STATE OF GEORGIA
DEPARTMENT OF TRANSPORTATION

PROJECT MANAGEMENT HANDBOOK

2012

OFFICE OF PROGRAM DELIVERY

This document was developed as part of the continuing effort to provide 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.

Please send comments to:

The Office of Program Delivery
Georgia Department of Transportation
One Georgia Center
600 W. Peachtree Street, 25th Floor
Atlanta, Georgia 30308

DISCLAIMER

The Georgia Department of Transportation maintains this printable PM Manual document and is solely responsible for ensuring that it is equivalent to the approved Department guidelines.

TABLE OF CONTENTS

CHAPTER 1

GENERAL OVERVIEW

The purpose of the Project Manager Handbook is to serve as a guide and resource tool for Georgia Department of Transportation Project Managers.

This Handbook is an addendum to the guidance found in the GDOT Policies and Procedures, the Plan Development Process (PDP) and the Locally Administered Project Manual (LAP), in addition to other manuals. **The PDP can be accessed by accessing the ROADS website under the Office of Policy and Support.**

The LAP can be accessed by accessing the external GDOT website and going to the Local Government tab.

Other Project Manager Guidance:
The GDOT internal website, http://mygdot.dot.ga.gov, has a variety of important links that give guidance on Project Manager activities.

This Handbook will:

1. Ensure that project objectives are achieved as programmed
2. Guide the project team through the project delivery process
3. Develop dynamic interaction between team members and stakeholders
4. Identify, monitor and mitigate risks
5. Strengthen communication throughout the project's development
6. Ensure continuity of project knowledge between phases through a single point of contact, documentation, reporting and communication
7. Utilize management and project tools to ensure the project's success

GDOT VISION

Enhancing Georgia's Competitiveness Through Leadership in Transportation

GDOT MISSION

Georgia DOT provides a safe, connected and environmentally sensitive transportation system that enhances Georgia's economic competitiveness by working efficiently and communicating effectively to create strong partnerships.

GDOT VALUES

Flexible
Open
Committed
Unified
Successful

GDOT STRATEGIC GOALS

- **Making GDOT *a better place to work* will make GDOT a place that works better.**
- **Making *safety* investments and improvements where the traveling public is most at risk.**
- ***Taking care of what we have*, in the most efficient way possible**
- ***Planning and constructing* the best set of mobility focused projects we can, on schedule.**

PROGRAM DELIVERY – DELIVERING EXCELLENCE

To provide Project Management, Leadership, and Organizational Commitment by applying Engineering Principles and Coordinating Subject-Matter Expertise on the Construction Work Program by *scoping projects, analyzing risk, identifying potential problems, defining solutions, meeting task and resource requirements, meeting schedules, maintaining budgets, and establishing stakeholder relationships*, to achieve a high-quality and dependable product.

OFFICE OF PROGRAM DELIVERY – GOALS AND OBJECTIVES

1. Understand the role of the Project Manager along with vital and dynamic responsibilities.

2. Complete all project tasks, contract phases and programmed projects within the budget.

3. Ensure that the scope of work complies with the original intent and established Justification Statement.

4. Foster and strengthen Team Building with Subject Matter Experts (SME's).

5. Enhance personal development through on-going training, seminars, and lectures.

6. Update TPROWEB regularly with comments from SME's and communicates the changes to provide team members and management with accurate information in a timely manner.

7. Progressively improves the Project Delivery time through the efficient use of project management techniques, tracking tools and human resources.

8. Prepare cost estimates annually (at a minimum) and update according to milestones achieved for those projects funded in the CWP or with an active phase or if there is a major scope change.

9. Maintain the currently approved baseline schedules and if necessary recover when necessary to keep the overall project schedule accurate and online.

10. Measure progress for each PM related to the following six major project milestones:
    a. Preliminary Engineering Authorization
    b. Concept Report Approval
    c. Preliminary Field Plan Review (PFPR)
    d. Environmental Document Approval
    e. Right of Way Authorization
    f. Final Field Plan Review (FFPR)
    g. Construction Authorization

11. Process and ensure approval of invoices within 30 calendar days of receipt.

12. Maintain a project diary documenting major decisions, meeting minutes, issues and action items for SME's and stakeholders associated with a chronological timeline.

13. Aid Procurement in the Scoping and Negotiation Phases.

14. Minimize the number of Project Change Requests, Change Orders, and Supplemental Agreements.

15. Escalate important Project Management issues utilizing the office hierarchy for approval.

16. Represent the Department in a positive manner in all situations.

OFFICE OF PROGRAM DELIVERY – ORGANIZATION AND ADMINISTRATION

The Office of Program Delivery (OPD) was created in 2009 in the Georgia Department of Transportation to facilitate the projects from "cradle to grave" using established Project Management practices.

Administration

- Genetha Rice-Singleton, State Program Delivery Engineer (initials: GRS)
- Brad Saxon, Assistant State Program Delivery Engineer (initials: BWS)
- Albert Shelby, Assistant State Program Delivery Engineer (initials: AVS)
- Hiral Patel, P.E., Assistant State Program Delivery Engineer (initials: HPP)
- Organizational Chart: http://www.dot.ga.gov/aboutGeorgiadot/dotoffices/Documents/ProgramDelivery/ProgramDelivery-Orgchart.pdf

THE PROGRAM

The GDOT Program includes all the projects in the Statewide Transportation Improvement Plan (STIP) and the Construction Work Plan (CWP). The Program can be broken down into sub-programs, including:

A. GDOT Administered Projects
B. Locally Administered Projects
C. Transportation Enhancement (TE) Program
D. Bridge Maintenance Program
E. Traffic Operations and Safety Programs
F. Maintenance Program
G. Special Projects (Multi-Modal Passenger Terminal, High Speed Rail, Atlanta Beltline, etc.)

Each of these programs has specific risks and challenges to delivery. Project Managers will be assigned projects within these programs by the Administration of OPD. The Program is further discussed in Chapter 5.

DELIVERY OF THE PROGRAM

The GDOT Project Manager Toolbox

As a GDOT project manager, the Department has a vested interest in providing you with the effective tools to complete the job. These tools consist of:

- Equipment
  - Communication devices such as cell phones
  - Computer hardware and software
  - Office supplies
- On the Job training

Equipment

Program Delivery is committed to providing Project Managers the equipment they need to do their jobs and having it ready for them upon arrival. It is important to have everything in place and ready to go before Project Managers arrive in order to convey that time is of the essence in Project Management. In order to achieve this Project Managers will have a desk, computer setup (or laptop), cell phone, and office phone ready upon their arrival.

Project Managers in the General Office will use the Motor Pool for business trips to project sites and meetings, except for the ones in Area Offices who will use those facilities' vehicles. The Motor Pool request form is located online under Policies and Procedures form 7197-1. The Project Managers that will be in Area Office locations will receive a laptop and cell phone and report to the General Office on an as needed basis.

- The desk assignment is done by the Assistant Office Head (AOH)
- The computer set-up will be facilitated by IT
- The cell phone will be assigned by the AOH
- The office phone set-up will be facilitated by IT

A Project Manager also should receive the following:

- General office supplies
- Copies of the Plan Development Process (PDP); Local Administration Process (LAP) and PM Handbook
- A PM ledger book
- A safety vest and hat
- A mailbox assignment
- A parking assignment
- A GDOT badge

Once a desktop or laptop computer has been assigned and set-up by the IT office, the following software should be installed (at a minimum):

- Microsoft Office Suite (Outlook, Word, Powerpoint, etc.)
- TPROWeb & GEOTRAQS
- Work Force Time Keeper (WFTK)
- Microstation (latest version)
- Connections to plotters and printers in the office
- Plot Manager Submit
- Adobe Acrobat (latest version)
- Peoplesoft
- CONCUR
- Cost Estimating Software (CES)
- CMIS
- Google Earth
- Oracle
- Primavera

A Project Manager should also request:

- A Peoplesoft password
- A CES password
- A CMIS password

On the Job Training

Both informal and formal training programs have been created to facilitate the skills and knowledge for successful GDOT Project Management. We also encourage new employees to peruse the Policies and Procedures website. Here are a few key policies and procedures to review; one can search for these by key word or policy number.

Informal Project Manager training to be reviewed is as follows:

General Policies

- 3A-1, Principles of Decision-making
- 3A-9, Project Programming & Cost Estimating Purpose
- 3D-1, Environmental Responsibility of the Georgia DOT
- 4020-1, Procurement, Contract Dev and Mngt of Professional Services for Architectural and Engineering Work
- 4020-4, Errors and Omissions
- 7120-1, Project Funding Policy (note, this policy is a little outdated)

Human Resources/Administration Policies

- 2230-2 through 2230-12 Leave
- 2255-1 through 2255-11, various workplace policies
- 7195-1, 2 & 8, Travel Reimbursement
- 7197-1, Motor Pool Vehicle Request Policy
- 2215-22 Project Management – Conditional Pay

Design-related policies

- 4A-3 & 4, Establishing Access Control
- 3140-1, Interchange Policy
- 2440-1, Field Plan Review Inspections (note, view the external Policies site for updated policy)
- 2450-1, Value Engineering
- 4055-1, Public Involvement Guidelines

ROADS -Design Policies, Guidelines and Procedures

- A link to the ROADS website is near the bottom of the home webpage. You should look at:
    - GDOT Design Policy Manual
    - Manual of Quality standards for Consultant Services
    - GDOT Plan Development Process & Flowcharts
    - Revisions to Programmed Costs, Asphalt/Fuel Indexes, Construction Contingencies

Other links on the homepage to check out:

- 1625
- Preconstruction Status Reports (PSR)
- Procurement Requisition Form (PRF)
- Project Financial Report (PFR)

Also check out the links in the Favorites Folder GDOT Important Links

Formal Project Manager training will be conducted as follows:
Conducted by the Assistant Office Heads during several sessions upon arrival of a new PM:

- GDOT Overview and Organizational Structure
- Desk, Computer, Blackberry, Parking
- Review Job Requirements
- PMFs and expectations
- Policy and Procedures
- Working Hours and Tele-work Procedures
- Leave Policy and Furloughs
- WFTK Training
- ELMS Training & Training Website
- GDOT Fact Book
- Office Supplies, Budget, and Car Pool Request
- Computer System and electronic filing
- Meet your Team
- Office Visitation
- General Questions
- Meet your Projects
- Project Manager Log Book
- General Questions
- TPROWEB / Primavera Training
- New Employee Orientation conducted by the Human Resources Office
- PDP Training conducted through the Training Office
- Subject Matter Expert Offices Rotation Training

Document, Document, Document

Physical Filing

The PM has the responsible charge to document the progression of the project and the approvals required in the PDP process. Along with keeping an electronic record of these documents, the PM should establish a physical filing system of important documents. Some ways to physically file documents for easy access are cabinets for half-size plans, hanging file folders, tube files for roll plots or tabbed notebooks. **This allows for quick access to essential documents should upper management need them.**

Electronic Filing

The PM should follow the below established practice for setting up the electronic files in CDCommon:

PROJECT MANAGER ELECTRONIC DOCUMENTATION
CDCommon is the server drive located at:
\\gdot.ad.local\gdot\preconstruction\ConsultantDesign\CDCommon

- CDcommon
  - Administration
    - Consultant Distribution List

- Forms [for forms *not* available online (no letterhead, no annual cost update forms, etc)]
  - \Fax.doc
  - \General Routing Slip.doc
  - \Transmittal letter.doc
- Invoices
- Labels
- Leave Records [Locked Folder, accessible by management and administrative staff]
- OPD Committees
- OPD Meeting Minutes & Agendas
- Org Chart
- Signatures

- Employee Folders [team spreadsheets, etc; NO PROJECT INFORMATION]
  - MatthewsT
  - ShelbyA
- OPD SOP's [PM how-to's]
  - \Electronic File Structure.doc
  - \Construction Matrix.doc
  - PMDP Training
  - Procurement
- Projects
  - 1234567
  - 2345678
  - Closed Out Projects[construction has been completed – be sure to Archive as well]
    - 3456789
- To Be Deleted

Project Electronic File Structure (Note that ProjectWise software will eventually replace this system)

= FOLDER = Sub-folder or document in the file

CDCommon\1234567\

- PE (Preconstruction)
  - Administration
    - Contract
    - Correspondence
    - Email
    - PM diary
    - AOH – used by the AOH as a quick reference file
    - Schedule
  - Budget
    - 1625 requests and approvals
    - Cost Estimates

- Project Financial Reports (PFRs)
- Project Management Agreements (PMAs)

- Concept
  - Concept Team meeting documents
  - Displays
  - Reports
  - Revisions (by date)
- Design
  - Bridge
  - CAiCE
  - DGN
  - Exceptions & Variances
  - FFPR
  - Geotechnical [scans of BFIs & Soil Surveys]
  - L&D
  - PFPR
  - Plans
  - PS&E package
  - QC-QA
  - Right of Way
  - Special Provisions
  - Survey
  - Traffic
  - Utilities
  - VE Studies
- Environmental
  - Environmental document
  - Green sheet
  - Permits
  - PIOH - PHOH
- Photos
- Planning
  - IJRs - IMRs
  - Logical Termini
  - Justification Statement

- CST (construction)
  - Administration
    - Contract
    - Correspondence
    - Email
    - PM diary
    - Proposal (proposal/CST contract)
    - Schedule
  - Budget
    - Claims

- Force Accounts
- Supplemental Agreements

- Use on Construction Revisions
- Utilities

*Correspondence

Recommended file naming convention:

type year/month/day (sorts better that way)
trans 091218 recipient subject
ltr 091218 recipient subject
fax 091218 recipient subject
inter 091218 recipient subject
memo 091218 recipient subject

Once the PM has completed the training, been assigned projects and created a filing system; the next step is **getting to know your projects**. The Project White Paper template can be used to start tracking the status of your projects and where they are in the PDP process (**see Appendix A**).

Reporting on Projects

The Department's reporting software is TPROWEB. There are several fields that are required to be filled out by the Project Manager. The data in these fields shows up on the Preconstruction Status Reports that Upper Management uses to make critical decisions on the projects.
These fields include Schedule activity actual begin and end dates; Design field comments; District field comments, and Expanded description field among others.

Additionally, the PM is responsible for reporting on the project status at the District Quarterly Meetings and at Let Status.

For **Let Status** the reporting procedure is as follows:

Insert comments into the PDF of the Preconstruction Status Report

- If an item is completed include the date it was completed.
- If an item will be completed by the scheduled date then include "on schedule" and _____will be received/held/submitted by XXXXXX (date).
- If an item is behind schedule include reason for the delay and if it will be recoverable.

Baseline on schedule:___ yes or _____no

FFPR:

FFPR Response:

Corrected Final Plans & estimate (18 weeks submittals):

Final Plans:

Utility:

ROW:

Environmental:

Construction Authorization:

Plans for reproduction:

On schedule for let?

*Project issue: submit updated issue log for each outstanding issue

Escalation of problems that PMs encounter when delivering projects:

The Project Manager is the first line of defense for keeping the project within scope, on schedule and within budget parameters. Should a procedural question or problem arise on a project, the PM should escalate to the Senior Project Manager mentor assigned to them. If the project problem requires a decision from Upper Management, the second tier of escalation should be addressed to the Assistant Office Head (AOH) assigned to the Sub-Program / District that the project is in. The AOH will determine the next course of action with input from the PM.

For internal non-responsiveness, the PM should escalate after 2 weeks of no response to the AOH. After 2 additional weeks, the AOH should escalate to the Office Head to contact the counterpart Office Head.

CHAPTER TWO

PROGRAM DELIVERY TERMS AND DEFINITIONS

NOTE: Chapter 2 of the Plan Development Process is the definitive guide for definitions. This list is for reference only, the PDP takes priority if there is a conflict.

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.

Budget- a summary or list of all planned expenses and revenues. Budgeted cost of work performed measures the budgeted cost of work that has actually been performed, rather than the cost of work scheduled. Budgeted cost of work scheduled is the approved budget that has been allocated to complete scheduled tasks during a specific time period.

Concept – A consensus beginning recommendation, idea, or starting point of a transportation solution to an identified transportation need. The objective of the concept stage is to develop a concept report that will describe and recommend project footprint, including logical termini.

Construction Work Program - A listing of State and Federally funded projects approved by the Transportation Board with one or more elements, Scoping, Preliminary Engineering, Right-of-Way Acquisition, or Construction, scheduled in the current and next nine (9) years fiscal years.

Construction - building or assembling of infrastructure. Far from being a single activity, large scale construction is a feat of multi-tasking.

Design Phase Leader – The individual charged with the coordination and timely delivery of a particular design phase.

Earned Value is a project management technique for measuring project progress in an objective manner, with a combination of measuring scope, schedule, and cost in a single integrated system. Event chain methodology is an uncertainty modeling and schedule network analysis technique that is focused on identifying and managing events and event chains that affect project schedules.

Exempt Projects – A Federal aid project that is not subject to FHWA design oversight. Exempt projects as used in this document, unless otherwise noted, do not refer to Air Quality Exempt. However, the FHWA retains approval authority for the environmental document.

Kickoff Meeting is the first meeting with the project team and the client of the project.

Let Date - The advertised date that construction bid proposals will be opened for GDOT projects.

Major Project – A project that significantly changes the function of the facility being improved requires the acquisition of significant amounts of right-of-way, has a significant impact on abutting property, 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. A major project will follow the Two Phase Preliminary Engineering process, unless decided otherwise by the Schedule Review Committee after Concept Report Approval.

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, Recreational trail projects, and Maintenance resurfacing projects less than $1million.

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. 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).

Project Budget - is generally defined as the sum of all project expenses, and can be thought of as an organizational plan stated in monetary terms, and will provide a forecast of revenues and expenditures. It shows how our business might perform financially if certain strategies and events are carried out. Program Delivery defines Project Budget as to the approved amounts in the Project Financial Report and can only be changed or revised by the Office of Financial Management, if additional funds are needed it is done so by 1625 approval from the Treasurer.

Project Framework Agreement (PFA) - A binding legal agreement between the Department and the Local Government which contains straightforward project phase participation commitments.

Project Justification – An explanation of the need for the project, alternatives that were evaluated during the planning process, an explanation of logical termini, and a statement of why the project is needed.

Project Management Plan – Program Delivery uses this baseline tool as a reference for managing the project. It is the most important document in the overall planning, monitoring, and implementation of a project and should be "owned" by the project manager and his/her team.

Project Manager – The person in responsible charge of a project who makes the day-to-day scope, schedule and budget decisions and is responsible for steering, coordinating, and managing a project through the Plan Development Process and through the construction phase. The Project Manager must possess and maintain excellent communications and strong organizational skills to ensure projects are ready-to-let on time and constructed on time.

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 Scope - is generally defined as the sum total of all of the product requirements and includes the processes required to ensure that the project includes all the work required, but only the work required, to

complete the project. Program Delivery defines Project Scope as the project's approved Concept Report which is required to meet the projects Need and Purpose Statement. Any additional work outside this document must be approved by Chief Engineer, and FHWA, if applicable, through a Concept Revision, as described in the PDP.

Quality Control / Quality Assurance Policy – Quality Control is defined as the policies, procedures, and processes and Quality Assurance is the actual work completed, or checking of that work. Program Delivery recognizes the Plan Development Process as our primary method of Quality Control and notes that Quality Assurance is the primary function of each Subject Matter Expert.

Risk - a concept that denotes the precise probability of specific eventualities. Risk management is a management specialism aiming to reduce different risks related to a preselected domain to the level accepted by society. It may refer to numerous types of threats caused by environment, technology, humans, organizations and politics.

Schedule Review Committee – A committee chaired by the State Scheduling Engineer that reviews and approves all submitted project schedules. Other members of the committee consist of the Roadway Design Office Head, the Program Control Office Head, and the Program Delivery Office Head.

Scoping Phase – Also referred to as Phase I PE. Is part of a process in which 'major' projects, as defined in the PDP manual, will have their Preliminary Engineering phase split into two steps: Phase I Preliminary Engineering and Phase II Preliminary Engineering.

State Transportation Improvement Program (STIP) – The State Transportation Improvement Program includes a list of federally and state funded priority transportation project elements (Scoping, Preliminary Engineering, Right-of-Way, or Construction) proposed to be carried out in the current and next three years (a 4 year program).

Subject Matter Expert - The individual who exhibits the highest level of expertise on a particular subject or in performing a specialized job, task, or skill through their knowledge, experience, and education.

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. 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.

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

Transportation Improvement Program (TIP) – A short term document covering at least 4 years, the current year plus the next 3 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 (Scoping (SCP), Preliminary Engineering [PE], Right-of-Way [R/W], and Construction) to be carried out in each program year.

Value Engineering (VE) – 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."

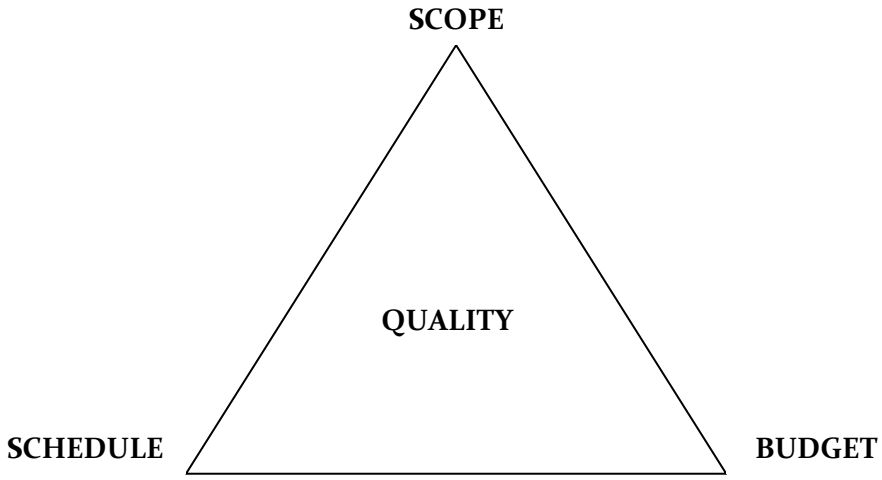
Work Breakdown Structure (WBS) - A tool that defines a project and groups the project's discrete work elements in a way that helps organize and define the total work scope of the project. A Work breakdown structure element may be a product, data, a service, or any combination. WBS also provides the necessary framework for detailed cost estimating and control along with providing guidance for schedule development and control.

CHAPTER THREE

PROJECT MANAGEMENT OVERVIEW

Let us begin the discussion of project management with a definition. There are numerous definitions for the term "Project Management" most of which involve the planning, organization and controlling of an effort with a defined outcome, specific resources and a required schedule. Frank Stasiowski, FAIA founder and CEO of PSMJ Resources defines project management as "The art and science of guiding all of the stakeholders through a series of changes that we call a 'project'." While a departure from the traditional definition, the Stasiowski definition introduces a fundamental fact and that is, *projects change as they evolve from idea to delivery.*

Fundamental to an understanding of what project management is, is an understanding of the interrelationship between scope, schedule and budget. These three elements form the sides of a triangle and as in any triangular relationship a change in any element will result in a change in the other two sides. Considering that project management involves change management a change in the scope will impact budget and probably schedule. A reduced budget will impact scope and possibly impact schedule. A reduced delivery timeline may result in increased cost and possibly scope changes.



The definition of a successful transportation project management effort would be:

- The scope, schedule and budget are in balance (remember the triangular relationship).
- Quality meets established standards and public expectations.
- No unresolved project issues, for example unresolved construction claims.

The characteristics of a successful project management process and environment are:

- An organizational culture of project management including:
  - Top management support of the project management process and the individual project manager
  - A formal process for project management within the agency that is developed by experienced project managers
  - Recognition that software is only a tool in the project manager's toolbox

    - Regular project status review meetings conducted and attended by senior management
    - Development of a culture within the organization to support the project manager and project management efforts including training and development protocols
    - A recognition that successful project management includes the collaborative effort of all disciplines involved in the project including the design disciplines, right of way, environmental permitting, utility coordination, intergovernmental relations, etc.

- Tools in place within the agency to assist the project manager including:
    - A financial reporting system that supports project management
    - Regular and consistent use of the project management plan, risk analysis and change management process
    - Adoption of simple software that the project manager uses and that can be rolled up into management reports by the project manager

- Effective change management including:
    - Recognition by all that change on a project is inevitable but must be both recognized and managed.
    - Recognition of the typical causes of change such as utilities, environmental permitting and related issues
    - A process established to recognize and deal with change
    - An effective outreach program to communicate the need and justification for the impacts of change including additional budget and schedule impacts
    - Review and change approval by top management

- A comprehensive project quality oversight system including
    - Frequent field reviews including a plan in hand review at the 70% completion level
    - Constructability reviews by experienced construction management personnel
    - Documentation of quality control (QC) processes during design including the red/yellow check of plans, calculations, and documentation that QC procedures have been followed
    - Operational reviews to assure adequate maintenance provisions
    - A "Ready for Construction Checklist" documenting that the project has been checked and reviewed and can be released

- An effective construction oversight/management program including:
    - Onsite oversight
    - Effective tracking of contractor communications including submittals, Requests for Information (RFIs), shop drawings
    - Regular construction progress meetings with documentation
    - An effective partnering program

(Taken from Chapter 2 of the 2009 NCHRP Web-Only Document 137 – Guidance for Transportation Project Management)

What is a Project Manager (PM)?

A capable PM is an effective leader who has an understanding of the goals and interests of the agency that is being represented. A PM has a thorough knowledge of the overall project process from project conception to

closeout. A PM is able to plan, schedule, estimate and budget, monitor progress and performance of the project and team, and be able to take corrective action as required. *(PSMJ Resources, Inc. (2004) The Ultimate Project Management Manual)*

A team leader's competency in project management involves integrating comprehensive strategies, technological innovations, production engineering, and internal management. Leaders must be able to establish direction, form alliances, and motivate performance all the while optimizing time, cost, procurement, quality, communications, risk, scope, and human resources.

Traits of the Best PMs

There are many traits that make up a good project manager. There are the communication characteristics, the leadership aspect and of course the actual performance and accountability of the project manager. Depending on who is asked, a variety of characteristics will be offered to define a good project manager; however there are universal traits that everyone can agree makes a project manager successful. A project manager needs to be engaging, have focus, get the best out of their team, be flexible, and be resourceful to name a few. Some of these qualities come naturally to people and some are learned. It is important for a project manager to know what kind of traits they possess and what they need to work on by taking training classes, asking other project managers and peers and even your project team or past project teams.

(Taken from Chapter 2 of the 2009 NCHRP Web-Only Document 137 – Guidance for Transportation Project Management)

There's an art to Project Management…….anytime you are trying to get someone you have no control over to deliver you something on time and accurately, it requires some special skills and understanding of how to read and react to many different types of people. It's like working with volunteers on a full time basis and your success is based, in part, on their performance. You must figure out how to motivate them or challenge them to deliver. You must figure out how to get them to "want" to deliver for you.

Project Manager Key Competencies:

- Interpersonal and team leadership
- Communication
- Personal resolve and effectiveness
- Conflict management
- Build & align stakeholder relationships
- Negotiation and Influence
- Problem-solving/decision making
- Provide for customer needs
- Proactive

Responsibility of the PM

The project manager is responsible for creating & ensuring the execution of clear and attainable tasks or objectives, and managing project SSB (Scope, Schedule and Budget) on a daily basis. Project managers also determine and ensure the implementation of the needs of the project stakeholders. The project manager will

form close links with subject matter experts and other project influential entities to ensure that customer satisfaction is realized. Project managers will have the ability to adapt SSB to all project phases. The Project manager will obtain documentation to support all decisions, agreements, and interpretations as a part of project records. Project managers work out of the Office of Program Delivery, which is responsible for the SSB for all assigned Georgia DOT projects for both internal and external customers.

Tasks of the Project Manager:

- Meet with Planning, Stakeholders and MPO as required
- Review project justification statement with an assessment of commitments and agreements
- Meet with Program Control to establish schedules, identify critical path and risks
- Identify and monitor resources – Team Members, Stakeholders & SME
- PM's project acceptance into Program Delivery with risk assessment
- Initiate and assign projects with a Project Charter
- Implement and execute the Project Management Plan with Team Members
- Conduct Meetings, Plan, Monitor, Evaluate, Mitigate, Resolve and Report
- Deliver, Deliver and Deliver!

Project Manager Tools:

- Communication & Early Coordination
- Project Management Plan
- Project Charter
- Documented Agreements
- Work Breakdown Structure (WBS)
- Schedule - Critical Path Method (CPM) Program Control
- Risk Management Plans and Analysis
- Reporting Tools – TPROWEB, Status Meetings (Team, Pre- Let and Quarterly)
- Financial Reports
- Public Involvement with Customers and Stakeholders
- Budgets with Percent Complete vs. Earned Value (drill-down by task & phase), CMIS
- Site Visits with Maintenance and Construction input and recommendations
- VE Studies

Project Management Benefits:

- Minimize project delivery delays by better managing the project schedule and reducing re-work with leading indicators!
- Improved management by eliminating scope & budget creep
- More effective working relationship with team members, stakeholders and partners by sharing information early
- Better customer service with accountability

For additional guidance on Project Management, the *2009 NCHRP Web-Only Document 137 – Guidance for Transportation Project Management* is located at:
http://www.dot.state.mn.us/cost-estimating/documents/peer-review/nchrp-guidance.pdf

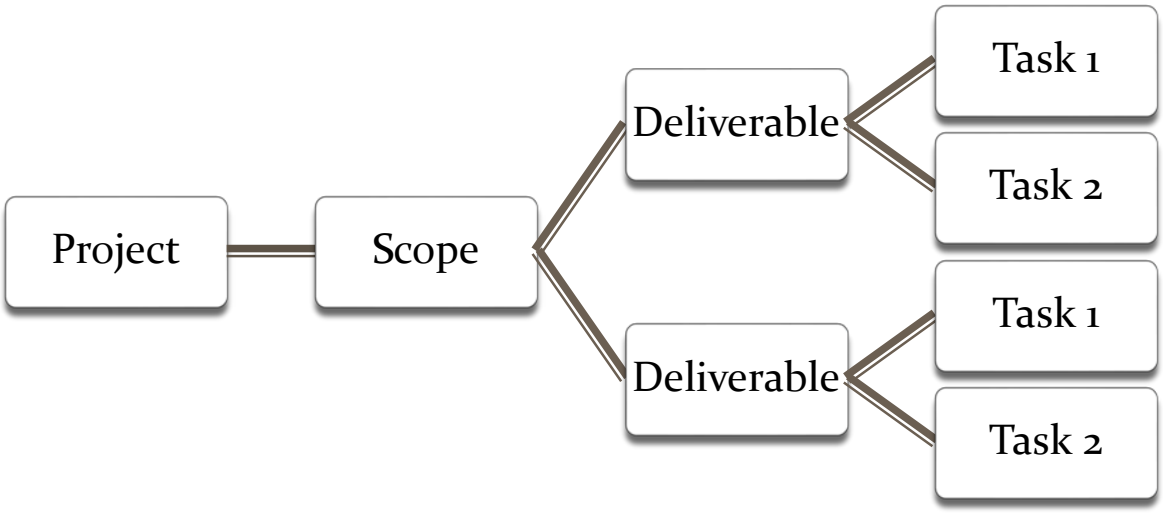
CHAPTER FOUR

SCHEDULES

WORK BREAKDOWN STRUCTURE

A work breakdown structure (WBS) as defined by Wikipedia is a deliverable oriented decomposition of a project into smaller components. It defines and groups a project's discrete work elements in a way that helps organize and define the total work scope of the project. A WBS provides the necessary framework for detailed cost estimating and control along with providing guidance for schedule development and control.

The Final Cost Proposals for negotiated manhours should be detailed to ensure projects are appropriately scoped and manhours are appropriately estimated. A WBS is useful when preparing cost proposals so that internal and external subject matter experts are clear as to what needs to be done in order to accomplish a given goal or provide a specific deliverable.



WHAT IS EARNED VALUE?

Earned Value is a comparison of the planned amount of work with what has actually been completed to determine if cost, schedule and work accomplished are progressing as planned. Earned Value Analysis is utilized to assess schedule status, cost status and for forecasting.

Earned Value is an important concept because the objective is to combine schedule performance and cost performance to determine the value of the deliverable versus the costs expended. Simply comparing the amount of funds expended to the amount allocated for the project or project phase, does not tell the PM enough about the project's performance.

Earned Value Terms:

BCWS: Budgeted Cost of Work Scheduled
Planned costs of the total amount of work scheduled to be performed by the milestone date.

ACWP: Actual Cost of Work Performed
The costs incurred to accomplish the work that has been done to date.

BCWP: Budgeted Cost of Work Performed
The planned (not actual) costs to complete the work that has been done.

EV: baseline cost for 100% of project x Actual % completion

The challenge associated with EV analyses is that it can be difficult to quantify/measure work progress.

Requirements of Earned Value:

Proper Work Breakdown Structure
Baseline Budget Accounts
Baseline Schedule
Work Measurement (work-hours, dollars, units, etc.)
Standard Management Practices

TPROWeb/PRIMAVERA

- Entering TPROWeb Project Identifiers – AOH, "Concept", Bridge ID, etc.

  When in TPROWeb, a PM will enter project status notes and standard project data. This information is important because the Preconstruction Status Report reflects these inputs for all offices to review. The data that is typically input is the following:

  - Project Status Comments
  - Project Manager Identification
  - PM's Assistant Office Head Identification
  - Estimated Parcel counts

- Updating Primavera

  Primavera can be updated for any task by the PM. Sometimes a PM cannot enter data into TPROWeb and Primavera must be utilized to input start and finish dates. The PM can input dates and change office responsibilities in the Primavera baseline schedule. Once input, the data can be reviewed in TPROWeb and completion percentages will be updated.

PRECONSTRUCTION STATUS REPORT (PSR)

Schedule Review Committee

- Submittal Letter to Program Control

  A request for a project to be placed on the Schedule Review Committee's Agenda should be made a minimum of 5 weeks prior to the target Schedule Review Meeting Date. This allows for enough time for Program Control to provide the Project Manager with a proposed schedule from Primavera. However, Program Control will print the Schedule Review schedules and provide an invitation to the Project Manager 2 weeks prior to the Schedule Review Meeting. All revisions to the schedule after the Schedule Review schedules have been printed by Program Control will have to be made during the Schedule Review Meeting.

- Schedule Review Meetings and Requirements

  Schedule Review Meetings are run by the Office of Program Control. At this meeting, your schedule has been reviewed by a panel of Schedule Review Committee Members consisting of the following representatives: Director of Engineering; Office of Program Control; Office of Environmental Services; Office of Right of Way; Office of Utilities; Office of Program Delivery. The Committee may have questions regarding your schedule during the meeting.

  The main requirement is to have submitted a proposed project schedule for the Schedule Review Meeting. The Project Manager should come to the Schedule Review Meeting prepared to justify project tasks and project durations submitted for the meeting.

  Generally, a sufficiently prepared schedule that has been submitted for a Schedule Review Committee Meeting is approved during the meeting. In addition, minor revisions made during the Schedule Review Meeting do not necessarily constitute a deferral of the project schedule to the next Schedule Review Meeting. However, a schedule will be deferred to a future Schedule Review Meeting if it is determined that the information presented is insufficient to substantiate an approval of the schedule at the meeting and/or if it is determined that there are enough revisions that will prevent the Committee from accurately estimating milestone dates during the meeting.

  It is important to note here that the Project Team Initiation Process(PTIP) is a process designed to prepare the PM for the Schedule Review Meeting. The process is estimated to take approximately 4

months which includes the Schedule Review Meeting. However, if a PM is reasonably confident about receiving all Subject Matter Expert's input within at least 2 months of a Schedule Review Meeting target date, an approval of a schedule can be obtained without going through the PTIP. A minimum of 2 months preparation for a Schedule Review meeting is suggested because the following tasks need to take place: Obtain a schedule template from Program Control; Determine Subject Matter Experts(SMEs); Compile and provide project information to SMEs; Receive SME feedback/markup of schedule template; Submit revisions for schedule template to Program Ctrl; Officially request to be placed on the Schedule Review Agenda.

Project Change Request Forms (PCRFs)

A Project Change Request Form (PCRF) is submitted by the PM when the baseline schedule needs to be adjusted and/or when the budget requires adjustment. The PCRF, as defined by Program Control, is designed to request modifications, evaluate the modifications and track the modifications. It contains a description of the project, the change requested, the reason for the change, implications of not requesting the modification, and impacts to the budget.

A link to the PCRF can be found on the Program Control internal website:

http://mygdot.dot.ga.gov/offices/programcontrol/Pages/default.aspx

The PM should attach an interdepartmental correspondence letter from the Program Delivery Administrator to the Program Control Administrator and a PM PCRF Review Checklist to the PCRF for submittal to the Assistant Office Head. The PM PCRF Review Checklist is located on the OPD Sharepoint server under Forms.

The signatures required for submission: Project Manager; Assistant Office Head; Office Head/District Preconstruction Engineer

The signatures required for concurrence: Program Control Administrator; Director of Engineering; Office of Planning

The signatures required for Final Approval: Director of Planning; Chief Engineer

If the project is a Full Oversight Project, then FHWA should be made aware of the schedule changes to ensure the adjustment of workloads accordingly.

CHAPTER FIVE

THE PROGRAMS AND THEIR BUDGETS

The PMBOK Guide defines a program as "---a group of related projects managed in a coordinated way to obtain benefits not available from managing them individually." Laws and Regulations establish programs for government projects. These laws and regulations define each program's purpose, funding sources, and funding process. In Georgia State government, resources for programs must be approved by the legislature in the annual budget.

- Construction Work Program (CWP)
  - This is a group of State and Federally funded projects approved by the Transportation Board with one or more elements, Scoping, Preliminary Engineering, Right-Of-Way Acquisition, or Construction, scheduled in the current and next nine (9) fiscal years. All projects, except maintenance, operational improvements and safety, are approved by the Transportation Board before inclusion in the Department's CWP. The challenge of managing a large number of projects is compounded by the reality that the Department's Construction Work Program (CWP) is constantly modified due to changing priorities, funding considerations, political considerations, project developments, and new work practices. A CWP project eventually graduates into a STIP project when the project elements are proposed to be carried in the current and subsequent three years (a 4 year program).

- State Transportation Improvement Program (STIP)
  - The State Transportation Improvement Program includes a list of federally and state funded priority transportation project elements (Scoping, Preliminary Engineering, Right-of-Way, or Construction) proposed to be carried out in the current and next three years (a 4 year program). It is financially constrained (dollar value of 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.

- State Highway Special Projects – These special Highway projects are funded from other sources.

The above major categories are furthermore broken down into the following sub-programs for the effective management of the GDOT projects:

H. GDOT Administered Projects
I. Locally Administered Projects
J. Transportation Enhancement (TE) Program
K. Bridge Maintenance Program
L. Traffic Operations and Safety Programs
M. Maintenance Program

N. Special Projects (Multi-Modal Passenger Terminal, High Speed Rail, Atlanta Beltline, etc.)

A. GDOT Administered Projects

This consists of GDOT PE, ROW and Letting Projects with GDOT Oversight

B. Locally Administered Program

This consists of Local PE, ROW and/or Local-Let Projects with GDOT Oversight.

Locally Administered Projects that receive federal or state funding, or that need oversight because it affects the state route or interstate system must follow the Plan Development Process. The LAP Manual discusses the Locally Administered Program in depth.

There are several agreements that Local Government will receive and need to execute during project development and construction:

- Qualification Certification Agreement
- Letter of Notification
- Project Framework Agreement
- Specific Activity Agreements such as Right of Way Acquisition

When GDOT has oversight on these Local-let projects, a PFA (Project Framework Agreement) is prepared and signed by both parties. The standard PFA is located on the MyGDOT homepage and is sent to the locals by the District Planning and Programming Engineer.

C. Transportation Enhancements (TE) Program

Transportation Enhancements (TE) activities are federally funded, community-based projects that expand travel choices and enhance the transportation experience by improving the cultural, historic, aesthetic and environmental aspects of our transportation infrastructure. TE projects must be one of 12 eligible activities and must relate to surface transportation.

Eligibility Criteria: Municipalities, Counties, Public Universities/Colleges or Authorities created by the General Assembly may apply for TE funding. Projects implemented under the TE program must be one or more of the following activities:

1. Provision of facilities for pedestrians and bicyclists
2. Provision of safety and educational activities for pedestrians and bicycles
3. Acquisition of scenic easements and scenic or historic sites
4. Scenic or historic highway programs including the provision of tourist and welcome center facilities
5. Landscaping and other scenic beautification
6. Historic preservation
7. Rehabilitation and operation of historic transportation buildings, structures, or facilities including historic railroad facilities and canals
8. Preservation of abandoned railway corridors including the conversion and use thereof for pedestrian or

bicycle trails
9. Control and removal of outdoor advertising
10. Archaeological planning and research
11. Environmental mitigation to address water pollution due to highway runoff or reduce vehicle-caused wildlife mortality while maintaining habitat connectivity
12. Establishment of transportation museums

Federal transportation program requires a 20% match.

Project Selection: TE applications are submitted during the announced Call for Projects (generally held every 2-3 years). Selection criteria include: anticipated benefits for the community, anticipated number of users/beneficiaries, whether the project is eligible under multiple TE categories, environmental impact, geographic location, level of public support, need for TE funds to complete project, relationship to other projects, and secured matching funds. Submitted applications are reviewed by internal GDOT staff for eligibility; then scored/ ranked by the TE Advisory Panel (an independent group of SMEs from across Georgia); and submitted to the State Transportation Board for project selection and funding.

TE Award Minimum/Maximum: Recommended Minimum: $250,000. Maximum Award: $1million. Preliminary Engineering (PE) is provided by 20% match by Sponsor. The State Transportation Board rules state that Georgia will use TE funding primarily for Construction.

Project Category: Minor. TE projects have FHWA allowance to follow streamlined PDP.

D. Bridge Maintenance Program

E. Traffic Operations and Safety Program

The Traffic Operations and Safety Program is a Lump Sum Program consisting of Safety, Traffic Signal Upgrades, High Risk Rural Roads, Operational Improvements, Traffic Signal Upgrades, Safe Routes to School, ITS, Signal System Upgrades, and New Signal Installation.

Safety Program – Georgia Department of Transportation's SAFETY Program is the Engineering component of the Governor's Strategic Highway Safety Plan. Projects may be designed to reduce lane departure crashes, reduce the severity of crashes resulting from lane departure, improve pedestrian safety, or improve the design and operation of an intersection. Typical projects include cable barrier, rumble strips, enhancing the recovery area, improving signage and stripping, pedestrian safety, corridor improvements, or intersection improvements.

High-Risk Rural Roads – High-Risk Rural Roads are defined as rural major collectors, or rural local roads with crash rates that exceed the statewide average rate for fatalities and incapacitation injuries. The Office of Traffic Operations maintains a list of routes known to meet these criteria and encourages project identification and development. Projects may be selected on any public High-Risk Rural Road to correct or improve hazardous locations or features.

Safe Routes to School – The Department needs all of these projects delivered as quickly as reasonably possible.

Traffic Signal Upgrades – GDOT identifies and prioritizes locations eligible for projects by reviewing signal age, maintenance difficulties (based on expense or frequency of service calls), and operational issues. Potential project types include cabinet upgrades, component upgrades, and addition or upgrade of fiber optic communication.

F. Maintenance Program

G. Special Projects (Multi-Modal Passenger Terminal, High Speed Rail, Atlanta Beltline, etc.)

CHAPTER SIX

CONSULTANTS AND INVOICING

6.1 Procurement of Consultant Services

A) Upon determination that consultant services are needed for a project, the Project Manager should develop the scope of services needed. That scope of services, the Preconstruction Status Report (PSR), and a Procurement Requisition Form (PRF) should be submitted to the Assistant Office Head for review. The Office Head will review and create the review team for the Statements of Qualifications (SOQs). Upon approval, a PDF of the signed package should be sent to Procurement using the TSP_mailbox@dot.ga.gov mailbox address.

6.2 Consultant Invoice Processing

A) Procedures- Invoices must be reviewed and approved by the Project Manager within seven days of receipt to the Office of Program Delivery. In the review, Project Managers should ensure that the invoices include supporting documentation of payment. This includes job titles, labor rates, direct costs, overhead and negotiated profit. The job titles and negotiated profit must match the contract. Direct Costs may be approved if shown in the contract and receipts for direct payment are required. General items considered direct costs are mileage, hotel fees, food, gas, mail and printing. Airline tickets can only be approved for payment if it is in the contract and for coach only. Back up from all subs must be supplied with the invoice for payment and be included on the payment total sheet under direct costs.

Companies are allowed to request changes in their overhead rate yearly, which must be approved by the Office of Audits. Companies that do not submit their yearly overhead rate yearly may be required to use zero percent overhead until it is updated. Project Managers however have the right to deny changes if it effects the overall contract amount. Invoices are required monthly until the contract expires or a final invoice is submitted.

A monthly schedule must be included with all invoices. That schedule should show the original negotiated dates as the control and actual dates for tasks/deliverables. The Project Manager should ensure late starts and finishes are included in the schedule to determine if the cost matches the deliverables. In some cases the schedule in the contract may not match the project baseline. If this is the case the Project Manager should request a supplemental agreement for time since the contract supersedes all other items

Invoices must also include a DBE (Disadvantaged Business Enterprise) sheet. The contract DBE percentage is in the executed contract. If an invoice shows a DBE percentage of zero or less then the GDOT Board approved amount, a waiver should be filled out. This waiver is located in the Office of Procurement. If the Project Manger does not agree the invoice is valid it should be returned with a letter or e-mail of explanation to the company. This allows the 30 day payment process to start again. The 30 day calendar starts from the time the invoice is date stamped. The seven day review and approval time is based on the date the Project Manager signs and dates for approval. If you are approving a final invoice please ensure it

is clearly marked FINAL. The final invoice allows the Purchases Order (PO) to be closed, which releases project funds if available.

B) Conventional – Conventional Invoices are reviewed and approved electronically through CMIS. However in some cases the invoice should be processed as a hard copy. The procedure for review and approval of conventional invoices by hardcopy is located under Section 6.2 of this handbook.

C) Task Orders-Task Orders are mini contracts under a Master IDIQ (Indefinite Delivery/Indefinite Quantity) Contract. They are also reviewed and approved electronically through CMIS. Task Orders invoices should have attachments that can be reviewed by the Project Manager. The attachments follow the same procedures as Section A. Please be advised it is a good practice to save the attachments to the project folder located on CDcommon for your records. Once invoices are approved through CMIS the data cannot be recalled.

D) Local Government-Reimbursements-First a Project Manager should determine what the maximum reimbursement is to the local government. This can be determined by requesting a copy of the PFA (Project Framework Agreement) from OFM. Next cross reference the last approved invoice or the PFA with the Project Financial Report (PFR) to determine if funds are set up under contract. If funds are not setup get with OFM to determine if funds are available and submit a 1625 to authorize funds. Once these items are correct a Project Manager may review and approve a local government invoice by following the procedures under Section A. The Project Manager must fill out a voucher summary form which can be located under CDcommon. Next put together a original packet with the voucher summary form and the signed approved invoice. The voucher summary form has a signature line for the Office Head/District Engineer or GDOT Contract Officer. Make one copy of the complete original packet and one copy of the Voucher Summary Form only. One original packet, one copy packet and one copy of the Voucher Summary Form are sent to the Office of General Accounting for payment. Once the invoice has been paid General Accounting will send back a paid stamped copy of the Voucher Summary Form for your records.

E) Final Invoice Check List:

1) Attachments from prime and all subs
2) All approved deliverables
3) All electronic files and project files if requested by the Project Manager
4) Completed DBE goal
5) Invoice total sheet clearly marked FINAL
6) Contract Termination Letter for conventional projects or request a copy of the stop work notice letter for task orders from Procurement

6.3 Conventional Contract Invoice Processing Procedures

The Consultant should invoice the Department monthly with a package that contains:

- Cover letter on Consultant Letterhead

- Invoice Verification Worksheet on Consultant Letterhead
    - Located at: http://www.dot.ga.gov/doingbusiness/consultants/Pages/default.aspx
- DBE Participation Report signed by the consultant
- A Monthly Progress Report signed by the consultant
- Supporting documentation on the billed amount
    (see Example #1)

The PM should review the invoice for correctness; make sure the contract amount has been allocated, make sure the contract amount is correct on the invoice, blue stamp or red stamp the invoice (if it's a replacement) then sign and date inside the stamp.

The PM should fill out DOT form 1678 (Voucher Summary **– see Example #2**) – *located on Policies and Procedures under Excel Forms – search by DOT1678. (This is also at **CDCommon\Administration\Forms**).* **Print completed Voucher Summary with the following information:**

Office: *Program Delivery*
Company Name: *Firm Name*
Address: *Address of Firm*
City: *of Firm*
State: *of Firm*
Zip Code: *of Firm*
Contract ID: *Can be found on Contract*
Project Acct Number: *Full Project Number*
Project ID Number: *PI No.*
Contract Amount: *Total Contract Amount*
Invoice Date: *End Date of Invoice Coverage Period*
Payment Due Date: *30 days after Program Delivery Received Date Stamp*
Statement Number: *Invoice #*

Submit the invoice, along with the **completed Voucher Summary**, to the Assistant Office Head (AOH) for approval.
(The AOH will fill out the CMIS database information based on the invoice)

Once the invoice and the Voucher Summary have been signed the AOH will:
(For G.O. PMs)
Return the signed package to the PM who will:

- Input the invoice information into the ***Conventional Invoice Tracking (7-13-2010).mdb*** access database located at CDCommon\Administration\Active OPD Invoice Tracking
- Print the Contracts Payable Routing Slip from the database:

    1. Double click 'OPD Invoices' on Right hand menu bar(under Custom Group 1)
    2. Input Invoice information into database through the 'To CP' column
    3. Double-click Routing Query
    4. Click 'View'(upper right icon on icon row)<special note: don't select the arrow pull-down>

5. At this point, you can send multiple Invoices on 1 Routing Slip print out or 1 Routing Slip per Invoice.
    - Multi Invoice Routing Slip - Delete the previous name including the quotation marks under the check box in the 'Tech' column and replace with the same name that was input in 'OPD Invoices'; also type the same date you typed in 'OPD Invoices' under the check box of the 'ToCP' column
    - Single Invoice Routing Slip - Delete the previous name including the quotation marks under the check box in the 'Tech' column and replace with the same name that was input in 'OPD Invoices'; type the same date you typed in 'OPD Invoices' under the check box of the 'ToCP' column; type the Invoice number under the 'Stmt' check box to isolate a particular Invoice for the Routing Slip.
6. Hit 'Run'(icon w/ ! on the same menu bar as 'View')
7. Save the file(if you don't save here, the Routing Slip will be from the previous user's project)
8. Double-click Routing Slip – your Routing Slip will appear
9. Print 2 copies of the Routing Slip.

- Scan the 1678 Form and the signed invoice package and put it in the appropriate folder located under **CDCommon\Administration\Invoices\Conventional Invoices.**
- The PM Should then make:
    - 2 copies of the signed Voucher Summary
    - 1 copy of the Invoice Summary Sheet
    - 1 copy of the DBE Report
- Send the fully signed package with all copies to Contracts Payable. Package to Contracts Payable should include the following:
    - 2 Routing Slips
    - The Original signed Invoice & Voucher Summary(stapled);
    - 1 copy of just the Voucher Summary, Invoice Summary Sheet, DBE Report(stapled);
    - 1 copy of the signed Voucher Summary Sheet.

(For District PMs)
The AOH will return the signed package to Darlene Lynah who will execute the above steps.

CHAPTER SEVEN

Legal Matters

Open Records Requests

The Freedom of Information Act (FOIA) is a federal freedom of information law that allows for the full or partial disclosure of previously unreleased information and documents controlled by the United States Government. The Act defines agency records subject to disclosure, outlines mandatory disclosure procedures and grants nine exemptions to the statute. It was signed into law by President Lyndon B. Johnson on July 4, 1966 (Public Law 89-554, 80 Stat. 383; Amended 1996, 2002, 2007) and went into effect the following year. The Georgia Department of Transportation, as a governmental agency in receipt of Federal funds, falls under this act. A person may start an Open Records Request by filing, in writing, a request to the GDOT Office of Legal Services. If a PM receives a request for Open Records, they should refer the requestor to the Office of Legal Services. Once a request has been received by Legal Services, they will contact any parties within GDOT that may have Public Records. The PM should set up access to the Public Records that are located in the Office of Program Delivery with the Legal Services staff. The PM is only to provide access, not look up specific documentation, nor withhold documentation that falls under the Public Records category.

What are Public Records

- All documents, papers, letters, maps, books, tapes, photographs, computer-based or generated prepared, maintained or received by an agency
- Items received or maintained by a private person, firm or corporation in the performance of a service or function for or on behalf of an agency
- Records maintained on computers, including internet access.

What are NOT Public Records?

- Records specifically exempt by federal law
- Law enforcement records dealing with a pending investigation
- Certain types of confidential personnel evaluations
- Real estate appraisals, engineers' cost estimates, and rejected or deferred bid proposals
- Social security number, insurance or medical information contained in personnel records
- Trade Secrets which are of a privileged or confidential nature
- Attorney-client privileged information
- Attorney work product information

All records must be available for inspection within three (3) business days

EXCEPT

- those which by order of a court of this state cannot be provided

or

- specifically exempt by law

Consequences of Noncompliance

- Misdemeanor charge
- Court actions to enforce the law

- Attorney Fees and litigation costs

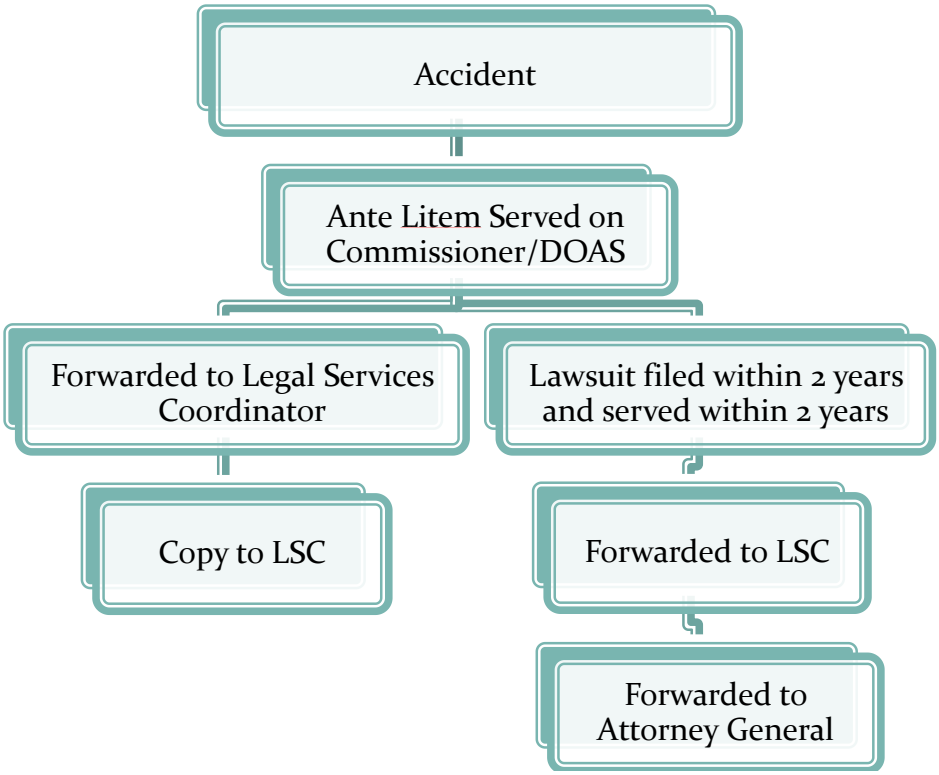
Lawsuits and Claims

Common types of Litigation

- Georgia Tort Claims Act
- Personal injury and property damage
- Breach of Contract
- Recovery for damages incurred as a result of failure to adhere to the terms of a contract
- Condemnation and Inverse Condemnation
- Recovery of just compensation where private property is taken or damaged for public purposes

Ante litem is a Latin term meaning "before litigation". Some governmental entities, such as, counties, police departments, school systems, and municipalities, may require that you send an ante litem notice of an intent to sue them in order to proceed with a lawsuit. For example, a state may require one year to give the ante litem notice, even though you might have more time to file suit. Laws governing ante litem notices vary by state, so local laws should be consulted.

Ante Litem Flowchart



Service of Process

- Rule:
  - Complaints and Notice of Claims must be served on the Commissioner

However:

If any employee received a complaint or Notice of Claim, they must IMMEDIATELY walk it to the Commissioner's office (if in the General Office) or their District Legal Services Coordinator (if in the District)

Subpoenas

- Notify the Office of Legal Services if you or someone in your office receives a subpoena to appear or make a statement to an outside attorney or investigator
- Upon being notified, the Office of Legal Services will contact the Attorney General's office
- Legal Services or Attorney General's office will advise the employee on proper course of action

Depositions and Trial Testimony

Beware of the Following

- Compound Questions
- Questions Based on False Assumptions
- Incorrectly Paraphrased Answers

Helpful Tips

- Maintain your composure
- Do not speculate
- Pause before answering a question
- Think before you answer
- Do not hesitate to say "I don't know"

Documentation

Why Documentation

- To minimize risk
- To manage the job
- To avoid disputes
- To resolve disputes
- And because you can't afford not to
  - You can create a reliable project record during the project at no additional cost
  - Recreating a project record costs big bucks and is less accurate and less credible

Caution!!!

- "Anything You Say Can Be Used Against You"… and What You Don't Say
- There is no such thing as…
  - Unofficial or "off the record" communications
  - "Confidential files"
  - Personal files, if they relate to the project
- Assume everything will come out in litigation or in the audit
- Don't say things you may regret

All Documentation is Important

- Formal correspondence/serial letters
- Meeting Minutes
- Field/Speed Memo's
- Daily Reports
- Emails
- Cost Reports

- Labor Reports
- Schedules

Documentation Do's

- Document to communicate
- Comply with notice requirements
- Have a purpose in communicating
- Give an HONEST explanation and a best solution
- Consider the contract and subcontract
- Avoid emotion: "just the fact, ma'am"

Documentation Don'ts

- Don't try to sound like a lawyer
- Don't be arrogant
- Don't sit on bad news...it does not improve with age

Why Email is Good and Bad

- Everybody uses it
- Quick and casual way to communicate
- Allows for mass communication with the push of a button
- Creates and stores permanent written record

Before You Hit Send

- Review
- Think
- If you don't want to read it on a witness stand, don't send it

<u>Legal Documents</u>

Types of legal documents the Department uses that PMs should be familiar with:

- Project Framework Agreements (PFAs) (also known as LGPAs (Local Government Project Agreements) or PMAs (Project Management Agreements))
- Memorandums of Understanding (MOUs)
- Memorandums of Agreement (MOAs)
- Railroad Agreements
- Lighting Agreements
- Temporary State Route Agreements
- Right of Entry Agreements
- Construction Agreements

CHAPTER EIGHT

Project Team Initiation Process (PTIP)

Planning and Programming

The PM should refer to the Plan Development Process for information on the Planning and Programming of a project. This chapter will focus on the PTI process which is crucial in getting a project ready for the Funding Fiscal year that is programmed.

PROJECT TEAM INITIATION PROCESS (PTIP) FLOWCHART

The Project Team Initiation Process has been established to standardize the Project Managers and GDOT subject matter expert's roles during the initiation of GDOT sponsored projects. The goal of this process is to reduce the time it takes from Preliminary Engineering (PE) funding authorization to beginning preliminary design activities by developing the scope, schedule, and budget of a project as soon as practical. This process should also be utilized when preliminary design is being initiated or reinitiated where PE was previously authorized.

Preliminary Engineering Funding Authorization:

- Approved PE Funds: PE funds should be authorized immediately after the beginning of each new FY beginning each July.
- Proposed PE Funds: PE funds should be authorized as soon as the TIP/STIP modifications are approved. Generally the first availability to authorize Proposed PE will be beginning in November each year
- If the Preliminary Engineering (PE) phase has been authorized previously and another subsequent project phase is programmed in the current STIP/TIP plus 2 years, then the Project Team Initiation Process should be followed as well.

Project Team Initiation Process:

Below is an overview of the project team initiation process. It should be used in conjunction with the attached schedule.

1. A project is activated by its' addition to the Construction Work Program (CWP) as outlined in the PDP and assigned to an office (i.e. Program Delivery, Innovative Program Delivery, etc.) along with the identification of proposed funding.
2. The Project Manager (PM) will request/receive:
    - Project Justification Report: Formally known as "Need and Purpose" should be requested from the originating Office who programmed the project. Generally this will be from the Office of Planning, Office of Bridge and Structures for bridge replacement/rehabilitation projects, Traffic Operations for safety and operational projects, and District Planning and Programming Engineers for projects previously approved by the PRNC.
    - Traffic Counts and Projections (New Noise requirements includes additional data, zoning)
    - Logical termini determination from Planning
    - Benefit/Cost ratio (priority ranking) from Planning or other office (Traffic Operations or Bridge)
    - Interchange Justification Report from Planning
    - Planning Study (if project was part of a planning study)
    - Confirmation of GDOT Let versus Local Let

- Primavera project schedule template from the Office of Program Control by project type

Alternate Project Types: If the project is programmed by Traffic Operations then the PM should consult the project assignment matrix before proceeding.

- If project assignment matrix recommends in house design services proceed to step 3.
- If project assignment matrix recommends consultant then procurement of consultant services should be initiated and then proceed to step 3.

3. Project Manager schedules Project Team Initiation meeting with the Director of Engineering.
    - Process the letter to the Director of Engineering stating the scope of activities needed for project
    - Letter to include Justification Report and Primavera schedule template

4. The Director of Engineering will direct Office Head's to have subject matter experts (SME's) to review, prepare for and attend the Project Team Initiation meeting.

5. The PM will conduct the Project Team Initiation Meeting.
    - Purpose: PM will facilitate the meeting. The originating Office for the project will present the Justification Report of the project, logical termini discussion, and any information from a Planning Study as necessary. The PM will discuss the scope of services from each office identified, project schedule template from the office of Program Control (Primavera version 14), proposed major milestone dates such as PE Auth., ROW Auth, CST Auth and CST Let. Known and potential risks to the project.
    - Responsibilities:
        - Each Engineering Office SME will discuss major tasks associated with the scope of services required or additional scope required and to discuss critical items that may affect schedule and/or budget.
        - PM provides man-hour estimate spreadsheet(electronically) for completion by each Office SME
        - PM will provide project information to add value to meeting. Such info may include but not be limited to Maps, Satellite imagery, project photo's, etc.

6. The Director of Engineering SME's will provide a man-hour estimate and note if they can perform the work in house or recommend Consultant Services to the Director of Engineering. (15 working days from meeting)
    - Purpose:
        - The man hour estimate is needed either way (for in house PE or consultant hour comparison)
    - Responsibilities:
        - If the work is to be performed In House, then a corresponding schedule (start availability and duration) for each major task shall be provided to the Director of Engineering for submittal to PM.
        - Director of Engineering will decide if he concurs with each offices assessment of the work; in house or consultant

7. The Director of Engineering will respond to the PM with the Office SME's responses and recommendations of who is to perform the work (20 working days from meeting), internal or external resources.

8. The PM will edit the Primavera Project Schedule template based on each of the SME's hours and schedules and forward to the Office of Program Control to develop the "initial schedule".
    - Responsibilities:
        - The PM is responsible for assembling each SME's hours and schedules
        - Should an office's schedule not fit within the desired delivery date; then OPD will decide if consultant services may be required
        - PM makes recommendation to Director of Engineering (PM Assessment of critical milestones, dates, fiscal years, etc.)
            - Recommendation No. 1 : In-House services
            - Recommendation No. 2 : Consultant services (project or task)

9. Letter from PM to Director of Engineering with recommendation
10. Letter from Director of Engineering to PM with final decision
    a. PM revised schedule and resubmits to Program Control, if Applicable
11. Letter from PM presenting the final decision to Chief Engineer for consultant services for approval (other than Director of Engineering task orders).
12. The PM submits and request Schedule Review Meeting (5 week min. notice time), includes the project schedule to the State Scheduling Engineer in accordance with the PDP
13. The Project Schedule Review Meeting is held (3rd Tuesday of the Month) will be reviewed at the Schedule Review Committee
14. Program Control submits schedules for approval by Chief Engineer
15. Chief Engineer receives recommendation and reviews man-hours, costs, schedule, etc.
16. Chief Engineer & Director of Planning Approves schedule (If denied, changes made and resubmitted for approval)
17. Program Control sets baseline schedule
18. PM request procurement services (if necessary – 6 months)
19. PM request 1625 to authorize Funds
20. The PM issues NTP to begin baseline activities and charge man-hours to the project after funds are encumbered

PROJECT JUSTIFICATION STATEMENT REQUESTS

Project Justifications are developed during any given project's Planning Stage. As defined within the Plan Development Process Manual, it is an explanation of alternatives that are evaluated during the planning process, an explanation of Logical Termini and a statement of why there is a need for the project.

Project Justification Requests

A project manager will request a justification statement from the Office of Planning for all projects except for Bridge Replacement projects which are provided by the Bridge Maintenance Section of the Office of Bridge Design.

DESIGN TRAFFIC REQUESTS

The project manager is responsible for requesting the traffic needed to determine the proposed project's footprint which includes Logical Termini. Traffic volumes contribute in the assessment 'Build' and 'No Build' scenarios that substantiate the Project Justification statement. Traffic requests are made prior to the Initial Concept Team Meeting to ultimately become a part of the project's Concept Report. Beyond Concept Report Approval, the project manager is responsible for updating the traffic volumes as needed due to the length of time elapsed since the traffic was approved and any changes in the TIP/STIP. Consultation with the Traffic Analyst is recommended before requesting updated traffic volumes to assess if projections can be made from existing traffic volumes or if new traffic counts are required. The PM should coordinate with the design team to determine the level of traffic data needed. Typical traffic for corridors with turning movements and corridors without turning movements are listed below:

Capacity Project w/ Turning Movements

- Existing current or 2010 Current ADT (Average Annual Daily Traffic)
- Existing current or 2010 DHV (Design Hourly Volume)
- Build Base Year ADT
- Build Design Year ADT
- Build Base Year DHV
- Build Design Year DHV
- No Build Base Year ADT
- No Build Design Year ADT
- No Build Base Year DHV
- No Build Design Year DHV

Bridge Projections or Link Volume – No Turning Movements

- Existing ADT (Average Annual Daily Traffic)
- Existing DHV (Design Hourly Volume)
- Build/Open Base Year ADT
- Build Design Year ADT
- Build Base Year DHV
- Build Design Year DHV
- No Build Base Year ADT
- No Build Design Year ADT
- No Build Base Year DHV
- No Build Design Year DHV

All ADT submittals should include

1. 24 Hour Truck
2. Single Unit Trucks (S.U.)
3. Combination Trucks (Combination)

All DHV submittals should include

1. Peak hour truck (T)
2. Peak hour Single unit truck
3. Peak hour Combination truck

CHAPTER NINE

CONCEPT

CONCEPT REPORTS

The more time spent developing a good concept report the easier preliminary engineering will progress. Concept report templates are available in Appendix A of the PDP.

A project justification statement (PJS) explains why a project is programmed. Most PJS's will be generated by the Office of Planning. Other offices may also provide PJS's depending on project type. For example, PJS's for bridge replacement projects should be requested through the Office of Bridge Maintenance.

To kick-off the concept phase, the PM in coordination with SME's, should request traffic data, aerial photography, crash history, tax maps, and old plans to use as a starting point for the project's scope.

It is important to communicate with the local stakeholders and governments as the concept develops. They can provide invaluable information regarding problems, future plans and developments expected within the project, and can aide in the public involvement process.

The scope of the project is defined through coordination with the project team and review of the available data, including the PJS, crash data, traffic projections, bridge sufficiency ratings, detour routes, etc. Once a PJS is received an Initial Concept Team Meeting (ICTM) should be scheduled to introduce the project to the project team. See the PDP for guidelines and a list of invitees to the ICTM.

Impacts to environmental resources should be considered while developing the concept report. Generally, ecology (phase I) and historic resources should be identified early in concept development. Other environmental studies could be needed depending on the project. The appropriate environmental studies to complete in the concept phase should be coordinated with the appropriate environmental specialist and NEPA. A Practical Alternative Report (PAR) should be completed and submitted to Army Corp during concept phase if one is required.

Once a scope and a draft concept report is generated, a Concept Team Meeting should be held to bring the project team back together and present the concept before it is circulated for approval.

A revised concept report may be required if major components of the concept report change during the preliminary engineering phase. See the PDP for a revised concept report templates and when a revised concept report is appropriate.

ENVIRONMENTAL

Common Pitfalls during the Environmental Phase

1. Outdated traffic – the PM should keep abreast of the age of the traffic information on the project. Open and design year traffic data should be consistent with the funding years programmed in the STIP/TIP. If traffic data changes updated air and noise studies may be required.
2. Undocumented project changes – design is a fluid process and changes could be made to a project that necessitates additional environmental studies. All changes to a project that effect a special study (right-of-way outside of the APE, shifts in the proposed edge of pavements, etc.) should be documented in a Project Change Form. This should be a cooperative effort between the DPL, NEPA specialist, and PM.
3. Expired studies – when considering project schedules, it is helpful to be aware of the age of the special studies. Changing policies or outdated information can cause delays to the project's environmental approval.

It is important to keep all specialists aware of project information. The PM should communicate directly with the specialist as needed to communicate project changes, issues, and schedules. The PM shouldn't rely on any one specialist to communicate with the other specialists.

Logical Termini is a common issue with environmental documents. Logical termini issues should tackled jointly with the Office of Environmental Services and the Office of Planning. FHWA should be engaged early in the process for termini and performance measure approval and the decision should be documented with the appropriate forms.

It is important for the PM to be cognizant of what mitigation measures are being proposed as part of the environmental document. The PM should ensure that the mitigation measures are feasible. For example, a landscaping mitigation plan will require landscaping plans and possibly a maintenance agreement.

PUBLIC INVOLVEMENT

Public Involvement from the onset must be established with a goal. The goal requires some preparation and an approach. The PM must identify the materials needed to reach the goal; these are the resources that need to be provided for the public. When the approach and the resources are firmly established, the goal will be easily executed.

First and foremost, a PM is perceived by the public as a politician; secondly, as a salesman or saleswoman selling a project. Therefore, a PM must know their facts like the back of their hand before attending any public meeting. A PM should familiarize themselves with the project fact sheet, realizing that the public will judge their first impression as the foundation of a long relationship. To prevent a rocky and wayside relationship, a PM must know their audience and avoid the following pitfalls: misunderstanding, argumentative, aggressiveness, inquisitive, meddler, haughtiness, negligence, carelessness, closed-mindedness, uncompromising, nonfactual, opinionated, ill-advised decision, distraction, inattentive, disrespectful, uneasiness, and unethical. A PM should adopt a listen first attitude and treat all customers as their number one priority.

Preparation: Public involvement is an art that the PM must be willing to make a priority due to the direct interactions with the users of the project. The public is the customer; the PM is the customer service representative. If bad customer service is rendered, there will be complaints and consequences. If good

customer service is rendered, there will be cooperation and satisfaction. Nothing is more delightful than a happy customer. Therefore, early identification of the project stakeholder is one of the tools that a PM can rely on in establishing good customer service. It is imperative to go beyond the call of duty and minimum required to fulfill this obligation. Sometimes, a PM can attend a council meeting where the project is located at, without making oneself known, just to get a feel and familiarity with the citizens in the areas.

Resources: Partnering in terms of communications with the local leaders, business leaders, commercial communities (central business district leader), residential communities (homeowner association, neighborhood association…), local law enforcement agents, church leaders, political and civic leaders could be a project-lifesaver, and make a difference between delivering the project on scope, schedule, and budget or remaining in stall for decades. Continuous communications with the stakeholders can also help reduce cost of advertising a project since they will be devoted to explaining the goodness of the project.
In a public meeting (charette, workshop, PIOH, PHOH, council meeting, and etc…), a PM should ask oneself: why am I here, what am I hoping to accomplish, how do I accomplish it, who is going to help me accomplish it, what are the obstacles to avoid, and how can I build a consensus with conflicting viewpoint and interest to accomplish the goal.

To identify stakeholders, a PM must know it is often said in any meeting, the biggest elephant in the room is the quiet, no nonsense individuals who takes note of everyone action and reaction to discussions and situations. PM is to make the most of this knowledge and screen the entire audience to identify this key individual(s): they may be a minister, head of a neighborhood association, a political leader, and the head of a citizen's advisory committee. PM is not to take the loud mouth in the room as the key decision maker, often this type of individuals are being led or instigated by the big elephant in the room. A private session with the loud individuals will reveal this perspective.

Execution: At the close of each meeting, a PM should follow every meeting with meeting minutes, notification to supervisor, and if a decision is needed: informing and providing information to decision maker, setting up a follow-up meeting, sending a letter and/or email to the meeting attendees of acknowledgement of their assistance…these are forms of responsiveness and stewardship management of a proactive PM. It is vital for the PM to make the public feel at ease, included, and involved in the project process.

An ancient saying states "a simple word is enough for the wise". All a PM must know about Public Involvement are classified into the three explained categories: Approach (Preparation), Resources (Materials), and Execution.

1. Where to find the PIOH request form
   The request form is on the OES internal webpage

2. Websites
   A project website is a good source of information for the public especially a major transportation projects. A PM can discuss establishing a website hosted by the Department for their project with with the Office of Communications, and the Office of Environmental Services. They have a standardized procedures in place for GDOT projects. Visit the following website:
   http://www.dot.ga.gov/doingbusiness/PoliciesManuals/roads/Pages/EnvironmentalProceduresManual.aspx

If the project is local and has heavy local government involvement, it is preferable to have the local create and host the website on their framework/network with the ability to send questions/comments from the webpage to GDOT PM. An example of a local government website is www.gahwy92.com

3. Twitter, Facebook, YouTube and other social media
   These should be discussed with the Office of Communications

4. Newsletters, Email Progress Reports and other communication tools
   A project newsletter is a great way to keep the project stakeholders and interested parties updated on the project status, it can be sent on a monthly basis or a quarterly basis depending on the level of project. A great way for a PM to stay on top of their project is to request from day one from their subject matters experts for a weekly progress report, which can be in the form of an email or attachment produced with Microsoft Word document or Adobe PDF. The progress report must have this minimum information:
   - Current project status/activities,
   - Public Involvement
   - Concept
   - Environmental Document
   - Preliminary Plans
   - Right of Way Plans
   - Final Plans
   - Current milestones,
   - Future milestones/activities for next week,
   - Meeting this period,
   - Issues, special problems or comments.

5. Media Relations
   A highly politicized project is bound to have the media (news broadcaster, newspaper agencies, reporters, and etc…) involved; this is an area that required the PM to be highly disciplined in communications and to ensure good customer service is provided. The PM should collaborate with the Office of Communications for assistance on media relations for their project.

BRIDGE COORDINATION

1. Bridge Condition Survey
   a. A Bridge Condition Survey should be requested on all projects that include bridges. The request should be made early in concept development so that the scope of work for the bridge may be determined (replacement, widening or rehabilitation)
   b. The request should be made to the Bridge Maintenance Office and should include the following information:
      i. Bridge Structure ID
      ii. County
      iii. Project Description

iv. Preliminary Layout if possible

c. The Bridge Condition Survey is only valid for 3 years.

2. Bridge Deck Condition Survey
   a. A Bridge Deck Condition Survey should be requested on all projects that include bridges that are not slated for replacement. The request should be made during concept development once the scope of work of the bridge has been determined.
   b. The request should be made to the Office of Materials Research and should include the following information:
      i. PI and Project Numbers
      ii. Route carried and featured intersected
      iii. Bridge Structure ID
      iv. Location Map
      v. Proposed Let Date
      vi. Concept Plan (i.e. widening, rehabilitation, etc.)
      vii. Contact Person in case of questions

CHAPTER TEN

PRELIMINARY DESIGN

INTRODUCTION

The approval of the concept report represents the end of the concept phase and the beginning of the design phase (*chapter 6 of the PDP*). The project manager assigned to the project will receive the approved concept report via email from the Office of Design Policy and Support. That report will be posted on the department's project documentation warehouse (known as TRANS-PI or GeoTRAQS). It is recommended that the project manager obtain a copy of the approved report and place it in the project records.

PROJECT TEAM AND NOTICE TO PROCEED

Depending on the outcome of the project team initiation process (PTIP), which was done prior to concept development, a project may be designed by GDOT (in-house) or by an outside engineering firm (consultant). Please refer to chapter eight (8) in this manual to review the PTIP process.

For in-house projects, the PM should coordinate with the project team assigned to the project to schedule a design kickoff meeting. It is recommended to bring the concept report and schedule to this meeting to review and discuss the scope of the project and the justification statement. This meeting will signify the NTP for the project team. The PM should prepare an NTP letter and submit to the in-house design team.

If the project will be designed by a consultant, different scenarios may exist based on the procurement process that took place during the PTIP process. Refer to chapter six (6) for details on procurement activities.

For consultant designed projects, the PM should prepare a NTP letter and submit to the prime to initiate the preliminary design phase. Similar to the in-house design process, a coordination meeting should be schedule to discuss the approved concept report and scheduled. If you are using an IDIQ contract with a task order, your NTP letter will be sent out by the procurement office.

PM SCHEDULING AND COORDINATION

The most important role of the PM in this phase is to constantly track the activities of the design phase and compare it with the schedule for the project. There are a lot of activities associated with preliminary design and the coordination efforts with various offices during this process. Depending on the scope, activities during this phase may differ from project to project.

Activities common to all projects include, but are not limited to, Survey, Engineering and Design, Utilities, Environmental, and Field Plan Reviews.

Activities that may occur include, but not limited to, Bridges, Walls, ROW, IMR/IJR, and VE studies.

Note: At any time during the preliminary design process the schedule becomes delayed, the PM should determine if a recovery plan can be established to get back on schedule. This is done by coordinating with the

project team. If a recovery plan is not feasible, a PCRF shall be generated to adjust the schedule accordingly. Please refer to the Office of Program Control's website for a PCRF template.

PROJECT MANAGER ROLES IN PRELIMINARY DESIGN

Survey/Mapping:

Project Manager is responsible for requesting aerial photography for the project. PM should meet with design team and district survey to determine the limits of survey area.

Once the survey work is underway, the PM should monitor the schedule for completion of DTM in order to avoid delays in starting the design activities. Upon completion of the DTM/Survey work, the State survey office will submit the package to the PM for distribution to the design firm.

* If the project is using a consultant design firm, the survey work is typically performed by a sub consultant of the prime. The PM should coordinate with the Prime for status reports in order to update the departments schedule tracking software (TPROWEB/Primavera). *See chapter four (4) for scheduling process.*

For consultant surveyed projects, the PM will request/receive the GPS/Control Package and property and field survey database from the prime to be submitted to the State Location bureau chief for a compliance check. The requirements for this submittal are located on the R.O.A.D.S website.

SURVEY DATABASE

Aerial Photography

Aerial photography is requested through the State Location Bureau. Photography can be taken at concept level or mapping level, depending on the application. Concept-level is generally sufficient for public displays and layouts.

Aerial photography is generally taken during the fall and winter, due to tree cover. The schedule for receiving aerial photography should be coordinated with the State Location Bureau.

Mapping

Mapping files are generated after mapping-level aerial photography is generated. All projects do not require mapping depending on the project type. For example, bridge replacement projects typically are not mapped.

Field Surveys

Field surveys are requested through the State Location Bureau in coordination with the District survey personnel. Field surveys enhance the mapping files for obscure areas and other special features. It is important to coordinate scope of the field surveys with the designers and surveyors. A pre-survey meeting is held on site to review the limits of the survey and any other special considerations that the surveyors need to be aware of.

Property Access Letters

Property access letters are required to be mailed to property owners before surveyors (consultant or GDOT) enter private property. Standard property access letters are available for in-house or consultant use. It is the PM's responsibility to ensure that these letters are mailed prior to when access is required on private property. A copy of the property owner notification letter template can be found in the ROADS website.

Additional Survey Requests

During the design phases of a project, it may be necessary to request additional survey. Additional survey can be required if there has been any changes on the corridor, new development, or if the design changes necessitate new survey limits. Additional survey is frequently requested during right-of-way acquisition to locate improvements to property.

Additional survey should be requested through the State Location Bureau in coordination the DPL and the District SDE and SRE.

Environmental:

The Project Manager should hold status meetings with project team to verify if the environmental process is moving forward. Ideally the PM should take note of impacts to identified environmental resources. The PM should coordinate with the NEPA planner and design team to determine how environmental impacts will affect the schedule. Discussions should take place to see if impacts can be avoided in addition to determining scope and cost impacts as a result.

Role of PM may include involvement in but not limited to the following during the NEPA process: Ecology, History, Archeology, and Public Involvement. The PM is expected to be a resource for these activities and to provide scope schedule and budget guidance.

Public involvement is critical to the success of a project. The PM is required to participate in the public meeting to provide guidance and support for the project team. The project team will provide the necessary project data and the expertise behind the concept. As PM, you should be prepared to answer overall project related questions or consult with the SME.

Before the environmental document is sent to FHWA for approval, the PM will receive the "green sheet" for review and signature. The PM should schedule a meeting with the design team to review the items on the green sheet vs. the preliminary plans package for accuracy and completeness. All commitments should be discussed and analyzed for impacts to scope schedule and budget prior to inclusion on the green sheet. It is important to remember that this shouldn't be the first time you see a commitment for the project. Refer to the ROADS website Environmental Procedures Manual.

Utilities

Utility involvement should be done early in the preliminary design phase of a project. It is the responsibility of the PM to coordinate with the Utility office and the project team to determine what level of utility coordination will take place on a project. Typically you will see two options for coordination.

1. For minor utility impacts the design office can simply submit files to the DUE for coordination with the Utility owners. The PM should also communicate the schedule the DUE.
2. For complex utility involvement where SUE was determined to be the best option, the PM should work with the design team and the SUE office to establish a scope and schedule for completion. SUE request materials and information can be found on the State Utilities office website at: http://mygdot.dot.ga.gov/offices/utilities/Pages/default.aspx

As the preliminary utility process continues during this phase, the PM should coordinate with the District Utilities Engineer for risks to schedule.

Project Managers should work with the District Utilities office on the Public Interest Determination procedures. Information can be found on the GDOT State Utilities website at http://www.dot.ga.gov/doingbusiness/utilities/Pages/manual.aspx

The State Utilities office and the District Utilities office will handle all the coordination between the State and each utility owner that is impacted on a project. The PM should understand and be aware of some items that may affect a projects scope, schedule and budget. Below are some common terms that may help the PM understand how they may be affected.

- Reimbursable/non reimbursable
    - This is whether or not a utility owner will get paid to relocate or adjust their facility in conflict, typically prior to the project proceeding beyond the planning/concept phase of the project development. There are ten cases (founded in charter 4 of the Utility Accommodation Policy and Standards) that applies to reimbursement. In most cases of reimbursement the utility owner has prior right of occupancy.
- Prior rights
    - This is a prior vested right in which a utility is eligible for compensation for the relocation of its facilities due to the fact that there occupancy predates existing or proposed right of way. By law, the utility companies are to be paid for relocation cost when the facility is on private easement.

- Railroads
    - In most cases the railroad has prior rights, which forms the basis of project handling between the Department and the railroad. These prior rights create a situation where the railroad has final approval authority over the Departments plans. This is a lengthy process and the need for early coordination is paramount in meeting scheduled deliverable dates. Also note that utility companies will need a separate permit to work in the railroad right of way as well.

- Public Interest Determination (PID)

- Applies when the Department determines that it is in the public interest to relocate existing overhead/aerial facilities to underground. This can be justified from the standpoint of highway safety, aesthetics, economic development, community health, reduced network outages, scenic, environmental, historical and other such concerns. Early coordination with the District Utility Engineer in determining the need for a PID is emphasized as the process is lengthy, but the benefit can be great overall because of the ability to control the relocation schedule as well as the cost.

- Utility Aid Requests (local Government)
  - The State Utilities Office processes all Utility-Aid requests submitted by Local governments through the District Utilities Office requesting financial assistance on Department projects. Assistance may be considered for Extreme hardship cases where cost are both unusually high in comparison with the Utility's operating budget, and for major project design or schedule changes late in the plan development process. We need to emphasize to the local governments to put their requests in as early as possible after engineering analysis of potential relocations and costs to provide a reasonable estimate.

BRIDGES AND STRUCTURES

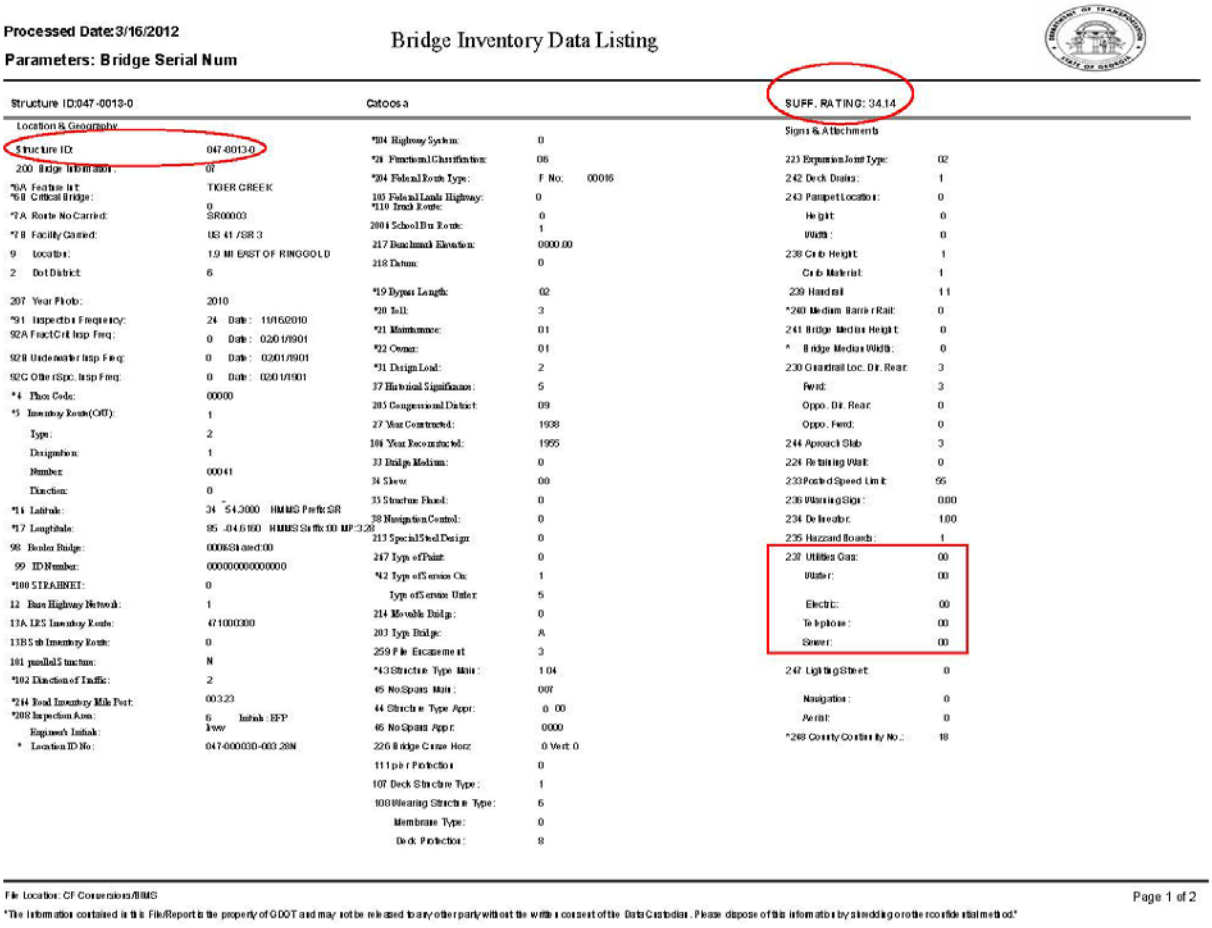
If a bridge is in the scope of a project, the PM will be responsible for coordination between the design team and the bridge office. If there is an existing bridge on a project, a bridge condition survey and deck survey should have been completed in the concept phase. See chapter 9 for information on this survey.

The design team will be responsible for preparing the necessary files and documentation to be submitted to the bridge office. Once the request for bridge services has been submitted to the Bridge office and the structural design engineer is assigned, the design office and bridge office will work together to prepare a preliminary bridge layout. The PM will serve as a resource during this coordination to resolve issues that may arise and monitor the risks to schedule, scope and budget.

There may be a time when the PM is asked to provide bridge information on a project. This information should be limited and often referred to the Bridge Office for response. However, if needed, it is important for the PM to be able to understand some key bridge terms. Below are some terms that a PM may refer to when talking with the Bridge office or a partner agency (i.e. FHWA);

3. Bridge Structure ID and Sufficiency Rating
   a. The Bridge Structure ID and the Bridge Sufficiency Rating are provided by the Office of Bridge Maintenance. The Bridge Structure ID is a unique number used to identify the bridges throughout the state. The Bridge Sufficiency Rating is a rating from 0% to 100%, assigned to each bridge after a thorough biennial inspection.
   b. The Bridge Structure ID and the Bridge Sufficiency Rating may be found on the Bridge Inventory Data Listing (also known as the SI&A Report) located on GEOTraqs. As seen in Figure 1, the Bridge Structure ID is located in the upper left quadrant of the page and the Bridge Sufficiency Rating is located in the upper right quadrant of the page.

Figure 1 – Bridge Inventory Data Listing (SI&A Report)



Processed Date:3/16/2012

Parameters: Bridge Serial Num

Bridge Inventory Data Listing

Structure ID:047-0013-0 — Catoosa — SUFF. RATING: 34.14

Location & Geography

Structure ID:	047-0013-0
200 Bridge Information:	0?
*8A Feature Int:	TIGER CREEK
*8B Critical Bridge:	0
*7A Route No Carried:	SR00003
*7B Facility Carried:	US 41 /SR 3
9 Location:	1.9 MI EAST OF RINGGOLD
2 Dot District:	6
207 Year Photo:	2010
*91 Inspection Frequency:	24 Date: 11/16/2010
92A Fract/Crit Insp Freq:	0 Date: 02/01/1901
92B Underwater Insp Freq:	0 Date: 02/01/1901
92C Other Spc. Insp Freq:	0 Date: 02/01/1901
*4 Photo Code:	00000
*5 Inventory Route(On):	1
Type:	2
Designation:	1
Number:	00041
Direction:	0
*16 Latitude:	34 54.2000 HIMMS Prefix:SR
*17 Longitude:	85 .04.6160 HIMMS Suffix:00 MP:2.28
98 Border Bridge:	000KSHared:00
99 ID Number:	000000000000000
*100 STRAHNET:	0
12 Base Highway Network:	1
13A LRS Inventory Route:	47100030D
13B Subinventory Route:	0
101 parallel Structure:	N
*102 Direction of Traffic:	2
*144 Road Inventory Mile Post:	00.323
*208 Inspection Area:	6 Initials : EFP
Engineer's Initials:	hww
* Location ID No:	047-00030D-000.28N

*104 Highway System:	0
*26 Functional Classification:	06
*204 Federal Route Type:	F No: 00016
103 Federal Lands Highway:	0
*110 Truck Route:	0
2804 School Bus Route:	1
217 Benchmark Elevation:	0000.00
218 Datum:	0
*19 Bypass Length:	02
*20 Toll:	3
*21 Maintenance:	01
*22 Owner:	01
*31 Design Load:	2
37 Historical Significance:	5
205 Congressional District:	09
27 Year Constructed:	1938
106 Year Reconstructed:	1995
33 Bridge Medium:	0
34 Skew:	00
35 Structure Flared:	0
38 Navigation Control:	0
213 Special Shed Design:	0
247 Type of Paint:	0
*42 Type of Service On:	1
Type of Service Under:	5
214 Movable Bridge:	0
203 Type Bridge:	A
259 Pile Encasement:	3
*43 Structure Type Main:	1 04
45 No Spans Main:	007
44 Structure Type Appr:	0 00
46 No Spans Appr:	0000
226 Bridge Curve Horz:	0 Vert: 0
111 pier Protection:	0
107 Deck Structure Type:	1
108 Wearing Structure Type:	6
Membrane Type:	0
Deck Protection:	8

Signs & Attachments

223 Expansion Joint Type:	02
242 Deck Drains:	1
243 Parapet Location:	0
Height:	0
Width:	0
238 Curb Height:	1
Curb Material:	1
239 Handrail:	11
*240 Median Barrier Rail:	0
241 Bridge Median Height:	0
* Bridge Median Width:	0
230 Guardrail Loc. Dir. Rear:	3
Feed:	3
Oppo. Dir. Rear:	0
Oppo. Feed:	0
244 Approach Slab	3
224 Retaining Wall:	0
233 Posted Speed Limit:	55
236 Warning Sign:	000
234 Deliveator:	100
235 Hazzard Boards:	1
232 Utilities Gas:	00
Water:	00
Electric:	00
Telephone:	00
Sewer:	00
247 Lighting Street:	0
Navigation:	0
Aerial:	0
*248 County Continuity No.:	18

File Location: CF Conversions/BIMS

Page 1 of 2

The information contained in this File/Report is the property of GDOT and may not be released to any other party without the written consent of the Data Custodian. Please dispose of this information by shredding or other confidential method.

c. The Bridge Inventory Data Listing contains a great deal of helpful information. For example, Item 237 on the listing identifies which utilities, if any, are attached to the bridge. The code number listed next to the utility tells you where it is located on the bridge.

4. Bridge Prioritization
   a. Each bridge throughout the state is prioritized for replacement based on its sufficiency rating and other factors. The State Bridge Engineer provides the bridge prioritization.
5. Hydrologic/Hydraulic Study
   a. A Hydrologic/Hydraulic study is required for each bridge replacement project over a waterway. The study examines the potential effects of the 2-, 10-, 50-, 100- and 500- year storms for the natural condition (unrestricted), the existing condition, and the proposed condition.
   b. If this study is performed by a consultant firm, it must be reviewed and approved by the Office of Bridge Design.

VALUE ENGINEERING (VE STUDY)

Scheduling a VE study should be initiated by the Project Manager. If a projects cost estimate equals or exceeds $50 million dollars for the combined costs of PE, ROW, UTL, & CST, you are required to hold a VE study in accordance with Georgia State law. It is important to make sure your local governments sponsoring PE are aware of this task so they can include in there scope.

The PM is responsible for securing the funding for the VE study. On all major projects the design contract/budget should include VE scope and funding.

1) In-house design/Consultant Design = the PM will submit a 1625 once the estimate is received from Engineering Services.
2) Local Government (Responsible for PE) = the PM should coordinate with the local government to ensure that they have accounted for the VE funding.

The project manager is responsible for making sure the project team has provided the requested information to the VE team. The PM and the design team are required to attend the VE study on the first and last days. During the week long study, the PM or members of the project team may need to provide information to the VE team.

Upon completion of the VE study, a report will be submitted to the PM for review and response. The PM will have 4 weeks to work with the project team to determine if any VE recommendations should be implemented. The PM should analyze the recommendations to determine if any change will pose a risk to the project schedule, scope, and budget. This risk analysis assessment should take place with the project team to determine global project impacts. A detailed response will be submitted to the Office of Engineering Services.

Once the VE responses have been accepted and signed by the Chief Engineer, all recommendations that were accepted must be implemented. If during the plan development process the project team determines a VE recommendation is no longer valid, the PM should submit a VE reversal letter. The PM should request the documentation from the design team that supports the VE reversal and submit to the office of Engineering Services.

PRELIMINARY FIELD PLAN REVIEW (PFPR)

The project manager will receive a PFPR package with a signed QC/QA certification statement attached. It is the responsibility of the PM to review the package for completeness before submitting to Engineering Services. For consultant design projects, the PM will receive a CD with electronic drawing files which are to be submitted to the CADD standards group for QA check on compliance with the EDG.

The PM will need to have on hand the certifications for PFPR which include: Environmental and Planning for Non-attainment areas. For projects in attainment areas, the PM should review the STIP/TIP to make sure it is consistent with the projects description.

Once all items have been verified, the plans and package will be sent to the Office of Engineering Services for scheduling of the PFPR. You can find the distribution list on the R.O.A.D.S website.

Once the Office of Engineering Services accepts the package, a PFPR will be scheduled and the PM will be notified. The PM should make sure the project team is aware of the meeting date and time and attend the meeting as scheduled.

The report will be submitted to the PM for response after the review engineer approves the report (including FHWA signature as required). The PM is responsible for getting all responses from the SME's to incorporate in the PFPR report. The PM will have four (4) weeks to return to engineering services.

A copy of the PFPR responses should be in the PM's electronic documentation.

CHAPTER ELEVEN

Final Design

RIGHT-OF-WAY

The approval and distribution of the PFPR report represents the end of the preliminary design phase and the beginning of the final design phase (*chapter 7 of the PDP*). Before final design actually starts, the right-of-way plans should be prepared for review and approval. The PM should coordinate with the project team assigned to the project to review project schedule and deliverables. Note: You must have an approved environmental document before you can get right of way plans approved and current within six (6) months for funding authorization.

Location and Design Notice approval (L&D)

The Location and design notice approval is required before the right of way plans can be approved and after the environmental document is approved. See the PDP for the L&D template.

The PM should complete the location and design approval template with input from the lead designer.

Once the L&D notice is complete, the PM will submit electronic copy to the office of design policy and support via the "concepts" email address. The report will be reviewed for accuracy and then processed for approval. Once processed, the PM will receive an email with an approved copy of the L&D. After receipt of the approved notice, the L&D approval date should be placed on the ROW plans cover sheet by the design phase leader or consultant designer.

Right of Way plans Submittal and Approval

Once the ROW plans are prepared (incorporating any changes from the PFPR), the PM will receive two full size paper sets and a digital copy in pdf format from the design phase leader. For ROW plans pre-approval, the PM will submit two full size sets to the ROW office and place the digital copies on the PCCOMMON RW site. The PM should coordinate with the ROW office to make any corrections to the plans prior to approval. FHWA approval of ROW plans is required for all FOS projects.

Once the ROW plans are approved, the PM will receive two notifications via email.

1. Notification of approved ROW plans. The plans will be placed on the ROW store website
2. Notification to submit current X-sections and driveway profile sheets via electronic submittal process found on R.O.A.D.S.

At this point all changes to the ROW plans will require an official revision. The revision process can be found on the EPP quick reference sheet via the R.O.A.D.S website.

Right of Way Funds Authorization

During the ROW approval process, the State ROW office will receive a detailed ROW cost estimate from the district ROW team manager. Once the estimate is received and the ROW plans are approved, the funds will be submitted for authorization by the State ROW office.

Projects that have a signed PFA with local government funding and acquisition of the ROW, the district local government ROW coordinator will be responsible for preparing a local ROW agreement. Once the agreement is signed by all parties and executed, the ROW phase will be "authorized".

In both cases, the acquisition of property can begin after the ROW funds/phase has been authorized.

Note: The project manager should verify if the approved environmental document is current (no changes) within 6 months to ensure the ROW authorization is not delayed.

Right of Way Acquisition

The first step in the acquisition phase is to hold a property owners meeting. The PM should receive notice from the district ROW team manager that a property owner meeting has been scheduled. The PM and Design SME should attend this meeting and serve as a resource for questions by the property owners and acquisition team. It is recommended to review the project schedule and analyze any foreseen risks with the RW team manager. The acquisition phase will continue and be concurrent with the final design phase.

Negotiation Process and the PM's role

The district ROW team manager is responsible for the acquisition of ROW for the construction of the project. The PM may be contacted by the ROW team if a property owner has requested a change to the plans to aid in settlement. The PM is responsible for coordinating with the SME's as needed to determine if the change can be made. The PM should monitor the acquisition schedule and support the ROW team as needed. The ROW team leader may not always coordinate with project team on settlements. It is highly recommended for the PM to coordinate with the ROW team manager to determine if settlement agreements have been made.

It is very important to coordinate with the environmental office as changes are made to the project during the negotiation phase. Changes should be reviewed by the environmental SME's to determine if a change re-eval of the document needs to occur.

<u>DESIGN</u>

Introduction

The final design phase of a project is essential in preparing all necessary documents for the Plans Specifications & Estimate package. The PM should coordinate with the project team as often as possible to track project schedule, scope and budget. During this phase the PM should expect all outstanding activities including design, ROW, environmental, utilities to be completed and certified for construction.

PM Scheduling and Coordination

As with previous project phases, the most important role of the PM in this phase is to constantly track the activities of the final design phase and compare it with the schedule for the project. Identifying and analyzing risks at this stage will allow the PM to notify management any negative impacts to the schedule and/or budget.

Project Manager Roles in Final Design

Environmental:

The Project Manager should hold status meetings with project team to verify if the environmental is current. The PM should coordinate with the NEPA planner and design team to determine if any plan changes (if any) will affect the schedule. Major changes may result in additional studies and or impacts which could cause the project to be delayed.

Before the environmental document can be certified complete, it must be current and all permits and variances obtained.

Utilities

As soon as the PFPR comments are addressed and corrected in the plans, the design phase leader will submit copies to the district utilities engineer for distribution to local utility owners. During this phase, the utility owners will prepare utility relocation plans based on the design of the project. The PM should contact the District Utility engineer for regular updates on the relocation plans as well as any reimbursements costs that could affect the project's budget.

Bridges and Structures

If a bridge is in the scope of a project, the PM will be responsible for coordination between the design team and the bridge office. Once the bridge design is complete, the Bridge Office will submit the plans to the PM. for inclusion in the final plans package. The PM should forward the bridge plans to the design phase leader. It is very important to coordinate with the bridge and design team to make sure the plans are consistent with the bridge design. Any errors with this coordination can cause serious delays to a project's schedule.

Final Field Plan Review (FFPR)

An FFPR should be held no later than 24 weeks ahead of the let date. The project manager should request the conformity letter from the Office of Planning to include in the FFPR package. The project manager will receive a FFPR package with a signed QC/QA certification statement attached once the final design is complete including final bridge plans, utility relocations, pavement design etc. It is the responsibility of the PM to review the package for completeness before submitting to Engineering services.

Once all items have been verified, the plans and package will be sent to the office of engineering services for scheduling of the FFPR. You can find the distribution list on the R.O.A.D.S website.

Once the office of engineering services accepts the package, a FFPR will be scheduled and the PM will be notified. The PM should make sure the project team is aware of the meeting date and time and attend the meeting as scheduled.

The report will be submitted to the PM for response after the review engineer approves the report (including FHWA signature as required). The PM is responsible for getting all responses from the SME's to incorporate in the FFPR report. The PM will have two (2) weeks to return to engineering services.

Pre-let Status Meetings

PM's are required to prepare for and attend pre-let status meetings. Meetings are held no more than one week in advance of the let status meeting. This meeting is held with the State Program Delivery Engineer and assistants. Project Managers should prepare comments on projects that are to be discussed in the let status meeting and insert them on the office PDF copy of the status reports. Each PM with projects in the letting should receive an email with a link to the status reports to upload comments.

Let Status Meetings

Once a project is within seven (7) months of a scheduled letting date, the project will be added to the Departments monthly let status meetings. The project manager is required to attend this meeting to provide a detailed update on the project and discuss any risks to the letting schedule.

LETTING A PROJECT TO CONSTRUCTION

GDOT Let Projects

The PM should constantly monitor the project as the letting schedule gets closer. A letting schedule with all deliverables and deadlines is advertised on the Department's Bidding Administration website. *http://tomcat2.dot.state.ga.us/ContractsAdministration/index.cfm?a=a&fuseaction=dynamic.section&secID=19*

After FFPR comments have been addressed, the final corrected plans with special provisions will be due to engineering services no later than 18 weeks ahead of the let date. At this time, engineering services will begin calculating the final detailed cost estimate.

No later than 11 weeks before the letting, engineering services will submit certifications for Environmental, ROW, and Utilities to the office of Bidding Administration. These certifications were provided by their respective offices verifying that the project is ready for let.

For all projects, exempt and FOS, the PS&E package will be submitted to bidding administration no later than 10 weeks before the scheduled let date. This ensures enough time for the contracts office to review the package and quantities for accuracy. Any discrepancies will be flagged and returned to the PM for correction. All changes to the plans at this point will be listed as an official revision. Once the project is advertised for

bidding the plans can no longer be “revised”. Changes from this point will be documented by an “amendment”. If the project is awarded to the low bid contractor, all amendments that resulted in plan changes will need to be processed as a “use on construction” revision.

Local Let Projects

A comprehensive explanation of Local letting procedures is in the LAP manual appendix. Refer to the LAP for this guidance and the template letters to be used.

CHAPTER TWELVE

DESIGN GUIDELINE EXCEPTIONS / VARIANCES

Content to be developed as necessary

CHAPTER THIRTEEN

CONSTRUCTION

The purpose of this section is to aid in the PM's understanding of his or her role during the Construction Phase of a project.

TRANSITION CONFERENCE:

The Transition Conference is the first line of communication between the offices of Design, Environmental, Right of Way, Utilities, Traffic Operations, Maintenance, and Construction in regards to moving towards construction activities beginning. This conference should be initiated through communication between the District Construction Engineer and the PM. Typically, it should take place between the project being advertised for construction and bids are taken. See previous chapters and/or the Construction Matrix for further detail regarding the detailed purpose or responsibilities of this conference. In general, the purpose is to help move the project into the Construction Phase by "transitioning" details, information and project specifics that will help pass along a clear understanding of the project.

PRE-CONSTRUCTION CONFERENCE:

The Pre-Construction Conference is a kick off meeting coordinated, planned and scheduled by the GDOT Area Office in conjunction with the GDOT District Office. This is normally held within 10 days after the Notice to Proceed is issued. It is primarily to assemble all of the different parties involved in the project and discuss some general and specifics of the project prior to moving forward. It also helps break the ice and acquaint all the parties with one another.

The PM's role in this meeting is very minor and is more of a simple attendee. The PM should be invited to this meeting by being copied on the notification letter sent by the Area Engineer's Office. There may be certain instances where the Area or District office requests more participation from the PM, in those cases, the requests should be clear and specific and the PM should welcome the requests and meet them in the most efficient way possible.

Some of the recommended items for the PM to have available are:

- A copy of the Contract/Proposal – If this meeting is being held before official NTP is granted, which is rare but it does occur occasionally, only a Proposal will be available. In this case, it is recommended that the PM be prepared to provide a copy of the Special Provisions at the meeting. It is not the PM's responsibility, however, it does show that the PM is well prepared and is ready and willing to go above and beyond the call of duty.
- Pre-Construction Status Sheets – These reports are always good to have close by because you never know when you'll be asked a question about any particular project.
- A half-size set of plans – A PM does not want to rely on anyone else to provide what they need to show or answer a question for someone.

- ❖ Any special items that may be unique to the particular project and/or may come up in the form of a question later. The best way to determine what's needed for a particular meeting is simply to spend some time thinking and focusing on that project as you prepare for attending the meeting in the days leading up to it.

CONSTRUCTION OVERSIGHT:

General construction oversight will NOT be the Program Delivery PM's job! The day to day activities on a construction project is handled by the Area Office in which it occurs in. Each Area Office across the state has Construction Project Engineers. These employees are charged with the daily task of enforcing the Construction Contract between the Department and the Contractor. They ensure specifications are followed for each individual activity on the project and the measurement and payment of quantities each month or bi-monthly in some cases.

Please see the final version of the Construction Matrices which provides details of particular tasks during the construction phase and roles of each office for that particular task. In addition to the matrices, a PM should note that their role during this phase is more of a supporting and informed role than anything else. Through in depth discussions, the Chief Engineer has determined that the PM is NOT responsible for the Scope, Schedule and Budget through this phase. More so, the idea is that the PM be informed of issues, whatever they may be, have good communication with the particular Construction Project Engineer, Area Engineer & District Construction Engineer, ask the proper questions to ensure that the resolution is reasonable, feasible and the most practical possible solution. In addition, after working through the issue with construction personnel, the PM's role is to support construction in administering the resolution as expeditiously as possible. This may include plan revisions that are needed as soon as possible to keep from having a claim filed, adding additional funding to the project to take care of the cost of the Supplemental Agreement without delays, coordinating with other offices to find a speedy answer to a "Request for Information", ensuring that submittals such as shop drawings are being reviewed and turned around in a timely manner or helping to final the project out through the final audits process and releasing the remaining encumbered funds as soon as possible so they can be applied elsewhere on other projects without delay.

The idea of site visits is good; however, the PM must adequately judge when and how often they should visit a construction project. Again, the intent of this is solely to maintain good communication with the construction staff. Each project will be different depending on the type, location and complexity. The PM must get a feel for when and how often to visit a project.

Basically, the PM's role in construction is to keep good lines of communication with the construction personnel and aid in any way possible while not getting so involved that it causes problems with the construction offices and/or does not allow the PM to have adequate time to perform their many other duties.

Remember, the PM's role during the Construction Phase is to be informed of issues that are being faced and support in any way to aid in the expeditious resolution.

CONSTRUCTION CHANGE ORDERS:

Any Supplemental Agreement (SA), Time Extensions or Extension Agreements are initiated by the Construction Office. The PM should be informed of a potential issue that may require a change order, support in every way possible to resolve the issue expeditiously and be consulted on the final solution to be presented and executed.

The primary reason the Chief wants the PM involved in this process is to ensure that the proper questions are being asked such as……"is this necessary to complete the project?" or "what's the simplest, most feasible and fastest way to resolve the issue?", etc. Other reasons include such things as, the PM can take the time to run down specifics that lead to a resolution faster than the District or Area staff. PM's have the means and methods of pushing things such as Use on Construction Revisions that are a result of a change order through faster.

Currently, the PM signs the change order forms such as 357's, 457's, etc. prior to it being executed. Therefore, the PM needs to be aware and up to speed on the issue and resolution to be capable of signing such change order with good conscience and professional integrity.

The PM should not over step their bounds into the SME's domain; however, they should be kept well informed of the issues, progress, and possible solutions as the project progresses. They should encourage a good line of communication and assist wherever possible while asking the proper questions along the way.

The PM should not over complicate this process, they should establish and maintain routine communication that encourages Construction SME's to keep the PM up to date. Construction personnel should be informing and consulting with the PM while the PM should be acting as a support role to provide whatever is necessary to help resolve the matter.

The focus from the PM's perspective should be Scope, Schedule and Budget.

DESIGN SERVICES DURING CONSTRUCTION:

Conflict is inevitable on a construction project. It's not if revisions will be needed, it's when. Many times, as issues and needs arise, Construction Personnel will need Use on Construction Revisions, Shop Drawings reviewed and approved, etc.

The PM's role is to help make this process as efficient and timely as possible to help eliminate or at least reduce as much delay as possible.

The main thing to remember is each office should have a reasonable amount of time to provide the services being requested, however, the PM's role is to get involved once that time has expired and begins to become excessive. In most cases, this will be a matter of opinion and will be dictated based on the urgency of the need. In general, industry standard is a thirty day turn around. Keep in mind that each situation stands alone and relatively speaking, has its own sensitivity in regards to time. For example, a revision needed to resolve a

delay claim may need to be pushed harder than a general shop drawing submittal that's "standard operating procedure".

Just keep communication lines open and ask routine questions during your weekly, monthly or quarterly "inspection", whether it be by phone or site visit. Email, telephone follow ups and site visits will likely be determined by the complexity of the project. No matter how that's handled the PM should ask questions like……"Is there anything outstanding that I can help you with?" This will prompt the Construction personnel to let you know that there is something outstanding and the PM can help follow up on it for them.

This should work the same whether the designer is in-house or consultant because the PM is the consistent factor. The PM should be the first contact Construction personnel makes when a design service is needed during construction. If construction services are provide in the scope of services for the consultant, the PM should be abreast of the expiration date of the contract.

ERRORS AND OMISSIONS:

There is a policy on Errors and Omissions and the PM should at least be familiar with the procedure and requirements so that if or when the designer is accused of such, the PM will know how to proceed for further research into the proper actions.

PM's should know that in the past, accusations have been rare and even more rarely perused, however, as the Department adapts to challenges such as economic hardships which lead to budget cuts, the accountability across the board gets raised to new and higher levels internally and externally. We pay for quality design and we should get it.

Probably the most important thing in this section a PM should know is that there's a policy that addresses it and a procedure to follow when a situation arises. Leading up to such situation, the PM should have already been made aware of a potential issue and been working with Construction Personnel leading up to this determination.

CLOSING CONFERENCE:

As construction is nearing the 80 to 90 percent marks, construction personnel will begin looking at the remaining work to be completed and how the overall contract amounts are balancing. In this process, they will begin making a list called the "Corrective List". This is simply a "pre-punch list" and will serve as a courtesy reminder of the remaining items, tasks, etc. remaining to successfully finalize the construction project.

Once this list is developed, a Closing Conference will be scheduled with the proper internal personnel and the Contractor and Subcontractors as appropriate. At this meeting, the Corrective List is discussed in detail to ensure clarity and help expedite the process of finalizing the outstanding tasks. The primary reason for this process is to attempt to make sure the contractors are aware of the outstanding tasks prior to them demobilizing and GDOT personnel having to coordinate with companies in which they no longer have day to day contact.

The PM should be notified of this conference; however, attending should not be high priority, relatively speaking. The PM should attempt to attend if possible but if not, the Construction Office is very good at handling this.

FINAL INSPECTION:

The official Final Inspection of the construction project is very similar to the Closing Conference; however, it works a bit differently.

The Final Inspection is scheduled once all pay items are complete, the roadway is open to traffic and everything from a high level seems to be completed. The inspection typically results in the inspection party making a site visit and going through the project from one end to the other with very close detail. During the inspection, all members of the inspection team will discuss each concern and how it should be reconciled so that it's know up front and a plan of action is established to help expedite the resolution. A designated Construction employee, typically the Construction Project Eng., will keep a list of every issue/concern mentioned during the inspection and this list turns into the "Punch List".

Again, the PM should be notified of this conference; however, attending should not be high priority, relatively speaking. The PM should attempt to attend if possible but if not, should not dwell on the matter, the Construction Office is very good at handling this.

PROJECT CLOSE-OUT:

The project close-out or what Construction refers to as "Finaling out a project" consists of gathering all the information needed to complete a final package. There is a standard checklist that's followed to provide OMR with everything needed from the Quality Assurance side of things, along with other accounting documents, etc.

What the PM needs to know……Once the punch list is complete, the Final Package is ready and the Construction Auditor has approved for submission, this will be sent to the District Contracts Administration Office and then to OMR-Forest Park. This process is typically lengthy to get everything approved and closed out. The Construction Office may request your assistance in following up on the package for and/or along with them.

The importance of this is in releasing the obligated funds that are remaining on the contract once it's closed out. This funding can then be utilized elsewhere on other projects, needs, etc. The faster we can de-obligate that excess funding, the less money we have tied up hurting our overall program.

CONCLUSION:

As a PM, hopefully you've seen a consistent pattern throughout this document, if not, at least this section. The importance of good communication is paramount in being successful in this position. You will learn that you are very much dependent on others to be successful. So, when they are successful, you are successful.

Take initiative to establish a good, open line of communication with the Construction personnel on the District and Area level very early in the process! This should happen prior to actually letting the project.

Lessons Learned:

Shortly after a project close-out, the PM should schedule a meeting with the entire project team from every Department within GDOT that participated in the project.

The meeting should be moderated by the PM and such things as, but not limited to the following topics, should be discussed:

- Common problems and how they were resolved differently than normal throughout the PDP and Construction process.
- Uncommon problems and how they were resolved throughout the PDP and Construction process.
- Who can help in the future to make the resolution process more efficient?
- Who should make the decisions to change the process in question?
- Are there any policies and/or procedures that could be deleted, modified and revised to help reduce future conflicts?
- Think outside the box, even if it doesn't seem reasonable, run it down to see what could change. This may lead to a different but reasonable solution everyone can live with and may benefit the Department.

APPENDIX A

PROJECT WHITE PAPER

Date:

Project Description:
Project No.:
P.I. No.:
County or City:
GDOT District:
GDOT PM:
Consultant or Design Office / DGM:
Contractor:

Phase: **PRECONSTRUCTION** ☐ **CONSTRUCTION** ☐

Status:

TPROWeb schedule and comment updated:

Schedule:

PE Mgmt ROW: TIP ROW Funding:
Mgmt Let: TIP CST Funding:

MILESTONES:

- Concept Approval
- PFPR
- ROW plans approval
- FFPR
- Plans to Contracts Bidding or SHELF

CST Actual Letting: NTP:
CST Completion Date:

Scope description: (use the concept description which is also the TPROWEB expanded description field)

Current Budget / Estimate:

	ACTUAL	ESTIMATE	DATE
ROW:			
UTILITY:			
CST:			

PE:

1625 requests and approvals

Contracts:

PFA, MOU, Mowing
LAP certified for Local PE?
Consultant Contracts

Communications / public involvement: (website, CAC, periodic mailings, etc.)

Stakeholders List:

Project issues / actions:

PROJECT TEAM INITIATION PROCESS (Pre-PE authorization)

DATABASE
Consultant database reviewed and approved?

PLANNING
Project Justification Report
IMR / IJR

ROADWAY DESIGN
Concept
VE Study
Exceptions/Variances?
PFPR
FFPR

LIGHTING
Agreement executed?

TRAFFIC OPERATIONS
Signal permits?
Roundabout determination and feasibility
TE study

RIGHT OF WAY

BRIDGE DESIGN
Hydrology / Hydraulic Studies
Bridge Salvage Letter (on-system bridges only)
Bridge condition surveys
Preliminary layout approved
Final plans approved

GEOTECHNICAL

Soil Survey
UST report
Pavement Design
BFI / WFI

ENVIRONMENTAL

Document Type:
NEPA:
Special Studies:
- History
- Archaeology
- Ecology
  - Are Stream Credits reqd? Funding?
  - 404 Permit reqd?
- Air
- Noise
- Other

UTILITIES

SUE or 1st submission
2nd submission
Railroad

CONSTRUCTION

Pre-construction conference – see LAP manual for items to cover
Contract for Local Letting executed?
Materials testing certification signed?
Modification requests (for Local Lettings)
Supplemental Agreements?
Closing Conference
Final Audit requested?
Project archived with Final Acceptance Letter?

MISCELLANEOUS

APPENDIX B

GDOT Project Managers Expectations

1. **Calendar management**
   a. Please make you AOH and OH a delegate on your calendar. This is done in Outlook under tools > options > delegates tab > add. Then make the AOH a reviewer on your calendar only. This allows the AOH to know where you are if questions arise. KEEP YOUR CALENDAR UP TO DATE.
   b. For leave requests, put those on the AOH's calendar as a meeting request showing the time as free. Then you can mark it as "out of office" on your calendar. This is in addition to a WFTK request.
   c. Coordinate with and invite Genetha and the AOH for that district to all meetings with Office Heads and above (this includes the District Engineer); including our external customers (consultants, local officials, public citizens)
2. **E-Mail management**
   a. Put your signature on all the e-mails you send out, including telephone and blackberry numbers. In Outlook 2010 go to File > Options > Mail > Signatures.

      Example:

      Chandria L. Brown, P.E.
      Project Manager
      Office of Program Delivery
      Georgia Department of Transportation
      600 West Peachtree Street, 25th Floor
      Atlanta, GA 30308
      Phone: (404) 631-1580
      Mobile: (404) 357-5049
      Fax: (404) 631-1588
      E-mail: chbrown@dot.ga.gov

   b. Put the P.I. number on all project related e-mails in the subject line.
   c. If you are in the district and you send the AOH a letter for signature, mark the email as "important" so it can be sorted out and printed. Make sure these are all word versions, not PDFs.
   d. Do not mark regular e-mails or escalation e-mails as important that are sent (see Escalations below).
   e. If the OH and AOH are copied on an email, make sure you select "reply to all" with the answer so we can mark it as done.

3. **TPro**
   a. Albert's initials are AVS; Hiral's are HPP; Brad's are BWS. Keep your **District comment fields** updated as to the latest status and risks of the project. Date the comment. Remove data that we no longer use such as B/Cs. Remove old comments that are no longer relevant to the project's status. Add the

consultant PM's name, phone number and email address in the top line. Add the latest cost estimate and the date submitted to Engineering Services if it is not reflected in TPRO already. If the project shifts to Long range or is cancelled, put the reason in the comment field. Be descriptive. Do not delete comments entered by the District and others.

b. Fill in the expanded description field as soon as the project is assigned to you. The expanded description field should be updated as the scope is refined; the concept is approved and/or revised.
c. All projects assigned to OPD Project Managers should show Program Delivery as the project manager office.

4. **Customer Service initiatives**
   a. Please modify your voicemail on the Blackberry and Desk phone by adding "If immediate assistance is needed, please contact ***AOH name*** at 404-631-***XXXX***". This is a customer service item.
5. **Letter processing – PLEASE PLAN AHEAD and avoid emergency signature needs.**
   a. Albert's initials are AVS; Hiral's are HPP; Brad's are BWS. Please put that on the letters that AOH will be reviewing / initialing.
   b. REMEMBER: Any request for services to another office MUST be through an Interdepartmental Correspondence letter.
   c. ALL requests for signatures should have a preconstruction status report attached showing the project schedule status.
   d. Copies of all documents signed by the AOHs or OH should be placed in the reading file on Brenda's desk to be sent to General Files.
6. **Escalations**
   a. If there are issues that need an AOH's attention, please call the AOH or set a meeting up. E-mails can get overlooked.
7. **Let Status**
   a. Let Status is once per month. PMs should make every effort to attend let Status. Absences must be excused by the AOH or OH ahead of time.
   b. Pre-Let Status reports MUST be filled out by the deadline. NO EXCUSES.
8. **Project Management**
   a. Keep a half-size set of plans available and up-to-date as of the last milestone
   b. Keep the roll plot of the last PIOH or the concept layout available
   c. At all meetings the PM should have:
      i. An agenda (if the PM set the meeting up)
      ii. Schedule information (Precon. Status Report, Primavera schedule
      iii. Budget information (PFR, consultant contract info)
   d. The Project Plan (scope, risks, action items unresolved, team members, stakeholders, etc.)

e. PMs should hold either physical team meetings or email meetings monthly (if in let status) or bi-monthly to check status.
f. PMs should consider a website on their projects and update it quarterly.

APPENDIX C

CONFERENCE ROOMS IN THE G.O.

Note: while it is possible to book a room by adding it to your meeting in Outlook, and checking the availability in Scheduling Assistant, this is not always the owner of the conference room is not necessarily notified. Best practice is to contact the person listed and verify the room's availability.

FLOOR	NAME	CAPACITY	OFFICE	CONTACT	Side of Building	VC?
4	401	30 chairs only, 15 tables & chairs with the screen use/20 without use of screen	n/a	Solika Bigby		yes
4	402	30 chairs no tables, 15 tables & chairs w screen/20 without use of screen	n/a	Solika Bigby		yes
4	403	30 chairs no tables, 15 tables & chairs w screen/20 without use of screen	n/a	Solika Bigby		yes
4	404	30 chairs no tables, 15 tables & chairs w screen/20 without use of screen	n/a	Solika Bigby		yes
4	405	15	n/a	Solika Bigby		yes
4	406	15	n/a	Solika Bigby		yes
4	407	31 chairs only, 15 table & chairs	n/a	Solika Bigby		yes
4	408	20	n/a	Solika Bigby		yes
4	409	25	n/a	Solika Bigby		yes
5	5CR1L2	10 + 9 extra chairs	Engineering Services (VE)	Lisa Myers (not widely available)	Northwest	yes
5	5CR2L1	12 to 15	Div of Org. Performance	Brendalyn Ellis	Northeast	yes
5	5CR3L2	10	Office of Planning	Brendalyn Ellis	Southeast	
7	7CR1L2	8	Safety Executive	Bob McGuire or Barbara Pratt	Northwest	
7	7CR3L2	8 chairs, could fit 12	EEO	Yolanda Colzie	East	
8	8CR1L2	7	Audits	Pat Johnson	East	
9	9CR1L1	8	OFM Shared	no contact, use Outlook	West	
9	9CR2L3	-	converted to office	-	-	
9	9CR3L3	-	converted to office	-	-	
10	10CR1L1	11	Division of Operations	Cindy Christian	West	
10	10CR2L2	7	Maintenance	Cindy Christian	East	
11	11CR1L2	6	Construction Bidding	Judy Malone	North	
11	11CR2L2	6	no owner	no contact, use Outlook	Northeast	
11	11CR3L3	6	Office of Construction	Nancy Bolen	Southwest	
11	11CR4L1	8	Division of Construction	Nancy Bolen	Southwest	yes
14	14CR1L1(Large)	12	Right of Way	Carolyn Carroll	Southeast	yes
14	14CR2L3(Small)	8	Right of Way	Carolyn Carroll	East	
16	16CR1L1(Small)	8	Environmental Services	Linda Capaccio	Southeast	
16	16CR2L2(Large)	14 at table+ 25 around wall	Environmental Services	Linda Capaccio	North	yes
16	16CR3L2(Reception)	8	Environmental Services	Linda Capaccio	North	
19	19CR1L1	12	Procurement	Ann Willis or Hester Sturrock	North	
19	19CR2L2	8	P3	Chip Meeks	Northeast	
19	19CR3L2	8	Innovative Program Delivery	Ann Willis or Hester Sturrock	Southeast	yes
19	19CR4L2	8	Procurement	Ann Willis or Hester Sturrock	Southwest	
20	20CR1L1	10	IT	Marie Holland or Helene Nickey	Southwest	yes
20	20CR2L3	4 (desk instead of table)	IT	Marie Holland or Helene Nickey	East	
20	20CR3L3	4	IT	Marie Holland or Helene Nickey	East	
20	20CR4L2	12	IT	Marie Holland or Helene Nickey	East	
20	20CR5L2	8	IT	Marie Holland or Helene Nickey	East	
21	21CR1L3	6	IT	Marie Holland or Helene Nickey	East	
21	21CR2L2	7 at table, 3 extra chairs	IT	Marie Holland or Helene Nickey	East	
23	23CR1L1	10	Legal	Sybil Ogletree	North	
23	23CR2L3	5 (Law Library)	Legal	Sybil Ogletree	East	
23	23CR3L2	8	Legal	Sybil Ogletree	Southeast	
23	23CR4L2	8	HR	Denise Luckett	South	
24	24CR1L3(Small)	8	Bridge	Alicia Rainwater	West	
24	24CR2L2(HR)	8	HR	Dana Kilpatrick	Northwest	
24	24CR3L3	-	Paul Liles Office	-	-	-
24	24CR4L1(Bridge)	12 to 15	Bridge	Alicia Rainwater	East	
25	25CR2L2	10	Program Delivery	Ann Sims	East	
25	25CR2L1	7 at table, 3 extra chairs	Program Control	Darlene Lynah	West	
26	26CR1L2	12 to 15	Design Policy	Michele Dawson-Ngwang or Amelia Craig	West	
26	26CR2L3	4	Roadway	Michele Dawson-Ngwang or Amelia Craig	West	
26	26CR3L3	4	Roadway	Michele Dawson-Ngwang or Amelia Craig	West	
27	27CR1L2	12 to 15	Roadway	Michele Dawson-Ngwang or Amelia Craig	West	
27	27CR2L3	6	Roadway	Michele Dawson-Ngwang or Amelia Craig	West	
27	27CR3L3	6	Roadway	Michele Dawson-Ngwang or Amelia Craig	West	
28	28L1	20, not a very professional looking room	Facilities	Lionel White and David Brock	Southwest	
28	28S1	-	converted to storage	-	-	
28	28S2	-	break room	-	-	