Process, the reviewing offices will rate each key focus area and include a summary of the results with their review submittal to the Assistant Director of Preconstruction.

Concept Report for Minor Projects

Location and Design approval for Minor Projects is granted when the Concept Report is approved. Therefore, a "Notice" for Location and Design approval will be included as a part of the Concept Report submission. The date of location approval for compliance with Georgia Code 22-2-109 is the date of approval of the Concept Report by the Chief Engineer. The notice of location approval will follow the same procedures as required for Major Projects.

<http://w3.lexis-nexis.com/hottopics/gacode/Default.asp?loggedIn=done>

Concept Report Processing

Concept Reports Prepared By GDOT

For projects where the concept report is submitted to the Assistant Director of Preconstruction for processing, an electronic submittal process is preferred. An email address titled "Concept Reports" is used for these submittals.

- For those reports prepared in the Office of Urban Design, Office of Road Design, or the Office of Program Delivery and Consultant Design the original report shall be sent to the Assistant Director of Preconstruction with copies distributed for review and comment to Office of Engineering Services, Office of Environment/Location, Office of Traffic Safety and Design, Office of Planning, District Engineer, and Office of Bridge Design (only for those projects which involve structures). Within 10 working days of receipt, the review offices shall send their comments and a signed concept cover sheet to the Assistant Director of Preconstruction for further handling. In addition, the Office of Planning will certify the concept meets the project definition as contained in the approved [STIP/TIP](#).
- For those reports prepared in the District Offices, the original report shall be sent to the Assistant Director of Preconstruction with copies distributed for review and comment to Office of Engineering Services, Office of Environment/ Location, Office of Traffic Safety and Design, Office of Planning, and Office of Bridge Design (only for those projects which involve structures). Within 10 working days of receipt, the review offices shall send their

comments and a signed concept cover sheet to the Assistant Director of Preconstruction for further handling. In addition, the Office of Planning will certify the concept meets the definition as contained in the approved [STIP/TIP](#).

- For those reports prepared in the Office of Environment/Location Office, the original report shall be sent to the Assistant Director of Preconstruction with copies distributed for review and comment to Office of Engineering Services, Office of Traffic Safety and Design, Office of Planning, Office of Road Design or Office of Urban Design Office as appropriate, District Engineer, and Office of Bridge Design (only for those projects involving structural design). Within 10 working days of receipt the review offices shall send the comments and a signed concept cover sheet to the Assistant Director of Preconstruction for further handling. In addition, the Office of Planning will certify the concept meets the definition as contained in the approved [STIP/TIP](#).
- For those reports prepared by the Office of Traffic Safety and Design, the original report shall be sent to the Assistant Director of Preconstruction with copies distributed for review and comment to Office of Engineering Services, Office of Planning, Office of Traffic Operations Information Systems, Office of Environment/Location, District Engineer, and Office of Bridge Design (only for those projects which involve structures requiring special design) for their review and comment. Within 10 working days of receipt the review offices shall send the comments and a signed concept cover sheet to the Assistant Director of Preconstruction for further handling. In addition, the Office of Planning will certify the concept meets the definition as contained in the approved [STIP/TIP](#).
- For those reports prepared by the Office of Traffic Safety and Design for Safety Improvement Projects, the original report shall be sent to the District Engineer with copies distributed for review and comment to the District Preconstruction Engineer, the District Traffic Operations Engineer, the District Utilities Engineer, and the Office of Right-of-Way. Within 10 working days of receipt, the review offices shall send their comments and a signed cover sheet to the State Traffic Safety and Design Engineer. The original report signed by the District Engineer and a "Notice" for Location and Design approval shall then be sent to the Chief Engineer for approval. The approved Concept Report and "Notice" will be returned to the Office of Traffic Safety and Design for further processing and to the District Engineer for publication of the "Notice." Upon receipt of right-of-way and utility cost estimates, the Office of Traffic Safety and Design will request the Office of Financial Management to program the approved Concept as a project, add the project to the Construction Work Program, and assign a project number and a project identification number. Upon addition of the project to the Construction Work Program, a copy of the approved Concept Report and "Notice" will be distributed to the Chief Engineer, the Director of Preconstruction (letters only), the Assistant Director of Preconstruction, Office of Engineering Services, Office of Financial Management, Office of Environment/Location, District Traffic Engineer, and the Office of Traffic Safety and Design' Accident Analysis Engineer.

The date of location approval for compliance with Georgia Code 2-22-109 is the date of approval of the Concept Report by the Chief Engineer. The notice of location approval will follow the same procedures as required for Major Projects.

The original approved Concept Report shall remain in the Office of Traffic Safety and Design until the project's design and construction has been completed.

Concept Reports Prepared By Local Governments

For those Concept Reports prepared by local governments, the Concept Report processing shall follow the steps outlined above for the office to which the project is assigned.

Concept Report Updating

The Project Manager will review with the Assistant Director of Preconstruction all comments received and accepted during the Concept Report processing and incorporate those comments into an updated Concept Report. Since this update is incorporating the comments received during the Concept Report processing, it is not considered a concept revision and will not be processed accordingly.

Concept Report Approval

The Assistant Director of Preconstruction will forward the updated Concept Report to the Director of Preconstruction for concurrence and approval as follows:

GDOT Approval of Concept Reports

The Director of Preconstruction will forward all Concept Reports to the Chief Engineer for approval. See below for approval by the [FHWA](#).

FHWA Approval of Concept Reports

The [FHWA](#) will review the Concept Reports for all projects that have Full Oversight. The recommendation/approval letter prepared by the Assistant Director of Preconstruction shall be routed to the Chief Engineer for concurrence of the concept and then routed to the FHWA by the Chief Engineer. The FHWA will return the approved and signed Concept Report to the Department for the Chief Engineer's final review and approval.

Approved Concept Report Distribution

Upon the Chief Engineer's approval of the Concept Report, the Assistant Director of Preconstruction shall distribute the approved document to the office preparing the concept, appropriate Transportation Board members, Office of Engineering Services, Office of Environment/Location, Office of Traffic Safety and Design, District Engineer, Office of Bridge Design (if appropriate), Office of Financial Management, Office of Planning, Office of Transportation Data, and the local government (include all cities and counties affected). Distribution to all internal GDOT offices will be handled through email.

A copy of approved Concept Report will be placed in Design Store by the Assistant Director of Preconstruction and made available for viewing in TREX. The Project Manager will place a copy of the concept report in the Project Design Data Book, see Chapter 6.

Revised Concept Reports

A revised Concept Report is required whenever:

- The basic typical section is proposed to be changed (example: number of thru lanes is changed),
- Project termini are shortened or lengthened, including locations for passing lanes,
- Project access control is changed,
- Changes in right-of-way limits, as determined by the Office of Environment/Location, which may affect the analyses of:
 - Historic resources
 - Endangered species
 - Wetlands and streams
 - Air quality

- Noise studies
- Alignments revised (from a widening project to new location project or vice versa, at-grade intersection to grade separation, etc), or
- Any of the Controlling Criteria are changed. See Chapter 8 for a listing of these criteria.

If the project concept is changed during or just prior to preparation of the Location and Design Report, these changes will be noted in and approved as a part of the Location and Design Report.

Prior to submission of the Revised Concept Report to the Assistant Director of Preconstruction, the Project Manager will consult with the Office of Environment to determine if and how the changes will impact the environmental studies and with the Office of Planning to determine if and how the changes will impact adopted transportation plans and TIPS.

Who prepares the revised Concept Report?

- If preliminary design has not been started, the office preparing the original Concept Report shall revise the concept.
- If preliminary design of the project is underway, the Project Manager for design of the project will be responsible for preparing the Revised Concept Report.

The Revised Concept Report will use the form outlined in [Appendix C](#).

The processing of revised Concept Reports will follow the same steps that were followed in the processing of the original Concept Report. In addition, the Office of Engineering Services will include in their review a cost estimate for the requested changes.

Concept Development by the Office of Traffic Safety and Design (OTSD) for Interstate or Limited Access Roadway ITS Projects

The Office of Traffic Safety and Design shall develop concepts for Interstate or Limited Access Roadway ITS projects on existing right-of-way. Projects are Federal-Aid ITS with full [FHWA](#) oversight and will be developed in accordance with the policies and objectives of Titles 23, 40, and 42 United States Code.

The Project Manager will coordinate with the Office of Environment/ Location and request aerial photography and mapping, as required, of the proposed project area no less than 15 months before scheduled let date. Mapping the proposed design area can be essential to the development of a clear and understandable concept and final plans. If requested, the mapping should have sufficient detail for use as presentation material during a concept team meeting and serve as the plan base for final plans.

If mapping of the project area does not already exist and is required, the Project Manager in coordination with the Office of Environment/ Location should request mapping no less than 15 weeks prior to the concept team meeting. This request should include the necessary items such as aerial photography, base maps, traffic projections, and all of the detail required for plan preparation in the preliminary design phase. As-built drawings of the project area may be available from the plans file room in the Office of Road Design and existing right-of-way plans may be available from the Office of Right-of-Way.

Upon receipt of aerial photography, the OTSD Design Team Leader will prepare a plot, in plan sheet format, of the project database. This plot will include the location of proposed devices requiring

electrical power. This plot will be provided to the District Utilities Engineer for locating service points to all proposed devices. The District Utilities Engineer will also provide the plot to the utility owners for “marking up” the location of existing utilities if the utilities are not furnished by a subsurface utility engineering survey. The existing power service information will be needed prior to the concept team meeting. This existing utility information will also be needed in the preliminary design phase.

The Concept Development Considerations above pertinent to the Office of Traffic Safety and Design type projects will guide the Project Manager. The Project Manager will assemble a project team and assign a Office of Traffic Operations Planning Team Leader who will be responsible for coordinating the various activities and information needed for the Concept Team Meeting, Concept Report, and Concept Report Processing and Approval also outlined above. Members of the project team may vary from project to project; however, OTSD Design staff will be represented.

In developing a clear and comprehensible concept pertinent to the Office of Traffic Safety and Design type projects, the Project Manager will accomplish specific objectives. These objectives will involve, but are not limited to, determining preliminary field device locations, estimating fiber optic cable sizing and routing, coordinating with other design offices, including Maintenance, on projects they may have under design in the same area, preparing cost estimates, and developing a Concept Report and presentation materials for a concept team meeting. Once the draft concept has been fully developed, including identification of the project area and limits, an overview of closed circuit television (CCTV), video detection systems (VDS), changeable message signs (CMS), hub building and conduit locations, bridge attachments, and an overview of the network electronics, the Project Manager will schedule a concept team meeting. Representatives of the project team will be invited, including the following: [FHWA](#), Office of Bridge Design, Office of Construction, Office of Traffic Operations Planning, Office of Traffic Safety and Design Designers, District Engineer, Office of Planning, Metropolitan Planning Organization (MPO) (to be invited by the Office of Planning), local government engineers (Traffic, etc.), Office of Utilities (contact District), Office of Engineering Services, appropriate design office, Office of Environment/Location, Office of Traffic Operations Information Systems, Office of Traffic Operations Maintenance, and consultants. The District Engineer will notify and invite the appropriate Transportation Board members and local elected officials (state, county, and city).

Upon concept approval, an environmental assessment will be requested from the Office of Environment/Location and the Project Manager will begin an Implementation Plan detailing project consistency with [FHWA](#)'s National Architecture. The Implementation Plan must be completed prior to holding the [Final Field Plan Review \(FFPR\)](#).

Preliminary Concept Reports for Hardship and Protective Buying

In rare instances when a project is programmed and before preliminary design is scheduled to start or a project Concept Report is approved, a property owner or business owner may come forward and indicate to GDOT that waiting on a transportation project to be implemented will cause an undue hardship on them. Similarly, a private project or development may threaten a programmed project or potentially cause a significant increase in the cost of implementing the programmed transportation project.

In these instances the Project Manager may propose and the Chief Engineer approve, the “Hardship Acquisition” or the “Protective Buying” of the affected property. In these cases a Preliminary Concept must be developed. The level of detail required in such a preliminary concept is between that required in a planning concept and a final Concept Report and in addition it only addresses the areas

affecting the “Hardship” or “Protective Buying” parcels. The Project Manager should address all those items required in the initial concept and final Concept Reports but to a very limited degree. An environmental analysis for advanced right-of-way acquisition will be required.

The approval of a Preliminary Concept Report will follow the same process as a final Concept Report prepared by an office in GDOT. A final Concept Report for the entire transportation project following the normal process will be prepared when indicated by the project schedule.

Updated Cost Estimates

The Project Manager will update the estimated right-of-way, utility, and construction costs of the project once each year and at any time there is a significant cost increase or decrease. The revised cost estimate will be furnished to the Office of Engineering Services with a copy to the Office of Financial Management. The Office of Financial Management will update the project cost estimate annually with the update of the [Construction Work Program \(CWP\)](#). Likewise, whenever there is a change in the project cost prior to the Authorization on Right of Way, an updated benefit to cost analysis should be prepared to determine if the project is still viable. If the analysis shows a significant reduction in the benefit/cost or decreases below 1.0, a recommendation as to how to proceed should be submitted by the Office Head to the Division Director. Documentation of the course of action taken will include a written recommendation by the Division Director and approval by the Chief Engineer.

Value Engineering Study at Concept Stage

A Value Engineering (VE) Study shall be made for all federal aid projects having an approved concept estimated cost of \$25 million or more, and for bridge projects having an estimated cost of \$20 million or more, including inflation and engineering cost and contingencies (E & C), and inclusive of preliminary engineering (PE), right-of-way and utility costs, unless the utility work will be part of the construction contract.

Value Engineering Studies are anticipated to be accomplished during the latter part of concept development but no later than the early stages of preliminary plan development in order that any significant cost savings identified by the VE study will be included early in the project design.

The Project Manager shall identify whether or not a project meets the criteria for a VE Study during the Concept Development Stage and will be responsible for ensuring that the Value Engineering Studies are requested and performed. The current Office of Engineering Services [TOPPS 2450-1](#) for VE studies shall guide the Project Manager.

The Office of Engineering Services is responsible for conducting the VE study.

For more detailed information on Value Engineering requirements, see [TOPPS 2450-1](#).

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Chapter 6

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PRELIMINARY DESIGN

Preliminary design begins with the approval of the project's Concept Report and many activities are automatically set into motion in accordance with the project's schedule.

Project Design Data Book

Based on the approved concept, the Project Manager shall prepare a Project Design Data Book. The Project Design Data Book shall define the proposed project design parameters for each roadway or transportation element and can serve as a continuity resource book/abbreviated historical record if for some reason the project gets delayed or there is a change in Project Manager or staff. Keep the purpose of the Project Design Data Book in mind when preparing the Project Design Data Book. It is not the project's correspondence file.

The Concept Report will form the basis of the project data book. At a minimum it should also contain the following information for each roadway:

- Name of each roadway, classification of each roadway, general configuration (including but not limited to number of lanes, lane widths, minimum horizontal curve radius, typical section, access control, and sidewalk locations), speed design, and minimum width of right-of-way,
- Preliminary sketch of each roadway intersection showing basic laneage, auxiliary and turn lanes, and lengths of turn lanes and tapers,
- Interchange and median openings,
- Preliminary sketch of bridges and walls,
- Traffic capacity analysis for the "Build Alternative" and "No-Build Alternatives,"
- Clear zone requirements, and horizontal and vertical clearances at structures and utilities,
- Drainage criteria for the major types of systems, rivers and streams, cross drains, longitudinal drains, and low point and normal catch basins,
- Environmental concerns and mitigation of adverse impacts,
 - Locations of wetlands
 - Location of parks
 - Location of recreational areas
 - Location of wildlife refuges
 - Location of Historic and Archaeological sites
- List of public officials, citizens, and citizens groups contacted to date,
- Proposed public involvement plan,
- Driveway design parameters such as general widths and maximum and minimum widths for residential and commercial driveways, and maximum driveway grades for residential and commercial driveways,
- Preliminary typical sections,
- Benefit to cost analysis,
- List of team members providing key information and data to date,
- List of known utility, ITS, and railroad owners.

Environmental Process – Federal Aid

Upon approval of the project Concept Report, and in keeping with the project schedule, the Office of

Environment/Location will continue their process for gathering information and studying the impacts to the resources along the proposed project alignment. The Project Manager will provide the Office of Environment/Location with any supporting information needed to evaluate the environmental impacts.

For those projects involving Federal funds, the process outlined in the National Environmental Policy Act (NEPA) must be followed. There are three levels of environmental documentation that are included in the environmental process:

- Categorical Exclusion (CE),
- Environmental Assessment (EA)/Finding of No Significant Impact (FONSI), and
- Environmental Impact Statement (EIS)/Record of Decision (ROD).

The actual level of study will depend upon the impacts to the environment. The level of study must have the concurrence of the [FHWA](#). Any of the three levels of study may be involved with Section 4(f) documentation.

The Office of Environment/Location will notify the appropriate offices when the environmental document is approved.

Environmental Studies

There are five phases of environmental studies.

PHASE 1 – Information Gathering

This involves gathering information about the project. Information collected shall include, but not be limited to, the following:

- From the Project Manager, aerial photography or preliminary sketches on which the project concept has been drawn, including existing and proposed right-of-way and construction easements, and estimated construction limits if available,
- County maps,
- From the Office of Environment/Location, traffic volumes with truck percentage and peak hour turning movements anticipated for the project and any major intersecting roadways in the vicinity (this information shall be for the Build Alternative and No-Build Alternatives for the base year and design year),
- From the Office of Planning, a Need and Purpose Statement is to be provided to clearly demonstrate that a need exists within the termini of the project and that coordinated planning has taken place. The Office of Planning and the Office of Environment/Location will review N&P statements prepared by consultants or local governments before inclusion into an environmental document (See [Appendix B](#)). The project history and planning background is also provided. The Statement will contain discussion of the following items:
 1. Deficiencies in the existing system (e.g., summarize existing and proposed design year traffic, and if safety is an issue, report accident data for the most recent three (3) year period and statewide averages for comparable routes),
 2. Relationship to locally adopted plans [e.g., transportation, particularly in urban/urbanized areas if the project is a part of the Transportation Improvement Program (TIP)], land use, and comprehensive development plans,
 3. Other transportation projects in the vicinity of the proposed project,
 4. Social and economic development in the area, and
 5. Justification of the project's logical termini and independent utility.

- Project Concept Report,
- Copy of the Department's investigation of any Underground Storage Tank (UST) or Hazardous Waste Sites undertaken for the project,
- A copy of previously completed survey work for historic resources, if available,
- A copy of previously completed survey work for archaeological resources, if available,
- A copy of any previous Noise Impact Assessment studies,
- A copy of any Air Quality Assessment undertaken,
- A copy of the Bridge Inventory Data Listing for all eligible historic bridges within the project corridor, and,
- Interview the Project Manager to obtain background information about the project.
- A copy of the ecology report, including delineations of wetlands, open waters, stream buffers and protected species habitats.

Once the information is gathered, a Project Location Base Map will be prepared which includes project name, number and termini, north arrow and scale.

Early coordination letters to appropriate Federal, State, Local agencies, and Project Stakeholders will be prepared and transmitted. A copy of the responses received shall be appended to the environmental document and responses to comments shall be included in the environmental document.

A review of Floodway or FEMA Maps (National Flood Insurance Program) will be made to identify possible floodway or floodplain involvement.

A review of aerial photography for potential farmland involvement in accordance with the Farmland Protection Policy Act will be made. If there is involvement, complete Sections I, III and VI of the Farmland Conversion Impact Rating.

The Office of Bridge Design will determine whether or not a U. S. Coast Guard (USCG) Bridge Permit will be required. This determination will be made in coordination with the Office of Environment/Location. If such a permit is needed, the Office of Environment/Location will request the USCG to be a "cooperating agency." See [Appendix M](#) for procedures for obtaining USCG permits.

The Office of Environment/Location will determine whether or not a U. S. Army Corps of Engineer's (COE) Section 404 or a TVA permit is required. As appropriate, this determination will be made in coordination with the responsible design office. If such a permit or permits are needed, the Office of Environment/Location will request the U. S. Army Corps of Engineers (COE) or TVA or both to be a "cooperating agency."

The Office of Environment/Location shall determine whether or not a Stream Buffer Variance is required. As appropriate, this determination will be made in coordination with the responsible design office.

PHASE 2 Analysis of Social, Economic, and Environmental Data

An analysis of the social, economic, and environmental data will be made to determine if modifications in the project location and/or design are needed to meet the requirement of various Federal laws.

- **Air Quality**

For the base year “No Build Alternate,” the base year “Build Alternate,” the design year “No Build Alternate,” and the design year “Build Alternate,” an air quality analysis for those areas in non-attainment according to the Clean Air Act will be performed by computer modeling to predict ambient Carbon Monoxide (CO) concentration associated with the project in accordance with the scope and procedures outlined below.

A prediction will be made of the ambient CO concentrations near the project. All links associated with the proposed roadway shall be studied, as well as those signalized intersections in the area, for the base year build condition. A screening analysis shall be performed to determine the need to perform more detailed computer modeling. Worst-case one-hour and eight-hour average ambient CO concentrations will be predicted using theoretical worst-case inputs of wind speed, wind direction, and atmospheric stability. The work shall consist of the following tasks:

- Compile and format the signal cycle information (inside non-attainment areas only), approach traffic volumes, speeds, capacities, and emission factors necessary to run the computer programs;
 - Evaluate computer input data to determine worst case conditions for CO dispersion in the project corridor;
 - Compile, format, and key data for use in the mobile source emission model and the line source model;
 - Run the models using the latest programs available and approved for use;
 - The Project Sponsor shall prepare for those projects inside the non-attainment area and not in the TIP, project area emissions modeling for total Hydrocarbons (HC) and Nitrous Oxide (NOx) emissions shall be calculated by determining the vehicle miles of travel on the highway segment and multiplying by the appropriate approved model emission factor. Emissions from each segment affected by the proposed project shall be summed to provide total emissions for the project area. Differences in the project area emissions with and without the proposed project shall be calculated;
 - Analyze the results made by the computer models for the uninterrupted traffic flow for the peak one-hour traffic condition. A persistence factor shall be selected based on recommendations of the U.S. Environmental Protection Agency (EPA) to convert the predictions to an eight-hour averaging time, if needed;
 - Prepare a technical report to document the assessment results; and
 - Respond to any public and agency comments regarding the air quality impact assessments.
- **Noise Impact Study**

A Noise Impact Assessment will be made in compliance with 23 CFR Part 772 of the [FHWA's](#) guidelines for the assessment of highway traffic-generated noise. The procedures described in [Appendix G](#) will be used to prepare traffic noise impact assessments to comply with these guidelines.
 - **Farmland Study**

An analysis of the Farmland Conversion Impact Rating is to be completed. If the rating of Section VI totals greater than 60 points, a copy of the rating form and the Soil Conservation Map or a topographical map showing the project alignment will be

sent to the U. S. Soil Conservation Service (SCS) for coordination. If the total project score is greater than 160 points, additional alternatives will be considered by the Department to reduce impacts.

- **Natural Resources Study**

A research of the project area will be made and documented for potential natural resources such as mining operations, mineral reserves, and power generation, which could be affected by the project.

If there is floodplain or floodway involvement, a map of the involvement shall be prepared for inclusion in the environmental document.

Ecological analyses will comply with a variety of Acts, Executive Orders, and regulations such as the Endangered Species Act, Clean Water Act, Executive Order 11900, 11988, FEMA and others. The analyses will address a complete range of activities, including data collection, field surveys, coordination, mitigation, report writing, and monitoring. Refer to [Appendix H](#) for additional details regarding Ecology.

- **Cultural Resources Study**

A survey of Historic and Archaeological Resources along the project corridor shall be made and shall include individual buildings, Districts, multiple resource areas, bridges and railroads which are adjacent to, abut, are located on or are crossed by the project. Based on the results of the Historic and Archaeological Resource surveys and after consultation with the State Historic Preservation Officer, the Department shall prepare "Requests for Determinations of Eligibility" (DOE's), a history and archaeology report for inclusion in the environmental document, and an Assessment of Effects for Historic and Archaeological Resources identified, which are considered eligible for the National Register. The Historic and Archaeological Resource surveys will be conducted in accordance with the procedures outlined in [Appendix I](#).

PHASE 3 - Preparation of the Environmental Document

After the data gathered in Phases 1 and 2 has been reviewed, the appropriate environmental document (Categorical Exclusion, Environmental Assessment, or Environmental Impact Statement) will be prepared in accordance with [FHWA's](#) 23 CFR 771 and the latest Technical Advisory. All phases of the environmental work will be coordinated with the Project Manager.

A draft environmental document will be prepared with a draft Section 4(f) Evaluation or Programmatic Section 4(f) Evaluation for parkland, historic sites, wildlife and waterfowl refuges, and historic bridges, if applicable. These draft documents will be forwarded to the [FHWA](#) for review, comment, and approval. These draft documents will also be forwarded to the Project Manager for review and comment.

Once the draft document for an Environmental Assessment or Environmental Impact Statement is approved by the [FHWA](#), the advertising process for a public hearing or an opportunity for a public hearing can begin. If the environmental document is a Categorical Exclusion (CE) and time saving procedures are not approved, approval is not required by the FHWA prior to the advertisement for the opportunity for a hearing or notice of a public hearing.

In compliance with 23 USC 128 and State law, the Department will provide the opportunity for a Location and Design public hearing for any project not having approval of time saving procedures.

PHASE 4 – Public Involvement

• Outreach Programs

The Department views public involvement as an integral part of the project development process. The involvement of local government officials, stakeholders, and the general public should be sought throughout the plan development process.

Efforts to reach the public and be responsive to their concerns are an important element of project development and will be made on all projects. A very important element of GDOT's outreach efforts includes the timely and accurate responses to telephone, mail, and electronic mail contacts to the Department.

It is desirable where neighborhoods or significant groups have been identified with special communications needs (e.g., Non-English speaking or hearing impaired) that a staff member or other resource is provided to help communicate with these groups.

During concept development and at the beginning of the environmental process, the project team will evaluate the extent of public outreach efforts needed. The project team will identify concerned groups and affected communities, including minority and low income neighborhoods, and their leaders by reviewing the project area and by soliciting input from various Department offices (e.g. Planning, Districts, EEO, etc.), the Regional Development Centers (RDC), Metropolitan Planning Organization's (MPO), and others, as required. Based on the outcome of the identification process, an outreach program will be developed and a schedule of public information open houses, public hearing open houses, project newsletters, or other outreach efforts will be proposed.

There are various group meetings the Department may utilize to inform the public of proposed projects in their area.

- Informal Meetings
- Public Information Open House
- Notice of the Opportunity for a Public Hearing Open House
- Public Hearing Open House

• Informal Meetings

Informal meetings may be held at anytime with local public officials, neighborhood groups, civic associations, business associations, etc. at their request.

• Public Information Open House

The purpose of the informal Public Information Open House is to inform the public of a project that is proposed in their area, update the public on the status of a project, and to receive comments from the public about the proposed project. These open houses should be held at the earliest stage of project development or at such times as the Project Manager may deem necessary to solicit information or inform the public of the project status.

The Project Manager, through the Office Head, will request the authority to hold an

informational open house. The Director of Preconstruction is the approval authority for public information open houses. The number of informational open houses required is determined by the information needs of the affected community.

These open houses will be held within the project area and if possible in a facility convenient to the public. These open houses will be held during a time span of two to three hours that is convenient for the public to attend.

The public information open house will provide project information and seek identification of major concerns. This may be accomplished through handout material, displays, and discussions with the public. The public will be provided with an opportunity and mechanism to comment on the proposed project through the use of comment cards, questionnaires, and/or discussions between Department personnel and the public. A court reporter will be provided.

Every recorded comment received during the public information open house will be acknowledged by an individual and timely written reply. The Office of Environment/Location will summarize all comments received as a part of the public information open house process. The Office of Environment/Location will assign responsibility for answering each comment to a subject expert (e.g., a design comment will be answered by a design office person). In cases where there are multiple offices assigned to respond to a commenter, the subject expert will send their responses to the Project Manager who will assemble the responses into a single letter to the commenter. Copies of all responses will be sent to the Office of Environment/Location for inclusion into the final environmental document.

See Public Open House Notices below for advertising requirements.

- **Opportunity for a Public Hearing Open House**

The Department may satisfy the requirements for a public hearing by publishing two (2) notices of the opportunity for public hearing in a newspaper having general circulation in the vicinity of the proposed project and by holding a public hearing if any written requests for such a hearing are received. If no request for a public hearing is received, the requirements to hold a public hearing will have been satisfied. If requests for holding a public hearing open house are received, the District Preconstruction Engineer will contact each individual that made the request to explain the project and the potential impacts to that individual. Individuals requesting that a public hearing be held will be given the opportunity to rescind their request. If all individuals that requested a public hearing open house be held rescind their requests in writing, the OEL Public Involvement Coordinator will certify to the Director of Preconstruction that no public hearing open house is required. If one or more individuals do not rescind their request, a Public Hearing Open House will be held.

The deadline for submission of a request for a Public Hearing may not be less than 21 days after the publication of the first notice of the opportunity for public hearing and no less than 14 days after the date of publication of the second notice of the opportunity for a public hearing.

The notice of the opportunity for a public hearing will include the project description, project number, and the procedure for requesting a public hearing. When the draft

environmental document has been approved by the [FHWA](#), a statement that the draft environmental document is available for review at a local Department office and possibly other convenient locations such as libraries, County Commissioner's office, etc., should be included in the notice.

The Office of Environment/Location will prepare the notice for the opportunity for a public hearing and the availability of the environmental document and it will be the responsibility of the appropriate District Office to have the opportunity for a public hearing notice published. Where a portion of a project is in more than one District, the District with the greatest length of project will be responsible for the publishing duties.

• **Public Hearing Open House**

When required, a public hearing open house will be held prior to commitment to the location and design of the project.

All public hearing open houses are to be held at a convenient time and place to ensure the public has the best opportunity to attend. It is desirable for the public hearing site to be within the project limits or as close as possible.

The public hearing open house will be conducted as an informal public forum providing and encouraging individual exchanges of information between qualified Department staff, representatives, and the public.

Information will be made available during the hearing to present the need for the project, alternative courses of action, and comparable presentations of the social, economic, and environmental effects of the alternatives. This may be done with handouts, displays, and by making available the draft environmental document for public inspection.

The hearing must meet the requirements of 23 CFR 740.35 by presenting information on relocation services and payments and the land acquisition process, and offering the opportunity for discussion. This will be done by making available the right-of-way booklet at the hearing (right-of-way statement or information in handout) and by having right-of-way representatives present at the hearing.

The public will be offered an opportunity to comment on the proposed project. A court reporter will be available during the hours of the hearing to allow the public an opportunity to make a statement about the project for inclusion in the record. Written comments to be included as a part of the transcript of the hearing will be accepted up to 10 days after the hearing. The public should be made aware that written comments will be included as a part of the transcript and to whom they should send the written comments. The Office of Environment/Location will summarize all comments received during the public hearing and the open comment period

Every recorded comment received during the public hearing process will be acknowledged by an individual and timely written reply. The Office of Environment/Location will summarize all comments received during the public hearing and any open comment period. The Office of Environment/Location will assign responsibility for answering each comment to a subject expert (e.g., a design comment will be answered by a design office person). In cases where there are multiple offices assigned to respond to a commenter, the subject expert will send their responses to the

Project Manager who will assemble the responses into a single letter to the commenter. Copies of all responses will be sent to the Office of Environment/Location for inclusion into the final environmental document.

- **Public Open House Notices**

- **Informal meetings**

- It is generally the responsibility of the requesting party to invite and notify interested parties of the date, time, and place of this type of meeting.

- **Public Information Open House**

- The District Planning and Programming Engineer and the Office of Environment/Location will determine the appropriate date for the Open House.

The Office of Environment/Location will prepare the public information open house notice and it will be the responsibility of the appropriate District Office to have the public information open house notice published. Where a portion of a project is in more than one District, the District with the greatest length of project will be responsible for the publishing duties.

The District Office will coordinate with the Office of Environment/Location, the Project Manager, and the Office of Planning concerning the transmittal of letters of notification of the public information open house to GDOT Board members, elected officials whose jurisdictions are partially or totally in the area of the project, utility and railroad owners, Metropolitan Planning Organizations (MPO), Regional Development Centers (RDC), and individuals, neighborhoods, and groups that have expressed an interest in the project.

The open house will be advertised in a local newspaper that has general circulation in the project area and the uses of other means of notification are encouraged to increase public participation and public input. The newspaper notice will be published two times and at least two (2) weeks prior to the time of the open house. A second publication will be made closer to the open house date.

It is desirable to have signs announcing the public information open house in the project area. If provided, the signs will include the project identification, date, time, and place of open house and shall be erected at least two (2) weeks prior to the open house. It is recommended for the District to request open house signs 60 calendar days in advance due to fabrication times.

- **Public Hearing Open Houses**

- The Project Manager and the Office of Environment/Location will determine the appropriate date for the Public Hearing in accordance with the project schedule.

- The Office of Environment/Location will prepare the public hearing notice and it will be the responsibility of the appropriate District Office to have the public hearing notice published. Where a portion of a project is in more than one District, the District with the greatest length of project will be responsible for the publishing duties.

- The District Office will coordinate with the Office of Environment/Location, the Project Manager, and the Office of Planning concerning the transmittal of letters of

notification of the hearing to GDOT Board members, elected officials whose jurisdictions are partially or totally in the area of the project, utility and railroad owners, Metropolitan Planning Organizations (MPO), Regional Development Centers (RDC), and individuals, neighborhoods, and groups that have expressed an interest in the project.

The Public Hearing will be advertised twice (two (2) times) in a local newspaper that has general circulation in the project area and the use of other means of notification are encouraged to increase public participation and public input.

- The first notice shall be published 30-40 days prior to the date of the hearing and,
- The second notice shall be published 5-9 days prior to the date of the hearing.

The notice of public hearing shall include the project number and project description, time, date, and place of the hearing, what information will be available for the public's review, and a statement that relocation assistance will be explained at the hearing. The notice should also include a statement that displays of the proposed project will be available at the hearing and for 10 days after the hearing for public review and comment at the local Department office. The notice will also include a statement that the hearing transcript will be available for review at the local Department office as soon as the transcript is prepared.

A statement of wetland and stream involvement and request for assistance in locating possible mitigation sites will be included in the notice if an individual permit is required.

For projects with an environmental analysis level of EA or EIS, the draft environmental document will be approved by the [FHWA](#) prior to advertising of the public hearing. Therefore, the notice should contain a statement that the draft environmental document is available for review at the local Department office, the public hearing, and possibly other convenient locations such as libraries, County Commissioner's office, etc.

A separate Notice of Availability of the draft environmental document shall be advertised if a public hearing is not required.

It is desirable to have signs announcing the Public Hearing placed in the project area. If provided, the signs will include the project identification, date, time, and place of open house and shall be erected at least two (2) weeks prior to the open house. It is recommended for the District to request open house signs 60 calendar days in advance due to fabrication times.

• **Public Information Meeting For Proposed Detours (Detour Meeting)**

For those projects involving the closing of roadway(s) and/or bridge(s) during construction, public information open house meetings will be held, unless the closure has been addressed as a part of a previous public hearing or public information open house.

The Project Manager will prepare the notice for the Detour Meeting for Proposed Detours, and the appropriate District Office will be responsible for advertising the notice in the newspaper having local circulation. The public will be provided with an opportunity and mechanism to comment on the proposed detour through the use of comment cards,

questionnaires, and/or discussions between Department personnel and the public. In some cases, a court reporter may be provided. The Project Manager will summarize all comments received during the detour meeting and any open comment period. Every comment will receive an individual and timely reply. Copies of all responses will be sent to the Office of Environment/Location for inclusion into the final environmental document.

Once the Detour Meeting for Proposed Detours has been held and comments received and responded to, a Detour Report will be prepared by the Project Manager which will address the need for the detour, provide a cost comparison for an off-site detour versus an on-site detour, a summary of the results of the Detour Meeting for Proposed Detour, and a notice which will be published in the local newspaper informing the public of the proposed detour upon approval of the report.

The Detour Report will be submitted to the Assistant Director of Preconstruction for processing. The report shall be forwarded to the Director of Preconstruction for concurrence and the Chief Engineer for approval.

Once the Detour Report has been approved, the appropriate District Office will cause the detour notice to be published. The Assistant Director of Preconstruction will distribute the approved Detour Report to the Project Manager, the Office of Environment/Location and the appropriate District Office.

PHASE 5 – Final Alternate Selection Report

Following the public hearing and comment period, the Department shall make a Final Alternate Selection, if applicable. The Project Manager shall be responsible for preparing the Final Alternate Selection Report. This report is not required on all projects. It is required if more than one construction alternate is presented at the public hearing or if, as a result of the hearing, an additional alternate is developed that is substantially different from the approved Concept Report. The Final Alternate Selection Report shall follow the format indicated in [Appendix D](#).

The Final Alternate Selection Report will be submitted to the Assistant Director of Preconstruction for processing and will be recommended by the Director of Preconstruction, concurred by the Chief Engineer, and approved by the Commissioner. The Alternate Selection will be advertised in the local newspapers as an approved “Notice.”

After the Final Alternate Selection Report is approved, the environmental document will be finalized. If the environmental document is an EA, and no significant impacts were identified, the EA will be revised to address any issue raised as a result of the public hearing and will address and summarize all comments received as a result of the public hearing and the revised EA and FONSI will be prepared. These shall be prepared by finalizing the environmental document along with any final Section 4(f) Evaluation, if required, and preparing the FONSI. The certificate of compliance will be attached to the environmental document to certify compliance with 23 USC 128. The final document will then be transmitted to the [FHWA](#) for review and approval.

Environmental Reevaluation – Federal Aid

Major approval points in the Plan Development Process of the Georgia Department of Transportation, as defined by the [FHWA](#), are right-of-way authorization and construction authorization and may require an environmental reevaluation

The following criteria will be used to determine if and how a reevaluation will be processed:

- a) If the EIS, FONSI or CE has been approved or reevaluated within six months prior to the major activity point, a written reevaluation will be processed and approved through [FHWA](#) only if a change has occurred in the project design or the affected environment, which either contradicts what was indicated in the approved document or requires additional environmental study. If neither of these conditions exists, the last approval will be considered valid.
- b) If the EIS, FONSI or CE was approved or re-evaluated beyond the six months prior to the major activity point but within twelve months, a written reevaluation will be processed and approved through [FHWA](#) only if changes have occurred in the project design, which either contradicts what was indicated in the approved document or requires additional environmental study, or if changes occur in the affected environment. In this time frame, in situations where no design changes have occurred, a written reevaluation will be completed to document this, but the reevaluation will be deemed to have prior FHWA approval in accordance with these procedures. A copy of the reevaluation will be sent to FHWA for information/filing.
- c) If an approval or reevaluation has not occurred within the past twelve months prior to the major activity point, a written reevaluation will be processed and approved by [FHWA](#) before the project can be advanced.

Environmental Process – State Funded Projects

Georgia Environmental Policy Act ([GEPA](#))

Those state funded projects for which location and design was approved after July 1, 1991, must follow the requirements of the Georgia Environmental Policy Act (GEPA). The GEPA requires that environmental documentation be accomplished for county or city projects if more than 50 percent of the total project cost is funded by a grant of a state agency or if a grant of more than \$250,000 is made by a state agency to the municipality or county. Such projects let by the Department that fall below these limits also will be subject to GEPA compliance.

The [GEPA](#) states that a “. . . responsible official of the government agency shall determine if a proposed governmental action is a proposed governmental action which may significantly adversely affect the quality of the environment” The “responsible official” for the Department is the Commissioner. Depending upon the type of project and the level of anticipated environmental impacts, one of three types of GEPA documents shall be prepared: a Type A letter, a Type B letter, or an Environmental Effects Report (EER). (Refer to [Appendix J](#)).

Non land disturbing and minor land disturbing projects, funded with State funds, which are not anticipated to significantly adversely affect the quality of the environment, would not be subject to an environmental assessment of any kind. A listing of those types of projects, referred to as Type A projects, may be found in [Appendix J](#).

Those projects that will cause land disturbance will be subject to environmental studies and documentation to determine whether or not the projects might significantly adversely affect the quality of the environment. Should the studies demonstrate that the project would not significantly adversely affect the quality of the environment, the project files will be documented with a Type B letter.

Both Type A letters and Type B letters will be filed with the Department’s Office of State-aid and the Office of Environment/Location.

However, if the environmental studies demonstrate that the project may significantly affect the quality of the environment, development of an EER will be undertaken along with full [GEPA](#) compliance. Major widening and new location projects may significantly adversely affect the quality of the environment and an EER may be required. A listing of projects, which would fall under this category, also can be found in [Appendix J](#).

During the preparation of the EER, the Department shall consult with and solicit comments from agencies that have jurisdiction by law, special expertise, or other interest with respect to environmental impact or resources. The EER will be submitted to the Director of Preconstruction and Chief Engineer for a recommendation of approval before being approved by the Commissioner.

At least 45 days prior to making a decision as to whether to proceed with the undertaking, the availability of the EER shall be published in the legal organ of each county in which the proposed governmental action or any part thereof is to occur. The Department shall send a copy of the EER and all other comments to the Director of the Department of Natural Resources' Environmental Protection Division (EPD).

Once the availability of the EER is published, if within 30 days 100 citizens request a Public Hearing, the Department will hold one. The Department may choose to hold a Public Hearing if less than 100 requests are received. Please note that the Department must follow all state legal requirements for public hearings.

Following the public notice period and/or public hearing, a Notice of Decision (NOD) shall be prepared. The NOD shall include a summary of the document, comments received, and a recommendation as to whether to proceed with the action as originally proposed, to proceed with changes, or not to proceed. The NOD will be submitted to the Director of Preconstruction and Chief Engineer for a recommendation of approval before being approved by the Commissioner. This decision document, when signed by the Commissioner, will be sent to the Director of EPD, and an abbreviated notice of the decision will be published in the legal organ of each county in which the proposed governmental action or any part thereof is to occur.

Thirty (30) days after the NOD is published, the [GEPA](#) process has been completed and the project can proceed to the next stage of project development.

Georgia Environmental Policy Act ([GEPA](#)) Reevaluation

Reevaluations for GEPA documents will be prepared if changes have occurred in the project design that either contradicts what was indicated in the approved environmental document, or is significant to require additional environmental study, or if changes occur in the affected environment.

If the project originally required a Type B letter, project changes will be evaluated to determine if the impacts continue to be of a type that do not "significantly affect the quality of the environment." The Type B letter will be amended to document this finding. Should the changes result in "significant effects to the quality of the environment," an Environmental Effects Report (EER) and Notice of Decision (NOD) will be prepared and circulated.

If the project originally required an EER, project changes will be evaluated to determine if impacts discussed in the document continue to be accurate. If the evaluation continues to be valid, a memo will be prepared to document this finding. If the project changes result in a new environmentally sensitive resource sustaining a significant adverse effect, the EER will be modified and recirculated. The NOD also will be modified to reflect the new findings.

Prior to letting, the project shall be reviewed to insure that the project plans accurately reflect the environmental findings.

Roadway Design Offices - Major Projects

After approval of the Concept Report and concurrent with the environmental studies, the preparation of preliminary construction and preliminary right-of-way plans will begin. Some preliminary design activities may have been required during the concept stage. This information will be incorporated in the Preliminary plans.

If there has been a significant amount of time elapsed between the approval of the Concept Report and the beginning of preliminary design, the Project Manager will revalidate the project's concept including the proposed typical section, speed design, project cost estimates, and horizontal and vertical alignments to ensure the design team will be working on the correct scope of work and current traffic forecast.

It is imperative that all personnel working on the design team keep all other members of the design team informed of changes they propose to make or have made in their area of responsibility that will affect the others, such as; planning, environmental (including permits), right-of-way, utilities, soils, bridge and wall design, roadway design office, construction, and the District Office.

Surveying and Mapping

The Project Manager will meet with the cartographer prior to beginning the mapping to discuss the project concept and the limits of the mapping. At this time, a joint decision is made as to whether the project will be designed using photogrammetric cross sections or a digital terrain model (DTM). It is desirable at this point for the Project Manager, State Utilities Engineer, District Utilities Engineer, and the Location Engineer (OEL) to make the decision on the use of a Subsurface Utility Engineering (SUE) consultant to gather the existing utility information. If the decision is made to use a SUE consultant, the District and the Office of Utilities will confer to determine the level of SUE. The Office of Utilities will prioritize the project and assign a SUE consultant. The Project Manager can at this time also request that the Office of Utilities have a pipe inspection performed on the project, if needed.

With the receipt of mapping, the Project Manager begins the preliminary design process for a Major Project. The Project Manager will determine the design alignment considering environmental features such as wetlands, endangered species habitat, cemeteries, location of underground storage tanks and hazardous waste sites, context/setting, and the location of historical and archaeological boundaries. Once the alignment has been established, it shall be furnished to the Office of Environment/Location with a request for cross sections. Photogrammetric cross sections are then compiled for the mainline and cross roads for those projects not utilizing a DTM.

When the mapping is ready for transmittal to the District Office for enhancement by field survey, the request for enhancement will include the available mapping with the proposed roadway alignment and cross sections. The field survey effort is not to begin until a public information open house meeting or public hearing has been held or the opportunity for a public hearing has been advertised

and the requesting period expired with no request for a hearing having been received. It is imperative when field surveys are to be performed on private property, either by GDOT forces or consultants, the property owners shall be notified by the Survey Party Chief in writing prior to the surveyors entering onto the private property. If GDOT is to perform the surveys, GDOT is responsible for the notifications. If consultants are to perform the surveys, the consultant is responsible for the notifications.

Prior to the beginning of the field survey effort, the District Location Engineer shall initiate a meeting, on the project site, between the designer, SUE consultant (if appropriate), and the Survey Party Chief to review the project in the field and discuss what survey data is to be obtained and the limits of the survey effort. (Other participants in this meeting may be the District Utilities Engineer and the Area Engineer.) Among items to be discussed will be cross road surveys, bridge surveys, driveway profiles, property lines, stream surveys needed for hydraulic engineering reports, railroad surveys and cross sections, drainage surveys, utilities, and any special features. A second meeting between the designer, survey party chief, and the bridge designer may be necessary to complete the bridge and stream surveys as the development of the preliminary bridge layouts progress. The survey and/or mapping of the project will include the information needed to accommodate the necessary project transitions, including lane tapers, at the beginning and end of the project.

All field survey data will be collected in accordance with requirements of the "Automated Survey Manual," as maintained by the Office of Environment/Location, and the data processed utilizing the "Survey Processing Guidelines," as maintained by the Division of Information Technology (formerly the Office of Systems Development).

Concurrent with the request for field surveys, the Project Manager will prepare a plot, in plan sheet format, of the project database including all mapping features and the approximate construction limits for both the mainline and the side roads. Be generous with the construction limits at this point to ensure adequate coverage of the existing utility information. The Project Manager should set some dimension outside of the construction limits to ensure adequate survey coverage is obtained for design and eliminate the need for additional field survey later. In addition, the plot will contain available information such as property lines and owners' names, existing right-of-way, cemeteries, and environmental areas of concern. This plot will be provided to the District Utilities Engineer (first submission of utility plans) who will provide it to the utility owners for "marking up" the location of existing utilities if the existing utility information will not be furnished by a Subsurface Utility Engineering (SUE) survey. Note it is not necessary to have complete, final horizontal alignments and cross-sections for this submission.

Preliminary Design

Once the database enhancements are obtained, the Project Manager will continue with the preliminary design up to the point of beginning the final right-of-way plans. The designer is directed to the GDOT document titled [Plan Presentation Guide](#) to assist them in the preparation of a uniform set of construction documents.

- **Constructability Review in Preliminary Design**

During preliminary design, the Project Manager is responsible for holding a Constructability Review with the District Construction Engineer. The meeting should be scheduled once the horizontal and vertical geometry has been established, the initial cross sections are available, and SUE survey data has been received (for SUE projects). In some cases, the project manager may choose to hold the meeting after more information is available (bridge layout, existing utility locations, etc.) if project conditions warrant. The meeting invitation should be

sent to the District Construction Engineer, the Area Engineer, h
Transportation Engineer and the District Utility Engineer (The District Utility Engineer may invite utility companies if deem necessary). Others may be invited at the discretion of the Project Manager or the District Construction Engineer, but both should keep in mind that the constructability review is best conducted by a small working group.

The constructability review meeting should be held in the field and culminate with the project being ridden/walked and discussed. Early in preliminary design is the best time to hold this informal review. The benefits of this review are significant -- it should limit costly plan changes later, it familiarizes the team members with the project, opens lines of communication, continues the teamwork process, and distributes ownership of the project. The Project Manager is responsible for keeping minutes of the discussion and getting concurrence (via email or signature) on the minutes from the District Construction personnel who attended the review. The minutes should note any action items from the meeting, be sent to all who attended the review and be documented in the project file.

The preliminary plans will address all items addressed in the Concept Report as well as the proposed right-of-way limits; toe of slope and construction limits; the location of retaining walls, bridges, culverts, ditches, and channels; horizontal and vertical alignments for mainline and cross streets; location of driveways and proposed driveway grades; method of stage construction and proposed detours; location of existing utilities, including any utility-owned easements; location of existing railroad tracks and railroad right-of-way (with or without trackage); cross sections; preliminary earthwork volumes; drainage profiles; maintenance of local access during construction; right-of-way encroachment situations; and beginning and ending project limits. Traffic operation features, such as proposed turn lanes, traffic islands, median openings, turning radii, signal poles, controller cabinets, and overhead signs and strain poles, will be included in the plans. Environmental features, such as cemeteries, historic boundaries, the limits of wetlands, the location and proposed size of detention and sedimentation ponds, preliminary Erosion and Sedimentation Control Plans, Comprehensive Monitoring Program (CMP), landscaping, draft environmental mitigation plans developed to date, any known locations of underground storage tanks and hazardous waste sites, the location of erosion control devices and the location of historical and archaeological boundaries along the project will be addressed. Preliminary plans shall also include preliminary bridge layouts and retaining wall and noise barrier envelopes.

On a major project, if SUE was used and the utility impacts are major enough to impact project staging, than the Project Manager will request the District Utility Office to request staging plans from the appropriate utilities. The goal here is that prior to the Preliminary Field Plan Review, the Project manager will have a schematic of the relocated utilities and that prior to the Final Field Plan Review, complete utility staging plans will be part of the project's staging plan.

For projects including a bridge widening or rehabilitation, a Bridge Condition Survey should have been completed by the Office of Maintenance Bridge Maintenance Section during Concept Development. If this was not done, or if the Bridge Condition Survey is more than three years old, the Bridge Maintenance Section must perform a survey or confirm previous recommendations to widen or rehabilitate the structure. For projects where the structural design is being managed by the Office of Bridge Design (in-house bridge design or consultants hired by the Office of Bridge Design), the request for this information will be

made by the Office of Bridge Design. For projects where the structural design is being managed by the Project Manager (structural design included in the roadway design contract or local design), this request will be made by the Project Manager.

In addition, for projects including a bridge widening or rehabilitation, a Deck Condition Survey must be completed by the Office of Materials and Research Concrete Branch. For projects where the structural design is being managed by the Office of Bridge Design (in-house bridge design or consultants hired by the Office of Bridge Design), the request for the Deck Condition Survey will be made by the Office of Bridge Design. For projects where the structural design is being managed by the Project Manager (structural design included in the roadway design contract or local design), this request will be made by the Project Manager.

As soon as the horizontal and vertical geometry have been established and initial cross sections are available, the preliminary plans along with pertinent surveys and reports will be sent to the Office of Bridge Design for their use in preparing preliminary bridge layouts and to the Office of Materials and Research for their use in initiating the soil investigation activities. Plans sent to the Office of Bridge Design for bridge design will include project cover sheet, typical sections, plan and profile sheets with all roadway geometry, including superelevation, and intersect stations and angles shown, and cross section sheets in the vicinity of the bridge and/or culvert site.

During preliminary plans development, the need for retaining walls and noise barriers shall be determined. When a wall is needed, the Project Manager shall submit a request to the Office of Bridge Design to prepare the design. The request should be accompanied with the project cover sheet, typical sections, roadway plan and profile sheets indicating wall locations, wall plan and profile (wall envelope) indicating beginning and ending wall stations, top of wall elevations at beginning and end of wall and at wall profile break points, shoulder profile along wall if adjacent to the shoulder, cross-sections, and drainage plans (including erosion control plans), a soils report from the Office of Material and Research, existing utilities, project cross sections and other items as required. The Office of Bridge Design will work with the Project's schedule to identify any right-of-way implications caused by the bridge or wall design in order that right-of-way plans may be completed on schedule.

Plans sent to the Office of Materials and Research for pavement and soil investigation work will include project cover sheet, typical section, plan and profile sheets, preliminary drainage plans, and cross sections for the entire project including mainline and cross streets.

It is imperative when geotechnical investigations are to be performed on private property, either by consultants or GDOT forces, property owners shall be notified in writing by the Survey Party Chief prior to geotechnical crews entering onto the private property. If GDOT is to perform the soil surveys, GDOT is responsible for the notifications. If consultants are to perform the soil surveys, the consultant is responsible for the notifications.

As soon as the existing right of way, existing overhead and underground utilities, horizontal and vertical geometry have been established and initial cross sections are available, the preliminary plans will be sent to the Office of Traffic Safety and Design. The Office of Traffic Safety and Design can begin signal, signing, and marking design

and determine if additional right of way will be needed for signal poles, controller cabinets, and overhead signs and strain poles. Later in preliminary plan development, after plans have been modified to address Preliminary Field Plan Review comments but prior to the submittal of right of way plans for approval, the Office of Traffic Safety and Design needs to again review the plans to insure that all proposed traffic safety and design features are within the proposed right of way.

Value Engineering Study in Preliminary Design

A Value Engineering (VE) Study shall be made in the latter part of the Concept Stage or the early part of Preliminary Design for federal aid projects having a total programmed cost including preliminary engineering, right-of-way, construction and reimbursable utilities of \$25,000,000 or greater. A VE Study is required for federal aid bridge projects with a total programmed cost including preliminary engineering, right-of-way, construction and reimbursable utilities of \$20,000,000 or greater.

Value Engineering Studies should be accomplished as a part of concept development but no later than the early stages of preliminary plan development so that any significant cost savings identified by the VE study will be included early in the project design. The Project Manager shall identify whether or not a project meets the criteria for a VE Study during the Concept Development Stage and will be responsible for ensuring that the Value Engineering Studies are requested and performed.

The Office of Engineering Services will be responsible for conducting the VE study.

If the VE Study is performed after a Project Concept Report has been approved and implementation of the VE Study or parts thereof significantly revises the concept, cost, or the scope of the project, the Project Manager shall submit a Revised Project Concept Report and cost estimate for approval and an environmental reevaluation.

The current Office of Engineering Services [TOPPS 2450-1](#) for VE studies shall guide the Project Manager.

Preliminary Right-of-Way Plans

Preliminary right-of-way plans will include the property owner's name, location of the proposed right-of-way and easement lines, construction limits, driveway locations, access control, drainage outfalls, erosion control devices, signal and strain poles, proposed utility relocations – if known, and the location of bridges, retaining and noise walls. Final right-of-way plan data such as stations and offsets to property and right-of-way lines, required areas of need, and remainder for right-of-way and easements are not required at this time.

For State funded projects, the right-of-way plans can be approved and acquisition begun before the environmental document is approved. However, before the Location and Design Report can be approved, the environmental document must be approved by the appropriate agency.

Preliminary Field Plan Review (PFPR)

With the exception of plans prepared by or for the Office of State Aid, the Project Manager will request a Preliminary Field Plan Review (PFPR) for every construction project proposed to be let to construction by the Department.

The Office of State Aid will coordinate with the Office of Engineering Services to determine the need for a PFPR on their Major Projects. If it is determined that a PFPR is required, those projects will follow the requirements outlined below.

The Preliminary Field Plan Review should not be requested until the required public hearings have been held and the environmental document has been approved for the project. A letter from the Office of Environmental/Location will be included in the PFPR request package stating that these conditions have been met. The Director of Preconstruction must approve any waivers of this requirement.

Written certification from the Office of Planning stating that the current design for the proposed project is in conformance with the adopted RTP or [STIP](#) when the project is located in a Non-attainment area for air quality shall be included in the request for a PFPR.

The Project Manager will request a Preliminary Field Plan Review when the preliminary plans have been completed, including:

- Preliminary bridge and retaining wall,
- Preliminary right-of-way,
- Preliminary signing and marking,
- Preliminary signal plans,
- Preliminary utility plans,
- Preliminary landscaping plans for environmental mitigation, and
- Preliminary Erosion and Sedimentation Control Plans.

At the time plans are complete to the point of requesting a PFPR, the Project Manager shall bring current the benefit to cost analysis to ensure the project is still viable.

This request shall be accompanied by the complete set of preliminary plans and all draft special provisions that have a potential to affect the proposed required right-of-way, utility plans, or environmental issues. Any special provisions that address any unique or unusual features such as any experimental items or approved proprietary items, will also be included. In those non-attainment areas for air quality, the Office of Planning, at the request of the Project Manager, will provide a letter of certification that the plans for Preliminary Field Plan Review are in conformance with the adopted Air Quality Model.

Failure to provide adequate plans and all of the required information with the Preliminary Field Plan Review Inspection request will delay the scheduling of the inspection. See [Appendix F-1](#) or TOPPS 2440-1 for more information on the requirements of the PFPR.

Preliminary Field Plan Review team members are expected to be familiar with the project, having reviewed the preliminary plans and specifications and environmental document prior to the inspection, and are expected to contribute meaningful comments during the review. It is critical that as many problems as possible be anticipated and resolved at this time to avoid costly rework at a later date. The PFPR is not a formality. It is an intense working and problem-solving session bringing to bear the expertise of the participants to resolve issues early in the design process and eliminate later rework because the issues were not settled earlier.

The Preliminary Field Plan Review team will review the plans and special provisions to

determine the constructability of the proposed roadway, and because the PFPR occurs prior to the development of the final right-of-way plans, any part of the project design that determines the extent of the required right-of-way will be thoroughly reviewed.

The Office of Engineering Services will only schedule the Preliminary Field Plan Review (PFPR) when a complete Preliminary Field Plan Review Request is received. The Office of Engineering Services shall respond to the PFPR request within five (5) working days after receiving the request, either scheduling the event, or if the PFPR request is incomplete, requesting the additional required information. In their Field Plan Review scheduling letter, the Office of Engineering Services will identify the Preliminary Field Plan Review Team and the participating offices and request the District to have all bridge endrolls staked for review and discussion at the PFPR.

The Project Manager shall provide and ensure the appropriate sets of plans and special provisions are received by the Preliminary Field Plan Review Team at least one (1) week prior to the review.

The Office of Engineering Services shall conduct the review, prepare a written report, and distribute the report. The Office of Engineering Services will obtain the approval of the [FHWA](#) on all Full Oversight projects before it distributes the report.

Distribution of the Preliminary Field Plan Review Report by Office of Engineering Services will constitute the end of Preliminary Design and the beginning of Final Design.

The Project Manager shall evaluate the comments from the Preliminary Field Plan Review (PFPR). The Preliminary plans will be appropriately modified to address the comments in the Preliminary Field Plan Review (PFPR) Report. Timely feedback to the Field plan Review Team and the timely resolution of all field plan review issues is critical for continued coordination and smooth plan development among the various responsible parties. The Project Manager shall respond to the field plan review issues no later than four (4) weeks after the receipt of the approved report. It is not the intent of this time frame to require completion of all actions to correct or modify the Preliminary plans. It is intended that as many corrections be accomplished as possible but for those actions requiring considerable more time, the Project Manager will state in their response how they intend to resolve and answer the comments. Responses to all PFPR comments will be written in full sentences and will clearly state the action taken or proposed to address the comment. If a comment requests a specific action and the project manager determines that no action will be taken, the response should clearly explain the project manager's decision.

Roadway Design Offices - Minor Projects

Design activities for Minor Projects are similar to those for Major Projects. One significant area of difference is that if Time Saving Procedures are appropriate, survey activities can begin at any time. The requirement to have the Project Manager and survey party chief meet at the project site is left to the discretion of the Project Manager.

At the appropriate time, the Project Manager will request the Office of Engineering Services to schedule and hold a Preliminary Field Plan Review (PFPR). The Office of Engineering Services will respond within five (5) working days of the receipt of a request for a PFPR on a Minor Project, either scheduling the PFPR, asking the District Construction Engineer to schedule, conduct, and prepare the

Preliminary Field Plan Review Report, or request more information due to receipt of an incomplete PFPR submission.

The same procedures for scheduling, holding, reporting, and distribution of the Preliminary Field Plan Review Report for the PFPR on a Minor Project will be the same as for a Major Project with either the Office of Engineering Services or the District Construction Engineer, as appropriate, determining the Preliminary Field Plan Review Team composition and the required office participation and the time and date for the review.

The Project Manager shall provide and ensure the appropriate sets of plans and special provisions, are received by the Preliminary Field Plan Review Team at least one (1) week prior to the review.

Distribution of the Preliminary Field Plan Review Report by Office of Engineering Services will constitute the end of Preliminary Design and the beginning of Final Design.

Office of Bridge Design - Bridge and Retaining Wall Design

When preliminary alignments are set, the Project Manager will send to the Office of Bridge Design a partial set of preliminary construction plans to begin preliminary bridge layouts and wall designs. At a minimum, the partial set of plans will contain the horizontal and vertical geometry, roadway typical sections, environmental concerns, and any known constraints at the proposed bridge site. If at any time these design elements change, it is the Project Manager's responsibility to inform the Office of Bridge Design of such changes.

As a first step in preliminary bridge design, the Office of Bridge Design will confirm the Concept Report recommendations about each bridge site to determine the appropriate type of design (e.g., widening, replacement, new, etc).

A general description of the procedures for determining a bridge size for a given site is described in [Appendix L](#). Priority attention will be given to providing preliminary roadway plans to the Office of Bridge Design as soon as possible whenever the project involves bridging a railroad or a railroad bridge. This is due to the fact that the process of obtaining railroad approval of preliminary layouts impacting their facilities requires a long lead time.

The following information is required for hydraulic and hydrological studies:

- Three sets of roadway plans, which include the cover sheet, typical section, and plan and profile sheets. Data needed on these plans include the traffic data, roadway alignment data, and the accurate location of the existing bridges and culverts and, if applicable, benchmark information. Benchmarks should be located with project stations and offsets, along with descriptions and elevations. The stream traverse, showing the top of the stream banks and edge of water, should be plotted on the plan sheet.
- A completed hydraulic engineering field report is required for each site with a hard copy of all applicable survey data. The required survey data is specified in this field report. All survey data should be referenced in project stations and offsets. Information and survey data in Sections I and II of the field report are necessary for bridge replacements and new locations. Information and survey data in Sections I and III are required for bridge widening and paralleling projects.
- As specified in the field report, projects on new location require the project alignment to be accurately located on a USGS Quadrangle Map.

Hydraulic studies will be done utilizing the WSPRO or HECRAS program unless a Federal

Emergency Management Agency (FEMA) regulated stream is involved. FEMA requires the use of the HEC2 program. Therefore, hydraulic studies involving FEMA regulated streams will be done utilizing both WSPRO or HECRAS and HEC2. All stream involvements, temporary and permanent, will be coordinated with the Office of Environment/Location. Any impacts will be discussed in the appropriate environmental document and where required, mitigation implemented.

Retaining wall and noise wall layouts will be done early in preliminary design and completed no later than the public hearing. It is important to determine the impact retaining walls will have on the proposed construction limits, right-of-way requirements, and environmental analysis. This is especially true where construction methods and wall systems will require temporary or permanent construction easements.

Preliminary bridge, noise wall, and retaining wall plans shall be submitted with the preliminary plans utilized for the Preliminary Field Plan Review (PFPR). Hydraulic studies will be forwarded to the Office of Engineering Services at the time the PFPR is requested. The proposed bridge endrolls will be staked for the PFPR and will be reviewed and discussed.

The Office of Bridge Design will request Bridge Foundation Investigations (BFI) upon approval of the preliminary bridge design and will also request foundation investigations for retaining/noise wall foundations upon approval of preliminary wall layouts

Office of Right-of-Way

During the preparation of the right-of-way plans, the Right-of-Way Office shall make a determination as to whether or not an economic study is warranted for the access control proposed for the project. Any economic study made shall address the provisions of access by abutting property owners to or from the roadway and shall recommend alternative courses of action for the provisions of access. Due consideration in the selection of alternates would also be given to the potential hardship on persons occupying abutting parcels. Alternatives shall include, but not be specifically limited to, purchase of access rights, providing frontage road(s), or providing and permitting access through the selective placement of driveways. The economic study is to be submitted to the Chief Engineer, via the Preconstruction Director, for approval.

A representative of the District Right-of-Way Office will attend the Preliminary Field Plan Review. The representative will carefully study the number of displacements resulting from the project. Recommendations will be made concerning the value of impacted properties and possible measures that may lessen impacts to costly parcels.

When the right-of-way plans are finished, they will be submitted to the Right-of-Way Office for review and approval. During the review process, an updated estimate of the right-of-way cost will be prepared and the need for contract appraisers and consultants for right-of-way acquisition will be determined. Right-of-Way plans will not be approved until the environmental document is approved.

Office of Utilities

- **Subsurface Utility Engineering (SUE)**

Prior to the beginning of the field survey enhancements, the designer will meet with the Survey Party Chief and review the project in the field and discuss what survey data is to be obtained and the limits of the survey effort. It is recommended that the District Utilities Engineer and the Area Engineer also attend this meeting (see the section above on Surveying and Mapping). Among items to be discussed at the pre-survey meeting will be the extent of survey for property lines, railroads, drainage, structures, and utilities.

Upon the Project Manager's first submission for utilities, the District will review the scope of the request. If a previous decision has not been made to use a Subsurface Utility Engineering (SUE) consultant and the District Utilities Engineer determines one is now required, the District Utilities Engineer will send a request to the Office of Utilities for SUE services. The District and the Office of Utilities will confer to determine the level of SUE. Upon a decision to use SUE, the Office of Utilities will prioritize the project and assign a SUE consultant. The Project Manager may be requested to provide an additional plot of the project base sheets, provide an electronic project topo file, or define the project limits for the SUE consultant.

After conferring with the Project Manager, the Office of Utilities shall set the SUE consultant's schedule based upon the approved project schedule and the current status of the project. The existing utility information should be furnished the Project Manager before the initial horizontal and vertical alignments are set but no later than the survey field enhancements provided by the District to the Project Manager.

All utility field survey data will be collected in accordance requirements of the "Automated Survey Manual," as maintained by the Office of Environment/Location, and the data processed utilizing the "Survey Processing Guidelines," as maintained by the Division of Information Technology, formerly the Office of Systems Development.

The District Utility Office shall provide the Project Manager with all utility information in Microstation Design files and CAiCE SRV formats.

The second phase of SUE begins upon the return of the existing utility information and the Project Manager will become more involved. As the preliminary design moves forward many utility conflicts will become evident or suspected. The Project Manager, District Utilities Engineer, and Office of Utilities will then identify as soon as possible areas that need test holes for the 3D picture of the conflict area.

- **Utility Relocation Plans**

Several decisions affecting utilities must be made in the plan development process, ideally at the concept stage but no later than the early stages of preliminary design:

- Who, GDOT or the local government, is funding the eligible utility relocation cost,
- Is GDOT or the local government to perform the relocation design for water and sewer,
- Is GDOT to put the water and sewer relocations in the construction contract?

The request for utility relocation plans, second submission for utility plans, must go to the respective utility owners. The Project Manager will send updated base plan sheets or electronic files to the District Utility Engineer. This updated information will contain the plotted existing utility information, preliminary drainage (including longitudinal drainage) and erosion control plans, stage construction plans, bridge and wall locations with foundations, preliminary right-of-way and easement lines, strain and signal pole locations, and construction limits as set following the Preliminary Field Plan Review (PFPR). The second request for utilities shall occur as soon as possible following approval of the PFPR Report approval.

The final utility plans will be furnished to the Project Manager no later than three months before the [Final Field Plan Review \(FFPR\)](#).

- **Utility Agreements**

Utility Agreements are required on projects that involve a utility easement, utility right-of-way, or conflict with a utility that is claiming “Prior Rights.” The need for a utility agreement must be anticipated to avoid delaying the project. The Project Manager should check with the Office of Utilities early in the preliminary design stage to ascertain the required information needed to furnish the utility owner in order that utility agreements can be negotiated. All utility agreements must be approved and signed before a project can be authorized for letting. This is usually nine (9) weeks before a letting for Full Oversight projects and six (6) weeks before a letting for all other projects.

- **Railroads**

The railroad coordination and the processing of railroad agreements can take several years. It is imperative that the crossing of any railroad or railroad right-of-way, including parallel encroachments, be identified early and coordination begun. The Office of Utilities will be notified immediately upon the recognition of any such railroad involvement.

The railroads will require complete roadway, grading, drainage, and bridge plans in order for them to schedule a review.

All railroad agreements must be approved and signed before a project can be authorized for letting. This is usually nine (9) weeks before a letting for Full Oversight projects and six (6) weeks before a letting for all other projects.

Office of Traffic Safety and Design

- **The Office of Traffic Safety and Design in Support of Preliminary Plan Development**

The Office of Traffic Safety and Design shall submit Microstation Design files of the preliminary Signing, Marking, and/or Signal plans to the Project Manager at least one month before the scheduled request for a PFPR. The Designer will incorporate the preliminary Signing, Marking, and/or Signal plans in the preliminary construction plans before the PFPR request is made.

The District Traffic Operations Office will provide Microstation files of the preliminary Signing, Marking, and/or Signal plans on Minor Projects.

- **Office of Traffic Safety and Design Interstate or Limited Access Roadways ITS projects**

Upon Concept Report approval, the preparation of preliminary plans will begin. The Office of Traffic Safety and Design will assemble a team consisting of at least a Project Manager and Design Team Leader.

If additional mapping is needed, the Design Team Leader should meet with the cartographer prior to beginning the mapping to discuss the project concept and the limits of required mapping. After all mapping has been received; the preparation of initial base sheets will be first priority. The initial base sheets must show existing right-of-way; the location of retaining walls, bridges, culverts, ditches, and channels; horizontal alignment of the mainline; location of existing railroad tracks and railroad right-of-way; right-of-way encroachment situations; and beginning and ending project limits. The Design Team Leader will proceed with finalizing conduit routing and devices to be used. Conduit routing will run along the mainline, potentially on side roads, and to field device sites. Devices – such as CCTV and VDS – will be located within the project limits.

In some instances, it will be necessary for the conduit routing to be mounted to existing bridge structures. In these cases, the Design Team Leader will provide all necessary information such as

the horizontal geometry to the Office of Bridge Design for review. The Office of Bridge Design will develop plans for conduit attachment to bridge structures and will provide all attachment details and bridge plans to the Design Team Leader to be included in the preliminary plans.

The preliminary plans will include a fiber allocation plan coordinated with Office of Traffic Operations Information Systems, Office of Traffic Operations Maintenance, and Office of Traffic Operations Planning. The fiber allocation plan will be complete and clear and will include all devices that require fiber optic cable hook-up. The fiber allocation plan will show comprehensive fiber routing from the field device to the fiber end point, either at a trunk cable, cabinet, hub, or the TMC.

Network electronics will be included in the preliminary plans. Design of all network electronics is required in order to operate and communicate with field devices for a project. The Design Team Leader will coordinate with Office of Traffic Operations Information Systems, Office of Traffic Operations Maintenance, and Office of Traffic Operations Planning in developing all network electronics necessary for the proper operation of all devices in a project. The Design Team Leader will also identify all equipment necessary and their interaction with other devices so that the system will operate as described in the Concept Report.

Special provisions are required as part of the preliminary plans. Certain special provisions, such as for fiber optic cable and appurtenances, CCTV and VDS, have already been prepared by others and are available to the Design Team Leader. However, there are likely to be projects that have special situations that need further clarification and are not defined in currently available specifications. The Project Manager will be responsible for the development of all provisions and stipulations that require further detailed instructions that are not suitably shown or identified on the plan sheets.

Some ITS projects will require installation of changeable message signs (CMS). In projects where CMS's are determined to be needed and are called for in the Concept Report, the Design Team Leader will have clearance diagrams developed for each CMS. The clearance diagrams will show all pertinent information pertaining to the overhead signs such as the sign dimension, location, and distance above roadway surface. Efforts will be made to locate such devices at or near other structures to take advantage of the existing shielding.

When the preliminary plans have been sufficiently completed, an in-house preliminary plan review will be held. The preliminary design review package should be distributed three (3) weeks prior to the in-house review meeting and include: pole locations, camera positions, existing utilities, existing right-of-way, bridge attachments, sign structure locations, fiber allocation, network electronics, conduit routing, hub building placement, service points, and major quantities such as fiber, conduit, and devices. The in-house review will be made by the following team members: [FHWA](#), Project Manager, Office of Traffic Operations Planners, Office of Traffic Safety and Design design staff, and consultants. Each team member will provide a thorough review of the preliminary design package suggesting ways for improvement, clarity, and completeness. All comments made by team members will be addressed in writing by the Design Team Leader clarifying that the item noted has been updated or whether the item noted will not be updated because of a specific reason. Any changes to the approved concept will require a revised Concept Report. The Project Manager will prepare the revised Concept Report for review and approval.

The Design Team Leader must request a Preliminary Field Plan Review (PFPR) at least three (3) weeks prior to the need to hold a PFPR. The request for the PFPR will be made through the Office of Engineering Services a minimum of 32 weeks before contract letting. See above for the requirements for requesting and holding a PFPR.

The Office of Engineering Service will establish the required attendance for the PFPR. It is recommended that the following representatives attend the PFPR: Office of Traffic Operations Planning, Office of Traffic Safety and Design design staff, local government ITS representatives, Utilities, and project consultants.

Office of Maintenance

Construction plans prepared by the Office of Maintenance requiring full size plans shall follow the same procedures as a Minor Project if Time Saving Procedures have been approved and will follow the same procedures as a Major Project if Time Saving Procedures have not been approved.

Resurfacing projects will require a Final Field Plan Review be held with a field plan review report prepared. The field plan review report will be submitted to the Office of Engineering Services with the final plans for letting.

Office of Transportation Data

The Office of Transportation Data in Support of Projects to Build or Relocate Sections of State Routes

Per TOPPS 3625-1, the Office of Transportation Data's Systems & Classification Branch shall coordinate with the appropriate entities and submit to the Commissioner a plan to revise the State Highway System and, as appropriate, the U.S. Route System. To ensure the necessary processing of highway system revisions, after the Preliminary Field Plan Review is completed and it is determined by the designer that the new State Route alignment will be non-contiguous to the existing State Route network, the designer will submit to the Office of Transportation Data a full-size cover sheet and a half-size set of plan and profile sheets (as stipulated in "Case I" of the enclosed [Appendix V](#)). Any modifications in proposed route alignments will be submitted to the Office of Transportation Data as alignments are amended during the plan development process.

The Office of Transportation Data in Support of Projects involving rights-of-way acquisition by the Department

To ensure compliance with the [Official Code of Georgia Section 32-5-2](#), which pertains to the Department's acquisition of rights-of-way, the Office of Transportation Data's Systems & Classification Branch will process with local officials and the Department's Commissioner the necessary highway system revisions to support preconstruction activities on a project. When it has been determined by the designer the agreement of the Department to purchase rights-of-way off the current State System, the designer will submit to the Office of Transportation Data a full-size cover sheet and a half-size set of plan and profile sheets as stipulated in "Case II" of the enclosed [Appendix V](#). Further plans will be submitted to the Office of Transportation Data as alignments are amended during the plan development process.

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[Back to Table of Contents](#)**Chapter 7****FINAL DESIGN**

The final design stage of project development begins with the approval of the environmental document and the distribution of the Preliminary Field Plan Review Report. **Advancing a project to final design or the completion of Final Right-of-Way Plans prior to environmental approval may result in the forfeiture of federal funds.**

Location and Design Approval – Major Projects

A Location and Design Report and a Notice of Location and Design approval will be required for all projects. The Project Manager will prepare a Location and Design Report (L&D) and a Notice of Location and Design Approval (Notice) for advertisement. The Notice will be published within 30 days of location approval. See [Appendix E](#) for examples of these documents and what they should contain.

The final environmental document and the Preliminary Field Plan Review Report must be approved before the L&D report is submitted and approved. The Office of Environment/Location will notify the appropriate offices when the environmental document is approved and provide a copy of the approved document to the Project Manager.

Federal Aid Design Approval- Approval of the final environmental document for Federal-Aid projects is considered Federal Location and Design approval. However, the processing and approval of a Location and Design Report and a Notice is required.

State Funded Design Approval- The Location and Design approval date for major State-funded projects is the date of the Chief Engineer's approval of the Notice.

Location and Design Report and Notice - Processing and Approval

- The report and notice will be submitted to the Assistant Director of Preconstruction for review.
- The Assistant Director of Preconstruction will route the report to the Director of Preconstruction for further review and a recommendation for approval.
- The Chief Engineer will then approve or disapprove the report.
- The Assistant Director of Preconstruction will insert the approval date in the Notice and distribute the approved report and transmit the Notice to the District Office.
- The Notice will be published within 30 days of approval. See [Appendix E](#) for additional requirements.
- The District Office will advertise the Notice in the local newspaper in which the Sheriff's announcements are carried. In accordance with Ga. Code Annotated 22-2-109(b), the Notice will be published once each week for four weeks in these local newspapers in each county in which the project is located.

One of the items to be included with the Location and Design Report is a construction cost estimate for the project. The estimate is to be based on quantities derived from the preliminary plans. Item Mean Summary prices for items may be used only if they are applicable. The designer is expected to exercise judgment and initiative when preparing the cost estimate. The Assistant Director of Preconstruction will send the Location and Design Report to the Office of

Engineering Services for review and concurrence of the cost estimate before submitting the report to management.

The Assistant Director of Preconstruction will be responsible for entries into the Department's Project Management System that show the approval of the Location and Design Report.

Location and Design Approval– Minor Projects

Location and Design approval for minor projects is granted when the Concept Report is approved. The Location and Design Notice shall be attached to the Concept Report for concurrent approval. For purposes of Ga. Code 22-109(b), the date of the concept approval is the date of location approval. The Location and Design Notice shall be advertised within 30 days of the date of location approval. See [Appendix E](#) for requirements of the Notice and publishing.

Design Offices – Major Projects

During the final design phase of a project the right-of-way plans for the project are completed, required right-of-way and easements will be purchased, those permits needed for the project are being pursued, and the final construction plans are begun. Any changes to the construction plans that increase or decrease the required construction limits or any changes to the approved right-of-way plans that increase or decrease the required right-of-way must be submitted to the Environment/Location Office for possible reevaluation of the environmental document and permits and to the District for revision of the approved right-of-way plans. The Project Manager must keep all interested parties abreast of any significant changes to the plans that affect their area of responsibility (Environment, Right-of-Way, Structures, Utilities, District, etc.) as they are developed.

Project Managers will send the base plan sheets to the District Utility Engineer, second (2nd) submission of utility plans, as soon as the existing utility information has been plotted and the project's footprint is verified or revised (e.g., after Preliminary Field Plan Review, desirably at the time of right-of-way plan approval, but no later than six (6) months before the scheduled Final Field Plan Review, for the utilities' use in verifying the location of their existing facilities and incorporation of the final utility relocation information. The second submission of utility plans will contain the in-progress drainage plans, bridge and retaining wall plans, and the location of any strain poles, traffic signals and overhead signs. The utility owners are expected to return the final utility plans to the Project Manager 60 working days after receipt of this submission.

A third submission of utility plans will be required only if there is a significant change in design that affects the utilities.

Once the final right-of-way plans have been approved, preliminary construction plans, including preliminary drainage plans and existing utilities information, will be transmitted to the Office of Environment/ Location, the Office of Right-of-Way, the Office of Bridge Design, and the Office of Materials and Research, for their use.

The Project Manager will submit in-progress final construction plans to the Office of Traffic Safety and Design for final signal, signing, and marking design when they have reached the 50% level of completion.

Upon receipt of the utility relocation plans, the Project Manager will send a copy of the utility relocation plans to the Office of Environment/Location if they cause any additional right-of-way, land disturbance outside of the construction limits already cleared environmentally, or impacts additional wetlands or streams. These utility relocation plans will also be provided to the Office of

Bridge Design and the Office of Traffic Safety and Design for their review and resolving any remaining conflicts.

For projects including a bridge widening or rehabilitation, a Bridge Condition Survey should have been completed by the Office of Maintenance Bridge Maintenance Section earlier in the plan development process. If this was not done, or if the most recent Bridge Condition Survey is more than three years old, the Bridge Maintenance Section must perform a survey or confirm previous recommendations to widen or rehabilitate the structure prior to development of the final bridge plans. For projects where the structural design is being managed by the Office of Bridge Design (in-house bridge design or consultants hired by the Office of Bridge Design), the request for this information will be made by the Office of Bridge Design. For projects where the structural design is being managed by the Project Manager (structural design included in the roadway design contract or local design), this request will be made by the Project Manager.

If at eight months prior to letting the bridge condition survey is more than three years old, the Project Manager should request an updated bridge condition survey from the Bridge Maintenance Section; which may include final recommendations from Bridge Maintenance about sealing joints, painting the superstructure, repairing spalls, and other routine maintenance. If the project is a bridge replacement, then the Project Manager should email the Bridge Maintenance Section to determine whether or not any material should be salvaged from the existing bridge.

The Office of Bridge Design and the appropriate Design Office will coordinate their project schedules such that final bridge plans will be received at least four (4) weeks before the scheduled date of request for the Final Field Plan Review.

Design Office - Minor Projects

Final design of minor projects will not begin without environmental approval and Location and Design approval. Final design activities for Minor Projects are the same as for Major Projects with the exception of the cover sheet signature. The cover sheet of Minor Projects may be signed by the District Engineer. The signature should be that of the Chief Engineer with the initials of the District Engineer.

Submission of final plans and specifications for letting for Minor Projects will follow the same procedures as for Major Projects.

Final Right-of-Way Plans

After the Preliminary Field Plan Review (PFPR) comments are resolved and Location and Design approval, the right-of-way plans will be completed in accordance with current Right-of-Way Office guidelines and the Plan Presentation Guide. The Right of Way Office maintains a checklist for the preparation of Right of Way plans and this checklist is available on R.O.A.D.S. The Project Manager and the Office of Environment/Location will review the final right-of-way plans before submission to the Office of Right-of-Way for compliance with the approved environmental document. The right-of-way plans must be consistent with the approved environmental document or an environmental reevaluation must be performed. The Project Manager will then submit the completed right-of-way plans to the Right-of-Way Office for review and approval. Note several reviews may be required for approval.

The date of Location and Design approval will be clearly shown on the right-of-way plans cover sheet. Right-of-Way plans will not be approved without project cross sections for mainline and cross roads, preliminary drainage plans and driveway profiles.

For Federally funded projects, the right-of-way plans shall not be approved until the final environmental document has been approved by the [FHWA](#). If there has been more than six (6) months time lapse between environmental approval and the request for right-of-way plan approval, an environmental reevaluation must be performed to approve the right-of-way plans. The Office of Right-of-Way will request the Office of Environment/Location to certify that the environmental approvals are valid for right-of-way plan approval.

Right-of-way plans will not be approved before Location and Design approval. In accordance with Ga. Code 22-109(b), the right-of-way plan's cover sheet will clearly show the date of Location and Design approval.

Right-of-Way Revisions

For projects being designed or managed by the Office of Road Design, Office of Urban Design and the District Offices, the project manager will be responsible for the revisions and the distribution. If a consultant is doing the work for these offices, then the project manager working with the consultant will coordinate the changes and ensure the plans are distributed to the Office of Right-of-Way and the district office.

For projects managed by the Office of Program Delivery and Consultant Design, the Department project manager will provide the Right of Way Team Leader with the contact name and number. The revision will then be worked out between the Right of Way Specialist and the consultant project manager. The Department project manager will ensure that the plans are distributed to the Office of Right of Way and the district office.

Right-of-Way Acquisition

The Office of Right-of-Way will request right-of-way funds authorization when the right-of-way plans are approved.

Appraisal contracts will be prepared with particular attention given to those parcels involving relocations and any railroad parcels. Review of appraisals involving relocations and demolition contracts will also be given priority.

Once right-of-way plans are approved, a property owners' meeting will be held in accordance with the Department's rules and regulations. As outlined in the Department's Right-of-Way Manual, right-of-way acquisition procedures will follow Federal guidelines for acquisition regardless of whether Federal or State funds are used for acquisition.

The Environment/Location Office and the Design Office will be informed immediately of any changes to the approved right-of-way plans made as a result of the acquisition process.

Condemnation petitions shall contain the Location and Design approval date. Condemnations involving relocation and/or removal of improvements by a demolition contractor should be filed no later than 40 days prior to the project letting. This will provide for a 60-day relocation/legal possession period plus a 30-day standard demolition period to expire within the standard 50-day deferment clause included in all contracts. All other condemnations should be filed no later than 10 days prior to letting in order to fall within the 50-day clause.

Right-of-Way acquisition will continue during the time of final design and will be completed by the

right-of-way certification date.

Office of Utilities

Utility Relocation Plans

All requests for utility relocation plans must go to the respective utility owners through the District Utilities Engineer.

Utility Agreements

The Project Manager should check with the Office of Utilities early in the final design stage to ascertain the required information needed to furnish the utility owner in order that utility agreements can be negotiated.

Railroads

The railroads will require complete roadway, grading, drainage, and bridge plans in order for them to schedule a review and complete required agreements.

Office of Traffic Safety and Design

The Office of Traffic Safety and Design in Support of Final Plan Development

The Office of Traffic Safety and Design shall submit Microstation Design files of the final Signing, Marking, and/or Signal plans to the Project Manager at least two months before the scheduled request for a [Final Field Plan Review \(FFPR\)](#). The Designer will incorporate the final Signing, Marking, and/or Signal plans in the final construction plans before the FFPR request is made.

The District Traffic Operations Office will provide Microstation files of the final Signing, Marking, and/or Signal plans on Minor Projects.

Office of Traffic Safety and Design - Interstate or Limited Access Roadway ITS projects.

The Implementation Plan must be completed prior to holding the Final Field Plan Review.

The final plans will include all changes to the Preliminary plans as discussed during the Preliminary Field Plan Review (PFPR), completed special provisions, and summarizing all quantities for the pay items needed for the project. Before a [FFPR](#) is requested, a thorough in-house review will be preformed to assure all items for a project are completely covered in the plans.

The final design in-house review package will be distributed three (3) weeks prior to the in-house review meeting. The in-house review team members are: [FHWA](#), Office of Traffic Operations Fiber Technicians, Project Manager, Office of Traffic Operations Planners, Office of Traffic Safety and Design design staff, and consultants. Each team member will provide a thorough inspection of the final design review package suggesting ways for improvement, clarity, and completeness. All comments made by team members will be addressed in writing by the Design Team Leader clarifying that the item noted has been updated or whether the item noted will not be updated because of a specific reason.

When the construction plans have reached 90 percent completion, the Project Manager will request a Final Field Plan Review ([FFPR](#)). The final design review package will accompany the letter of request to the Office of Engineering Services.

The Design Team Leader will respond to [FFPR](#) comments by letter to the Office of Engineering Services and to [FHWA](#), within 2 weeks of receiving the report with copies distributed to those attending the review.

Final Field plan Review (FFPR) – Major Projects

The FFPR should not be requested until the final construction plans, including checked quantities, and special provisions are complete. The FFPR should not be held later than 16 weeks prior to the project's scheduled let date; therefore the Project Manager should request the FFPR no later than 20 weeks before the scheduled let date. It is desirable that the FFPR be held more than 16 weeks before the scheduled let date.

The Project Manager will submit a letter of request for a [FFPR](#) to the Office of Engineering Services. A complete set of construction plans (See [Appendix F](#) or [TOPPS 2440-1](#) for requirements) and special provisions will accompany the letter of request to the Office of Engineering Services. In addition a letter from the Office of Environment/Location will be included in the FFPR request package stating the conditions in the environmental document and that the conditions of any environmental permits have been adequately addressed by the plans and specifications and an environmental reevaluation has been performed, if required. The Director of Preconstruction must approve any waivers of this requirement.

The Office of Engineering Services will determine the scope of the [FFPR](#) (e.g., full office and field review, office review only, email conference only, no Final Field Plan Review required, or any combination thereof) and schedule, coordinate, and conduct the appropriate review.

The Office of Engineering Services will only schedule the [FFPR](#) when a complete FFPR request is received. Failure to provide adequate plans and all of the required information with the request will delay the scheduling of the inspection. The Office of Engineering Services shall respond to the FFPR request within five (5) working days after receiving the request, either scheduling the event, or if the FFPR request is incomplete, requesting the additional required information. In their Field Plan Review scheduling letter, the Office of Engineering Services will identify the Final Field Plan Review Team and the participating offices and request the District to only stake bridge endrolls if they are different from those reviewed at the Preliminary Field Plan Review (PFPR).

The Project Manager shall provide and ensure the appropriate sets of plans and special provisions are received by the Final Field Plan Review Team at least one (1) week prior to the review.

Final Field Plan Review Team members are expected to be familiar with the project, having reviewed the plans and specifications prior to the meeting, and are expected to contribute meaningful comments during the review. It is critical that all remaining problems be identified and resolved at this time to avoid costly amendments during advertisement and supplemental agreements on construction.

It is important that a representative of the right-of-way acquisition team (local government or GDOT) participate in the Final Field Plan Review ([FFPR](#)). The right-of-way representative will discuss signed options, special conditions negotiated with the property owners, and commitments made to date. Commitments made to property owners and contained in the options will be addressed: including the disposition of privately owned utility facilities, septic tanks, drain fields, and well and water systems. The right-of-way representative will also address the status of the acquisition, the projected date of completion of right-of-way acquisition, problems encountered during right-of-way acquisition, review the plans for inclusion of temporary easement expiration dates, and review the status of requested plan modifications and any condemnations.

It is important that a representative of the Office of Environment/Location participate in the [FFPR](#).

Any commitments made by permit or environmental document to protect or enhance the environment will be discussed at the FFPR. After the FFPR, any subsequent commitments made to protect the environment not addressed at the FFPR will be provided to the Project Manager immediately.

After the [FFPR](#), one set of the right-of-way options will remain with the Area Engineer and the second set will be given to the Project Manager.

The Office of Engineering Services shall conduct the review, prepare a written report, and distribute the report within two (2) weeks of the review. The Office of Engineering Services will obtain the approval of the [FHWA](#) on all Full Oversight projects before it distributes the report.

Timely feedback to the Field Plan Review Team and the timely resolution of all field plan review issues is critical for continued coordination, smooth final plan development, and a successful letting as scheduled.

The Project Manager will address all comments contained in the Final Field Plan Review Report and the action taken or not taken will be reported in writing to the Office of Engineering Services no later than two (2) weeks after receipt of the approved Final Field Plan Review Report and at least 12 weeks prior to the letting date. Responses to all comments will be written in full sentences and will clearly state the action taken to address the comment. If a comment requests a specific action and the project manager determines that no action will be taken, the response should clearly explain the project manager's decision. Copies of the Project Manager's comments will be distributed to those attending the review.

A project will not be considered ready to let until all [FFPR](#) comments are addressed to the satisfaction of the State Project Review Engineer.

Final Field Plan Review (FFPR) – Minor Projects

Final Field Plan Review's for Minor Projects will follow the same procedures as for Major Projects.

The Final Field Plan Review ([FFPR](#)) should not be requested until the plans and special provisions are complete and in no case held later than 16 weeks prior to the project's scheduled let date.

The Project Manager will submit a letter of request for a [FFPR](#) to the Office of Engineering Services. A set of construction plans (see [Appendix F](#) and [TOPPS 2440](#) for requirements) and special provisions will accompany the letter of request to the Office of Engineering Services. In addition, a letter from the Office of Environment/Location will be included in the FFPR request package stating the conditions in the environmental document and that the conditions of any environmental permits have been adequately addressed by the plans and specifications and an environmental reevaluation has been performed, if required. Failure to provide adequate plans and all of the required information with the request will delay the scheduling of the inspection.

The Office of Engineering Services will only schedule the Final Field Plan Review ([FFPR](#)) when a complete FFPR request is received. The Office of Engineering Services shall respond to the FFPR request within five (5) working days after receiving the request, either scheduling the event, or if the FFPR request is incomplete, requesting the additional required information. In their Field Plan Review scheduling letter, the Office of Engineering Services will identify the Final Field Plan Review Team and the participating offices.

The Project Manager shall provide and ensure the appropriate sets of plans and special provisions are

received by the Final Field Plan Review Team at least one (1) week prior to the review.

The Office of Engineering Services will determine the scope of the Final Field Plan Review ([FFPR](#)) (e.g., full office and field review, office review only, e-mail conference only, No FFPR required, or any combination thereof) and schedule, coordinate, and conduct the appropriate review. In some cases, the Office of Engineering Services may request the appropriate District Construction Office conduct the FFPR for those projects designed in the District.

Submission of Plans for Letting

When all Final Field Plan Review ([FFPR](#)) plans and special provisions comments have been addressed and resolved and the project cover sheet signed by the District Engineer or Chief Engineer, the Project Manager will submit, at least ten (10) weeks prior to the proposed letting, half sized final construction plans, special provisions, soil reports, BFI's, electronic earthwork files, and the designer's cost estimate to the Office of Engineering Services for final review and the preparation of the Department's Engineer's Cost Estimate. At the same time, the Project Manager will also submit to the Office of Contract Administration the final construction plans, special provisions, electronic earthwork files, soil reports, BFI's, required information for the Notice of Intent (NOI), the [Designer's Checklist](#), and the Designer's Cost Estimate.

A copy of the Designer's Cost Estimate is also sent at this time to the Office of Financial Management. The Designer's Cost Estimate will not be based on Item Mean Summary prices but will be prepared by the Project Manager utilizing professional judgment. This estimate is utilized by the Office of Financial Management for requesting authorization to let the project and must be as accurate as possible.

The minimum distribution of the final construction plans by the Project Manager is as follows:

- Office of Engineering Services- One half sized set for their use.
- Office of Contract Administration:
 - For exempt and State funded projects - One set for their use.
 - For Full Oversight projects
 - One set for their use, and
 - One half sized set for the [Federal Highway Administration \(FHWA\)](#) to be sent with the PS&E package.
- Office of Traffic Safety and Design - One set for their files.
 - For Interstate ATMS or Limited Access Roadway ITS projects additional distribution will be made as follows:
 - State Signal Engineer - One set for their files.
 - State Bridge Engineer - One set for their files.
 - Office of Environment/ Location – One set for their files.
 - Office of Maintenance – One set for their files.
- Office of Environment/Location - One set for their files.
- Office of Construction – One half sized set for their files.
- District Engineer
 - Applies to plans prepared in the General Office.
 - Two (2) sets of prints, one for the District Office and one for the Area Engineer.
 - The District Utilities Engineer will provide the Project Manager with a print list for District printing requirements for the Utility owners.
 - District Preconstruction Engineer will provide a print list including names and addresses for additional print distribution.
 - Applies to plans prepared in the District Office.

- The District Preconstruction Engineer shall fulfill the printing requirements for the District.

When the bid proposal is available, the Office Engineer, Office of Contract Administration shall forward copies of the proposal to:

- Office of Engineering Services.
- Office of Traffic Safety and Design only when the Project Manager is Traffic Operations.
- Office of Bridge Design for bridge projects only [two (2) copies].
- Office of Materials and Research [three (3) copies].
- Office of Construction.
- Office of Environment/ Location.
- District Engineer [three (3) copies].
- Project Manager.
- Chief Engineer, Bureau of Environmental Compliance.

Each office shall review the proposal for errors and omissions and shall immediately report any discrepancies to the Office Engineer.

For all Full Oversight projects (Major and Minor), the Office of Contracts Administration will send the PS&E package to the [FHWA](#) no later than 6½ weeks before the proposed let date (nine (9) calendar days before construction authorization). This PS&E package will contain half sized final plans, proposal, engineer's estimate, Construction Work Authorization (prepared by the Office of Financial Management), and certification that all railroad and utility agreements, right-of-way and environmental clearances (including Section 404 Permits) have been obtained.

The Project Manager shall send the complete, original, reproducible, final construction plans, as submitted to the Office of Contracts Administration and officially revised, to the plan reproduction section of the Office of Road Design no later than five (5) weeks before the scheduled letting for printing for the letting.

Plans and Specifications Revisions after Submission for Letting

Any changes to the plans and special provisions after submittal to the Office of Contracts Administration will be considered a revision and will be posted as such in the plans. For those projects prepared in the District, the District will be responsible for providing to the Office of Contracts Administration any revisions and/or amendments needed during the bidding process. The District will also be responsible for revising the plans during and after construction.

Distribution of revisions will be made to the same distribution as the final plans. The District Engineer will be sent one reproducible set of revisions for his distribution to the various offices.

Right-of-Way Certification

For Exempt projects, the District shall certify that all right-of-way has been obtained at least eleven (11) weeks prior to a project's letting. At least ten (10) weeks prior to the letting, the Office of Right-of-Way will certify to the Office of Engineering Services that the right-of-way is clear.

For full [FHWA](#) oversight projects, the Office of Right-of-Way will send the original letter of certification that the right-of-way is clear to the FHWA and provide a copy to the Office of Contract Administration no later than ten (10) weeks prior to letting. The Office of Contracts Administration will include a copy of the letter of certification in the PS&E package submitted to the FHWA for authorization.

Utility Certification

For Exempt and State funded projects the Office of Utilities and railroads will certify to the Office of Engineering Services with a copy to the Office of Contract Administration that the utilities are clear and required agreements are in-hand no later than ten (10) weeks prior to the letting.

For [Full Oversight Projects](#) the Office of Utilities will provide Contract Administration with a copy of a letter of certification that the utilities and railroads are clear and required agreements are in-hand no later than ten (10) weeks prior to letting. The original letter of certification will be sent to the Office of Engineering Services. The Office of Contracts Administration will include the letter of certification in the PS&E package submitted to the [FHWA](#) for authorization.

Environmental Certification

For Exempt projects the Office of Environment/Location will certify to the Office of Engineering Services, at least ten (10) weeks prior to the letting, that the environmental approvals are current and required permits are in hand. The Office of Environment/Location will provide the Office of Contract Administration and the Project Manager with a copy of a letter of certification.

For [Full Oversight Projects](#), the Office of Environment/Location will provide the Office of Contract Administration and the Project Manager with a copy of the letter of certification that the environmental approvals are current and all environmental permits are in hand no later than ten (10) weeks prior to letting. The original letter of certification will be sent to the Office of Engineering Services. The Office of Contracts Administration will include the letter of certification in the PS&E package submitted to the [FHWA](#) for authorization.

Environmental certification for State funded projects will only be required for those State funded projects that have been developed in accordance with Federal environmental policies, including an approved Federal environmental document. The Office of Environment/Location will certify to the Office of Engineering Services, at least ten (10) weeks prior to the letting, that the environmental approvals are current and required permits are in hand. The Office of Environment/Location will provide the Office of Contract Administration and the Project Manager with a copy of a letter of certification.

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Chapter 8

DESIGN GUIDELINE VARIANCES

Design Exceptions

Whenever a new construction or reconstruction project [this excludes maintenance resurfacing projects and resurfacing, restoration, and rehabilitation (3R projects)] contains design features which do not meet the current AASHTO publications, “A Policy on Geometric Design of Highways and Streets” (GREEN BOOK) and “The Policy on Design Standards - Interstate System”, as adopted by the [FHWA](#), permission to retain the feature must be obtained. For interstate projects, the FHWA will be the agency, which grants design exceptions. For all other projects, both Federal and State funded, the Chief Engineer grants design exceptions. The following Controlling Criteria are required to meet the requirements of the above AASHTO publications

- Horizontal alignment
- Lane width
- Shoulder width
- Vertical grades
- Cross slopes
- Stopping sight distance
- Superelevation rates
- Horizontal clearance (does not include clear zone)
- Speed design
- Vertical clearance
- Bridge width
- Bridge structural capacity

In order to obtain a design exception, a formal request must be submitted using the form outlined in [Appendix K](#), which contains the following information:

- Project Number, P.I. Number, description of work and type of area (residential, commercial, rural, etc.), concept, typical section, posted and design speed, and a location sketch map.
- A description of the design feature that does not meet the current policy. The state route mile point values for the beginning and the ending of the design feature must be included in this description.
- Base year and design year traffic including Average Daily Traffic (ADT) and Design Hourly Volumes (DHV) volumes and percent trucks.
- The accident history for the most recent three (3) year period available, including a summary of the accident experience defined in general terms insofar as type, severity, contributing circumstances, and any other information necessary to describe what is happening at the site, and a description of the accident experience which may be related to the substandard feature.
- Describe any other factors which can have an effect on the final recommendations, such as:
 - Compatibility with adjacent sections of unimproved road,
 - Probable time before increased traffic or other changed conditions will require reconstruction of this section of roadway, and
 - Any safety enhancements (mitigation) that will be included in the project if the site is not constructed according to the Policy on Geometric Design of Highways and Streets and/or Policy on Design Standards - Interstate System requirements.

- A cost estimate of the right-of-way and construction necessary to build the roadway to the Policy on Geometric Design of Highways and Streets and/or Policy on Design Standards - Interstate System requirements.
- The Project Manager must make a recommendation based on the data presented in the above items.

If any of the required information is not included in the design exception request an explanation as to why the information is missing must be provided.

The Project Manager must route the design exception request as described in the following steps:

- Project Managers will submit their design exception request to the Office of Engineering Services under a cover letter or a route slip. (The Office of Bridge Design shall forward any design exception needed by the Bridge Design Office to the Project Manager for processing.) The information provided will include all supporting data needed for requesting the exception.
- The Office of Engineering Services will submit the design exception report to the Chief Engineer for projects not on the Interstate system. For projects on the Interstate System, the Office of Engineering Services will submit the design exception request to the [FHWA](#).
- After this approval or disapproval, the request will be returned to the Office of Engineering Services for distribution. The original document will be sent to the General File with a copy to the Project Manager. The Project Manager will place a complete copy of the design exception in the project file. The Office of Engineering Services shall enter into the Department's Project Management System a record of the design exception.

The Project Manager will prepare and submit design exceptions as soon as they are found to be necessary and the information and studies needed to justify the exception have been completed. Design exceptions will be processed prior to the completion of the right-of-way plans. For design exceptions identified during the concept phase on [Full Oversight Projects](#), [FHWA](#) requires the review and approval of the design exception prior to approval of the project concept. If a design exception is identified on a Full Oversight Project after FHWA has approved the concept, the design exception should be communicated to FHWA as early as possible.

Design Variances

Whenever a new construction or reconstruction project contains nonstandard items that are not controlling criteria or which do not meet GDOT policy/guidelines, a Design Variance must be requested from the Chief Engineer. In order to obtain a Design Variance, a formal request must be submitted using the form outlined in [Appendix K](#), which contains the following information:

- Project Number, P.I. Number, description of work and type of area (residential, commercial, rural, etc.), concept, typical section, posted and design speed, and a location sketch map.
- A description of the design feature that does not meet the current GDOT policy/guidelines.
- Base year and design year traffic including Average Daily Traffic (ADT) and Design Hourly Volumes (DHV) volumes and percent trucks.
- The accident history for the most recent three (3) year period available, including a summary of the accident experience defined in general terms insofar as type, severity, contributing circumstances, and any other information necessary to describe what is happening at the site, and a description of the accident experience which may be related to the substandard feature.
- Describe any other factors which can have an effect on the final recommendations, such as:
 - Compatibility with adjacent sections of unimproved road,

- Probable time before increased traffic or other changed conditions will require reconstruction of this section of roadway, and
- Any safety enhancements (mitigation) that will be included in the project if the site is not constructed according to GDOT policy/guidelines.
- A cost estimate of the right-of-way and construction necessary to build the roadway to meet GDOT policy/guidelines.
- The Project Manager must make a recommendation based on the data presented in the above items.

The procedure for routing the Design Variance Requests will be the same as for Design Exception Requests.

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Chapter 9

CONSTRUCTION

Construction Authorization

For Full Oversight projects, the Office of Contracts Administration will be responsible for submitting the Plans, Specifications & Estimate (PS&E) package to the [FHWA](#) for project authorization. The PS&E package will consist of the following information:

- Work Authorization Request - Furnished by the Office of Financial Management,
- Final set of signed plans (approved by the Chief Engineer) - Furnished by the appropriate Project Manager,
- Bid proposal which includes special provisions, contract provisions, and bid items - Furnished by the Office Engineer,
- Right-of-Way Certification - Furnished by the Office of Right-of-Way,
- Designer's Estimate prepared by the Project Manager and based upon bid items in the bid proposal - Furnished by Project Manager,
- A statement indicating all necessary permits that are needed have been obtained or the status thereof:
 - U. S. Army 404 – Office of Environment/Location,
 - U. S. Coast Guard – Office of Bridge Design,
 - Tennessee Valley Authority – Project Manager,
 - Federal Emergency Management Agency – Project Manager, and
 - Water Quality – Office of Environment/Location.
- Approved agreements with railroads, utilities, and municipalities, or status thereof - Furnished by the Office of Utilities and/or the Office of Financial Management, and
- Environmental Certification – Furnished by Office of Environment/Location.

The information needed for the PS&E package is to be furnished by the various offices to the Office of Contracts Administration not later than nine (9) weeks prior to the letting date.

The Office of Engineering Services processes the construction authorization for all Exempt projects. All necessary information needed for authorization by the Office of Engineering Services must be submitted no later than two (2) weeks prior to advertising. This information will include environmental clearance, utility certification, and right-of-way certification.

Transition Conference

After a Major Project has been advertised for construction and before bids are taken, the District Construction Engineer responsible for constructing the project will confer with the Project Manager for design to determine if a Transition Conference is required. A Transition Conference should be held if the project required the acquisition of right-of-way, affects endangered species, historic or archaeological resources, unusual design features, special environmental permits, or there are unique issues the design team must share with the construction personnel that are not readily apparent from the plans and specifications. The District Construction Engineer will cause a meeting to occur between the Area Engineer, Project Manager, right-of-way acquisition Project Manager, representative from the Environment/Location Office, District Utilities Engineer, and District Traffic Operations Engineer. The purpose of the meeting is to provide for a clear understanding of the plan details and requirements in order to facilitate construction of the project.

The right-of-way representative will provide two (2) copies of the signed options and a summary of the special conditions negotiated with the property owners for review and discussion. Any commitments to property owners will be addressed. If a Transition Conference is not held, the right-of-way representative will provide two (2) copies of the signed options and a summary of the special conditions to the Area Engineer prior to the Preconstruction Conference.

Minor Projects will not normally have a Transition Conference.

Revisions to Projects Between Authorization and Letting

See [Appendix P](#) for the procedures to be followed in making revisions to advertised projects.

Revisions to Projects During Construction

The Project Manager should establish a liaison with the construction project engineer to work together to resolve construction problems that may arise due to design or site conditions. See [Appendix P](#) for the procedures in making changes on construction. GDOT personnel should charge any time spent working on engineering for a project that is under construction to the Construction project number, not the Preliminary Engineering project number. Once under construction, all additional engineering work is defined as “construction engineering.”

Review of Completed Project

After a project has been open to traffic for a period of at least six (6) months, an operational review of the project may be made as a means of verifying that the design work functions satisfactorily. In addition, the review is to provide a tool to identify where changes can be made in design procedures or practices to improve the overall quality of future design work.

Requests for operational reviews will be made to the Office of Engineering Services who will schedule and coordinate the review. Any office may request an operational review but the requesting office must consult with the Office of Construction before the request is submitted. The Project Manager, team leader, Area Engineer, District Construction Engineer, District Traffic Operations Engineer, and General Office representatives from Office of Traffic Safety and Design, Office of Maintenance, and Office of Construction will be invited to attend. The [FHWA](#) will also be invited to attend, regardless of whether or not the project is Full Oversight, exempt, or state funded.

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Chapter 10

PROJECT MANAGEMENT SYSTEM

The Department's Preconstruction Project Management System, TPro, incorporates project management, funds management, resource management, and preconstruction activity planning. TPro is a sophisticated system for establishing, maintaining, analyzing and improving project scheduling, schedule adherence, and project delivery to maximize the utilization of GDOT resources and revenues.

Pre-Construction Project Team

The Project Manager is typically the Design Group Manager in the General Office or the District Preconstruction Engineer in the District Office. This person is responsible for the development of an identified project from concept stage through the letting. The Project Team is composed of individuals assigned to the Project Manager that possess the various skills necessary to complete the development of a project from concept through final contract documents delivery. The Project Team will be led by the Project Manager and will be supported by the Project Team members.

The Project Team will consist of the following personnel:

- Project Manager (Designer)
- Environmentalist
- Right of Way Specialist
- Bridge Design Engineer
- Geotechnical Engineer
- Traffic Design Supervisor
- Utilities Coordinator

The Project Team membership does not preclude the use of specialty team members on a project by project basis as needed (i.e. construction liaison, engineering services personnel, etc).

The Project Team Manager will conduct regularly scheduled Project Team meetings to review the active and upcoming projects assigned to the Project Manager. Project Teams will meet, at a minimum, every other month. It is preferred that the Project Team meet every month. Activities in the monthly meetings will include: discussing the active and upcoming projects, discussing resources available and possible resource needs, and using TPro schedules (scheduled start and finish dates) to set team member activities and goals for the month. Attendance for Project Team members is mandatory. The Project Manager can give prior consent for an absence, but a written report of the activities accomplished must be provided. The Project Manager will also meet on certain projects as needed to meet the schedule.

Each team member will report the status of the activities assigned to them at each meeting and update their TPro fields.

The Project Manager will use the Project Tracking Form – see attachment, to document the commitments and completion of tasks by the Project Team members. The Project Manager will use the Team Member Evaluation Form, see attachment, for assessing the success/failure of Project Team

members and reporting to their unit supervisors. This assessment will occur in October and May of each fiscal year to be incorporated in the Team Member's Performance Evaluation.

TPro's Benefits to Project Managers

The Department's Construction Work Program includes thousands of active transportation projects with ongoing preconstruction activities. Project Managers are responsible for directing many projects simultaneously through the plan development process and the resources and employees needed to complete the work are often managed and located in other offices. TPro will provide the Project Manager with accurate, up-to-date, and detailed information in all phases of the Plan Development Process. TPro will also provide a resource balanced work plan for all scheduled project activities. TPro is designed to provide GDOT project schedulers, Project Managers and preconstruction personnel with tools that would help them:

- Effectively and actively communicate a large volume of critical project information with a reasonable amount of effort
- Coordinate with each other about project status and resources utilization
- Analyze project scheduling and resource utilization to improve these business functions

The challenge of managing a large number of projects is compounded by the reality that the Department's Construction Work Program is constantly modified due to changing priorities, funding considerations, political considerations, project developments, and new work practices. With TPro, the Department will be better equipped to analyze, respond, and adapt in the fluid arena in which projects are developed. Using detailed, resource-balanced schedules for all project activities allows the Department's management to set project priorities and attainable funding goals. TPro insures project shifts will not be the result of inaccurate scheduling or overextended resources.

Project Manager's Responsibilities in TPro Schedule Maintenance

The accuracy of project schedules is imperative to the effectiveness of the project management system. This management tool is only as good as the information it contains. Project Managers and designers are referred to the TPro manual for specific guidance.

Project Managers must verify the baseline schedules of their projects are reasonable and correct. This includes checking the resources assigned to the project as well as checking the scheduled activities. Even if the baseline schedule is correct, changes may be needed during the preliminary engineering phase as more detail is generated about a project. For example, activities may need to be added to the schedule because they were not anticipated when the baseline schedule was developed. Likewise activities may need to be deleted from the schedule because more detailed information gathered at a later date indicated they were not needed. For example, a Value Engineering Study may need to be added to the project schedule because the approved concept total cost estimate topped \$25,000,000.

Project Managers should contact the State Scheduling Engineer with any proposed changes to critical schedule activities, activity duration, or activity resources as soon as the information is available. Depending upon the significance of the impact the proposed change will have on the project schedule, as well as the entire Construction Work Program, the State Scheduling Engineer will either incorporate the changes into the project schedule or will present the changes to the Schedule Review Committee for their review and recommendations to the Director of Preconstruction.

Project Managers must ensure the progress of the scheduled project activities are reported, maintained, and updated regularly, at a minimum every two weeks (desirably once a week). Reporting activity progress benefits more than just the project in question. Many of a project's activities are related to or are affected by the progress of other projects because all of the

Department's projects rely on many of the same resources. Up-to-date and accurate progress reporting is necessary to prevent inaccuracies in scheduled start and finish times for activities throughout the Construction Work Program.

TPro's Benefits to the Department's Construction Work Program

The same type of communication, coordination, and prioritization needed at the Project Manager level is also required at the statewide level for the entire Construction Work Program. TPro allows for multiple project scheduling that identifies planned start and planned finish dates for each activity in the Construction Work Program. Completing each activity by its scheduled finish date will ensure that the project remains on schedule, and will ensure that other projects in the Construction Work Program that utilize the same resources will also remain on schedule.

New projects cannot be initiated unless current projects are progressing or are completed, releasing resources. This may be because the employees needed are still working on other projects, or it may be because a project is really one part of a larger project. For example, a bridge may be needed before a road can be completed.

TPro's multiple project scheduling system has simulation capabilities to model different scheduling alternatives in response to changes in the Construction Work Program. Using simulation allows management to quantify the probable result of a change without impacting current schedules. The Department can then evaluate potential actions and choose the best approach. The system also allows for monitoring of the actual amount of time and resources expended on a project. This data can be used to monitor the actual performance project development and to improve the accuracy of future project schedules.

TPro priority assignments to projects:

- **1** - Highest Priority (Commissioner, Deputy Commissioner and Chief Engineer assigned priority.)

These projects will have a scheduled let date matching Programmed Fiscal Year for both Right-of-Way and Construction. They will require review and approval by the Commissioner, Deputy Commissioner or Chief Engineer for any shift of any let date even within the Fiscal Year.

- **2** - High Priority (Division Director assigned priority.)

These projects will have a scheduled let date matching Programmed Fiscal Year for both Right-of-Way and Construction. They will require review and approval by the Division Director, or those listed in 1 above will set the dates for any shift of any let date even within the Fiscal Year.

- **3** - Projects in first year of [STIP](#).

Priority 3 will be assigned until expected 90.5% of yearly apportionment is reached (expected Obligation Authority level). (Priority will be established by concurrence of STIP balancing group at STIP meetings.) These let dates will be set by Senior Management in concurrence with their staff. Presently done yearly for the STIP and may be done more often if so desired. Projects may shift within the Programmed Fiscal Year but require Senior Management level approval to shift out of that Fiscal Year. If they are so shifted, they should be re-programmed and the STIP re-balanced. This may necessitate shifts of other projects and re-prioritization of some projects.

- **4** - Projects with assigned Obligation Authority.

Office of Financial Management will recommend Priority 4 projects to Senior Management. These projects have their own money so the only reason to speed their letting is so they can let in

a timely manner. They may be delayed depending on desirability, as they will utilize manpower resources, taking away from projects that may be in danger of losing funding etc.

- **5** - Projects in first year of the [STIP](#) for which GDOT does not expect to receive Obligation Authority sufficient to fund.

GDOT will not be expending manpower on these unless no higher project can use the manpower. This will allow them to be readied as soon as possible without delaying higher priority projects.

- **6** - Projects in second year of [STIP](#).

The same as priority 5, except even less likely to utilize scarce manpower.

- **7** - Projects in third year of [STIP](#).

The same as priority 6, except even less likely to utilize scarce manpower.

- **8** - The remainder of our projects.

The same as priority 7, except even less likely to utilize scarce manpower.

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[Back to Table of Contents](#)

APPENDIX A

(See TOPPS 2410-1 for current document)

(FHWA AND GDOT OVERSIGHT AGREEMENT) (Full Oversight Agreement)

Processing Projects Exempt from FHWA Oversight

Federal-aid projects exempt from [FHWA](#) oversight shall be developed with the same policies and objectives as contained in the FHWA and GDOT Oversight Agreement shown below:

FHWA AND GDOT OVERSIGHT AGREEMENT

This document provides the procedures to be followed by the Department of Transportation of the State of Georgia (herein referred to as GDOT) in administering Federal-Aid Highway projects under Certification Acceptance (herein referred to as CA) as permitted by Title 23 United States Code (U.S.C) 101 (e), 106, 117, and 315 and Section 1305 of the Transportation Equity Act For The 21st Century. This agreement applies to all projects exempt from Federal Highway Administration oversight.

The Georgia Code of Public Transportation, Official Code of Georgia, [Title 32](#), created the GDOT and defines its powers and responsibilities. Paragraph 32-2-2 (a)(7) more specifically describes GDOT authority to accept Federal-Aid.

This is to certify, as evidenced by signature of the Commissioner in this document, that GDOT will administer Federal-Aid projects under Certification Acceptance procedures to accomplish the policies and objectives of Title 23, United States Code using state laws, manuals and standards herein referenced, and all applicable Federal statutes, regulations and executive orders. Projects administered under this agreement will not require any [FHWA](#) approval with the exception of environmental document (National Environmental Policy Act- NEPA) approval according to 23CFR 771.

TITLE 23 - POLICIES AND OBJECTIVES

Procedures to meet the Title 23 Policies and Objectives are addressed in the State Code, directives or manuals as cited, copies of which are available on request. All referenced policies, guides, manuals, etc., shall be the latest approved editions.

1. Public involvement in the development of projects in the location and design stages.

Preconstruction Project Plan Development Process -- The procedures for project development from the project identification stage through construction authorization stage will be as described in the GDOT TOPPS Directive 4050 "Preconstruction Project Plan Development Process." This includes the procedures for public involvement and public hearings, and for the planning, funding, engineering, environmental, right-of-way, and administrative "steps" to develop final design plans for construction.

2. Right-of-Way.

All provisions of the Uniform Relocation Assistance and Real Property Acquisition Policies Act of 1970, as amended, and the implementing regulations of 49CFR Part 24 apply.

3. Application of Appropriate Design and Construction Standards.

Projects will be designed and constructed in accordance with accepted engineering practices and the below referenced standards and manuals. Design exceptions and variances developed and approved by GDOT will be required in those cases where the element does not meet minimum standards. Minimum standards for geometric design include the following controlling criteria: design speed, lane and shoulder widths, bridge widths, structural capacity, horizontal and vertical alignment, grades, stopping sight distance, cross slopes, superelevation, and horizontal (except for clear zone) and vertical clearances.

- a) 23 Code of Federal Regulations 625 (23 CFR 625) - Design Standards for Highways.
- b) GDOT Restoration, Rehabilitation, and Resurfacing Standards for Federal Projects.
- c) GDOT Manual on Drainage Design for Highways.
- d) GDOT Sampling, Testing and Inspection Manual.
- e) GDOT Standard Construction Details and GDOT Standard Plans used and maintained by GDOT and subject to [FHWA](#) approval.
- f) GDOT, Policy and Procedures for Accommodation of Utilities.
- g) GDOT TOPPS Directives 4265-2, "Bridge Widths - Interstate," 4265-8, Geometric Design Standards, Bridge Widening," 4265-9, Geometric Design Guide Local Roads and Streets," and 4265-10, 'Geometric Design Guide, Other than Interstate."

4. Emphasis on increasing safety in location, design and construction projects.

- a) 23 CFR 630, Subpart J - Traffic Safety in Highway and Street Work Zones.
- b) GDOT'S Highway Safety improvement program implemented in accordance with 23 U.S.C 152 and 23 CFR 924.
- c) The Special Bridge Replacement Program, 23 U.S.C 144.

5. Controls to assure quality and economy of construction and maintenance.

- a) GDOT Manual on Drainage of Highways.
- b) GDOT Sampling, Testing and Inspection Manual.
- c) GDOT Bridge, Culvert and Retaining Wall Construction Manual.
- d) GDOT Construction Manual.
- e) All construction contracts will incorporate the latest GDOT Standard Specifications and appropriate Special Provisions. All Special Provisions required by Federal Laws and Executive Orders will be incorporated in each contract.
- f) GDOT TOPPS Directive 2405- "Federal-aid Eligibility for BR and BH Projects."

6. Provision of adequate signing, marking and traffic control devices.

<http://mutcd.fhwa.dot.gov/HTM/2003r1/html-index.htm>

- a) [FHWA Manual of Uniform Traffic Control Devices.](#)
- b) 23 CFR 656, Subpart F - Traffic Control Devices on Federal-aid and Other Streets and Highways.

7. Minimizing adverse economic, social and environmental impacts of any project.
 - a) 23 CFR 770 - Air Quality Conformity and Priority Procedures for use in Federal-Aid Highway and Federally funded Transit Programs.
 - b) Clean Air Act Amendments of 1990 - Public Law 101 -549.
 - c) 23 CFR 771 - Environmental Impact and Related Procedures.
 - d) Uniform Relocation Assistance and Real Properties Acquisition Policies Act of 1970, as amended, 42 U.S.C 4601, 23 CFR Part 71 0 and 49 CFR Part 24.
 - e) TOPPS Directive 4050 - "Plan Development Process."

8. Equal employment opportunity, highway construction training, and nondiscrimination on the basis of sex.
 - a) 23 CFR 633 and 49 CFR 23.
 - b) GDOT TOPPS Directive 2820 and 2840.

9. Competitive bidding and payment of prevailing wage rates on construction contracts.
 - a) Bid requirements for advertisements, awarding and executing contracts and construction operations will be in accordance with the Official Code of Georgia, [Title 32, Chapter 2](#), excluding that provision which provides for negotiations.
 - b) Required Contract Provisions as given in 23 CFR 633, Subpart A except for Subletting or assigning the Contract, Subpart A, Appendix A, VII.

10. Preservation of natural beauty.
 - a) Control of Junkyards - IAW O.G.C.A 32-6 and Chapter 672-8 of the Rules of State DOT.
 - b) Control of Outdoor Advertising IAW the Official Code of Georgia, Chapter 6, Title 32 and Chapters 672-1, 672-6 and 672-7 of the Rules of the State DOT.
 - c) Rules and Regulations Governing the Granting, Renewal and Revocation of Permits for Outdoor Advertising. (Chapter 672-6 Rules of State DOT).

LOCAL GOVERNMENT COMPLIANCE

Services performed by local governments on projects covered by this Oversight Agreement typically include design work, right-of-way acquisition, force account work, let-to-contract work, environmental documentation, adjustment of utilities and traffic signalization work. Provisions for notifying local governments of the requirement to follow both Federal and State requirements, is the responsibility of GDOT. These responsibilities and requirements are contained in the Right-of-Way Manual, Relocation Assistance Manual, Utilities Manual and the Plan Development Process.

When a unit of local government becomes the implementing agency of a construction project in which GDOT participates in the funding by allocation of Federal highway funds, the GDOT will review local action for compliance with all requirements of Federal and State laws, Executive Orders and these Oversight Procedures.

PROFESSIONAL SERVICES CONTRACTS

The use of Professional Services Contracts will be in accordance with the Official Code of Georgia 50-22 Managerial Control over Acquisition of Professional Services and GDOT TOPPS Directive 4020 "Consultants/Service Contracts."

AVAILABILITY FOR REVIEW

All projects administered under this Oversight Agreement will be available for review by [FHWA](#). All project documents will be retained and available for inspection during the plan development and construction stages, and for a three-year period after submission of the final voucher for the project.

Submitted for Approval

(10/9/00)
Date

(signed)
Insert Commissioner, Commissioner
Department of Transportation
State of Georgia

Approved by the Federal Highway Administration

(10/17/00)
Date

(signed)
Insert Administrator Name
Federal Highway Administration
Georgia Division Administrator

**FHWA GEORGIA DIVISION AND GDOT OVERSIGHT RESPONSIBILITIES
NON-NATIONAL HIGHWAY SYSTEM**

October 1, 2000

| ACTIVITY | NEW/RECONSTRUCTION/3R |
|--|------------------------------|
| Preconstruction PE Authorization Design Standards Design Approvals Design Exceptions/Variances | GDOT GDOT GDOT GDOT |
| Environmental Document Approval PS&E Approval | FHWA GDOT |
| ROW Authorization Construction Authorization Force Account Approval ROW Encroachment Approval | GDOT GDOT GDOT GDOT |
| Concurrence in Award | GDOT |
| Construction Inspections Supplemental Agreement Approval Claims | GDOT GDOT GDOT |
| Final Inspection Project Acceptance | GDOT GDOT |
| <p style="text-align: center;">General Comments</p> <ol style="list-style-type: none"> 1. Where GDOT is listed indicates that the Georgia Department of Transportation has full responsibility (except environmental) for the development and implementation of Non-NHS projects. 2. All Non-NHS Federal Lands projects shall be FHWA Full Oversight. 3. All Non-NHS Intelligent Transportation or Traffic Operations Projects shall be exempt from FHWA Oversight. All Transportation Control Center Projects shall be FHWA Full Oversight. 4. FHWA shall be consulted to determine oversight responsibility on any Non-NHS project that includes unusual hydraulic structures, unusual geotechnical features, vehicular and drainage tunnels, moveable bridges or bridges with a total deck area over 125,000 sf. | |

**FHWA GEORGIA DIVISION AND GDOT OVERSIGHT RESPONSIBILITIES
NATIONAL HIGHWAY SYSTEM**

October 1, 2000

| ACTIVITY | INTERSTATE New/Reconstruction/3R | NON-INTERSTATE New/Reconstruction/3R |
|---------------------------------|---|---|
| Preconstruction | | |
| PE Authorization | FHWA | GDOT |
| Design Standards | FHWA | FHWA and GDOT |
| Design Approvals | FHWA | GDOT |
| Design Exceptions/Variances | FHWA | GDOT |
| Environmental Document Approval | FHWA | FHWA |
| PS&E Approval | FHWA | GDOT |
| ROW Authorization | FHWA | GDOT |
| Construction Authorization | FHWA | GDOT |
| Force Account Approval | FHWA | GDOT |
| ROW Encroachment Approval | FHWA | GDOT |
| Concurrence in Award | FHWA | GDOT |
| Construction | | |
| Inspections | FHWA | GDOT |
| Supplemental Agreement Approval | FHWA | GDOT |
| Claims | FHWA | GDOT |
| Final Inspection | FHWA | GDOT |
| Project Acceptance | FHWA | GDOT |

General Comments

1. Where FHWA is listed indicates that the FHWA Georgia Division has final approval authority.
2. Where GDOT is listed indicates that the Georgia Department of Transportation has full responsibility (except environmental) for the development and implementation of Non-Interstate NHS projects.
3. All NHS (Interstate and Non-Interstate) Federal Lands, Intelligent Transportation Systems (including Control Centers) and Selected High Priority Projects will be FHWA Full Oversight Projects.
4. All projects and access issues associated with the Appalachian Development Highway System will be FHWA Full Oversight.
5. FHWA Shall be consulted to determine oversight responsibility on any NHS project that includes unusual hydraulic structures, unusual geotechnical features, vehicular and drainage tunnels, moveable bridges or bridges with a total deck area over 125,000 sf.
6. All Interstate projects shall be designed in accordance with current AASHTO Interstate standards and procedures.
7. Non-Interstate NHS new construction and reconstruction projects or any NHS multi-lane limited access highway projects shall be designed in accordance with current AASHTO Policies and procedures.
8. NHS 3R projects, other than on Interstates or other multi-lane limited access highways, shall be constructed in accordance with current AASHTO standards or FHWA approved GDOT standards.
9. The Federal Transit Administration will have Full Oversight for all Commuter Rail Projects.

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APPENDIX B**Need for and Purpose of the Action**
(Need and Purpose)

A Need and Purpose Statement will identify and describe the proposed action and the transportation problem(s) or other needs that the action is intended to address (40 CFR 1502.13). This section should clearly demonstrate that a "Need" exists and should define the "Need" in terms understandable to the general public. This statement should identify the critical issues as well as any secondary benefits. Data and discussion must be provided to support each conclusion.

This discussion should clearly describe the problems that the proposed action is to correct. It will form the basis of the Alternatives discussion in the "Alternatives" section of the environmental document, including the "No action" discussion, and assist with the identification of reasonable alternatives and the selection of the preferred alternative. While project impacts are compared to one another, project impacts also are weighed against the stated Need and Purpose (i.e., is the need great enough to warrant the impacts on the environment). Charts, tables, maps, and other illustrations (e.g., typical cross-section, photographs, etc.) are encouraged as useful presentation techniques.

The Need and Purpose Statement does not describe in detail a proposed project!

Elements that must be included in a sound "Need and Purpose Statement" are as follows. It is by no means all-inclusive and is intended only as a guide.

1. Planning background and Project history:
 - A. Project Status - Briefly describe the project history including actions taken to date, other agencies and governmental units involved, action spending, and schedules.
2. Logical termini discussion should include traffic generators at the termini (if applicable), existing typical sections at the termini, as well as, demonstrate that the project:
 - A. Connects logical points and is of sufficient length,
 - B. Has independent utility, and
 - C. Does not restrict consideration of alternatives for other reasonably foreseeable improvements.
3. Traffic:
 - A. Existing and design year.
 - B. Capacity:
 - i. Is the capacity of the present facility inadequate for the present traffic?
 - ii. What capacity is needed?
 - iii. What are the levels of service for the existing facility, Preferred Alternative, and "No-Build Alternative"?
4. General land use in the project area, context and setting of the project.
5. Identification of any known Environmental Justice or other community concerns.
6. Relationship to statewide and local transportation plan(s) (if in an area where they exist):
 - A. [Transportation Improvement Program \(TIP\)](#).
 - B. [State Transportation Improvement Program \(STIP\)](#).
 - C. Regional Transportation Plan (RTP) references.
 - D. List other projects identified in the vicinity of the proposed project.

Elements that must be included, if these issues form the basis of the transportation problem being addressed:

1. Safety:
 - a. Is the proposed project necessary to correct an existing or potential safety hazard?
 - b. Is the existing accident rate excessively high?
 - i. Accident data to substantiate this concern - raw
 - ii. Numbers and comparison to statewide averages as well as types of accidents
 - c. How will the proposed project improve it?
2. Roadway Deficiencies
 - a. Is the proposed project necessary to correct existing roadway deficiencies?
 - i. Substandard geometry
 - ii. Load limits on structures
 - iii. Inadequate cross-section
 - iv. High maintenance costs, or
 - v. Provide alternative transportation modes
 - b. How will the proposed project improve it?

Other elements that may be appropriate and could be added to bolster the Project's Need and Purpose.

1. System Linkage:
 - a. Is the proposed project a "connecting link?"
 - b. How does it fit in the transportation system?
2. Legislation - Is there a Federal, State, or local governmental mandate for the action?
3. Social Demands or Economic Development:
 - a. New employment, schools, land use plans, recreation, etc.
 - b. What projected economic development/land use changes indicate the need to improve or add to the highway capacity?
4. Modal Interrelationships - How will the proposed facility interface with and serve to complement airports, rail and port facilities, mass transit services, etc.?

The Need and Purpose may be updated as the project analysis progresses.

APPENDIX C**Concept Reports**

To assist the Team Leader in completing the Concept Report, the following information is herein provided:

A. Full Oversight (FOS)/Exempt/State Funded (SF) - The designations for Full Oversight and Exempt are provided in coded form in The Department's Project Management System under the field labeled "Exempt." The reference to Exempt projects under this definition does not refer to Air Quality exempt projects. These designations relate to federally funded projects only. The SF designation is to be selected for projects for which state funds, such as EDS or MLP, are programmed.

B. Plan Development Process (PDP) Classification and Time Saving Procedures - Projects are Plan Development Process (PDP) classified as either Major or Minor Projects.

- A Major Project is one for which Time Saving Procedures are not appropriate. A Public Hearing, or Opportunity for a Public Hearing, and Location and Design approval are required. A Major Project requires the acquisition of significant amounts of right-of-way, substantially changes the functions of the facility being improved, has a significant impact on abutting property, has significant changes in travel patterns, or has significant social, economic, or environmental effects.
- For a Minor Project, Time Saving Procedures are appropriate. When the concept for a Minor Project is approved, the Location and Design for the project is approved. For this reason the "Other Alternates Considered" section of the Concept Report will be carefully considered and the recommended concept justified.

Federal Agencies to Invite to Concept Meetings

The Project Manager will extend an invitation, as appropriate, to the following Federal Agencies to attend the Concept meeting:

- Division Administrator
Federal Highway Administration
61 Forsyth Street, SW
Suite 17T100
Atlanta, Georgia 30303
- Regional Administrator
Federal Transit Administration
61 Forsyth St, SW
Suite 17T50
Atlanta, GA. 30303

The Office of Environment/ Location will extend an invitation, as appropriate, to the following Federal Agencies to attend Concept Meetings:

- Chief of Wetlands Regulatory Section
Environmental Protection Agency
345 Courtland Street, NE

Atlanta, Georgia 30365

- Chief of Regulatory Functions Branch
U. S. Army Corps of Engineers
P. O. Box 889
Savannah, Georgia 31402
- U. S. Department of the Interior
Fish and Wildlife Service
Room 334, Federal Building
801 Gloucester Street
Brunswick, Georgia 31520
- National Marine Fisheries Service
Habitat Conservation Division
P. O. Box 12607
Charleston, South Carolina 29422
- EPA
Region IV
345 Courtland Street
Atlanta, Georgia 30365

Example Concept Report Transmittal Letter

DEPARTMENT OF TRANSPORTATION STATE OF GEORGIA

INTERDEPARTMENT CORRESPONDENCE

| | | | |
|------|----------------------------------|--------|------|
| FILE | <i>Project Number and County</i> | OFFICE | |
| | <i>P. I. Number</i> | | DATE |

FROM: *Office Head*
 TO: *Assistant Director of Preconstruction*
 SUBJECT *Project Concept Report*

Attached is the original copy of the Concept Report for your further handling for approval in accordance with the Plan Development Process (PDP).

Distribution:

- For those concepts prepared in the District:
 - Project Review Engineer*
 - State Environment/Location Engineer*
 - State Traffic Safety and Design Engineer*
 - State Transportation Planning Administrator*
 - State Transportation Financial Management Administrator*
 - State Bridge Design Engineer (only for those projects that involve structures)*

- For those concepts prepared at Environment/Location:
 - Project Review Engineer*
 - State Traffic Safety and Design Engineer*
 - State Transportation Planning Administrator*
 - State Transportation Financial Management Administrator*
 - State Road and Airport Design Engineer or State Urban Design Engineer*
 - District Engineer*
 - State Bridge Design Engineer (only for those projects that involve structures)*

- For those concepts prepared in the Office of Road Design, Office of Urban Design, Office of Program Delivery and Consultant Design, or Office of Traffic Safety and Design:
 - Project Review Engineer*
 - State Environment/Location Engineer*
 - State Traffic Safety and Design Engineer*
 - State Transportation Planning Administrator*
 - State Transportation Financial Management Administrator*
 - District Engineer*
 - State Bridge Design Engineer (only for those projects that involve structures)*

Example of a Concept Report

DEPARTMENT OF TRANSPORTATION STATE OF GEORGIA

Office

PROJECT CONCEPT REPORT

Project Number:

County:

P. I. Number:

Federal Route Number:

State Route Number:

Regional or Wide area location sketch and Project Description

Recommendation for approval:

DATE _____

Project Manager

DATE _____

Office Head/District Engineer

The concept as presented herein and submitted for approval is consistent with that which is included in the Regional Transportation Program (RTP) and/or the [State Transportation Improvement Program \(STIP\)](#).

DATE _____

State Transportation Planning Administrator

DATE _____

State Transportation Financial Management Administrator

DATE _____

State Environment/Location Engineer

DATE _____

State Traffic Safety and Design Engineer

DATE _____

District Engineer

DATE _____

Project Review Engineer

DATE _____

Other Offices as required such as; Bridge Design, etc.

Project Concept Report page _____

Project Number:

P. I. Number:

County:

*Include a project location sketch or map
sufficient to locate the project and it's beginning and
ending points.*

Project Concept Report page _____
Project Number:
P. I. Number:
County:

Need and Purpose: *As provided by the Office of Planning or the Office of Environment/Location*

Description of the proposed project: *Includes the proposed length of the project, beginning and ending mile logs for each county segment, and a general location of the project including any city and county limits or proximity thereto. Also include a brief discussion about the logic for establishing the termini and how the concept proposes to satisfy the Need and Purpose.*

Is the project located in a Non-attainment area?**Yes****No**. *If yes, provide a comparison between the proposed project concept and the conforming plan's model description. Include such features as project limits, number of through lanes, proposed open to traffic year, etc.*

PDP Classification: Major _____ Minor _____

Federal Oversight: Full Oversight (), Exempt(), State Funded(), or Other ()

Functional Classification: _____

U. S. Route Number(s): _____ **State Route Number(s):** _____

Traffic (AADT):
Current Year: (20XX) Design Year: (20YY).....

Existing design features:

- Typical Section: *(Describe number & width of lanes, turn lanes, curb & gutter, sidewalks, etc.)*
- Posted speed mph Minimum radius for curve:
- Maximum super-elevation rate for curve: _____
- Maximum grade: % (List mainline, cross roads, and driveways)
- Width of right-of-way: ft.
- Major structures: (List all bridge structures including length, width, and sufficient rating).
- Major interchanges or intersections along the project:
- Existing length of roadway segment and the beginning mile logs for each county segment. For new location projects, the existing length of roadway is zero (0).

Project Concept Report page _____
Project Number:
P. I. Number:
County:

Proposed Design Features:

- Proposed typical section(s): *(Describe number & width of lanes, turn lanes, curb & gutter, sidewalks, etc.)*
- Proposed Design Speed Mainline _____ mph
- Proposed Maximum grade Mainline _____% Maximum grade allowable _____%
- Proposed Maximum grade Side Street _____% Maximum grade allowable _____%
- Proposed Maximum grade driveway _____%
- Proposed Maximum degree of curve _____ Maximum degree allowable _____
- Right-of-Way
 - Width _____
 - Easements: Temporary (), Permanent (), Utility (), Other ().
 - Type of access control: Full (), Partial (), By Permit (), Other ().
 - Number of parcels: _____ Number of displacements:
 - Business: _____
 - Residences: _____
 - Mobile homes: _____
 - Other: _____
- Structures:
 - Bridges *(Describe)*
 - Retaining walls *(Describe alternates)*
- Major intersections and interchanges.
- Traffic control during construction: *Include a description of any proposed detours.*
- Design Exceptions to controlling criteria anticipated:

| | <u>UNDETERMINED</u> | <u>YES</u> | <u>NO</u> |
|-----------------------------|---------------------|------------|-----------|
| HORIZONTAL ALIGNMENT: | () | () | () |
| ROADWAY WIDTH: | () | () | () |
| SHOULDER WIDTH: | () | () | () |
| VERTICAL GRADES: | () | () | () |
| CROSS SLOPES: | () | () | () |
| STOPPING SIGHT DISTANCE: | () | () | () |
| SUPERELEVATION RATES: | () | () | () |
| HORIZONTAL CLEARANCE: | () | () | () |
| SPEED DESIGN: | () | () | () |
| VERTICAL CLEARANCE: | () | () | () |
| BRIDGE WIDTH: | () | () | () |
| BRIDGE STRUCTURAL CAPACITY: | () | () | () |

Project Concept Report page _____

Project Number:

P. I. Number:

County:

This area of the Concept Report is for the indication of potential deviations from the controlling criteria followed by the Department. A brief description of the potential deviation should be included in the report. A design exception must be granted for design exceptions.

- Design Variances (*List design variances expected*).
- Environmental concerns (*Describe anticipated permits (Section 404, TVA, Water quality, etc.), ust's, hazardous waste sites, history, archaeological, etc.*).
- Level of environmental analysis:
 - Are Time Savings Procedures appropriate? Yes (), No (),
 - Categorical exclusion (),
 - Environmental Assessment/Finding of No Significant Impact (FONSI) (), or
 - Environmental Impact Statement (EIS) ().
- Utility involvements: (*Communications, Power, Gas, Petroleum, ITS, Railroads, etc.*)

VE Study Required Yes() No()

Project responsibilities:

- Design
- Right-of-Way Acquisition
- Relocation of Utilities
- Letting to contract
- Supervision of construction
- Providing material pits
- Providing detours

Coordination

- Initial Concept Meeting date and brief summary. Attach minutes.
- Concept meeting date and brief summary. Attach minutes.
- P A R meetings, dates and results.
- FEMA, USCG, and/or TVA
- Public involvement. (*List coordination meetings with citizen groups, public officials, and public hearings and public information open house meetings. Give a brief summary of the significant meetings and the results and decisions as a result thereof.*)
- Local government comments. (*Give a brief summary and attach minutes.*)
- Other projects in the area.
- Railroads (*Discuss the ownership and the future use of the railroad.*)
- Other coordination to date.

Project Concept Report page _____

Project Number:

P. I. Number:

County:

Scheduling – Responsible Parties' Estimate

- Time to complete the environmental process: _____Months.
- Time to complete preliminary construction plans: _____Months.
- Time to complete right-of-way plans: _____Months.
- Time to complete the Section 404 Permit: _____Months.
- Time to complete final construction plans: _____Months.
- Time to complete to purchase right-of-way: _____Months.
- List other major items that will affect the project schedule: _____Months.

Other alternates considered: *(Describe in summary and coordinate with environmental. If rejected ensure environmental is in agreement).*

Comments: *As appropriate*

Attachments:

1. Cost Estimates:
 - a. Construction including E&C,
 - b. Right-of-Way, and
 - c. Utilities.
2. Sketch location map,
3. Typical sections,
4. Accident summaries,
5. Capacity analysis,
6. Bridge inventory,
7. Minutes of Initial Concept and Concept meetings,
8. Minutes of any meetings that show support or objection to the concept,
9. PFA's or SAA's,
10. Location and Design Notice (On Minor Projects),
11. Conforming plan's network schematics showing thru lanes, (Note: This attachment is required for non-attainment areas only.), and
12. Other items referred to in the body of the report.

Project Concept Report page _____
Project Number:
P. I. Number:
County:

SCORING RESULTS AS PER TOPPS 2440-2

| | | | | | |
|---|--------------|--|--|--|--|
| Project Number: | | County: | | PI No.: | |
| Report Date: | | Concept By: | | | |
| <input type="checkbox"/> CONCEPT | | DOT Office: | | | |
| | | Consultant: | | | |
| Project Type: Choose One From Each Column | | <input type="checkbox"/> Major <input type="checkbox"/> Minor | <input type="checkbox"/> Urban <input type="checkbox"/> Rural | <input type="checkbox"/> ATMS <input type="checkbox"/> Bridge <input type="checkbox"/> Building <input type="checkbox"/> Interchange <input type="checkbox"/> Intersection <input type="checkbox"/> Interstate <input type="checkbox"/> New Location <input type="checkbox"/> Widening & Reconstruction <input type="checkbox"/> Miscellaneous | |
| FOCUS AREAS | SCORE | RESULTS | | | |
| Presentation | | | | | |
| Judgement | | | | | |
| Environmental | | | | | |
| Right-of-Way | | | | | |
| Utility | | | | | |
| Constructability | | | | | |
| Schedule | | | | | |

Revised Project Concept Report Transmittal Letter

DEPARTMENT OF TRANSPORTATION STATE OF GEORGIA

INTERDEPARTMENT CORRESPONDENCE

FILE *Project Number and County* OFFICE
P. I. Number DATE

FROM: *Office Head*
TO: *Assistant Director of Preconstruction*
SUBJECT *Revised Project Concept Report*

Attached is the original copy of the Revised Concept Report for your further handling for approval in accordance with the Plan Development Process (PDP).

Provide a brief description of the significant changes in the concept and the reasons for the changes.

The revised concept as presented herein and submitted for approval is consistent with that which is included in the Regional Transportation Program (RTP) and/or the [State Transportation Improvement Program \(STIP\)](#).

DATE _____
State Transportation Planning Administrator

Distribution:

- For those concepts prepared in the District:
 - Project Review Engineer*
 - State Environment/Location Engineer*
 - State Traffic Safety and Design Engineer*
 - State Transportation Planning Administrator*
 - State Transportation Financial Management Administrator*
 - State Bridge Design Engineer (only for those projects that involve structures)*
- For those concepts prepared at Environment/Location:
 - Project Review Engineer*
 - State Traffic Safety and Design Engineer*
 - State Transportation Planning Administrator*
 - State Transportation Financial Management Administrator*
 - State Road and Airport Design Engineer or State Urban Design Engineer*
 - District Engineer*
 - State Bridge Design Engineer (only for those projects that involve structures)*
- For those concepts prepared in Office of Road Design, Office of Urban Design, Office of

Program Delivery and Consultant Design, or Office of Traffic Safety and Design:

Project Review Engineer

State Environment/Location Engineer

State Traffic Safety and Design Engineer

State Transportation Planning Administrator

State Transportation Financial Management Administrator

District Engineer

State Bridge Design Engineer (only for those projects that involve structures)

Example of Revised Concept Report

REVISED PROJECT CONCEPT REPORT

Need and Purpose: *As provided by the Office of Planning or the Office of Environment/Location*

Project location: *Includes the proposed length of the project, beginning and ending mile logs for each county segment, and a general location of the project including any city and county limits or proximity there to.*

Description of the approved concept:

PDP Classification: Major _____ Minor _____

Federal Oversight: Full Oversight (), Exempt(), State Funded(), or Other ()

Functional Classification:

U. S. Route Number(s): _____ **State Route Number(s):** _____

Traffic (AADT) as shown in the approved concept:

Current Year: _____ Design Year: _____

Proposed features to be revised: *Describe the feature or features of the approved project concept to be revised and the reasons for the revision. Use the description contained in the most recent Concept Report or revised Concept Report. This paragraph will describe one or more of the following items:*

- *Typical section,*
- *Project termini,*
- *Changes in right-of-way limits which may affect the analyses of:*
 - *Historic resources,*
 - *Endangered species,*
 - *Air quality, or*
 - *Noise studies,*
- *Revised alignment (from a widening project to new location project or vice versa, at-grade intersection to grade separation, etc), or*
- *Access control, or*
- *Controlling criteria.*

Describe the revised feature(s) to be approved: *Describe the revised feature(s). Revised Concept Reports will only be submitted for the six items listed above. If the project termini are revised, new milepost beginning and/or ending points will be provided.*

Updated traffic data (AADT):

Current Year: _____ Design Year: _____

Programmed/Schedule:

P.E. _____ R/W: _____ Construction: _____

VE Study Required Yes() No()

Revised cost estimates:

1. Construction cost including inflation and E&C,
2. Right-of-Way, and
3. Utilities

Is the project located in a Non-attainment area?**Yes****No**. *If yes, provide a comparison between the proposed project concept and the conforming plan's model description. Include such features as project limits, number of through lanes, proposed open to traffic year, etc.*

Recommendation: Recommend that the proposed revision to the concept be approved for implementation.

Attachments:

1. Sketch Map,
2. Cost Estimate,
3. Conforming plan's network schematics showing thru lanes, (Note: This attachment is required for non-attainment areas only.), and
4. Other supporting documents.

• **Exempt projects**

Concur: _____
Director of Preconstruction

Approve: _____
Chief Engineer

Or

• **Full Oversight Projects**

If the project has full Federal oversight, the signature blocks should include the following:

Concur: _____
Director of Preconstruction

Approve: _____
Division Administrator, FHWA

Approve: _____
Chief Engineer

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APPENDIX E

Location and Design Approval

Requirements for Advertising

A Location and Design Report and a Notice of Location and Design approval will be required for all Major Projects that require additional right-of-way. On Minor Projects, the Notice of Location and Design approval will be attached to the Concept Report.

For Major and Minor Projects, the Notice of Location and Design approval shall be advertised:

- Within 30 days of location approval,
- Once a week for four consecutive weeks,
- In each county involved, and
- In the newspaper in which the Sheriff's advertisements are carried.

The Notices shall state:

- The Land Lots or Land Districts within which the project is located,
- That a map is available for Review at the Office of the Department of Transportation (GDOT), and
- That a copy may be obtained from the Project Manager's office at a nominal fee.

The Location and Design (L&D) approval date will be shown on the right-of-way plan cover sheet.

The Location and Design (L&D) approval date shall be shown in any petition for condemnation.

Example of Request for Location and Design Approval

DEPARTMENT OF TRANSPORTATION STATE OF GEORGIA

INTERDEPARTMENT CORRESPONDENCE

FILE *Project Number and County* OFFICE *Design Office*
P.I. Number DATE *Date*

FROM: *Project Manager*
TO: *Assistant Director of Preconstruction*
SUBJECT *Request for Location and Design Approval*

Description and Project Proposal: *Provide a general description of the project including the length of the project, beginning and ending mile logs, and a general location of the project including any city and county limits or proximity there to and describe the proposed typical sections and other major improvements to be constructed.*

Concept Approval Date: *For this date, refer to project files or the Project management System.*

Concept Update: *Describe briefly any changes made after the approval of the Concept Report or revised Concept Report. Be specific. The L&D approval will also serve as approval of the revised concept.*

Environmental Assessment and Reassessment Approval Date: *Refer to a Project Management System or contact the Office of Environment/Location for this date.*

Public Involvement: *(Refer to the project files or the Office of Environment/Location's documentation, which provides this information)*

- **Hearing Results:**
 - *Report the date and location of the public hearing and summarize the comments offered by persons attending the hearing,*
 - *Report the number of comments opposing or supporting the project (briefly summarize),*
 - *The total number of comments received,*
 - *The total number of attendees including any public officials in attendance, and*
 - *Briefly describe the major changes made as a result of the comments received at the public hearings.*
- **Public Information Open House**
 - *If any public information open house meetings were held for the project, provide a synopsis of the results of those meetings similar to the comments made for public hearings.*

Consistency with Approved Planning:

Example of L & D “Notice”

NOTICE OF LOCATION AND DESIGN APPROVAL

PROJECT NUMBER AND COUNTY

P. I. NUMBER

Notice is hereby given in compliance with Georgia Code 22-2-109 that the Georgia Department of Transportation has approved the Location and Design of this project.

The date of location approval is *(To be inserted by the Assistant Director of Preconstruction after approval by the Chief Engineer.)*

The Project Manager is to use this paragraph to give a basic overall description of the project and the county or counties and the Land Lots or the Land Districts wherein it is located. All numerical units shall be in English units.

The Project Manager is to use this paragraph to describe the proposed construction, be brief but be specific.

Drawings or maps or plats of the proposed project, as approved, are on file and are available for public inspection at the Georgia Department of Transportation:

*Area Engineer's Name
E-mail Address
Street Address
Telephone number*

Any interested party may obtain a copy of the drawings or maps or plats or portions thereof by paying a nominal fee and requesting in writing to:

*Project Manager's Name
Office
E-mail Address
Mailing Address
Telephone number*

Any written request or communication in reference to this project or notice SHOULD include the Project and P. I. Numbers as noted at the top of this notice.

APPENDIX F-1**Request for a Preliminary Field Plan Review Inspection**

For the official documentation on Preliminary Field Plan Review requirements, see [TOPPS 2440-1](#), Field Plan Review Inspections.

The Project Manager will submit a request for a Preliminary Field Plan Review (PFPR) to the Office of Engineering Services.

The request for a Preliminary Field Plan Review (PFPR) must include the following:

- Transmittal letter describing the project.
- Attached Checklist (TOPPS 2440-1)
- Letter from the Office of Environmental/Location addressing the status of the environmental document and the public hearing including the date that the NEPA or [GEPA](#) Document was approved
- Written certification that the current design for the proposed project is consistent with the TRP/[TIP/STIP](#)
- Plans (one full size set and one half size set) including the following:
 - Cover sheet
 - Typical sections
 - Pavement limits
 - Horizontal alignments
 - Vertical alignments
 - Cross sections
 - Construction limits
 - Right-of-Way and easements
 - Existing utilities
 - Preliminary Water and Sewer Plans (to be included in the Contract)
 - Drainage, including profiles and cross sections (culverts, pipes, ditches, and channels)
 - Staging plans
 - Preliminary bridge layouts
 - Retaining wall locations and wall envelopes
 - Preliminary Signal and Signing and Marking Plans, including Strain poles, WCR's and islands
 - Driveways and driveway profiles
 - Sediment basins (location, size, calculations, and footprint)
 - Detention basins (location, size, calculations, and footprint)
 - Erosion control plans based on the staging required
- Project Specific Special Provisions
- Drainage calculations including Sediment and Detention Basin calculations
- Hydraulic studies
- Capacity analysis of major intersections
- Approved Soil survey report
- Bridge Foundation Investigations (BFI) reports if available
- Preliminary earthwork calculations

- Preliminary Project Cost Estimate (Construction, Right-of-Way and Utilities)

Note: Failure to provide adequate plans and all of the required information with the Preliminary Field Plan Review Inspection request will delay the scheduling of the Inspection.

SCHEDULING OF THE PRELIMINARY FIELD PLAN REVIEW INSPECTION

The Office of Engineering Services will schedule the Field Plan Review. The Office of Engineering Services will discuss the project with the Project Manager and will then select a Core Team and Coordinators. In consultation the Office of Engineering Services, Core Team members, and Coordinators will select the offices, appropriate to the project that will be required to send a representative to the Preliminary Field Plan Review (PFPR).

The Office of Engineering Services will include in the scheduling letter the following:

- Identification of Core Team members.
- Identification of Coordinators - Personnel responsible for obtaining the information and providing the coordination necessary for the field plan review effort.
- Time, date & location of meeting
- Project description

APPENDIX F-2**Request for a Final Field Plan Review Inspection**

For the official documentation on Final Field Plan Review requirements, see [TOPPS 2440-1](#), Field Plan Review Inspections.

The Project Manager will submit a request for a Final Field Plan Review ([FFPR](#)) to the Office of Engineering Services.

The request for a Final Field Plan Review ([FFPR](#)) must include the following:

- Transmittal letter describing the project.
- Written certification that the current design for the proposed project is consistent with the RTP/[TIP/STIP](#)
- Attached Checklist (TOPPS 2440-1)
- **Completed** (one full size and one half size)
 - **All** plans that will be part of the contract must be submitted. Examples are:
 - Roadway plans
 - Bridge Plans
 - Retaining Wall Plans
 - Noise Wall Plans and Details
 - Signing and Marking Plans
 - Erosion, Sedimentation and Pollution Plan and Comprehensive Monitoring Plan
 - Traffic Signal Plans
 - Staging Plans
 - Lighting Plans
 - Utility Plans (including water and sewer relocation plans)
 - Restoration/Mitigation Plans
 - Sediment Basin Construction Details
 - Detention Basin Details,
- All Project Specific Special Provisions
- Letter from the Office of Environment/Location stating the conditions in the environmental document and that the conditions of any environmental permits have been adequately addressed by the plans and specifications.
- Approved pavement design,
- Bridge Foundation Investigation (BFI) report
- Earthwork calculations
- Project Cost Estimate (Construction)

Note: Failure to supply complete plans and Project Specific Special Provisions, and all of the required information with Final Field Plan Review Inspection request will delay the scheduling of the Inspection.

The Office of Engineering Services will determine the scope of the Final Field Plan Review ([FFPR](#)) (full office and field review, office review only, e-mail conference only, no Final Field Plan Review ([FFPR](#)) required, or any combination thereof) and schedule, coordinate, and conduct the appropriate review.

SCHEDULING OF THE FINAL FIELD PLAN REVIEW INSPECTION

The Office of Engineering Services will schedule the Field Plan Review. The Office of Engineering Services will include in the scheduling letter the following:

- Identification of offices requested to send representatives.
- Identification of Coordinators - personnel responsible for obtaining the information and providing the coordination necessary for the field plan review effort.
- Time, date and location of meeting
- Project description

APPENDIX G**Procedures to Prepare Noise Impact Assessments in
Compliance With the Federal Highway Administration's
Guidelines---23CFR Part 772**

A noise impact assessment will be made in compliance with 23 CFR Part 772, the Federal Highway Administration's guidelines for the assessment of highway traffic-generated noise. The procedures described below are used to prepare traffic noise impact assessments in accordance with these guidelines.

A. For a typical project (e.g., one that adds capacity to the highway/adds thru lanes), the development of a noise-distance graph shall be required to determine existing and design year Build Alternative and No-Build Alternative noise levels.

Using [FHWA](#) noise prediction model, STAMINA 2.0, compute levels and plot results on noise-distance graph. Determine existing, Build Alternative, and No-Build Alternative, noise levels for all adjacent sites by measuring the site's distance from the centerline and reading the noise level at that distance on the graph. NOTE: The reference energy mean emission levels used by Georgia shall be used in the STAMINA 2.0 program, otherwise, the program shall overestimate the noise levels.

B. For new location projects, existing noise levels shall be measured, especially if there is insufficient traffic data to compute noise levels from existing roads in the area. Only noise meters, which have been annually certified as to proper calibration, shall be used to take readings.

C. Assess impacts by comparing existing noise levels with predicted levels for both the Build Alternative and No-Build Alternatives conditions. Impacts occur where predicted noise levels approach (69.5 dBA L10) or exceed the applicable noise abatement criterion (70 dBA L10 for residences, schools, parks, etc., and 75 dBA L10 for businesses) and where a substantial (greater than 10 decibels) increase over existing levels is predicted.

D. Prepare a written noise report.

E. Where impacts occur, analysis of abatement measures, including all the measures listed in 23 CFR Part 772, must be documented. Where it appears that they would be reasonable and feasible, noise barriers shall be analyzed in a written report by giving location, height, length, total cost, cost per impact, and decibel reduction anticipated.

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APPENDIX H**Ecology Requirements for Project Area Study**

A. **Possible Threatened and Endangered Species** - The following process to locate and identify possible threatened and endangered species in the project area will be followed:

1. Research of available environmental background data for protected species shall be accomplished. The review shall include those federally listed or those proposed for federal listing (status review) as threatened or endangered species. The most recent protected species lists issued on a county-by-county basis by the U. S. Fish and Wildlife Service shall be obtained and a determination shall be made of any such species whose range includes the project corridor. Determination shall also be made, using existing environmental data (aerial photographs and topographic, vegetation, National Wetland Inventory, geological, and soils maps), as to the presence of supportive habitat of those species within the project corridor.

This research shall provide information required determining the likelihood of locating a particular species within the project corridor and, if so, where it would most likely occur.

Other potential resources to consult for presence of federally protected species include the Georgia Department of Natural Resources' (GDNR) Natural Heritage Inventory and GDNR Game and Fish Division.

2. Regardless of the results of the background research, the project corridor shall be field surveyed and ground verified for presence of federally protected plant and animal species and their habitat, and general land conditions so as to permit mapping of general vegetation zones along the project corridor. All habitats capable of supporting protected species shall be thoroughly examined for federally protected species and any such species identified or sited shall be noted and their locations field mapped on aerial photography.

The extent of any federally protected plant community or animal nesting, roosting, or foraging sites shall be mapped on aerial photography.

3. An Ecology Assessment report shall be prepared which must contain a description of the project corridor, protected species survey techniques, results of the survey, and a set of photo-layouts with clear delineation of protected species habitat or sightings.

A review will be made of the appropriate River Basin Study published by the GDNR for the project corridor. A determination will be made of which Water Quality Management Unit(s) is involved, the water quality classification of any streams crossed by the project, and if there are any surface water intakes within the project area. If there are any water intakes within the project area, an assessment will be made of the effects the project will have on the intakes. A determination will also be made if any of the streams crossed by the project are classified as "Wild and Scenic" or as "Trout Streams." If any exist, the necessary measures to minimize harm and what mitigation measures may be needed (e.g., stream restoration, vegetative buffer zones, strict erosion and sedimentation control measures, etc.), will be determined. Any impacts to streams must be documented and avoidance/minimization considered and mitigation of any unavoidable impacts provided.

B. Consideration for Stream Impacts will be made as follows:

1. Identify and document all non-wetland waters of the U.S. located within the project right-of-way. Prior to performing field surveys to delineate non-wetland waters of the United States, existing Project Corridor environmental data shall be examined. Such data, where available, shall include location maps and aerial photography. Existing environmental data shall also be utilized to identify and propose suitable compensatory stream mitigation sites capable of compensating for all associated impacts to live streams identified during surveys. Environmental data shall include, but not be limited to, aerial photography, U.S. Fish and Wildlife Service National Wetland Inventory Maps, Natural Resource Conservation Service county soil surveys, United States Geological Survey topographic maps, NRCS Hydrologic Unit & Sub-Watersheds Maps, and county tax maps.
2. Survey of Non-Wetland Waters of the U.S.: The names of streams which are crossed, or whose tributaries are crossed by the Project Corridor shall be reported. All perennial streams and intermittent streams shall be investigated so that a description of the channel substrate, bed and bank dimensions and morphology, representative depth of water, and the width and character of riparian vegetation on the left and right banks (looking downstream) can be made. Each river and stream shall be classified as perennial or intermittent according to field investigation and designation on USGS topographic maps. Impacts to each stream within the project right-of-way shall be determined and reported in linear feet.

All natural and man made ponds, lakes, mine pits, or any other waters of the United States shall be investigated so that descriptions can be made in the report. The surface area dimensions of such waters of the United States to be impacted within proposed project rights-of-way shall be investigated and reported in acres and hectares. Whether ponds or lakes are natural or man made, and whether they are man made and used for farming activity shall be determined and reported. Whether mine pits are active or inactive shall also be determined and reported.

3. The ecology report must contain a description of the background research carried out; the survey requirements; the survey techniques utilized for non-wetland waters of the United States; and the results of the surveys. The report shall contain:
 - a. A graphic location map utilizing 1"=2000' USGS topographic quad based maps shall be prepared illustrating potential stream mitigation sites. The graphic rendering shall not be so coarse as to visually obstruct important terrain or environmental mapping features. The graphics included in the report shall not use any color-coding systems, which would require color photocopying for any subsequent submittals to reviewing agencies.
 - b. A discussion and general description of all streams and other non-wetland waters of the U.S. found within the Project Corridor as described previously. All non-wetland waters of the U.S. occurring within the project corridor shall be numbered sequentially.
 - c. A chronological non-wetland stream/waters of the U.S. crossing summary table for the project corridor shall be provided. The table will include for each site the name of the river, perennial stream, and intermittent stream crossed; information on channel substrate, bed and bank dimensions and morphology; representative depth of water, width and character of adjacent riparian vegetation on left and right banks (looking downstream); USGS classification of perennial or intermittent; nature of impact (e.g., culvert, pipe, paving, or relocation); total area of impact in acres and hectares for lake

sites; total linear impacts to each stream site in feet and in meters; and total linear stream impacts within each NRCS designated Sub-Watershed Management Unit (HUC) crossed by the project. The eleven-digit HUC code shall be indicated.

If any stream impacts exist, the necessary measures to minimize harm and what mitigation measures may be needed (e.g., stream restoration, vegetative buffer zones, strict erosion and sedimentation control measures, etc.) will be determined.

C. Consideration for Wetland Impacts will be made as follows:

1. Prior to a field survey to delineate wetlands, existing project corridor environmental data such as aerial photography will be examined. Research sources for wetland identification shall include examination of U. S. Fish and Wildlife Service's National Wetland Inventory Maps, county soil surveys, U. S. Geological Survey topographic maps, and any other resources indicating hydric soils, hydrologic regimes, and vegetation types.

2. Regardless of the results of the background research, the project corridor shall be field surveyed and ground verified for location of jurisdictional wetlands and general land conditions so as to permit mapping of general vegetation zones and land uses along the project corridor. Identification and delineation of jurisdictional wetlands shall follow the "three parameter" approach as set forth in the appropriate Corps of Engineers Wetlands Delineation Manual. All potential wetland sites identified during the background research shall be ground verified and the entire project corridor shall be examined for presence of jurisdictional wetlands.

Boundaries of all wetlands identified as jurisdictional shall be mapped on project layout aerials. These layouts will be sent to the appropriate design office, which will put wetlands onto plan sheets and will return original layouts and 8-1/2 x 11 inch copies of the plan sheets containing wetlands.

A combination of on-site field investigation and remote mapping examination of wetlands shall be used to identify overall wetland size/drainage criteria to be expressed as "isolated", "above the headwaters", or "greater than 5.0 square miles." The amount of wetland acreage within the defined project corridor; dominant vegetation species; soil type, color and pattern, and hydrologic indicators shall be reported.

Wetlands shall be classified according to the U. S. Fish and Wildlife Service's system. The names of impoundments, streams, and rivers which are crossed, or whose tributaries are crossed, by the project corridor shall be identified and reported. Rivers or perennial streams, even when not associated with any jurisdictional wetland habitat, shall be investigated so that a description can be made of channel substrate, dimension, and morphology as well as adjacent vegetation cover.

No land survey or flagging of boundaries shall be required when delineating wetlands. Professional judgment shall also be employed to determine wetland functions. Upon delineation of all wetland resources within the proposed project right-of-way and a determination of the maximum acres of wetland impact, a search shall be made of the immediate project vicinity to locate wetland mitigation sites sufficient to compensate for the number of wetland acres, which the project would impact. Aerial photography, soils maps, topographic maps, National Wetland Inventory (NWI) maps, and ground verifying are to be utilized to identify any potential wetland mitigation sites within a five (5) mile corridor

surrounding the project limits. Suitable mitigation sites are to be identified based on degraded wetland characteristics, primarily the removal of hydrology by ditching. Another criterion to be met in selecting potential mitigation sites is access by a public road.

3. A written report, including a description of jurisdictional wetlands and a discussion of alternatives to avoid wetland impact, shall be prepared outlining the results of the wetland survey. The report must contain a description of the project corridor, including the background research and survey requirements, and the results of the survey. Items, which must be addressed in the report, are as follows:

- a) Onsite Data Forms and Hydrology/Soils Worksheets for a central wetland site containing Universal Transverse Mercator (UTM) coordinates or longitude and latitude designation;
- b) A set of photo-layouts, undamaged by field use, with clear delineation of wetlands, delineation of protected species habitat or sightings, and graphic labeling corresponding to the wetland/habitat maps included in the finished Ecology Assessment;
- c) A wetlands summary table, which includes wetland classification, hydrology, dominant vegetation species, and impact acreage;
- d) A non-wetland stream crossing summary table, which includes information on channel substrate, morphology, and adjacent vegetation cover,
- e) A project map based on USGS 1 = 24,000 topographic quad sheets, which shows the project corridor and wetland habitats and stream crossings, which would be affected by the project,
- f) A project map based on USGS 1 = 24,000 topographic quad sheets, which shows the general upland habitats (e.g., Pine, Pine/Hardwood, Agricultural, or Urban) through which the project corridor passes,
- g) Photographs shall be taken of up to three (3) representative wetland sites within the project corridor. The locations of these photographed wetlands shall be illustrated on separate photo-viewpoint graphic sheets as appropriate; and
- h) The report must contain a description of each potential mitigation site identified. This description shall include the closest access point, current land use, vegetative cover, size in acres, and degrading factor(s) (e.g., ditch system). These sites shall be identified on USGS-based topographic maps and on the blue line aerial if its scale encompasses such areas.
- i) Early coordination letters for endangered species involvements will be prepared and transmitted to the appropriate agencies.

APPENDIX I**Historic and Archaeological Resource Requirements**

This Appendix is a generalization of the Section 106 Process of the National Historic Preservation Act of 1966. It is written as though [FHWA](#) is the lead federal agency. Some of this guidance will vary when other federal agencies are acting as the lead, for compliance with other federal mandates, for compliance with [GEPA](#), or when using Consultants.

I. Historic Resources Surveys

A survey for historic resources will be conducted within the Project's Area of Potential Effect (APE) to identify all individual properties, districts, and multiple property areas that currently are listed in or eligible for listing in the National Register of Historic Places (National Register). This survey will be conducted in accordance with the following:

A. Background Research

Prior to the field survey the following work efforts will be accomplished:

1. The county/city-wide surveys for historic resources completed under the direction of the Georgia Department of Natural Resources, Historic Preservation Division will be consulted in order to locate previously identified historic resources along the project corridor. Survey forms for any previously identified resource(s) along the project corridor, on file at the Historic Preservation Division, or copies on electronic file at the Office of Environment/Location will be copied and the location(s) of the resource(s) delineated on an appropriate map for use in the field.
2. The County listing of existing and proposed National Register properties will be consulted in order to locate existing and proposed National Register properties along the project corridor. The National Register Nomination Form(s) and the Proposed National Register Summary Form(s), on file at the Historic Preservation Division, or copies on electronic file at the Office of Environment/Location, will be copied for any National Register or proposed National Register property (ies) located along the project corridor and the locations of any such properties will be delineated on an appropriate map for use in the field.
3. Aerial photographs and USGS Quadrangle Maps will be examined to determine if any structures are located in the project area.
4. The Historic Bridge Inventory will be consulted to determine if any National Register eligible bridges are located along the project corridor.

B. Survey Methodology/Field Survey

The field survey will be conducted in order to identify and locate on maps and aerial photography all proposed and existing National Register properties and all buildings 50 years of age or older, bridges and railroads (including those within possible, not yet listed, historic districts and multiple property areas, if any).

C. Survey Criteria

The Historian will accomplish the following tasks for each individual building, district, multiple property area, bridge and railroad that is 50 years of age or older along the project corridor:

1. Individual Buildings

The following work will be accomplished for all properties 50 years of age or older:

- a) Each building 50 years of age or older will be inspected. Information recorded will include a description of the architectural details including additions and alterations as well as a description of both the immediate and general settings.
- b) Each building will be photographed. All exterior elevations of the resource, including photographs of any significant or unusual architectural features will be photographed if the owner permits access to the property. If not, representative views will be taken from the right-of-way of the existing facility. A panoramic view recording the building in its setting also will be taken including any out buildings and a photograph illustrating the resource's set-back from the existing facility and any landscaping features (including ditches and swales) within this set-back. Photographs will be numbered, labeled, mounted on 8-1/2" x 11" paper and keyed to an 8-1/2" x 11" site plan sketch.
- c) If owner access is permitted, appropriate interior features also will be photographed. Such features will include mantles, staircases, representative photographs of historic building materials, built-in furniture, doors, windows, and other pertinent architectural features. Photographs will be numbered, labeled, mounted on 8-1/2" x 11" paper and keyed to an interior floor plan sketch.
- d) If access is permitted, the interior floor plan of the building will be sketched on 8-1/2" x 11" paper. The floor plan does not have to be to scale but all room divisions, fireplaces, door and window openings will be identified.
- e) If the resource is to be recommended eligible for listing in the National Register, the location of the resource will be delineated on a USGS topographic map and UTM readings will be provided.
- f) If the resource is recommended eligible for listing in the National Register, research will be conducted at the appropriate county courthouse to determine a date of construction and to establish a proposed National Register boundary for the resource. Often, the proposed National Register boundary and the legal boundary of a resource will be one in the same. However, for those resources that are located on large land holdings, a visual boundary is established unless the existing land holdings represent an intact historic boundary. In addition, the proposed National Register boundaries of resources abutting route/street name will be drawn at the existing right-of-way line of route/street name unless vegetation (including an uninterrupted lawn) or other features associated with the resource such as steps or walls extend within the existing right-of-way. In these instances, the proposed National Register boundary for resources abutting the project corridor will extend within the existing right-of-way to include these features. If the historic boundary is intact but has intrusions, a visual boundary may be appropriate. Research will consist of reviewing records at the appropriate Tax Assessors Office to obtain the current owners name and the current legal boundary of the property. Deed research will also be conducted to determine a date of construction and the presence of an intact historic boundary.
- g) Based on the information obtained under item f., a proposed National Register boundary will be delineated on aerial photography.

2. Districts

For any historic district(s) identified along the project corridor, the Historian will accomplish the following tasks:

- a) Information recorded during the field survey will include a general description of the area and its setting as well as the prevailing architectural styles and types present.

- b) Photographically record the district by taking exterior photographs of representative architectural styles and types within the district and representative streetscapes. The district's setting abutting the existing facility also will be photographically recorded through a series of panoramic views.
- c) Photographs will be numbered, labeled, and mounted on 8-1/2" x 11" paper and keyed to aerial photography, to the extent possible.
- d) Establish and delineate the proposed National Register boundary of the district on aerial photography. If the limits of the aerial photography do not provide total coverage of the district, the boundary will be recorded on a city or cadastral map.
- e) In the event that the aerial photography does not cover the limits of the district, a site sketch will be prepared to serve as a photograph key. If applicable, the sketch does not have to be to scale but it will accurately depict local streets, state routes and federal routes. A city or cadastral map of the area can be used in lieu of a site sketch.

3. Multiple Property Areas

For any multiple property areas identified along the project corridor, the Historian will complete items a. through g. as detailed under Individual Buildings, above.

4. Bridges

The Historian will determine if the bridge(s) located on the Project is (are) included in the Georgia Historic Bridge Inventory (GHBI). For those bridges included in the GHBI only item b. below will be completed. For any bridge 50 years of age or older located on the project corridor not included in the GHBI, the Historian will accomplish the following:

- a) Complete a Georgia Historic Bridge Survey Form.
- b) Each bridge will be photographed. Photographs will be taken with all elevations, the substructure, the super-structure, the approaches, and details of the bridge railings or other pertinent features such as a bridge plate or an incised date, XXXX. A panoramic view recording the bridge in its setting will also be taken. Photographs will be numbered, labeled, mounted on 8-1/2" x 11" paper and keyed to an 8-1/2" x 11" site plan sketch.
- c) The following information is needed for completion of the Georgia Bridge Survey Form:
 - o Name of Bridge,
 - o GDOT Bridge Number,
 - o District,
 - o Owner,
 - o Date of Construction,
 - o Number of trusses or spans,
 - o Overall length,
 - o Width of bridge, and
 - o Truss or span type and length.
- d) The proposed National Register boundary of the bridge will be delineated on aerial photography. The proposed National Register boundary will consist only of the dimensions of the bridge unless the bridge is sited in a dramatic or unique setting that would warrant its inclusion within the proposed National Register boundary.
- e) If the bridge is recommended eligible for the National Register, the location of the bridge will be delineated on a USGS topographic map and UTM readings will be provided.

5. Railroads

For any railroad corridor located on, abutting, or crossed by the Project, the Historian will accomplish the following:

- a) For abandoned railroad corridors, consult The Statewide Railroad Industry Context prepared in September 1991 by The Georgia Rails into Trails Society, The Trust for Public Land, and The Georgia Department of Natural Resources Historic Preservation Section [now Division].
- b) Consult with the current or previous owner and conduct research to determine age of line, and associated history of the company and the line.
- c) Photographically record the railroad corridor within the project area. Photographs will include representative views of the rail bed in the immediate vicinity of the project corridor including cut and fill sections, representative photographs of bridges, trestles, overpasses and underpasses, any historic buildings, depots, warehouses, utility sheds, and any other structures related to the railroad corridor located on the length of the line. Photographs will be numbered, labeled and mounted on 8-1/2" x 11" paper and keyed to a map that shows the total extent of the historic corridor.
- d) For that portion of the railroad corridor within the area of potential effect, determine if portions of the line have been obliterated by construction or development or altered by other activities and, if so, the locations of those portions of the line. Establish and delineate the historic boundary of the railroad (i.e. the railroad right-of-way limits) for the total extent of the historic corridor within the area of potential effect on tax maps, a USGS topographic map, or other appropriate map at a scale easily read. The proposed National Register boundary will be delineated, to the extent possible, on the aerial photography.
- e) If the resource is recommended as eligible for the National Register, the location of historic railroad corridor will be delineated on a USGS topographic map and UTM readings will be provided on the topographic map.

II. Archaeological Resources Survey

The Archaeologist will perform all data collection in accordance with the following. Depending on weather conditions and data gathered during the course of the survey, the Archaeologist reserves the right to make changes in the data collection strategy as long as it does not affect the final desired results.

A. Background Literature Research

An extensive background literature research will be conducted to document previously identified archaeological sites and to delineate areas of high site potential within and adjacent to the survey corridor, and to develop prehistoric and historic contexts for the survey corridor. Background research will include a review of pertinent documents housed at the State Site Files in Athens; the Map Library and the Georgia Room at the University of Georgia, Athens; the Historic Preservation Division, Atlanta; the Georgia Department of Archives and History, and Surveyor General's Collections, Atlanta. The State's preservation plan (A Vision for the Future) available at the Historic Preservation Division, its archaeological component (A Strategy for Cultural Resource Plan . . .), and appropriate archaeological contexts (study units) will be consulted. Additional, site-specific research at county-level records sources including, libraries, courthouses, and historical and archaeological societies will be conducted, as required, during the site evaluation phase of the survey.

B. Intensive Archaeological Survey

An intensive pedestrian survey will be conducted for the entire length of the survey corridor. Parallel survey transects and shovel tests will be spaced at 30-meter intervals along the length of the survey corridor. Systematic shovel tests will be placed at 30-meter intervals or less in areas identified as having a high site potential and where ground surface visibility is less than

75 percent. Shovel test intervals will be expanded or eliminated in steeply sloping terrain (15 degree slope) or highly disturbed areas at the discretion of the Principal Investigator. Shovel tests will be generally 30cm x 30cm in size and will be excavated to sterile subsoil. A Shovel Test Form will be completed for each test excavation. A Shovel Test Form will be completed for the length of the survey corridor tested. Shovel tests will be enlarged to 1m x 1m units at the discretion of the Principle Investigator or as conditions warrant. Additional shovel tests will be excavated where micro-land forms suggest the potential for buried cultural resources. Deep testing in areas adjacent to rivers and creeks will be facilitated by use of hand turned augers. All discovered sites, structural remains, and cultural features should be recorded as to width, length, depth, and nature of fill. Descriptive data recorded for each test will include type of test (i.e. shovel test, 1m x 1m unit); topographic location; soil color; texture; and observed anomalies; depths of soil horizons; and the presence or absence of cultural material. A stratigraphic profile will be drawn for each 1m x 1m excavation unit. Structures, sites, stratigraphic, and cultural material will be recorded using standard archaeological techniques. All excavated soil will be screened through < inch mesh hardware cloth. All archaeological sites will be plotted on aerial photography and USGS quad sheets. Black and white 3" x 5" photographs and color slides will be taken of all aspects of the survey. At each site identified during the intensive field survey, data collection (testing, etc.) will be sufficient to support an assessment of National Register eligibility.

C. Data Analysis

The Archaeologist will use standard artifact analysis procedures for the Project and the following points will be adhered to:

1. All artifactual materials will be washed, cleaned or otherwise stabilized and cataloged in a professionally acceptable manner and the original and two (2) copies of the catalog must accompany the collection. Artifacts requiring special conservation (e.g., wood, metal, shell) must be properly treated. Parts of the collection requiring special curation conditions (e.g., climate control) must be identified and packaged separately from the remainder of the collection.
2. Artifacts must be packaged in interlocking, heavy-duty plastic bags (minimum 3mm thick) or small archival boxes. Each bag must be properly labeled with catalog number, field context identification and other requisite information. The same printed information must be inserted into the bag on a separate piece of paper. Each bag will have a hole punched in one side to allow for ventilation.
3. All archaeological collections including artifacts and records must be packed in Hollinger archival boxes, 15" x 12" x 10", with each box properly labeled front and back. Records must be boxed separately from their associated artifacts. The contents of each box cannot exceed forty (40) pounds in total weight.
4. Originals and two (2) photocopies of all field and laboratory notes, drawings, and photographs will be included in the records. These records must be packaged separately from the artifacts. All photographs, accompanying negatives, and other photographic materials must be placed in archival quality sleeves. All field and laboratory records must be on acid-free paper or placed within acid-free folders. Any electronically stored data (e.g., computer discs) must accompany hard copies of the records and be identified as to the requisite software, operating system, disk density and computer type.
5. A detailed inventory of all excavation and analysis records must accompany the collection and be submitted in triplicate.
6. All data and conclusions will be correlated and used to address the stated survey objectives.

D. Survey Objectives

The following survey objectives will be adopted for the Project:

1. Provide accurate and reliable location of cultural resources in the project area including an accurate and concise map of all cultural sites, structures, and features. These will also be plotted on the aerial photography.
2. Provide an evaluation of National Register eligibility for all identified archaeological resources.
3. Provide insight into necessities for avoidance of potentially National Register eligible resources.
4. Provide recommendation for mitigation if avoidance is not possible.

III. Survey Report Preparation

A. Historic Resources Survey Report

1. The Historian will prepare a report containing the results of the historic resources survey. The Historic Resources Survey Report will contain recommendations of eligibility for the National Register for all resources 50 years of age or older. All survey forms, Proposed National Register Summary Forms and National Register Nomination Forms will be appended to the report along with mounted photographs, UTM maps, site plan sketches, and interior floor plan sketches. Proposed and existing National Register boundaries for each resource will be delineated on aerial photography. All survey forms, Proposed National Register Summary Forms and National Register Nomination Forms will be identified by an assigned survey number (beginning with number 1).
2. The Survey Report will be submitted to the [FHWA](#) and SHPO for review and concurrence. Following their concurrence, the Historian will forward a copy to the Project Manager for the transferral of eligible National Register properties and boundaries to the Project layouts.

B. Archaeological Resources Survey Report

The archaeological resources survey report applies primarily to consultants, and to in-house surveys only in certain situations, e.g. surveys on federal lands or for submission to the Corps of Engineers.

1. Within two weeks after completion of the field work and prior to preparation of the survey report, the Archaeologist will prepare a Management Summary of the results of the archaeological survey and an Archaeological Resources Survey Report using reporting procedures in accordance with standards acceptable to appropriate State and Federal review agencies. These will include "Archaeological Assessment Report Guidelines and Components" (GDNR, HPD and the Secretary of the Interior's Standards and Guidelines (Federal Register 48(190): 44734-44737). Documentation of the archaeological survey will include a description of the methodology employed, identification of the types of equipment employed, number of personnel, a definition of "site" and "isolated find" used for purposes of investigation, a description of environmental characteristics of a high site probability area, and a resource specific assessment of the data with recommendations for avoidance and additional investigation in the event that avoidance is not an option. Base maps containing site location data will be submitted with the report to assure precise relocation. All archaeological sites, features, and structures will be plotted on aerial photography and layouts. A statement of National Register eligibility for each resource and supporting documentation will be included in the report. The Principal Investigator will sign each copy of the report. An original and one photocopy of the state

archaeological site form will be submitted for each site located during the archaeological survey.

2. The Survey Report will be submitted to the [FHWA](#) and SHPO for review and concurrence. Following their concurrence, the Archaeologist will forward a copy to the Project Manager for the transferral of eligible National Register properties to the Project layouts.

C. Early Notification

The Historian will prepare an early notification briefly detailing the results of the historic and archaeological surveys or that such surveys are pending. The letters will be addressed to the appropriate Regional Development Center (RDC), County or City Historical Society, local governments (city and county) and any known person with interest in the Project. If responses are received which differ from the survey results of the Historian, the Historian will discuss the Project with the respondent to resolve the issue.

D. Write-offs

If as a result of the survey efforts, Project implementation would not affect historic or archaeological resources, the Historian and/or Archaeologist will prepare a finding of "No Historic Properties Affected" document. This documentation will be submitted to the SHPO and the [FHWA](#).

IV. Requests for Determinations of Eligibility

The Archaeologist will prepare "Requests for Determinations of Eligibility" (DOE's) for those archaeological resources identified for inclusion in the Assessment of Effects as detailed under Task VI. For Historic Resources, the Historic Property Information Form used for the Survey Report will serve in lieu of a formal DOE.

Based on and utilizing information obtained during the field survey, the Archaeologist will complete a Request for Determination of Eligibility Form for each archaeological site considered eligible for the National Register which will detail the following:

- A. Requesting Agency,
- B. Site name and State or Institutional Site Number,
- C. Location,
- D. Property Owners Name and Address,
- E. Representation in Existing Surveys,
- F. Site Description,
- G. Significance,
- H. Bibliography,
- I. Geographical Data, Maps and Acreage; and
- J. Name, Title, Firm and Address of Firm Preparing Documentation With Vita of Key Personnel (P.I. and Author) Attached.

The following graphics will be included within or attached to the form in addition to representative photographs and the Georgia Archaeological Site Form. All graphics will be mounted on 8-1/2" x 11" paper and will include a north arrow, scale and figure number, if applicable.

- A. Project location map that delineates the project termini, project number and county, and the labeled location of the archaeological site.
- B. A graphic delineating the site limits, the construction limits of the Project, and locations of shovel tests and unit excavations within and around the periphery of the site.
- C. An aerial photograph delineating the site limits.

V. Cultural Resources Report for Use in the NEPA Document

The Historian and Archaeologist will prepare a Cultural Resources Report containing information regarding National Register eligible historic and archaeological resources for inclusion in the appropriate section of the NEPA document. The report will include the following:

- A. The sources checked for identification of existing or eligible National Register resources prior to the survey.
- B. The results of early coordination with the appropriate RDC, historical groups, organizations, and individuals.
- C. The results of the historic and archaeological resources surveys.
- D. A brief description of each resource including information regarding the eligible National Register boundary and eligibility criteria.
- E. An assessment detailing direct effects (e.g., No Adverse Effect or Adverse Effect) which would or would not occur to the resource as a result of project implementation in accordance with 36 CFR Part 800 including physical destruction, damage or alteration to all or part of the property, isolation of the property from or alteration of the character of the property's setting when that character contributes to the property's qualification for the National Register, introduction of visual, audible, or atmospheric elements that are out of character with the property or alter its setting, and, if applicable, neglect of a property resulting in its deterioration or destruction. The Historian will assess air and noise effects to historic resources and utilize the experience and expertise of other qualified staff in assessing the other applicable areas of effect to historic resources.
- F. An assessment detailing indirect effects which would occur to historic and archaeological resources as a result of project implementation. Support statements for the assessment of indirect effects will include discussions of existing and planned development and zoning in the areas of historic and archaeological resources.
- G. If the effect to historic and archaeological resources is adverse, a discussion of alternatives to avoid the adverse effect will be included. The Advisory Council on Historic Preservation (ACHP) will be notified through the [FHWA](#) of the adverse effect if it cannot be avoided. The ACHP may wish to be a consulting party for the purpose of preparing the appropriate Memorandum of Agreement (MOA) for the adversely affected historic and archaeological resources under Task VI.
- H. A discussion of planning to minimize harm and, if the effect is adverse, proposed mitigation will be included. The discussion regarding planning to minimize harm will include any efforts undertaken which minimized effects to historic and archaeological resources. Such efforts will include, but will not be limited to alignment shifts, right-of-way reduction,

and median reduction. If historic and archaeological resources will be adversely affected, mitigation will be proposed in order to take into account the adverse effect on the resources. Depending on the adverse effects, proposed mitigation for historic resources will include but will not be limited to landscaping, recording the resource to Historic American Buildings Standards (HABS) or Historic American Engineering Record (HAER) Standards and relocation of the resource. For adversely affected existing or eligible archaeological sites the Archaeologist will stipulate in the MOA the preparation of a Data Recovery Proposal which includes a Research Design outlining excavation techniques, rationale, research questions, curation and reporting. The mitigation proposed in the MOA will be the same as that proposed in the NEPA and Section 106 documents.

- I. The following graphics will be appended to the report:
 1. A project location map delineating the locations of the historic and archaeological resources.
 2. A graphic depicting the construction limits of the Project in the area of each historic and archaeological resource. The graphic will detail the existing and proposed transportation facilities, existing and required right-of-way, construction limits, if available, and the eligible National Register boundary, or in the case of archaeological resources, the site limits of the resource. The graphic will include a label identifying the project number and county, scale, and a north arrow.

VI. Assessment of Effects Report for Use in Compliance with Section 106

An Assessment of Effects for use in complying with Section 106 will be prepared for the existing and eligible National Register historic and archaeological resources identified within the proposed Project's APE in accordance with 36 CFR Part 800 for submittal to the [FHWA](#) and the SHPO. The Assessment of Effects will utilize, as appropriate, the assessment of effects contained in the approved Cultural Resources Report prepared for inclusion in the NEPA document. If historic and archaeological resources will be adversely affected, a two or three party MOA will be prepared depending upon the ACHP's response or lack thereof regarding the notification of adverse effect as discussed under Task V for submittal with the Assessment of Effects.

- A. The Assessment of Adverse or No Adverse Effect will include the following:
 1. An introduction,
 2. The Need and Purpose Statement as provided in the environmental document,
 3. The project description as provided in the environmental document,
 4. A discussion of the survey results that will include a brief description of the resources and their significance,
 5. A discussion of the direct effects to the resources,
 6. A discussion of the indirect effects to the resources,
 7. A summary of the effects to resources,
 8. A discussion of alternatives to avoid adverse effects, if applicable, and
 9. A discussion of planning to minimize harm and proposed mitigation, if applicable.
- B. The following items will be included in or appended to all Assessment of Effects documents used in complying with Section 106:
 1. A project location map prepared as instructed under Task V.
 2. A graphic depicting the construction limits of the Project in the area of the historic and archaeological resources as detailed under Task V.
 3. Copies of the DOE's for the affected archaeological resources will be appended to the document.

C. Reporting

Copies of this document will be submitted to the [FHWA](#) and the SHPO.

VII. Completion of MOA Stipulations

A. After acceptance by the [FHWA](#) and the SHPO, and filing with the ACHP of the Section 106 Assessment of Effects and ratification of the MOA, all stipulations contained in the ratified MOA will be satisfied. If HABS or HAER standards are required for documentation, coordination is needed with the National Park Service (NPS) to determine the level of documentation required.

B. Reporting

If HABS or HAER documentation is required the draft documentation will be submitted to the [FHWA](#) and NPS for review. One final copy of the HABS or HAER documentation containing all originals will be submitted to NPS, one photocopy of the written documentation with one set of original photographs for submittal to the SHPO, and two photocopied sets of the written information and photographs for the Department's and FHWA files.

APPENDIX J

Minor and Non-Land-Disturbing Projects

A. The Commissioner has determined the following state funded projects will not significantly adversely affect the quality of the environment and will not require an environmental assessment of any kind and will not require a public hearing:

1. Minor roadway projects that are constructed within previously disturbed existing right-of-way. Such are projects for resurfacing, restoration, rehabilitation, adding shoulders, widening a single lane or less in each direction, the addition of a median, adding auxiliary lanes for localized purposes (weaving, climbing or speed change lanes), correcting substandard curves, and intersection improvements.
2. Non-historic bridge replacement projects in existing alignment with no detour bridge.

3. Lighting, signing, pavement marking, signalization, freeway surveillance and control systems, and railroad protective devices.
4. Safety projects such as grooving, glare screen, safety barriers, energy attenuators, median barriers.
5. Highway landscaping and landscape modification, rest area projects, and truck weigh stations within previously disturbed existing right-of-way.
6. Construction of bus shelters and bays within existing right-of-way.
7. Construction of temporary projects that restore the roadway immediately after the occurrence of a natural disaster or catastrophic failure. These projects must be needed for the health, welfare, and safety of the public.

B. The following types of state funded projects may not significantly adversely affect the environment. Land is disturbed outside any previous construction limits, and additional right-of-way may or may not be required. No significant adverse impacts to archaeological, historic, and wetland resources are anticipated. No involvements with threatened or endangered species are anticipated. Some studies are needed to determine if these projects will not significantly adversely affect the environment.

1. Bridge replacement projects on new location or with a detour bridge.
2. Passing lanes, median additions, and widening projects.
3. Safety and intersection improvements.
4. Rest area projects and truck weigh stations.
5. New location projects.

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APPENDIX K

Design Exception or Variance Report Example

DEPARTMENT OF TRANSPORTATION STATE OF GEORGIA

INTERDEPARTMENT CORRESPONDENCE

FILE *Project Number and County* OFFICE *Design Office*
P.I. Number DATE *Date*

FROM: *Project Manager*
TO: *Project Review Engineer*
SUBJECT *Request for Design Exception (or Variance)*

Approval of a Design *Exception (or Variance)* is requested for this project.

Provide a general description of the project including the length of the project, beginning and ending mile logs, the general location of the project including any city and county limits or proximity thereto, speed design, and describe the proposed typical sections and other major improvements to be constructed.

Describe the feature(s) requiring a design exception or a design variance. Give the values of the current guidelines and the values that are proposed to be used. Include the value of the beginning and the ending mile points for the design feature.

Describe current and future traffic data and/or attach traffic diagrams with all traffic data including the accident history within the project limits for the last three years. In particular address and summarize the accident experience related to the feature requiring a design exception or variance request.

Summarize why the current guidelines cannot be met.

Summarize the cost estimate for construction and right-of-way for constructing or reconstructing the design feature to meet current guidelines. If mitigation or safety enhancements costs are significant, summarize these costs at this point.

Describe any mitigation proposed to lessen the impact of not meeting current guidelines. BE SURE TO INCLUDE SAFETY ENHANCEMENT FEATURES (such as signing, striping, etc.) TO BE CONSTRUCTED IF THIS EXCEPTION IS APPROVED.

The Project Manager must make a recommendation to the approving authority for action. Any conditions to the approval of this exception should be clearly stated.

The signature block for approval will take one or the other of the following forms:

- **For not on the Interstate System:**

Preconstruction Division
Plan Development Process

Approved: _____
Chief Engineer

Date

• **For projects on the Interstate System:**

Recommend: _____
Chief Engineer

Approved: _____
FHWA Division Administrator

Date

APPENDIX L

Procedures for Determining Bridge Size at Stream Crossings

1. Information is obtained from field surveys that include a stream traverse, flood of record elevations, and a cross- section of the floodplain at the bridge site.
2. A hydraulic site inspection is then made at the job site in order to determine "n" values and direction of flood flow. Also, observations are made for any natural constrictions in the flood plain other than directly at the bridge site. The stream is observed for stability and type of bed material and the floodplain is observed for any structures that have been flooded before or might be flooded in the future. Also, the immediate bridge sites both upstream and downstream of the project are observed for adequacy of opening and scour problems. Local residents in the area are contacted concerning any local flood problems that they have encountered.
3. Drainage area for the site is then determined from USGS Quadrangle Sheets. The design flood (50 year) discharge and basic flood (100 year) discharge is determined from USGS Gaging Station Information, if available. If no Gaging Station is available, then the discharges are determined from appropriate methods contained in the Georgia Manual on Drainage Design for Highways.
4. A bridge length is then chosen that will permit conveyance of the design flood and basic flood without increasing flood heights or velocities to an extent that would cause significant upstream or downstream damage to existing reasonably anticipated future development.
5. Reports and information from other sources such as Corps of Engineers, U.S. Geological Survey and Flood Insurance Studies are incorporated into our study.
6. If our study disagrees with reports on the area by other agencies, an attempt is made to resolve these discrepancies.
7. All of the above mentioned information is then incorporated into a written "Hydraulic and Hydrological Study" for the site, which is kept on record in the General Files and the Office of Bridge Design files for future reference.

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APPENDIX M

FHWA Exemptions from U. S. Coast Guard Permit Requirements

The Federal Highway Administration was given the authority to exempt certain bridge projects in tidal waters from requiring a U. S. Coast Guard permit by Section 144(h) of Title 23 USC as amended by the Highway Act of 1987. This authority was in addition to the existing authority given to the Federal Highway Administration for exempting certain bridge projects in non-tidal waters as per 23 CFR, Subpart H, Section 650.805. This additional authority applies to any bridge constructed, reconstructed, rehabilitated, or replaced in tidal waters, which are:

1. Not used and are not susceptible to use, in their natural condition or by reasonable improvement, as a means to transport Interstate or foreign commerce; and
2. Used only by recreational boating, fishing, and other small vessels less than 21 foot (6.4 m) in length.

A bridge replacement is defined to mean any project, which will involve a new bridge or the total removal of the superstructure or more of an existing bridge. Anything less than this in scope, as well as any new bridge built parallel to an existing bridge that is not being replaced, will be considered to be bridge rehabilitation.

The following table is to be used as a guide in determining when a U.S. Coast Guard permit should be obtained.

| <u>TIDAL WATER</u> | <u>REPLACE</u> | <u>REHABILITATE</u> |
|--|-----------------------|----------------------------|
| Water depth at site < 5 ft (1.5m) at low tide | X | X |
| Vertical clearance at < 15 ft. (4.5m) at high tide. | X | X |
| Water depth > 5 ft. (1.5m) at low tide and vertical clearance > 15 ft. (4.5m) at high tide. | E | E |
| Susceptible to Interstate or foreign commerce navigation by Federal Authorization only. Interstate or foreign commerce navigation in fact. | P | E |
| Interstate or foreign commerce navigation in fact. | P | P |
| NON-TIDAL WATER | | |
| Susceptible to Interstate or foreign commerce navigation by Federal Authorization only. Interstate or foreign Commerce navigation in fact. | E | X |
| Interstate or foreign commerce navigation in fact. | P | P |

Note:

- X = Site exempt from USCG permit.
- P = Site requires application for USCG permit.
- E = Site requires evaluation to determine status.

The Coast Guard permit limits for navigable rivers in Georgia, interstate or foreign commerce navigation in fact, are as follows:

- (1) Chattahoochee River - From the dam at the West Point Reservoir, downstream to the Georgia-Florida border.
- (2) Flint River - From the dam at the Georgia Power Company Reservoir at Albany, Georgia, downstream to its junction at the Chattahoochee River.
- (3) Coosa River - From the junction of the confluence of the Etowah River and the Oostanaula River, downstream to the Georgia-Alabama border.
- (4) Etowah River - From the Norfolk-Southern Railway bridge immediately east of the US-27 (State Route 1) bridge near Rome, Georgia, downstream to the junction with the Coosa River.
- (5) St. Mary's River - From the US-301 bridge near Folkston, Georgia, downstream to the Coastal Boundary Area.
- (6) Altamaha River - From the confluence of the Oconee River and the Ocmulgee River, downstream to the Coastal Boundary Area.
- (7) Savannah River - From the dam at Clarks Hill Reservoir, downstream to the Coastal Boundary Area.

APPENDIX N**Useful References**

There are a number of checklists and guidance references that have been developed over the years to assist the Project Manager and designer in working through the Plan Development Process and producing a quality set of construction documents.

Repository for Online Access to Documents and Specifications (R.O.A.D.S.)

R.O.A.D.S. is an online resource that contains all current GDOT design and procedure manuals, including the Plan Presentation Guide.

The web address is: <http://www.dot.state.ga.us/dot/preconstruction/R-O-A-D-S/index.shtml>

Plan Presentation Guide (PPG) The GDOT Plan Presentation Guide is a document that will be followed in the preparation of bid plans and specifications. It also contains an excellent set of checklists such as:

- Data base preparation 22- 3
- Preliminary plans design 22- 4
 - Preliminary plans preparation 22- 6
- Final plans design 22- 5
 - Final plans preparation 22-13
- Right-of-Way plans 22-11
- Field plan review 22-20

Transportation Online Policy and Procedure System (TOPPS)

The Transportation Online Policy and Procedure System (TOPPS) is the Policy Statement of the Department. TOPPS can be accessed on the GDOT internal and external web.

The following is a listing of some of these useful references found therein. This is not intended to be a complete or current list. Please refer to the current TOPPS.

- 3A Commissioner's Policies/General,
- 4465-6 Survey manpower to meet project schedules,
- 4415-10 [Georgia Environmental Policy Act \(GEPA\)](#)
- 3140-1 Responsibility and Procedures for Interchange Justification ([IJR](#)) and Interchange Modification (IMR) Reports for Interstate and Non-Interstate Limited Access Facilities
- 6863-1 Distribution of final plans to Utilities,
- 6863-2 Special provisions for highway crossing major pipeline facilities,
- 6863-6 Identification and resolution of utility conflicts,
- 6863-7 Meetings with utility companies to review the construction work program,

References to "Erosion":

- 3B Environmental Responsibility of the Georgia Department of Transportation,
- 2430 Drainage,
- 2430-2b National Flood Insurance Program Document,
- 5180 Grassing,
- 5180-2 Grassing,
- 4465 Surveys,
- 4465-7 Guidelines for Lake Surveys,

4410 Corps of Engineers,
4410-1 Corps of Engineers 404 and TVA Permits,
2440 Plan Review,
2440-1 Field Plan Review Inspections,
4415 Local Material Pits/Disposal Sites,
4415-5a Local material pits/Disposal sites,
4415-5f Local Material Pits/Disposal Sites,
4415-5o Local Material Pit Approval Letter,
4415-5p Disposal Site Approval Letter.

American Association of State Highway and Transportation Officials (AASHTO)

American Association of State Highway and Transportation Officials
444 North Capitol Street, NW
Suite 249
Washington, DC 20001
Telephone: (202) 624-5800, Telefax: (202) 624-5806,

www.aashto.org

Consultant Pre-qualification

The Office of Program Delivery and Consultant Design Prequalification web site address is:

<http://www.dot.state.ga.us/dot/preconstruction/consultantdesign/prequal.shtml>

Federal Highway Administration (FHWA)

www.fhwa.dot.gov

Value Engineering (VE)

[TOPPS 2450 for Value Engineering](#)

DESIGNER'S CHECKLIST FOR PLANS SUBMITTAL TO CONTRACT ADMINISTRATION

Date: _____ Design Office: _____
 Project No.: _____ Consultant: _____
 County: _____ Designer: _____
 P.I. Number: _____ Let Date: _____

1. Complete Final Plans Submission Package for the Office of Contract Administration

1. One (1) full size set of plans for Contract Administration, plus
2. One (1) ½-size set of plans for the [FHWA](#) on all [Full Oversight Projects](#). The Office of Contract Administration will send these plans to the FHWA with the PS&E package,
3. All project special provisions,
4. Designer's cost estimate,
5. Designer's Checklist,
6. A Notice of Intent (NOI) is required for projects with five (5) acres or more of disturbed area,
7. Soil Investigation Report,
8. Bridge Foundation Investigation (BFI),
9. Three (3) ½-size sets of Erosion Control and CMP Plans, and
10. Electronic earthwork files.

• DETAILED ESTIMATE

- | | | | |
|--|------------------------------|-----------------------------|------------------------------|
| 1. Is the bid item number for the unit of work correct? | <input type="checkbox"/> Yes | <input type="checkbox"/> No | <input type="checkbox"/> N/A |
| 2. Is the description for the bid item number correct? | <input type="checkbox"/> Yes | <input type="checkbox"/> No | <input type="checkbox"/> N/A |
| 3. Does the bid item number and description contain needed supplemental information? | <input type="checkbox"/> Yes | <input type="checkbox"/> No | <input type="checkbox"/> N/A |
| 4. Does the supplemental information agree with that shown in the summary of quantities? | <input type="checkbox"/> Yes | <input type="checkbox"/> No | <input type="checkbox"/> N/A |

- 5. Are all bid items shown in the plans concurrent with the latest edition of the Pay Item Index? Yes No N/A
- 6. Do any of the bid items require special provisions or construction details? Yes No N/A
- 7. Do you have all the required special provisions from supporting offices to submit with the final plans? Yes No N/A
- 8. Is a new bid item needed to cover the work? Yes No N/A
- 9. If yes, has the Office of Contract Administration been contacted and a new pay item requested? Yes No N/A
- 10. Are the block description headings correct? Yes No N/A
- 11. Are quantities broken out into block headings on the Detailed Estimate and Summary of Quantities where necessary (e.g., roadway, erosion control, bridges, bridge culverts, traffic signs and markings, traffic signals, retaining walls, utility adjustments, highway lighting, landscaping, safety rest areas, truck weigh stations, mitigation sites, etc)? Yes No N/A
- 12. If construction alternates are involved, are the alternates listed separately with the items required for each alternate? Yes No N/A
- 13. If metric, are all units and symbols written in accordance with ASTM E-380 SI format? Yes No N/A

● **SUMMARY SHEETS** (include bridge summaries)

- 1. Are the items shown on the Summary of Quantities sheet listed on the Detailed Estimate, and vice versa? Yes No N/A
- 2. Do the quantities on the Summary Sheets match the Detailed Estimate except for nominal rounding? Yes No N/A
- 3. If construction alternates are involved, are the alternates listed separately with the items required for each alternate? Yes No N/A
- 4. Are all necessary notes for items that require special notes such as milling, erosion control, traffic paint, bridge burial, etc. shown on the Summary of Quantities? Yes No N/A
- 5. Are landscape items summarized in the same area of the plans as other items instead of at the back of the plans? Yes No N/A

6. If metric, are all units and symbols written in accordance ASTM E-380 SI format? Yes No N/A

● **COVER PAGE AND PLAN SHEETS**

1. Is the cover sheet signed and dated? Yes No N/A
2. If consultant plans, is the coversheet signed, dated and sealed by a licensed Professional Engineer? Yes No N/A
3. Is the project length correct and listed to three decimal places (miles or kilometers)? Yes No N/A
4. Are the project number(s), P.I. number(s), and county or counties listed correctly? Yes No N/A
5. Is the name of the road listed correctly? Yes No N/A
6. Are the general notes correctly stated? Yes No N/A
7. Do the project prefixes match the funding? Yes No N/A
8. Is the project correctly labeled with Full Oversight or Exempt? Yes No N/A
9. Is a location sketch map included on the sheet? Yes No N/A
10. Are x-y coordinates for the mid-point of the project listed on the cover sheet? Yes No N/A
11. If the project is metric, are all units and symbols written in accordance with ASTM E-380 SI format? Yes No N/A
12. Are the plan sheets numbered with totals shown? Yes No N/A
13. Is the federal work class code shown on the bridge plans (example: X021)? Yes No N/A
14. Is the bridge ID number shown on the bridge plans? Yes No N/A

● **TYPICAL SECTIONS**

1. Do the base and paving items on the Detailed Estimate match the typical section? Yes No N/A
2. If the project is in metric units, are the components of the typical section specified properly [e.g., asphalt thickness in spread rates and concrete paving and base thickness (other than asphalt) in millimeters (mm)]? Yes No N/A

- 3. Do paving alternates, if specified, reflect the type materials available in the general area and are they competitively structured? Yes No N/A
- 4. Do the paving alternates on the typical section match the summary of quantities and detailed estimate? Yes No N/A
- 5. Are the asphalt mix types labeled properly for the type paving specifications (e.g., conventional mixes, SMA, Superpave, PEM, OGFC, etc.)? Yes No N/A

• EROSION, SEDIMENTATION, AND POLLUTION CONTROL PLANS

- A. Project disturbs less than five (5) acres of land: Yes No N/A
 - 1. Best Management Practices (BMP) Location Details for the final project conditions are shown. Yes No N/A
 - 2. Erosion control pay items, not Lump Sum, are provided. Yes No N/A
 - 3. BMP Location Details for each stage of construction are included. Yes No N/A
- B. Project disturbs five (5) or more acres of land: Yes No N/A
 - 1. Cover Sheet
 - a. Shall be signed and sealed by the Consultant (if applicable) and the Chief Engineer, and Yes No N/A
 - b. Shall contain the required certification statements. Yes No N/A
 - 2. Erosion, Sedimentation, and Pollution Control General Notes Sheet,
 - a. Statement about sediment basins if one or all outfalls do not have them, Yes No N/A
 - b. Statement about storm water management and pollution control, and Yes No N/A
 - c. Statement about stabilization measures Yes No N/A
 - 3. Erosion Control Watershed Map showing:
 - a. Total area and disturbed area for each watershed, Yes No N/A
 - b. The before and after runoff coefficient factors or peak flows for each watershed, Yes No N/A
 - c. Drainage patterns with flow arrows, Yes No N/A
 - d. Cross drain sizes, Yes No N/A
 - e. Wetlands delineated with areas (acres), Yes No N/A

- | | |
|---|---|
| f. Receiving waters, | <input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A |
| g. Down stream lakes and ponds, and | <input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A |
| h. Site monitoring locations, | |
| i. Outfalls to be monitored | <input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A |
| ii. Outfalls to streams, | <input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A |
| iii. Streams, | <input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A |
| iv. Receiving waters - hand draw if necessary to first blue line stream, and | <input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A |
| v. All Other Outfalls. | <input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A |
| 4. Best Management Practices (BMP) location details, | |
| a. Normal Erosion & Sedimentation Control Plan Sheets (staging must be included). | <input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A |
| 5. Comprehensive Monitoring Program General Notes Sheet, | |
| a. Narrative for sampling methods with analytical method, NTU limits, drainage area type of receiving waters, | <input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A |
| b. One representative outfall may be monitored for linear projects. Linear projects are defined, as being at least 25 times longer than it is wide. All outfalls must be monitored on non-linear projects. | <input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A |
| 6. Construction Details (for erosion control items only), and | <input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A |
| 7. GA Standards (for erosion control items only). | <input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A |
| 8. Erosion control pay items, not Lump Sum, are provided. | <input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A |
| 9. If the Project disturbs fifty (50) or more acres, has the ESCPC & CMP been submitted to Environmental Protection Division (EPD) along with the Notice of Intent (NOI)? | <input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A |

● **REVISIONS**

- | | |
|---|---|
| 1. Are all items that were revised, listed on the revision summary sheet? | <input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A |
| 2. Are all revisions listed on the revision summary sheet shown on the cover sheet (revision dates)? | <input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A |
| 3. Did the revision affect any other plan sheets that may be referenced to the revised sheet and have they been corrected? | <input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A |

- 4. Will the plan revision affect any of the special provisions or vice versa, and have they been corrected? Yes No N/A
- 5. Are all the necessary plan sheets required to document the revision packaged together for submission? Yes No N/A
- 6. Has a letter been prepared describing the revision and the reason for it to include with the revision submittal? Yes No N/A

• **RELETS**

- 1. Have all amendments been incorporated and revisions properly noted? Yes No N/A
- 2. For maintenance and State Aid projects, has a new package been prepared and submitted? Yes No N/A

• **COMBINED PROJECTS (Separate project numbers let together)**

- 1. Do the Detailed Estimates and Summary Sheets for each project have similar bid items for pavement types, earthwork and erosion control? Yes No N/A
- 2. Can quantities for both projects be combined? Yes No N/A

• **MAINTENANCE PROJECTS**

- 1. Do the location maps correctly identify the beginning and ending of the project (log kilometer & description of beginning and end)? Yes No N/A
- 2. Is the print quality of the contract documents to be submitted legible? Yes No N/A
- 3. Are the correct percentages in each county listed? Yes No N/A
- 4. Are the correct percentages in each congressional district listed? Yes No N/A
- 5. Is the county code correctly listed? Yes No N/A
- 6. For relets, has a new package been prepared for submittal? Yes No N/A
- 7. Do item codes and descriptions match? Yes No N/A
- 8. Are units and symbols written in accordance with ASTM E-380 SI format? Yes No N/A

Checklist completed by: _____
(Signature)

(Date)

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APPENDIX O**Procedure for Securing Consultant Services****A. Consultant Contracts**

Georgia DOT uses Professional Engineering Consultants (Consultants) for three primary reasons:

1. Accommodate peaks in design workload,
2. Accelerate project development on high priority projects, and
3. The need for special expertise not available or limited within the Department.

In order to be eligible to perform consultant work for the Department, the prospective consultant must meet the following qualifications:

1. All Prime Consultants must be prequalified with GDOT, on a tri-annual basis, in the area class or classes of work to be performed. However when teaming, a properly prequalified sub-consultant team member is an acceptable alternative to the prime consultant having that pre-qualification.
2. All consultants performing structural design or checking must be prequalified with the Department.
3. Sub consultants do not have to be prequalified. Their work is performed under the supervision of a prequalified Prime Consultant.

There are several types of consultant contracts used by the Department. The most common is a negotiated contract. For the negotiated contract, consultant selection is a "Qualifications based process." See other TOPPS prepared by the Office of Program Delivery and Consultant Design for the current specifics on this and the other consultant processes. But in general, the negotiated process is as follows,

1. The Project Manager and the Office Head determine a need exists for the use of a consultant.
2. The Project Manager submits a request for authorization for the use of a consultant. See example below. The request is processed as follows:
 - a. Request thru the Office of Financial Management, with a copy to Budget, for concurrence to ensure adequate funds are available,
 - b. Division Director for recommendation, and
 - c. Chief Engineer for approval.
3. Notify the Legal Services Division Director.
4. Draft the consultant selection criteria for the project.
5. Draft a public notice of the intent to seek consultant services for the project.
6. Advertise and seek consultant interest in the project.
7. Review and analyze consultant submissions and prepare a short list of the most qualified consultants for the Division Director's concurrence and the Chief Engineer's approval.
8. Negotiate the contract.
9. Obtain the approval of audits and legal.
10. Obtain the concurrence of the Chief Engineer of the negotiated contract and send a copy of the contract and the negotiated cost proposal to the Treasurer's Office, Department of Audits for auditing, and to the Office of Financial Management.
11. Issue a Notice to Proceed (NTP).

B. Work (Task) Orders

Work order contracts (also known as Task Order contracts) have become an increasingly important part of GDOT's consultant services program. In a work order contract, the Office of Program Delivery and Consultant Design (OPD/CD) executes a master work order agreement for a stated

maximum amount of money for a stated period of time with a consultant firm or consultant firms. After the OPD/CD issues a Notice to Proceed for the Master Contract, individual work orders can be issued as needed by Project Managers for specific tasks (e.g., project concept development, utilities design, preliminary bridge layout, etc.). Work order agreements are not intended to circumvent the normal consultant selection process, nor are individual work orders normally issued for tasks that would require conventional consultant contracts. Nevertheless, work order contracts have become very beneficial in cases where the GDOT staff cannot meet project schedules without assistance with certain elements of project development or where special expertise is required that is not found within the GDOT staff.

The consultant selection process is very similar to the process for conventional consultant contracts. The notable exceptions are:

- After selection of the work order consultant, developing a scope of services and entering into fee negotiations are not required for the master agreement. The maximum contract cost has already been established, with the scope of services and fees to be developed and negotiated for each individual work order.
- Individual work orders do not require signatures above the Division Director level.

The steps to be followed to obtaining a Work (Task) Order are as follows:

1. Project Manager requests the Director of Preconstruction to issue a work order for a specific task or scope of work.
2. The Director of Preconstruction approves, disapproves, or requests additional information.
3. The Office of Program Delivery and Consultant Design (OPD/CD) notifies the Project Manager of the status of approval.
4. If approved, the OPD/CD in coordination with the Project Manager drafts a work order:
 - a. Description of the project,
 - b. Required scope of work,
 - c. Information and materials available for the consultant,
 - d. Specific deliverables identified, and
 - e. Schedule.
5. OPD/CD assigns the appropriate consultant, notifies the Project Manager, and transmits the preliminary scope of work to the consultant.
6. The consultant and the Project Manager visit the project site, review data available, and discuss the scope of work.
7. Consultant develops and finalizes, with the Project Manager, the scope of work, deliverables, man-hour estimates, and schedule, and submits a proposal to the Project Manager and the OPD/CD.
8. The OPD/CD, Project Manager, and the consultant may require several iterations of the proposal before it is satisfactory to GDOT.
9. The consultant transmits four (4) signed copies of the proposed work order to the Project Manager who transmits the work order over the Office Head's or District Engineer's (as appropriate) signature recommending approval of the work order to the OPD/CD.
10. The OPD/CD will obtain the approval, disapproval, or request for changes from the Director of Preconstruction.
11. Upon approval, the OPD/CD will issue a "Notice To Proceed" to the work order consultant and forward copies to:
 - a. Project Manager,
 - b. Consultant,
 - c. Accounting Office, and

- d. Retain a copy for their records.
12. The Consultant will submit the monthly statements and supporting backup documents to OPD/CD with a copy to the Project Manager,
13. The Project Manager will manage the work order consultant contract like any other consultant contract, to include:
 - a. Timely review of the work in-progress,
 - b. Ensuring work progresses and the project stays on schedule,
 - c. Coordination, as required by the scope of work, with other GDOT offices or others,
 - d. Review of monthly statements, and
 - e. Immediately recommend to OPD/CD that payments be withheld when the consultant's work is not satisfactory.
14. The Project Manager will contact the OPD/CD while the work is being performed if difficulties or conflicts arise that require a third party intervention to resolve. The Project Manager will contact the OPD/CD if the consultant's work is not satisfactory or if schedules are not being met.

For more information about work order contracts, contact the Office of Program Delivery and Consultant Design.

**DEPARTMENT OF TRANSPORTATION
STATE OF GEORGIA**

INTERDEPARTMENT CORRESPONDENCE

FILE: *Project number and County*
P.I. NO. xxxxxx

OFFICE: *Design Office*
DATE: *Date*

FROM: *Office Head*

- TO: For Consultant Authority:
Name
State Transportation Engineering Administrator
Office of Financial Management
- TO: For Work/Task Order Authority:
Name
Director of Preconstruction

SUBJECT: Request for *Consultant Authority or Work/Task Order Request*

Project description: *Provide a clear and concise project description to include:*

Beginning and ending point and describe the general alignment between these two points,
Length of the project,
Proposed typical section,
Major structures,
Major intersections and or interchanges,
Right-of-Way requirements including access control,
Speed design, and
Proposed let date or date of completion of the Work/Task Order.

Reason for the request and brief proposed scope of work:

Describe why the work cannot be preformed in-house:

Shortage of personnel,
Accelerated schedule,
Requirements for special expertise, etc.

State the general scope of work requested such as:

Concept Development, Preliminary plans, Right-of-Way plans, Final construction plans,
Special studies, etc.

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APPENDIX P**Plan Revision Procedures**

It is the goal of the Preconstruction Division to minimize, if not eliminate, all plan revisions and amendments to the proposal. However, circumstances sometime necessitate plan changes that result in revisions and/or amendments.

Preconstruction Offices are responsible for managing their assigned projects in accordance with the Plan Development Process. This includes the revision of construction plans after final plans have been submitted to the Office of Contracts Administration for the Letting and after the project has been Let to contract and awarded.

The Project Manager is responsible for making plan revisions. In making plan revisions the Project manager must ensure the revision does not change the conditions of any permits or the environmental impacts addressed in the approved environmental document. The Project Manager shall review any proposed plan revisions with the Office of Environment/Location when a changed condition to the approved permits or environmental document is suspected.

Contract Administration shall be contacted and concur before any revision or amendment is made after Final plans are submitted to Contract Administration and before the project is Let to contract. The Office of Construction shall be contacted and concur before any revision is made after the project is Let to contract and awarded.

The [FHWA](#) shall be contacted and their concurrence received before any plan revision is made on any [Full Oversight Project](#).

Plan revisions can be classified into three categories:

- Revisions to construction plans after submission to Contract Administration for letting and prior to Advertisement (Revision Prior to Advertisement),
- Revisions to construction plans to incorporate amendments to the proposal which have been processed by the Office of Contract Administration (Amendment Revision), and
- Revisions to construction plans that occur directly as a result in changes required on construction after the project is awarded (Use on Construction Revision).

For information on the process of storing revisions electronically after the project has been let to contract and awarded, refer to the GDOT Electronic Plans Process document.

In order for the revision process to be consistent, the following procedure for revising construction plans will be followed:

Revision Prior to Advertisement

Final plans are to be submitted ten weeks prior to letting to the Office of Contract's Administration and the original plans to the General Office Reproduction Center five weeks prior to the Letting. Plans may be revised, with concurrence of Contract Administration, no later than six and one-half weeks prior to the Letting for projects other than Full Oversight (FOS) projects and no later than seven and one-half weeks for FOS projects. This allows time for Contract Administration to process the revision and print the proposal before project advertisement to contractors. Revision dates shall be added to all revised sheets and each revision listed and described on the Revision Summary Sheet.

Approved revisions will be submitted to the Office of Contract Administration with copies distributed using the same distribution list as final plans.

Revisions by Amendment

From the six week/seven week period to the Letting, no plan changes shall occur without the prior concurrence of the Office of Contract Administration and approval of the Chief Engineer. All approved changes will require an amendment to the proposal and may occur from the six week/seven week period to 10 calendar days prior to the Letting. Revision dates shall be added to all revised sheets and each revision listed and described on the Revision Summary Sheet.

After the letting, the apparent low bid may be awarded, rejected, or deferred. Prior to bid opening, a project may also be withdrawn from the Letting. The disposition of each contract in the Letting will be listed in the award announcement that is published the Friday following the Letting. This report is also available in electronic format on the Contract Administration Web Page. Based on the bid status, the following plan revision by amendment actions may be taken with a set of plans dependent upon the acceptance of the bid:

Awarded:

Construction plans should be revised to incorporate any amendments processed by Contract Administration, submitted to the contractor with copies distributed using the same distribution as final plans except the Office of Contract Administration and the Project Review Engineer will not receive copies and include copies to the Office of Road and Airport Design Engineer, Attention: Design Services Supervisor. **NOTE: Plan quantities shown on the Detailed Estimate shall not be changed to agree with the processed amendment.** Any quantity changes as a result of the processed amendment are to be listed on the "Quantities Required by Amendment" sheet, which will be added to the plans (see table at the end of this appendix).

Rejected:

Construction plans should be revised to incorporate any amendments processed by Contract Administration and resubmitted to the Office of Contract Administration in accordance with the processing schedule for the new Let date using the same distribution as final plans. Quantities on the Detailed Estimate should be changed to agree with the processed amendment.

Deferred:

A project may be let to contract and an acceptable bid received. However, the award may be deferred until such time that any utility, right-of-way, permit, or any other problem is resolved. The revision should be made the same as for an "Awarded" project after notification has been distributed, by a supplemental award announcement, verifying the low bid proposal has been awarded. If the supplemental award announcement shows the project rejected, then process the revision the same as a "Rejected" project above.

Withdrawn:

Construction plans should be revised to incorporate any amendments processed by Contract Administration and submitted to Contract Administration with copies distributed using the same distribution as final plans. Quantities on the Detailed Estimate should be changed to agree with the processed amendment.

On all amendment revisions, the revision summary sheet shall list the date and a detailed description of the revision and also list the amendment number and date of amendment.

Use on Construction Revisions

Use on construction revisions may occur any time during the life of the construction contract. At no time shall the integrity of the "As Bid" plan information, shown on the original construction plans, be altered by deleting or erasing as a result of any "Use on Construction" revision. Changes to the information shown on the original plan sheets may be accomplished by copying the original sheet, and labeling the copy of the original plan sheet as "Use on Construction" as directed in the Plan Presentation Guide and revising the information thereon as required. The original quantities listed on the Detailed Estimate are not to be altered or revised on any revision required on construction. Any quantities or additional pay items required on construction are to be listed on the "Quantities Required on Construction" sheet, which will be added to the plans (see table at the end of this appendix). These pay items will require a supplemental agreement to the contract that will be negotiated before the revision has been processed. If the revision required significant changes to the original plans, the original plan sheet may be voided on construction and a "Use on Construction" sheet, with the revision included, added to the plans.

However, any additional pay items required on construction that will result in a supplemental agreement with significant increase in cost must be negotiated with the contractor before an official revision can be processed. Copies of the revised plan sheets are to be submitted to the District Construction Engineer for negotiations with the contractor. When an acceptable price has been negotiated, the District Construction Engineer will notify the Project Manager that the official revision should be submitted. The Project Manager and the Project Engineer shall give the highest priority to preparing and issuing "Use on Construction" revisions as they may affect the overall cost of the project or the completion date of the project or both.

The completed revisions should be submitted to the contractor with copies distributed using the same distribution as final plans minus the Office of Contract Administration and the Project Review Engineer and include copies to the Office of Road and Airport Design Engineer, Attention: Design Services Supervisor.

On all revisions, the revision summary sheet shall list the date and a description of the revision.

A "Quantities Required on Construction" sheet and a "Quantities Required by Amendment" sheet will be available in a cell library. Please contact the Office of Road and Airport Design if there are any further questions.

| Quantities Required By Amendment | | | | | Project No. & County: | | |
|----------------------------------|-------------|----------------|------------------|-------------|-----------------------|-------------------|------------------|
| | | | | | P.I. Number: | | |
| Date | Item Number | Amendment Date | Amendment Number | Description | Units | Original Quantity | Revised Quantity |
| | | | | | | | |

| Quantities Required On Construction | | | | | Project No. & County: |
|-------------------------------------|-------------|-------------|-------|-------------------|-----------------------|
| | | | | | P.I. Number: |
| Date | Item Number | Description | Units | Original Quantity | Revised Quantity |
| | | | | | |

NOTE: COPY AND REFORMAT THESE TABLES AS NEEDED

As-Built Plans

All As-Built Plans are to be submitted directly to the State Road and Airport Design Engineer, Office of Road and Airport Design, ATTN: Preconstruction Design Services Supervisor. The plans are to be clearly marked and labeled as “*As-Built Plans*”. The Office of Road and Airport Design will be responsible for transferring the hard-copy plans into electronic format and placing them into the electronic plans repository.

APPENDIX Q

Detour Report and Notice

A Detour Report and a Notice of Detour Approval will be required for all projects that require the temporary detouring of a State Route for construction.

The Notice of Detour Approval shall be advertised:

- Within 30 days of detour approval,
- Once a week for four consecutive weeks,
- In each county involved, and
- In the newspaper in which the Sheriff's advertisements are carried.

The Notices shall state:

- The project number and brief project description of the project,
- Statement that the State Route will be closed for construction and the length of time the State Route is expected to be closed,
- A description of the detour route to be used,
- Statement informing the public that a map is available for review at the _____ Office of the Department of Transportation (GDOT), and
- Statement giving the public a point of contact to discuss the detour.

The following are examples of:

- Letter of request for Detour approval, and
- Example of a Notice of Detour Approval.

Example of “Notice”

NOTICE OF DETOUR APPROVAL

PROJECT NUMBER AND COUNTY

P. 1. NUMBER

Notice is hereby given that the Georgia Department of Transportation has approved the use of and the routing of a detour for this project.

The date of detour approval is *(to be inserted by the Assistant Director of Preconstruction after approval by the Chief Engineer)*.

The Project Manager is to use this paragraph to give a basic overall description of the project and the county or counties wherein it is located.

The Project Manager is to use this paragraph to describe the proposed detour; be brief but be specific.

Drawings or maps or plats of the proposed project, as approved, are on file and are available for public inspection at the Georgia Department of Transportation:

Project Manager's Name

E-mail Address

Street Address

Telephone number

APPENDIX R

Project Framework Agreement

See TOPPS 7120-3.

(Formerly: Local Government Project Agreement and Project Management Agreement)

-

APPENDIX S**Erosion, Sedimentation, and Pollution Control Plan**

(National Pollutant Discharge Elimination System (NPDES) Phase 1)

As a result of Senate Bill 524 (SB 524) and in accordance with Title 12, Chapter 7 of the Official Code of Georgia Annotated and the National Pollutant Discharge Elimination System (NPDES) Permit for Storm Water Discharges, all projects with a disturbed area greater than five acres shall contain an Erosion, Sedimentation, and Pollution Control Plan (ESPCP) and Comprehensive Monitoring Program (CMP). The SB524 places the Department responsible for the Erosion Control Plans, not the Contractor, as has been the standard past practice.

The Erosion, Sedimentation, and Pollution Control Plan will contain the recommended types and general locations for temporary and permanent erosion control items. The types of temporary devices that should be shown on the plans include silt control gates, sediment basins, temporary slope drains, sediment barriers, and any other items deemed appropriate by the designer. Lump Sum erosion control and Lump Sum grassing pay items will no longer be used on any project.

The Erosion, Sedimentation, and Pollution Control Plan (ESPCP) and the Comprehensive Monitoring Program (CMP) will be reviewed at the Preliminary Field Plan Review to ensure appropriateness and sufficient right-of-way has been set up for the proper construction, operation, maintenance, and removal of the temporary erosion control devices. A final check of the Erosion, Sedimentation, and Pollution Control Plans and the Comprehensive Monitoring Program will be made at the Final Field Plan Review.

- Projects that will disturb less than 5 acres, the Erosion, Sedimentation, and Pollution Control Plan will consist of the Best Management Practices (BMP) Location Details for the final project conditions that are sufficient for quantity computations. Erosion control pay items, not Lump Sum, must be included. BMP Location Details for each stage of construction will be required when stage construction is necessary.

Placement of BMP Location Details remains unchanged and will not require any additional sheets except for staged BMP Location Details.

- Projects that will disturb five (5) or more acres are required to have detailed Erosion, Sedimentation, and Pollution Control Plans (ESPCP) and a Comprehensive Monitoring Plan (CMP). An Erosion, Sedimentation, and Pollution Control Plan will be required for each stage of construction. The ESPCP and CMP will be a complete, stand-alone section within the construction plans. The ESPCP will consist of:
 1. Cover Sheet
 - a. Shall be signed and sealed by the Consultant (if applicable) and the Chief Engineer, and
 - b. Shall contain the required certification statements.
 2. Erosion, Sedimentation, and Pollution Control General Notes Sheet,
 - a. Statement about sediment basins if one or all outfalls do not have them,
 - b. Statement about storm water management and pollution control, and
 - c. Statement about stabilization measures

3. Erosion Control Watershed Map showing:
 - a. Total area and disturbed area (not including existing pavement being retained) for each watershed,
 - b. The before and after runoff coefficient factor for each watershed or peak flow before and after,
 - c. Drainage patterns - flow arrows,
 - c. Cross drain sizes,
 - d. Wetlands delineated with areas (acres),
 - e. Receiving waters,
 - f. Down stream lakes and ponds, and
4. Best Management Practices (BMP) location details,
 - a. Normal Erosion & Sedimentation Control Plan Sheets (staging must be included).
5. Comprehensive Monitoring Program General Notes Sheet,
 - a. Narrative for sampling methods with analytical method, NTU limits, drainage area type of receiving waters,
 - b. One representative outfall may be monitored for linear projects. Linear projects are defined, as being at least 25 times longer than it is wide. All outfalls must be monitored on non-linear projects.
 - c. Site monitoring locations (use of USGS Topographical sheets larger than 1"=2000' is recommended),
 - i. Outfalls to be monitored - outfalls to streams,
 - ii. Streams (as dictated by OEL),
 - iii. Receiving waters - hand draw if necessary to first blue line stream noting any lakes or ponds in the path, and
 - iv. All other Outfalls must be highlighted to the first blue line stream noting any lakes or ponds in the outfall path.
6. Construction Details (for erosion control items only), and
7. GA Standards (for erosion control items only).

The stand-alone ESPCP and CMP will be placed in back of a set of final construction plans. This will be after the cross sections or bridge plans if included.

A Notice of Intent (NOI) is required and will be forwarded with the submission of final plans.

- Projects that will disturb fifty (50) or more acres require the same treatment as projects disturbing five or more acres, as outlined above. In addition, the ESPCP & CMP must be submitted by the Office of Contract Administration to the Environmental Protection Division (EPD) along with the Notice of Intent (NOI).

A written explanation will be required when a sediment basin is not set up for each outfall from the project (See 2a.).

Coordinate the Erosion, Sedimentation, and Pollution Control Plan and the Comprehensive Monitoring Program with the approved environmental document and any environmental permits. Example, do not locate a sediment basin in a wetland but if you must, make sure it was addressed in the environmental document and environmental permits (e.g., USCEC 404).

Use the appropriate number and type of erosion control devices as established in the Department's BMP's. If you err, err on the side of environmental protection and use as many devices as feasible and practical to ensure adequate control of sediment and erosion.

GDOT reference material on this subject may be found as follows:

- Uniform Code System For Soil Erosion And Sediment Control Design Guidelines,
- Manual on Drainage Design for Highways,
- Standard Specifications for the Construction of Roads and Bridges,
- Standard Construction Details,
- Plan Presentation Guide,
- GDOT Guidelines for NPDES Phase 1 Permit Erosion, Sedimentation, and Pollution Control Plan and Comprehensive Monitoring Program, and the
- GDOT Guidelines for Selection of Outfall and Receiving Waters Monitoring Locations.

An additional resource is the Georgia State Soil and Water Conservation Commission Manual for Erosion and Sediment Control in Georgia.

The Point of Contact for this issue is the Office of Road Design. That Office may be reached at 404-656-5386 if you have any questions.

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APPENDIX T

Final Plans Transmittal Letter

**DEPARTMENT OF TRANSPORTATION
STATE OF GEORGIA**
INTERDEPARTMENT CORRESPONDENCE

FILE *Project Number and County*
P. I. Number

OFFICE :
DATE:

FROM: *Project Manager*

TO: State Transportation Office Engineer – Office of Contracts Administration

SUBJECT Final Plans Submission

Attached is the final plan package for the above listed project. This project is scheduled for the date letting. Plans have been prepared in *English/Metric* units and in accordance with the Final Field Plan Review Report dated date.

Provide a brief description of the project including project limits, project length and proposed typical section.

The final plan package includes:

1. Final Construction Plans
2. Designer's Checklist for Plans Submittal to the Office of Contracts Administration
3. Designer's Final Construction Cost Estimate
4. Computer diskettes with earthwork end area files
5. Summary of earthwork quantities
6. Notice of Intent (Storm Water Discharge from Construction Activity)
7. Special Provisions:
List of special provisions
8. Soil Survey Report
9. Bridge Foundation Investigation Report

If there are any questions please contact *Project Manager* at *phone number*.

XXX.xxx
Attachments

Cc: *State Transportation Financial Management Administrator, (letter only, w/designer's final cost estimate)*

State Utilities Engineer (letter only)

Project Review Engineer, w/plans, special provisions and earthwork summary (1 half size prints)
State Environment/Location Engineer, w/plans (1 full size prints)
State Traffic Safety & Design Engineer, Attn: Design Review Engineer, w/plans (1 full size prints)
State Construction Engineer, w/plans (1 half size prints)
Environmental Compliance Manager, w/plans, (1 half size prints)
State Bridge Design Engineer (for projects which involve structures), w/plans (1 full size prints)
District Engineer, w/plans (1 full size mylars)

APPENDIX U

Traffic Engineering Report

The Manual on Uniform Traffic Control Devices (MUTCD) requires a traffic engineering study to determine if a traffic control signal is justified. The factors to be considered in the study are not specified. However, the MUTCD indicates that the study should include the factors contained in the warrants and those related to the operation and safety of the location in question, and it suggests several items that may be included.

The number of vehicles entering the intersection in each hour from each approach during the 12 consecutive hours of an average day that contain the greatest percentage of the 24-hour traffic,

- Vehicular volumes for each traffic movement from each approach, classified by type of vehicle (heavy trucks, passenger cars and light trucks, public-transit vehicles, and, in some locations, bicycles), during each 15-min period of the 2 hours in the morning, 2 hours at midday, and 2 hours in the afternoon during which total traffic entering the intersection is greatest,
- Pedestrian volume counts on each crosswalk during the same periods as the vehicular counts just described, and also during hours of highest pedestrian volume (where young or elderly persons need special consideration, the pedestrians may be age-classified by general observation),
- Existing conditions diagram,
- Location map,
- The posted or statutory speed limit or the 85th-percentile speed on the uncontrolled approaches to the location,
- An existing condition diagram based on field observations showing details of the physical layout, including such features as adjacent intersections, highway geometrics, traffic control, grades, channelization, sight-distance restrictions, bus stops and routings, parking conditions, pavement markings, street lighting, driveways (curb cuts), nearby railroad crossings, distance to nearest signals, utility poles and fixtures, delays, and adjacent land use,
- A collision diagram showing accident experience by type, location, direction of movement, severity, time of day, and day of week for at least one year,
- Traffic signal warrant analysis,
- Capacity Analysis and evaluation of turn lane necessity,
- Proposed Improvements diagram,

- Conceptual signal design (if warranted), and
- Recommendations and Conclusions

Additional data may be useful in evaluating the potential improvements in the overall operation and safety of the intersection. These include vehicle-seconds of delay by approach, the number and distribution of gaps on the major street, and pedestrian delay time. Analysis of these data may show that, although warranted by vehicular volumes alone, a traffic signal may not be justified.

If the study data shows little or no delay, relatively few correctable collisions, and adequate gaps for side-street traffic to enter, and do not indicate any potential improvement with a traffic control signal, the signal should not be considered for installation.

D.O.T. 66

**DEPARTMENT OF TRANSPORTATION
STATE OF GEORGIA**

INTERDEPARTMENT CORRESPONDENCE

FILE

OFFICE

DATE

FROM District Traffic Engineer

TO State Traffic Safety and Design Engineer
Attn:

SUBJECT Traffic Signal Permit Request
State Route Number
Intersection of and
MP , County

Attached is a traffic signal engineering report as requested by the City of _____,
_____ County, for the placement of a traffic signal at the subject intersection.

Based on the attached information, it is recommended that the Department issue a signal
permit to _____ County for the installation of a traffic signal at the subject
intersection.

Also attached are a signed permit application, signal design and a location map. If you have
any questions, please call me at.....

DEPARTMENT OF TRANSPORTATION

STATE OF GEORGIA

TRAFFIC ENGINEERING REPORT

For the intersection (*or intersections*) of: (*describe all*)

STATE ROUTE _____ AND _____
(Street, Avenue, Blvd., etc.)

In the City of _____, *if applicable*

County of _____

At Mile log: _____.

Provide a simple location sketch for the intersection.

Report prepared by:

Name

Title

Address

Telephone Number: (*Area Code*) *Telephone Number*

E-mail Address: [*Name*] @dot.state.ga.us

FAX Number: (*Area Code*) *FAX Number*

Date report prepared: _____

Traffic Engineering Report
State Route _____ and _____
Date _____
Page 3 of ____

Location: *Describe in the location detail using the cover sheet (page 1) description as the basis of the narrative.*

Reason for the investigation:

_____ County has officially requested GDOT consider the placement of a stop-and-go traffic signal at this location. This corridor has experienced tremendous growth over the last 20 years with many commercial and residential establishments.

Description of the intersection: Include the proper name and route designations of all intersection legs, describe the typical section of all legs, give the major origin and destination of each leg, describe street lighting, note any history or architecture (context) that should be considered, describe any controlling criteria not meeting present guidelines, note the presence or proximity of railroads, and the describe the terrain.

- *State Route000 is a five lane section including a center turn lane. There are three thru lanes westbound and eastbound at the intersection with City Street X, the intersecting street. City Street X intersects SR000 at the bottom of a sag vertical curve. SR000 is a heavily traveled major arterial that connects City A and Town B.*
- *Intersecting Street is a two lane roadway that serves a relatively small townhouse complex.*

Traffic volumes in vehicles per day (vpd): (Use a minimum of three years)

Latest year percent trucks:

Latest year 24 hour percent trucks:

| YEAR | SR __ @ MP ____. Count Station ????? (vpd) | Intersecting Street Name (vpd) |
|----------------|--|-----------------------------------|
| Latest year | (Volume) | (Volume) |
| Latest year -1 | (Volume) | (Volume) |
| Latest year-2 | (Volume) | (Volume) |
| Latest year-3 | (Volume) | (Volume) |
| Latest year-4 | (Volume) | (Volume) |

Morning and evening peak hour turning movement counts are attached.

EXISTING TRAFFIC CONTROL: *(Fully describe the existing traffic control for each leg of the intersection)*

- State Route
- Intersecting street

Traffic Engineering Report
State Route _____ and _____
Date _____
Page 2 of __

Vehicular speeds: (Give the posted speed limit on each approach leg. *The posted speed limit on SR000 is 45 MPH. However, this stretch of SR000 experiences observed speeds well over 50 MPH*)

- State Route.
- Intersecting street.

Pedestrian movements: (*Describe all pedestrian movements including the presence or absence of sidewalks*)

- *The north side of SR000 is undeveloped at this time and there are no sidewalks along SR000.*
- *Although City Street A services a townhouse complex, no pedestrians were observed and none are anticipated. There are no sidewalks present.*

Other modes of transportation present: (bicycle facilities, transit, bus stops, etc.)

Delay:

Observation during peak traffic periods revealed motorists on the side street experienced a minimal delay. However, adequate gaps were created by adjacent signals on SR000.

Parking:

There was no parking observed or expected at the intersection.

Accident History:

| Year | Accidents | | | | | | | Injury | Fatal |
|------|-----------|------------|-------|---------|---------------|-------------|-------|--------|-------|
| | Rear-end | Side-swipe | Angle | Head-on | Struck Object | Run off the | Total | | |
| | | | | | | | | | |
| | | | | | | | | | |
| | | | | | | | | | |
| | | | | | | | | | |

Accident printouts are attached. It appears that only two of the accidents from 1995 to 1998 were preventable by signalization.

Adjacent Signalized Intersections:

There is a signal located at the intersection of SR _____ @ _____ Road 1500 feet west of the subject intersection. There is a signal located at the intersection of SR _____ @ _____ Road 2000 feet east of the subject intersection.

Traffic Engineering Report
State Route _____ and _____
Date _____
Page 3 of ____

Warrant Analysis:

XXX County performed a warrant analysis on this intersection with no warrants being met. However, Warrant #5 may apply at this location. A traffic signal installed at this location could provide proper grouping of vehicles and could effectively regulate group speed. Warrant 5 states that "progressive movement control sometimes necessitates traffic signal installations at intersections where they would not otherwise be warranted."

Recommendations:

It is recommended that a signal permit be issued to XXX County for the installation of a traffic signal at the intersection of SR000 @ City Street A. It is recommended that the County purchase all needed equipment for the installation. XXX County will install and maintain the signal. (if applicable).

RECOMMENDED BY: _____
District Traffic Engineer

DATE: _____

RECOMMENDED BY: _____
State Traffic Safety and Design Engineer

DATE: _____

APPROVED BY: _____
Director of Operations

DATE: _____

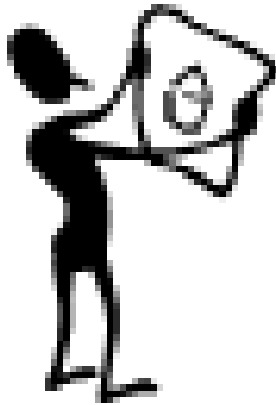
Traffic Engineering Report
State Route _____ and _____
Date _____
Page 4 of __

Traffic Engineering Report Appendix

- Sketch of the present intersection.
- Sketch of the proposed intersection.
- Traffic Signal Warrants Analysis - PC Warrants.
- Traffic Count Summary Sheets.
- Accident Diagram.

APPENDIX V

DESIGNER'S MANUAL



FOR HIGHWAY SYSTEMS ADMINISTRATIVE REVIEW



Prepared: 11/22/01

Updated: 2/6/04

**From: Office of Transportation Data
Systems and Classification Branch**

Highway System Administrative Review

Table of Contents:

Document Acceptance

Page 1

Designer's Review

Page 2 -- Overview

Case Examples

Page 4 -- Case I- Proposed New Alignments

Page 5 -- Case II- Temporary State Route Establishment for ROW Acquisition

Transmittal Letter/Outline

Page 6- Highway Systems Design Plans Transmittal
Letter

Page 7 - Highway Systems Adjustment Process



DOCUMENT ACCEPTANCE

The signatures below constitute acceptance of this document.

| Name | Date | Signature for Concurrence |
|--|----------|---------------------------|
| Herman T. Griffin, P.E. Office of Programming | 12/18/01 | <i>Herman T. Griffin</i> |
| Wayne Hutto, P.E. Office of Preconstruction | 4/18/02 | <i>Wayne Hutto</i> |
| Name | Date | Signature for Approval |
| Paul V. Mullins, P.E. Division of Planning & Programming | 12/17/01 | <i>Paul V. Mullins</i> |
| Charles Law, P.E. Division of Field Districts | 1/11/02 | <i>Charles Law</i> |
| Thomas L. Turner, P.E. Division of Preconstruction | 1/24/02 | <i>Thomas L. Turner</i> |

--Designer's Review--

HIGHWAY SYSTEMS VERIFICATION NEEDS TO BE ACCOUNTED FOR DURING THE PLAN DEVELOPMENT PROCESS. THERE ARE TWO CASES THAT REQUIRE STATE HIGHWAY SYSTEM ADMINISTRATIVE ACTION BEFORE A PROJECT CAN PROCEED:

Case I- Proposed New Alignments

The project scope will involve a roadway being constructed on new location or there is a horizontal realignment of an existing State Route.

Case II- Temporary State Route Establishment For ROW Acquisition

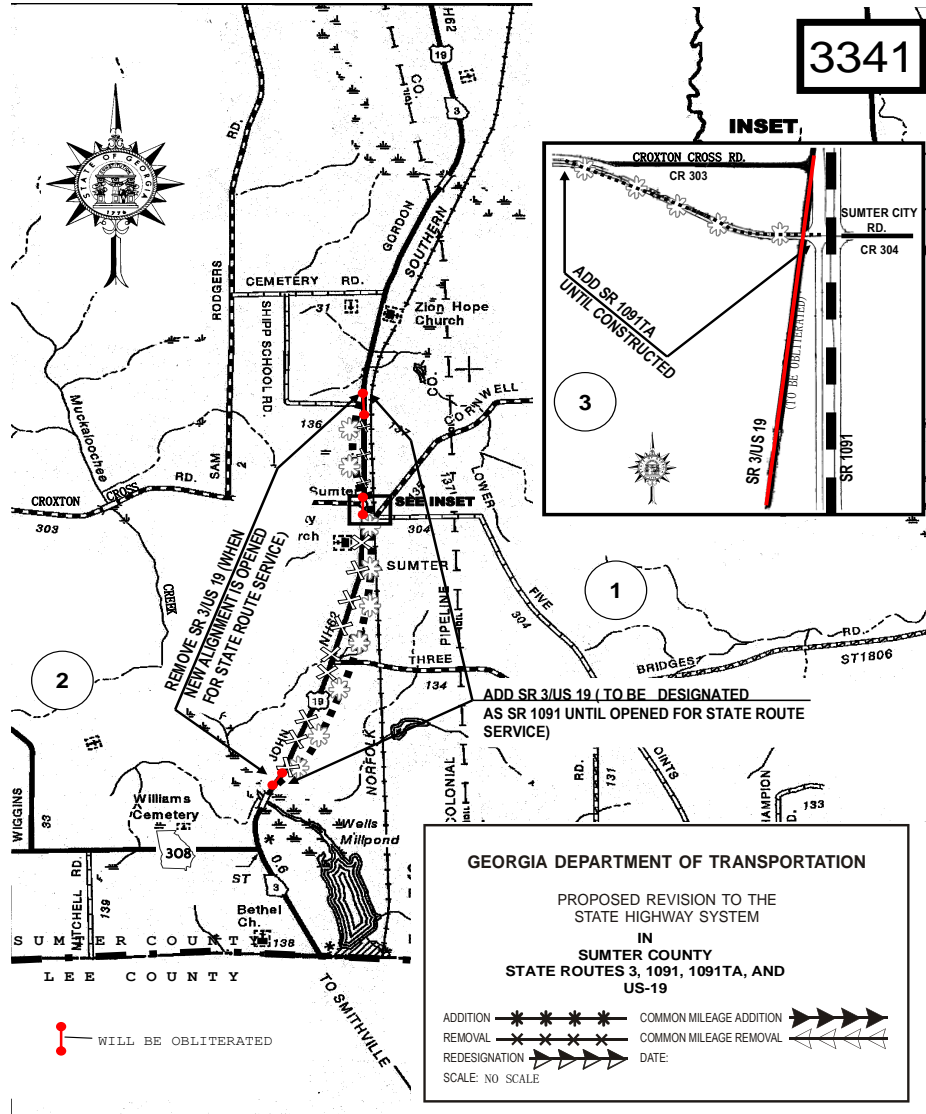
The Department is participating in preconstruction activities apart from the existing State System thereby requiring the establishment of a temporary state route to facilitate the purchase of right-of-way.

Federal-aid Eligibility On Projects

PROJECTS (OTHER THAN BRIDGE AND SAFETY) UTILIZING SURFACE TRANSPORTATION PROGRAM (STP) FUNDS MUST BE FUNCTIONALLY CLASSIFIED HIGHER THAN A LOCAL ROAD IN URBAN AREAS AND HIGHER THAN A MINOR COLLECTOR IN RURAL AREAS. THE FUNCTIONAL CLASSIFICATION OF A ROAD UPON WHICH STP-FUNDS ARE BEING EXPENSED CAN BE VIEWED BY ACCESSING ROUTE INFORMATION IN THE ROAD CHARACTERISTICS FILE OR BY VIEWING THE HIGHWAY SYSTEMS STATUS MAPS LOCATED ON THE DEPARTMENT'S EXTERNAL WEBSITE: http://www.dot.state.ga.us/dot/plan-prog/transportation_data/function_class_maps/index.shtml. NATIONAL HIGHWAY SYSTEM (NHS) INFORMATION CAN BE OBTAINED BY GOING TO <HTTP://WWW.FHWA.DOT.GOV/HEP10/NHS/>.

--EXAMPLES--

Case i – PROPOSED NEW ALIGNMENTS



STATE HIGHWAY SYSTEM REVISION SKETCH MAP

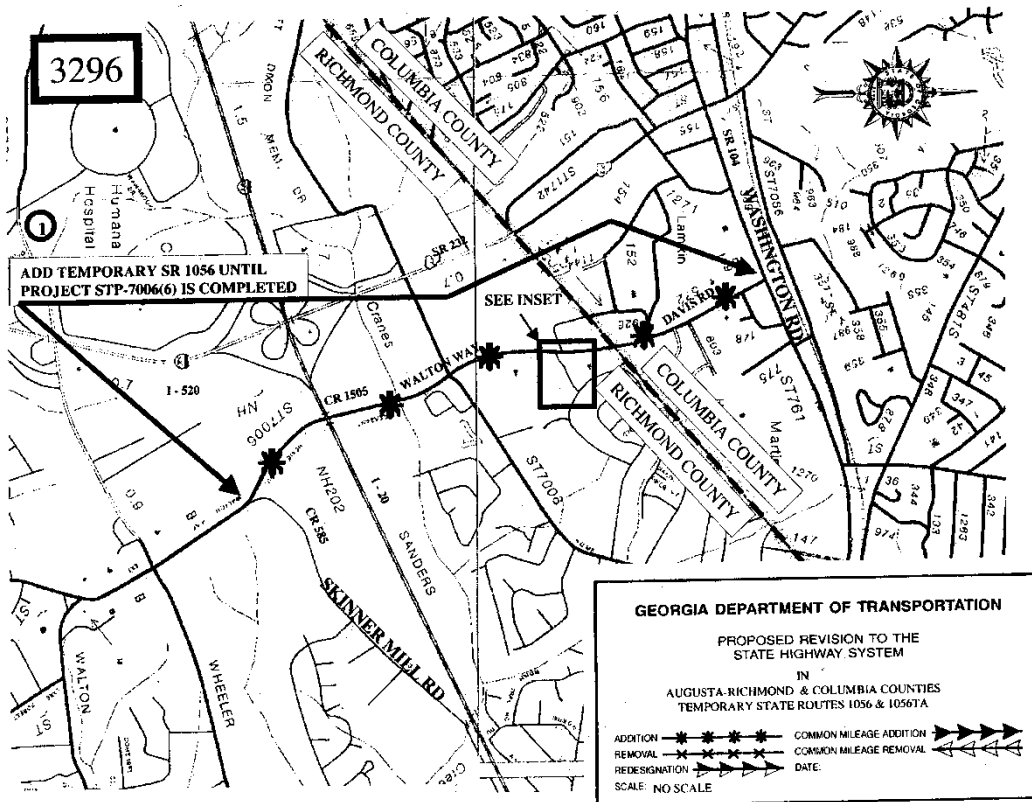
Case ii – TEMPORARY STATE ROUTE ESTABLISHMENT FOR ROW PURCHASE.

CONSTRUCTION WORK PLAN LISTING

GEORGIA DEPARTMENT OF TRANSPORTATION
CONSTRUCTION WORK PROGRAM + LONG RANGE REPORT
LISTING OF PROJECTS BY PI NUMBER
INTERNAL USE ONLY

Friday, November 02, 2001
Page 1 of 1

| | | | | | |
|--|---|--------------------|----------------|---------|-------------|
| STP-7006(6) | DAVIS RD FM SKINNER MILL RD TO WASHINGTON RD & HALF DIAMOND | REFERENCE: 25056X- | PE | 9901 | \$1,000,000 |
| RICHMOND | Q24 MANAGER: T. HODGES | T.I.P. STP-8 | RWU | 2002 | \$2,846,000 |
| 250560- | Field Dist: 2 TYPE OF WORK: WIDENING / WIDENING | SR 505 | RWA | | |
| EXEMPT | CONCEPT: ADD 4U (MED20) | RW# | STATUS: PRECST | DOT CST | 2004 |
| LGPA STATUS: RICHMOND SGN DO UTIL 9-4-01 COLUMBIA SGN DO UTIL 5-5-01. | | CONG DIST: 10 | OTHER CST | | \$6,579,000 |



STATE HIGHWAY SYSTEM REVISION SKETCH MAP

DEPARTMENT OF TRANSPORTATION
DESIGN PLANS FOR
HIGHWAY SYSTEMS ADMINISTRATIVE ACTION

FROM: _____ DATE: _____

FOR: _____ PROJECT: _____

COUNTY: _____

TO: OFFICE OF TRANSPORTATION DATA P.I. NO: _____

ATTN: SCB BRANCH CHIEF, NORTH ANNEX PROJECT Designer: _____

New R/W Plans

Revised R/W Plans

We are sending you the following items:

FULL-SIZE COVER SHEET AND 1-HALF SIZE SET OF PLAN PROFILE SHEETS.

| Copies | Description |
|--------|-------------|
| | |
| | |

Items transmitted as checked below:

CASE I New Location of public roads

CASE II Temporary State Route Establishment for ROW Purchase

Remarks:

HIGHWAY SYSTEMS ADJUSTMENT PROCESS

1. WHEN IDENTIFIED, USE THE PRECEDING “HIGHWAY SYSTEMS ADMINISTRATIVE ACTION” TRANSMITTAL FORM TO SEND THE APPROPRIATE PLANS TO THE OFFICE OF TRANSPORTATION DATA, SYSTEMS AND CLASSIFICATION BRANCH.

NOTE: IF DURING THE PDP PROCESS A PROJECT REQUIRES A REVISED CONCEPT REPORT, ANY PLAN ADJUSTMENTS THAT FALL WITHIN ONE OR MORE OF THE AFOREMENTIONED CATEGORIES, SHOULD BE SUBMITTED TO THE OFFICE OF TRANSPORTATION DATA VIA THE TRANSMITTAL FORM.

2. BASED ON THE TRANSMITTED PLANS, THE OFFICE OF TRANSPORTATION DATA WILL TAKE THE ACTIONS NECESSARY TO IMPLEMENT THE REQUIRED ADJUSTMENTS TO THE STATE’S HIGHWAY SYSTEMS.
3. THE OFFICE OF TRANSPORTATION DATA WILL NOTIFY THE APPROPRIATE DESIGN OFFICE THAT ALL NECESSARY ADMINISTRATIVE ACTIONS HAVE BEEN COMPLETED.

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