

ELECTRONIC PLANS PROCESS

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**Georgia Department of Transportation
Office of Design Policy & Support
Engineering Document Management
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Revision History

DATE	DESCRIPTION OF REVISION
5/30/06	Revised Letting process for Direct Shipping by Printing Vendor
6/21/06	Updated Letting orders and shipping process and added re-let process
6/28/06	Updates to “Use on Construction” Process
7/26/06	Added detail to Aperture Scanning process
10/26/06	Revised Letting Process for Web Hosting
12/20/06	Added Electronic RW Plans Process
4/13/07	Added Bridge Revision process section
4/25/07	Revised document throughout for updates to processes (Quarterly Review)
6/8/07	Added Project Correspondence Files Process & Pre-QA Process for Document Imaging Project, along with other miscellaneous changes
7/3/07	Added PCF folder to ProjectStore folder structure
8/6/07	Updated Section 9 – PCF Process for final minor revisions and additions
8/23/07	Updated Section 9 – PCF Process for final minor revisions and additions
2/5/08	Updated Section 9 – PCF Process for final minor revisions and additions
2/7/08	Updated Section 9 – PCF Process for final minor revisions and additions
9/25/08	Updated DesignStore & ArchiveStore folder structures and other related diagrams throughout document, as well as added the text “ArchiveStore” in most places where “DesignStore” occurs
9/25/08	Added Section 10 for Environmental Documents Process
11/17/08	Major revisions to Letting, Use on Construction, & Bridge As-Built Processes (Sections 2, 4, & 5) Removed Appendices due to projects being completed
12/5/08	Added Electronic Plans Reproduction Process (Section 11)
12/19/08	Minor updates to the Letting and Use on Construction Processes
3/27/09	Updated Use on Construction Revision Process
6/5/09	Revised whole document to update, revise, and add processes
9/23/09	Updated Print Room Work Order Form to new form and added documentation on new form in Section 10
10/22/09	Updated Section 5 (Archival Process – Flowchart, Added CSV Files, etc.) and Section 7 (RW Plans Process)
11/3/09	Updated Office/Group Name throughout document as well as most flowcharts and processes
1/5/10	Added State Archives process to Section 5 / Added VE folder to folder structure / Removed references to DesignStore
3/8/10	<ul style="list-style-type: none"> • Updated ArchiveStore folder structure to include Design-Build • Added Design-Build projects to Section 2 – Letting Plans Process • Updated Section 7 – Electronic RW Plans Process
4/1/10	Updated standard file format from TIF to PDF (including all references)
4/16/10	Added Pre-Approval Process to RW Plans section (Section 6) Added Maintenance Projects (Section 2) and reformatted for types of Lettings Renumbered sections throughout due to reformatting of Section 2 Added Purpose and Legality Page in front of document

7/13/10	Updated RW Process – Section 6 (Added electronic revision submittal, etc.)
8/20/10	Added email address to RW Revisions / Added cover letter in email from EDM Group for RW revisions / Added RW Memo as Appendix B / Added new RW Revision folder for submission
9/9/10	Added X-section and Driveway profile sheets to be submitted with RW plans / Changed wording from “Designer” to “Design Phase Leader” throughout document / Updated links for Verification Form and Work Order Form
11/9/10	<ul style="list-style-type: none"> • Changed “Design Services Supervisor” to “EDM Group Manager” as contact • Added Awarded plan sets to Engineering Services from Print Room • Minor revision to Maintenance Award project process • Added note for UOC plans that have no printing required • Removed Section 7 – Project Correspondence Files Process and changed to Section 7 – Electronic Field Plan Review Process
3/16/11	Added details to Letting Process of Images to Bidding Administration: <ul style="list-style-type: none"> • Distinguished between what PDF and TIF images are used for • Emphasized importance of checking image sizes and described process • Added spreadsheet link for emailing Web Host vendor/s for Letting
4/11/11	Added details to the Maintenance Letting Plans section for updated processes
6/17/11	Added several details to Section 2 for processing Letting plans for Bidding Administration. Added distribution list for Web Vendors. Added details for processing projects with multiple PI#s. Added details for performing QA/QC. Updated Table of Contents.
10/13/11	<ul style="list-style-type: none"> • Updated Section 6 – RW Processes for transition to RW Office performing duties instead of EDM Group (Pre-Approval and Approval ONLY) • Removed <i>ArchiveStore</i> file structure and references from document and updated all processes for migration to TransPI/SharePoint
12/14/11	<ul style="list-style-type: none"> • Updated Section 6 – RW Revision Process for new TransPI/SharePoint process and to transfer all responsibilities to the RW Office • Removed RW Memo from Appendix B
1/13/12	Updated RW plans processes to reflect TransPI/SharePoint instead of RWStore as location of plans
1/27/12	Updated FPR processes and added email to NEPA Coordinator for RW Pre-Approval Plans

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PURPOSE

This document establishes and defines the electronic processes used in the reception, storage, printing, letting, revising, QA/QC, publishing, and archiving of all electronic plan sets, in addition to processes affecting associated project-related documents. Due to the evolving nature of the Department's electronic processes, this document is considered a "living" document.

ELECTRONIC PLANS POLICIES AND DOCUMENTATION

The basis of GDOT Electronic Plans Process is as follows:

- 1) Commissioner's Policy 3A-16 defines the format in which all construction and right-of-way plans will be archived by the Department as electronic format.
Available internal to GDOT at:
(<http://mygdot.dot.ga.gov/info/pap/Lists/Policies/DispForm.aspx?ID=489>)
- 2) Records Retention Policy 0484-004 documents the retention requirements of the Highway Project Construction Plan Files.
- 3) The Electronic Plans Process document defines the processes for reception, storage, printing, letting, revising, QA/QC, publishing, and archiving of all electronic plan sets.
Available at:
(http://www.dot.ga.gov/doingbusiness/PoliciesManuals/roads/Documents/Electronic_Plans_Process.pdf)
- 4) Existing policies established by Information Technology documents the security applied to avoid breaches and to insure the integrity (prevention of tampering) of the documents.

SECTION 1 - GENERAL

PLANS REPOSITORIES FOLDERS

Three sets of plans comprise what is considered to be the project archival:

(1) *"Bid Set"*:

The *Bid Set* plans consist of the plan images that were advertised during the Bidding and Letting process and are stored as "Construction Plans". This set of plans remains unchanged with the exception of a "VOID" stamp being placed on the sheets that are replaced by later revisions. Any revised sheets are stored as "Construction Revision Plans".

(2) *"Right-of-Way"*:

The *Right-of-Way* plans are stored as "Right of Way Plans". They are only available internally until Final Acceptance is received, at which time, they are made available externally as well. Any revised sheets are stored as "Right of Way Revision Plans".

(3) *"As Built"*:

The *As Built* plans consist of the final "marked-up" plans of changes that occurred on construction and are stored as "As Built Plans". Revisions made to Bridge Plans are considered to be "Bridge As-Built", therefore, they are stored as "As Built Revision Plans".

NOTE: For projects that already contained Construction Revisions made prior to the scanning of the plans, all VOID sheets and Use on Construction sheets will be stored as "Construction Plans" and not as two separate document types.

A CD/DVD archival will also exist within GDOT, as well as a separate backup at State Archives (once their process is in place).

STANDARD FILE FORMAT

The standard electronic file format for the Department is as follows:

- **PDF (.PDF)**
- **200 dpi resolution**
- **Full size**
- **Monochrome**
- **Rotated correctly (rotated such that the bottom of the sheet image is parallel to the bottom of the screen when viewed)**
- **Adobe Version 7+**
- **Single page PDF files (a single page PDF for each sheet - No multi-page PDF files)**

STANDARD FILENAME STRUCTURE

All electronic plan filenames shall begin with the PI Number, followed an underscore and numbered consecutively in increments of 0001. For example, if the PI Number is 123456, the cover sheet will be named 123456_0001.pdf, with the next sheets being named 123456_0002.pdf, 123456_0003.pdf, etc.

SECTION 2 - LETTING PLANS PROCESSES

MAJOR ROADWAY PROJECTS

(This process applies to all projects in the current month's Letting, as well as all Preliminary Advertised projects.)

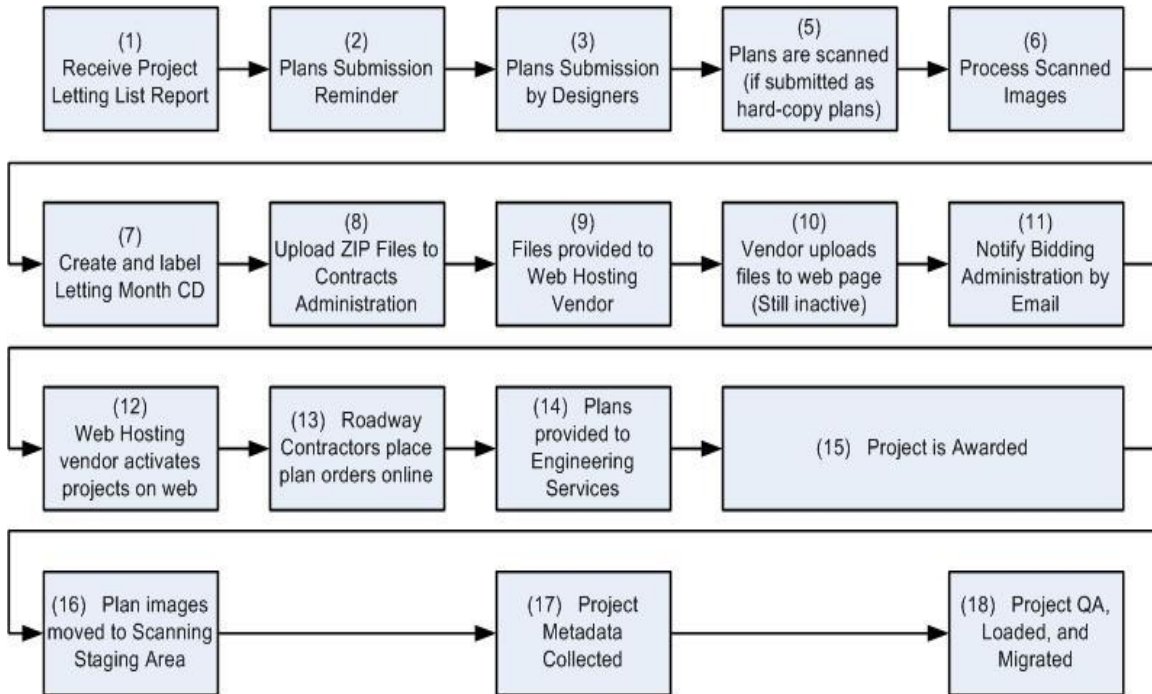


Figure 2-1 – Letting Plans Process Diagram

1. **Project Letting Lists:** During the week before or the week of printing/scanning leading up to the advertisement date, Bidding Administration will provide the Engineering Document Management staff by email a final list of the Projects in the next month's Letting. This report will include the projects, along with the assigned Contract ID and responsible Project Manager. The Contract ID will be used in renaming the scanned images. A portion of a sample report is reflected below.

August 19, 2005 LETTING

<u>Call Number</u>	<u>PID/ContID</u>	<u>Project Number and County</u>	<u>Designer</u>	<u>Pages</u>
2	611250-, 611260-, M002466, M003307	NH-IM-575-1(31), NH-IM-575-1(32), CSNHS-M002-00(466), CSNHS-M003-00(307) CHEROKEE, COBB	A. Casey (RD)	153.3
	B11489-05-000-7	COMBO - PARTIAL RELET - #2 10/03 Rej, #1 1/04 Rej, #1 4/04 Rej, #2 7/04 WD, #1 10/04 WD, #2 2/05 Rej, #2 5/05 Rej		

2. **Plans Submission Reminder:** The Design Group Manager responsible for Plans Reproduction for the Lettings (or a designated representative) will send a meeting request/email to the relevant Project Managers reminding them that their project(s) is scheduled for the next month's Letting and plans are due in our office by 10:00AM on the "Original Plans to Reproduction Section" date on the Letting Schedule.
3. **Plans Submission:** All Project Managers will submit either hard-copy paper or electronic plans to Design Policy & Support – Engineering Document Management staff by 10:00AM on the "Original Plans to Reproduction Section" date on the Letting Schedule. All plan sets that are submitted must contain clear, clean, and completely legible sheets so that clean and quality copies can be made from them. All offices are to submit their plans through Design Policy & Support, including General Office, Traffic, Safety, and Design, and Districts. No office is to submit their plans directly to a vendor or print their plans in-house. This is to insure that all plans required for the Letting are printed and scanned and received on-time for uploading for the advertisement of the projects by Bidding Administration.

Electronic Plans Submissions:


In order to expedite plan submission, electronic submission is now being implemented. Some offices have already been scanning their plans and have them in electronic format. Therefore, as long as the requirements for file format and file-naming in [Section 1](#) of this document are met to insure plan order, clarity, and completeness, plans may be submitted in electronic format for Lettings.

The following requirements MUST be met:

- Images are scanned in correct sheet order
- Images MUST be scanned according to Department standards as PDF at 200 dpi for all plan sheets (See [Section 1](#))
- Images named according to Department standards (See [Section 1](#))
- If submitted by CD:
 - CD containing the images must be labeled with Project Number, PI Number, County, and Month of Letting
 - Submittal of verification form (to be cut or folded and placed in the CD Cover) – Please note verification statement by the Project Manager (Available at <http://mygdot.dot.ga.gov/offices/designpolicies/Pages/default.aspx> under the link "Electronic Letting Files Submittal Form").
- If submitted through Server Location:
 - The PDF images meeting the GDOT file format standards are to be placed in the appropriate month's folder in the following location under a PI Number folder that the Project Manager is responsible for creating:

[\\gdot.ad.local\gdot\Preconstruction\RoadDesign\Pccommon\Printroom
Request Images\Letting Files\](http://gdot.ad.local/gdot/Preconstruction/RoadDesign/Pccommon/Printroom/Request Images/Letting Files/)

- Submittal verification form – Please note the verification statement by the Project Manager (Available at <http://mygdot.dot.ga.gov/offices/designpolicies/Pages/default.aspx> under the link “Electronic Letting Files Submittal Form”). This document is to be included in the folder created above with the images as verification of QA being done by the Project Manager on the images/plans being submitted (enter your name on the line above the title of “Project Manager” and save the file as verification of your review).

	Electronic Letting Files Submittal Form	
	Project Number:	
	PI Number:	
	County:	
<p>I have reviewed and checked the plan images that are being submitted for accuracy, quality, and readability and verify that the images are in accordance with the GDOT Electronic Plans standards.</p>		
<p>Project Manager</p>		

- Email the EDM Group Manager (glwilliams@dot.ga.gov) and EDM@dot.ga.gov with Subject Line of *Letting Files* to notify of availability of plans.
4. **Late Plans Submissions:** If required plans are not received by Design Policy & Support, Engineering Document Management by 10:00AM of the due date, then Engineering Document Management staff will contact the relevant Project Manager(s), reminding them that plans were due in this office by 10:00AM. If plans are not in our office by Close of Business on the due date, Engineering Document Management staff will email the State Transportation Office Engineer in Bidding Administration and let him know what projects are late in being submitted, along with the Office and Project Manager responsible for those projects.
 5. **Scanning of Plan Sheets:** On the first work-day of the week following the due date for plans to be submitted to Design Policy & Support, all plans are scanned (if submitted in hard-copy format) in one of two ways based on the current business process in place at the time.
 - a. The plans are scanned in-house by the Engineering Document Management Print Room staff and will be scanned to the server (<\\gdot.ad.local\gdot\Preconstruction\RoadDesign\RD14\Print Room>)

[Scanned Jobs\Letting\](#)) in a PI Number sub-folder under the current month's Letting folder.

- b. The plans are picked up by the contract vendor (if a contract exists) for printing and scanning to a CD. An order form is completed by the Engineering Document Management staff and submitted along with the plans. The Engineering Document Management staff is responsible for reviewing each set of plans to insure there are no obvious errors (for example, only 80 sheets are in a roll of plans that should have 600 sheets) and then contacts the current contract vendor to pick up the plans to be printed and scanned.
6. **Processing of Scanned Images:** The Design Policy & Support, Engineering Document Management section is responsible for processing the scanned images to get them in the format required for posting for advertisement by Bidding Administration. Once the files are received, the Engineering Document Management staff will:
- QA/QC the files to insure they are in correct order, are full-size (24"x36"), contain the correct sheets for each project, and are in the correct file name format (PI#_SHEET#, i.e. 712930_0001). See below for more details on QA/QC process.

Processing files for Bidding Administration:

For Design-Build Projects only: All plan sheets of the "Costing Plans" that are submitted for advertisement will be "stamped" with a watermark of "Costing Plans" as part of processing the plans for advertisement.

- Create a new folder under the directory below by the name of the month and year of the Letting being processed (ie: *February 2006*).
[\\Gdot-dfs\Gdot\Preconstruction\RoadDesign\RD14\Electronic Letting Files Conversion\](#)
- Copy all project folders into this newly created folder (all folder names must be the PI #, with dash if needed: i.e. *123456-*).
- To verify images are full-size, highlight all PDF files, right-click on any file, and choose "Add to MetaPrint Job". Now, simply scroll down to verify all images are between 35" and 36.6" wide. Sheets that are smaller or larger than this size will probably not print and therefore, new sheet/s shall be re-submitted by the PM that are true full-size images.
- Check sheet order and quality by opening the PDF images using *Adobe Bridge*. Any sheets that are illegible or missing shall be re-submitted by the PM. Sheet order may be corrected easily using *Flash Renamer*.
- Once QA/QC of PDF files is 100% complete, copy entire project folder over to [\\gdot.ad.local\gdot\preconstruction\RoadDesign\rd14\Scanning Staging Area](#). This is the FINAL set of BID SET plans that will be archived through the migration process.
- NOTE: Some projects are Let together as 2 or more projects. These projects will be treated slightly different than single PI# projects. Each PI# should each have its own unique set of PDF images, just like single PI# projects. For example, 221900- has 595 images and 221910- has 431 images. Both projects shall stay separated as far as the PDF images go, and follow the same process as described above. The

- difference is when converting to TIF images. After the entire QA/QC process is complete, the PDF files will need to be combined together as one single project and converted to TIF as a whole. This will involve renaming the files so that they run in sequential order. For example, 221900- ends at file 221900_0595.pdf, so the files for 221910- will start at 221910_0596.pdf and run sequentially until the end. Therefore, once both PI#'s are renamed to be the *Contract ID* (see the following steps for details on file renaming), then the projects may be combined together and converted to TIF as though it were one project.
- Rename the original scanned images (PDF format) in the folders that were copied in step 2 to a format of *Contract ID #* plus the *sheet number* (i.e. *B11739-05-M002-2_0001*). The *Flash Renamer* software is used to rename all files.
 - PDF images must be converted to TIF images in order to be uploaded to BIDX. Create another folder called TIF and subsequent subfolders for each project using the Contract ID's (ie: *B12205-06-000-2*) ; this is where PDF images will be converted to TIF images.
 - Select each project's PDF images and open them in MetaPrint (right-click on any highlighted image and choose "Add to MetaPrint Job". Click the Print icon in MetaPrint, and on the File/Ftp tab, choose 200 for Output Resolution, TIFF for Output file type, and navigate in the "Select save path" to where the images will be saved (the Contract ID folders that were created in previous step).
 - Create a Zip file of the TIF images in the folder by the name of the *Contract ID Number*. Do not zip the files by right-clicking the top-level folder or it will not load to BIDX. Simply select all of the files, right-click on any one of the files, choose Winzip>Add to Zip File, and then type the *Contract ID Number.zip* as the file name (i.e *B14119-11-000-0.zip*).
 - a. **Contract Vendor Only:** In the case that any CD's have problems, they are fixed by the Engineering Document Management staff before processing. In the case of an error by the contract vendor, this may require them to burn a new CD and deliver it back to us in an extremely prompt manner. Once the CD is reviewed and approved, it will then be processed as stated above.
7. **Create CD:** The Engineering Document Management staff will use one of the following methods to create the "Bid Set CD": (1) Use the CD created by the contract vendor; (2) Burn a new CD in the case of errors; or (3) Use the files generated by the Print Room staff now located on the Scanning Staging Area on the server. The CD will contain all the projects for the current month's Letting. Use the PDF, not TIF, images.
 8. **ZIP File Uploading to Bidding Administration:** The Engineering Document Management staff will then perform a final QA/QC on the ZIP files to insure they are correctly named. Once verified, the Engineering Document Management staff will copy the ZIP files into the appropriately named folder under Bidding Administration (i.e. *July 2011*) on the [\\Gdot-dfs\Gdot\Construction\ContractsAdministration](#) share.
 9. **Email Notification to Bidding Administration:** After copying the files into the Bidding Administration share, Engineering Document Management staff will send an email to the appropriate staff in Bidding Administration notifying them that the files are ready to be uploaded for advertisement.

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10. **Files Provided to Web Hosting Vendors:** Engineering Document Management Staff will upload the ZIP files to the Web Hosting Vendors' websites. The following details this process for each vendor, as each works differently:
- a. **ARC:** Go here (<http://www.e-arc.com/locations/overview/imaging-technologies-torrente>) and click on Send Files, then Secure File Uploads, then Atlanta. Enter information, specifying that the files are for the GDOT Letting (specify which month: i.e. GDOT May Letting files). Click on the "Regular Upload" option and navigate to where zip files are stored and click "Upload & Send" when all files are selected.
 - b. **Diazo:** Go here (<http://diazoblueprint.com/>) and click on Send Files/Request Pickup. Use the "Old file transfer method" to upload and send files. Must enter email address and use same message sent to ARC. Only 5 files can be sent at a time using the method. Continue until all zip files have been uploaded.
 - c. **Repro Products:** Use their FTP site here: <ftp://74.81.77.122/digital/>. To see this page in Windows, click on the Page icon in Internet Explorer, and choose "Open FTP Site in Windows Explorer". Simply go to GDOT folder, create a new subfolder for the appropriate month, and copy/paste all zip files to this new subfolder.
11. **Email Notification to Web Hosting Vendors:** An email shall be sent to the appropriate staff of each Web Hosting Vendor with the following spreadsheet filled out with the required information for their use in the upload process: <\\Gdot-dfs\Gdot\Preconstruction\RoadDesign\RD14\Electronic Letting Files Conversion\Letting Information Sheet.xlsx>. Send the emails separately (one for each Vendor). Here is the current distribution list for each Vendor:
- a. ARC:
 - i. David Lyle: david.lyle@e-arc.com
 - ii. Geoffrey Allen: Geoffrey.Allen@e-arc.com
 - iii. John McEntyre: John.McEntyre@e-arc.com
 - iv. Atlanta.planwell@e-arc.com
 - b. DIAZO:
 - i. diazocad@mindspring.com
 - c. Repro Products
 - i. jlawson@reproproducts.com
12. **Upload Files to Web Page:** The Web Hosting Vendor will then upload all files to the web page but hold them as inactive until notified by GDOT Engineering Document Management Staff that the files can be made active.

13. **Web Hosting Vendor Notification:** At the advertisement time and date, the Engineering Document Management staff will verify the projects included in the Letting using the “Notice to Contractors” on the Bidding Administration web page. Based on that list, the vendor will be notified to make the appropriate projects active for viewing and printing from the web. This email should CC the Print Room staff (see step 15).
14. **Roadway Contractors Place Orders Online:** All Roadway Contractors requesting plan sets will go to a Web Hosting Vendor’s site and place orders online.
15. **Plans provided to Engineering Services:** After authorization is obtained for projects and they are advertised, the Print Room Supervisor is responsible for printing and delivering one half-size set of plans for each advertised project to Engineering Services. The email from step 13 notifying Web Vendors of final authorization (and CCing the Print Room staff) shall serve as notification to the Print Room staff.

NOTE: Once the images have been confirmed as acceptable, the original hard-copy plans are returned to the Project Manager by the Engineering Document Management Staff.

In certain instances, projects may be pulled from a Letting or not Awarded and “re-Let” at a later date. All re-let projects will follow the normal Letting process. A new, complete, and up to date set of plans shall be submitted by the Project Manager for processing.

Processing files for publishing to electronic repositories (AFTER AWARD):

NOTE #1: The plan sheet image files will not be available publicly until after the project is Awarded, approximately one month after they are Let. Once the “Award Announcements” notice is published on the Bidding Administration web page and the project is confirmed as being awarded, the project will enter the process documented below for metadata gathering.

16. **Award of Project:** Project is awarded.

For Design-Build Projects only - “Costing Plans”

Since the plans (Costing Plans) submitted for advertisement are considered “preliminary”, they will not be loaded as “Construction Plans” in TransPI/SharePoint. Instead, the images will be loaded as “Costing Plans”. (See the Design-Build note below for information relating to the “Released For Construction” plans.)

For Design-Build Projects only - “Released For Construction” Plans

After Award, the plans will continue to be developed until they reach the next milestone of being considered “Released for Construction” plans. Typically, this occurs approximately one-third (1/3) of the way through the contract. The “Released For Construction” plans will be submitted to the Electronic Document Management group for processing. These plans will be considered the “Construction” plans and will be loaded as “Construction Plans” into TransPI/SharePoint.

17. **Move Plan Images:** Create sub-folders under <\\gdot.ad.local\gdot\Preconstruction\RoadDesign\RD14\Scanning Staging Area> by the PI Number (must include dash if 6 digits) of each project and copy all PDF image

files to their appropriate PI Number sub-folder created above for collection of metadata (projects should already be located in the Scanning Staging Area from being processed for advertisement).

18. **Project Metadata Collected and Images Uploaded:** Metadata will be collected for all the images and an upload will be performed to load the project plans into TransPI/SharePoint. (See the internal document *Upload_Tool.docx* for more details on the use of the Upload Tool for collecting metadata and performing an upload.)

LOCAL LET PROJECTS

Effective immediately, all Local Let projects (projects not Let by GDOT) will be submitted for archival purposes. **Projects are not to be submitted until the Project Manager has confirmed that the project has been AWARDED.**

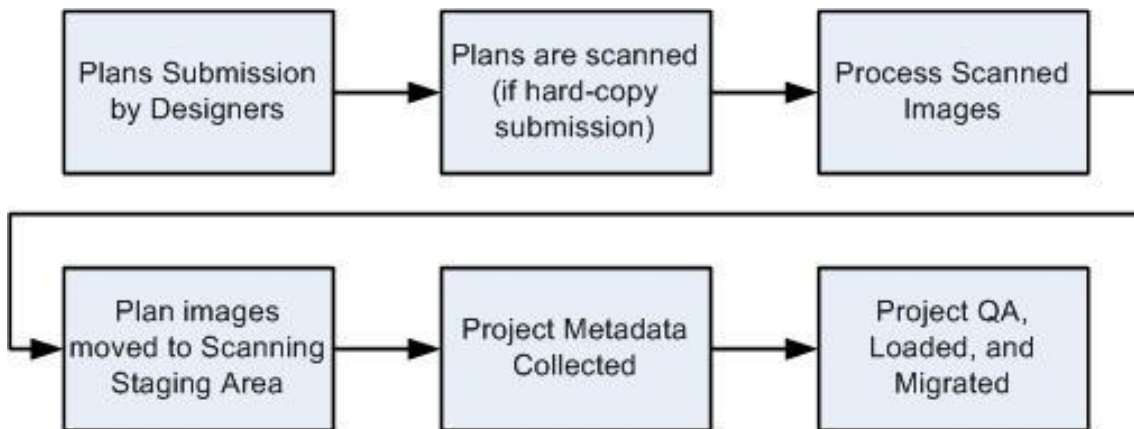


Figure 2-2 – Local Let Plans Process Diagram

- 1) If submitting electronically, the Project Manager is responsible for insuring that all images meet the File Format and File-Naming requirements in [Section 1](#) of this document.
- 2) Projects may be submitted in one of three ways:
 - a. Project submitted on CD/DVD:
 - Place the project image files on a CD/DVD. More than one project can be placed on the CD/DVD.
 - Label the CD/DVD with the PI Numbers of all projects contained on it.
 - Submit the CD/DVD to the EDM Group Manager by transmittal letter with a subject of “Local Let Project”.
 - b. Project submitted through PCCOMMON:

Folder Creation:

The location of the standard folders for submission of Local Let Projects is as follows:

<\\gdot.ad.local\gdot\Preconstruction\RoadDesign\PCCOMMON\Printroom Request Images\Letting Files\Local Let Files>

Under this folder, the Project Manager must create a Project folder for the project to be archived according to the standard of **PI Number, underbar, the date that the images are scanned**. Once the folder is created, the images are to be copied to the folder. It is the responsibility of the Design Phase Leader to first verify that the plans to be scanned are arranged in the correct order. The plans must then be scanned in sequential order. The DPL must then email EDM Group Manager (glwilliams@dot.ga.gov) and EDM@dot.ga.gov with Subject Line of *Local Let Files*.

- c. Project submitted in hard-copy format:
 - Submit the plans to the EDM Group Manager by transmittal letter with a subject of “Local Let Project”.

Processing files for publishing to electronic repositories (AFTER AWARD):

- 1) **Move Plan Images:** Create sub-folders under <\\gdot.ad.local\gdot\Preconstruction\RoadDesign\RD14\Scanning Staging Area> by the PI Number of each project and copy all image files to their appropriate PI Number sub-folder created above for collection of metadata.
- 2) **Project Metadata Collected and Images Uploaded:** Metadata will be collected for all the images and an upload will be performed to load the project plans into TransPI/SharePoint. (See the internal document *Upload_Tool.docx* for more details on the use of the Upload Tool for collecting metadata and performing an upload.)

MAINTENANCE (LETTER-SIZE) PROJECTS

All maintenance (letter-size) projects will be submitted to the Engineering Document Management (EDM) Group in the Office of Design Policy and Support for publishing for research purposes. Projects will be submitted after Award of the project has occurred.

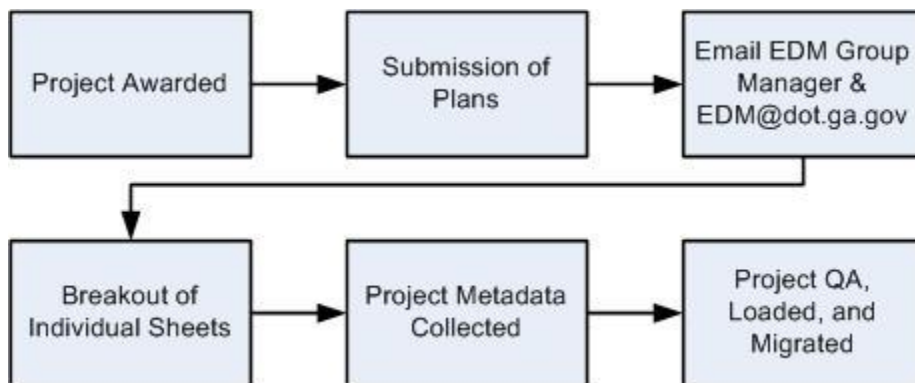


Figure 2-4 – Maintenance Letting Plans Process Diagram

- 1) **Award of Project:** Project is awarded.
- 2) **Submission of Plans:** The plans (multi-page PDF format) will be placed in the standard location shown below by the Maintenance Office.
<\\gdot.ad.local\gdot\Preconstruction\RoadDesign\Pccommon\Printroom Request Images\Letting Files\Maintenance Files>
- 3) **Email EDM Group Manager and EDM Inbox:** Email the EDM Group Manager (glwilliams@dot.ga.gov) and EDM@dot.ga.gov with Subject Line of *Maintenance Project Letting Files*.
- 4) **EDM Staff Processes Plans:** The EDM staff will process the plans as follows:
 - a. **Create project folder:** Create a project folder on *Scanning Staging Area* according to the standard naming scheme for project PI numbers (ie: *M000100* or *123456*).
 - b. **Remove Cover Letter:** Remove the cover letter for the “Completed Plans” if it exists. This is typically the first page of the multi-page PDF file.
 - c. **Break out individual sheets for “bid set” plans:** The submitted PDF file will contain the original “bid set” plans, including applicable Special Provisions, and it will also contain any revisions that have occurred. The EDM staff will break out the “bid set” plan pages (original plans plus Special Provisions) into individual PDF files from the multi-page PDF file, following the standard naming scheme for plan sheets ([Section 1](#)). The files will be saved to the newly created PI number folder created in step (a) above.
 - i. *Document=>Extract Pages*
 - ii. Set page range and select to *Delete Pages After Extracting* and *Extract Pages As Separate Files*.
 - iii. Specify the destination folder to be *Scanning Staging Area\PI Folder*.
 - d. **Rename files:** Using *Flash Renamer*, rename the files to match the standard naming scheme.
 - i. Add a zero to files 1-9 so that all files have a 2-digit numeric extension.
 - ii. Load files into *Flash Renamer*.
 - iii. Using the “Replace” option under General functions in Flash Renamer, replace the project description in the filename (ie: “SR 65 MITCHELL PROJECT”), including the space after the description and before the PI number with nothing so as to remove the description and leave only the PI Number and sequential numeric extension.
 - iv. Using the Add option under the Add & Remove function under General, add a “_00” in the 8th position. This should insert the required leading zeros in the correct position to make the file-names correspond to the standard naming scheme.
 - v. Remove extra space in the filename by using the Remove option under the Add & Remove function under General.
 - e. **Collect Metadata for “bid set” plans and perform Upload:** Metadata will be collected according to established procedures for each sheet (original plans plus Special

- Provisions). The files and metadata will then be uploaded using the Upload Tool. (See internal document *Upload_Tool.docx* for more detailed instructions on using the Upload Tool.)
- i. Location Sketch = General Notes Sheet
 - ii. Roadway Log = Mainline Plan & Profile Sheets
 - iii. Special Provisions = General Notes Sheet
 - iv. Ensure Document Type is set to “Construction plans” (in Upload Tool)
 - v. Ensure “Use on Construction” is turned off (in Upload Tool)
- f. Delete files from the PI Folder: Once a successful upload has been confirmed, delete the image files from the PI number folder in the *Scanning Staging Area*.

The revisions will now be processed at the same time as the “*bid set*” CONSTRUCTION plans. Use the cover letters in the PDF file to help identify the revised sheets.

- g. Remove Cover Letter: Remove the cover letter for the revision.
- h. Extract the Revision Sheets: Extract the revision plan pages into individual PDF files from the multi-page PDF file, following the standard naming scheme for plan sheets ([Section 1](#)). The files will be saved to the PI number folder on *Scanning Staging Area* created in step (a) above.
- i. *Document=>Extract Pages*
 - ii. Set page range and select to *Delete Pages After Extracting* and *Extract Pages As Separate Files*.
 - iii. Specify the destination folder to be *Scanning Staging Area\PI Folder*.
- i. Rename files: Using *Flash Renamer*, rename the files to match the standard naming scheme.
- j. Rename files: Rename the files to match the revised “bid set” sheets or create new filenames at the end of the “bid set” plans if sheets were added.
- k. Replace/Upload Cover Sheet: Collect metadata for and upload the revision Cover Sheet using the Upload Tool.
- i. Ensure Document Type is set to “Construction Plans”
 - ii. Ensure “Use on Construction” is turned on
- l. Collect Metadata for revisions: Metadata will be collected according to established procedures for each revision sheet.
- i. Ensure Document Type is set to “Construction Revision Plans”
 - ii. Ensure “Use on Construction” is turned on
- m. Process Remaining Revisions: Repeat steps g-l for the remaining revisions.
- n. Delete files from the PI Folder and the Folder: Once a successful upload has been confirmed, delete the image files from the PI number folder in the *Scanning Staging Area*, along with the PI number folder as well.

SECTION 3 - “USE ON CONSTRUCTION”/“AMENDMENT” REVISION AND BRIDGE AS-BUILT PROCESS FOR AWARDED PROJECTS

Once projects are stored within the plans repository, there may be revisions that are considered either “Use on Construction” or “Amendment” revisions or “Bridge As-Builts”. All these revisions will be submitted as directed in Appendix “H” of the Plan Development Process (<http://www.dot.ga.gov/doingbusiness/PoliciesManuals/roads/PDP/4050-1.pdf>). This section documents how the revisions are processed. For further clarification of Revisions versus Amendments, please refer to the Plan Revision procedures Flowchart in [Appendix A](#) in this document.

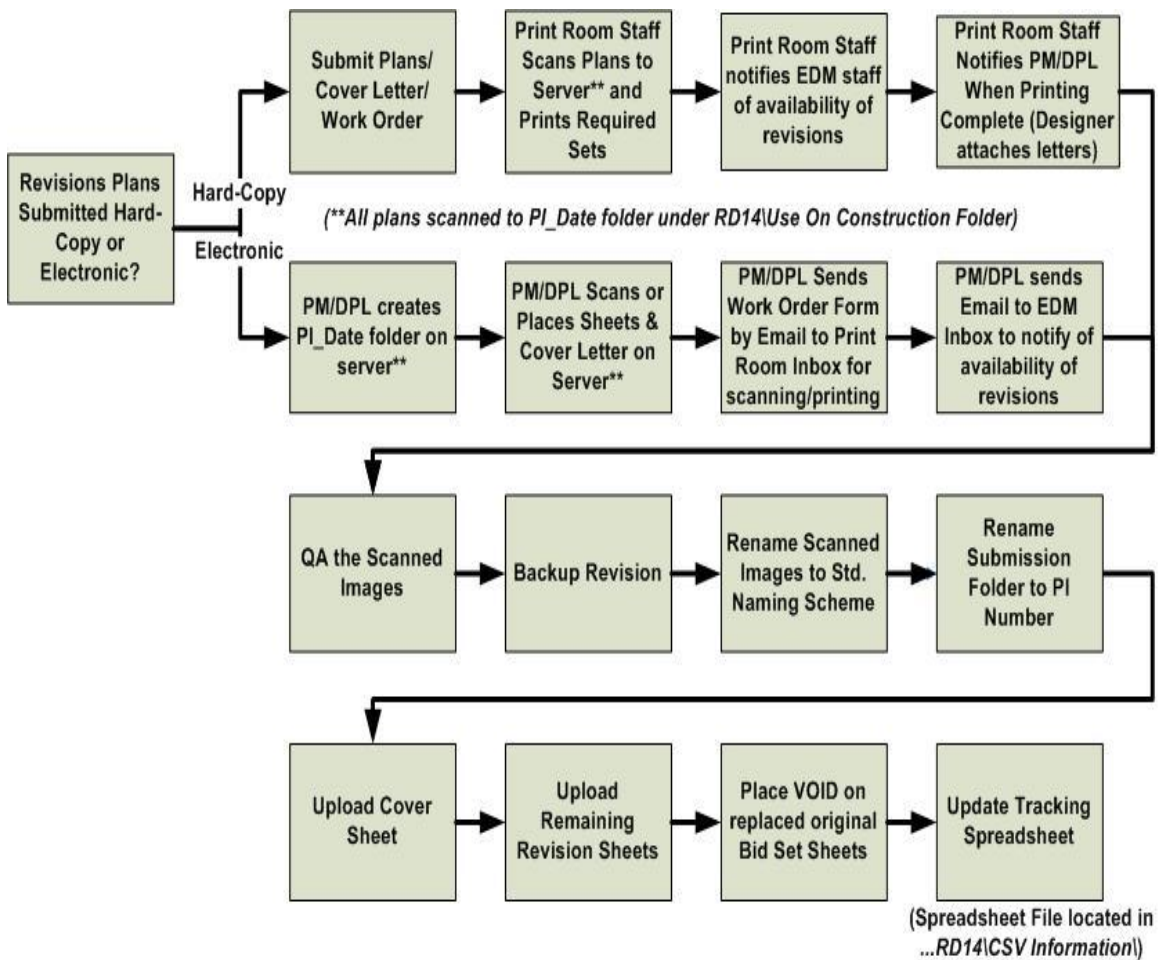


Figure 3-1 – Use on Construction Revision Process Flowchart

CONSTRUCTION/AMENDMENT REVISIONS

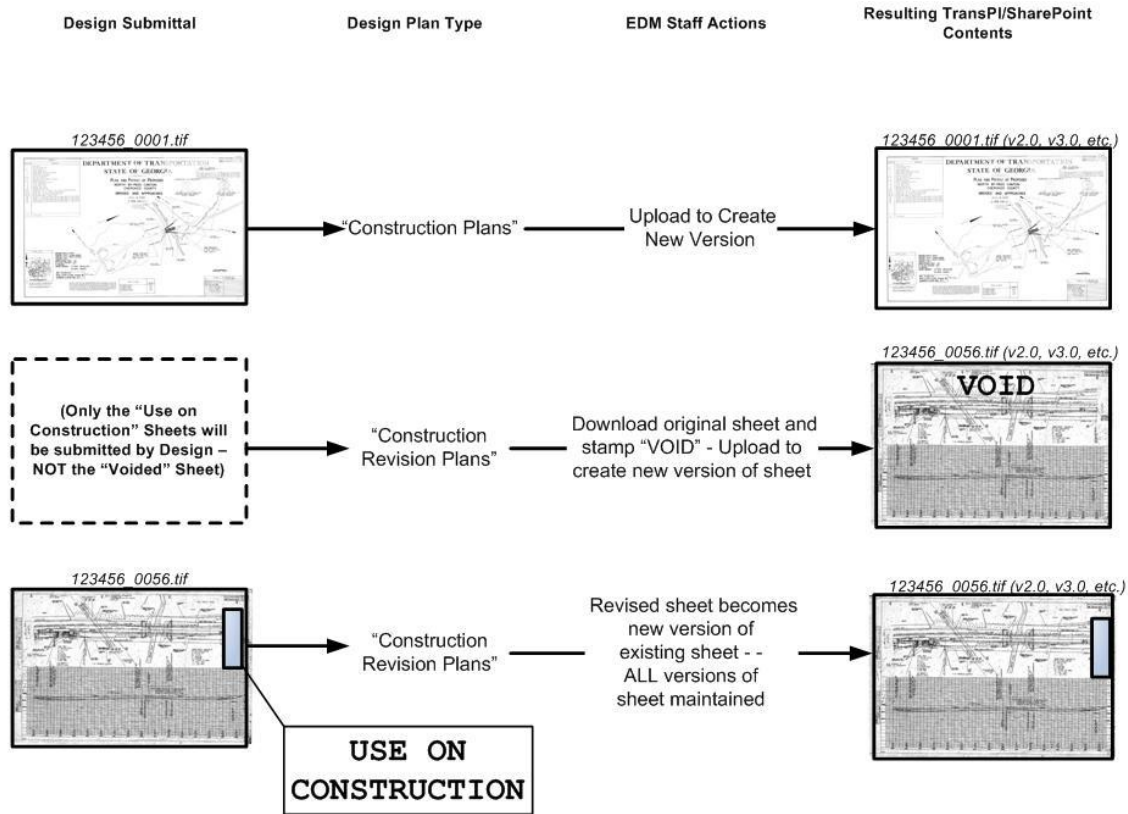


Figure 3-2 – Use on Construction Revision Process Diagram

1. **Submission of Revisions by Design:** Plan revisions will be submitted by the PM/DPL directly to the EDM Group in hard-copy format or submitted electronically as desired.
 - a. **Hard-copy Submittal:** The submittal letter shall have a subject line of *Use On Construction* and the plans shall be clearly labeled as "Use on Construction" or "Amendment" revisions. The plans must be submitted with the cover letter attached, along with the standard Print Room Work Order Form attached as well. The Print Room Staff will scan the files directly to the following location in a folder to be created by the name of the PI Number for the project: <\\Gdot.ad.local\gdot\Preconstruction\RoadDesign\RD14\Use on Construction\>.

The Print Room staff will send an email to the EDM staff responsible for processing Use on Construction Revisions to notify them that the revision is ready to be processed. The Print Room staff will contact the PM/DPL to notify them to come to the Print Room to attach the letters for distribution when done. The original sheets will not be returned to the PM/DPL until all metadata has been collected and

the revision published. At that point, the plans will be returned to the PM/DPL. See Appendix P of the PDP for further clarification on revisions.

b. Electronic Submittal:

1. The PM/DPL must first create a *PI Number, underbar, Date* sub-folder (ie: *123456_5-13-09*) under [\\Gdot.ad.local\gdot\Preconstruction\RoadDesign\RD14\Use On Construction\](\\Gdot.ad.local\gdot\Preconstruction\RoadDesign\RD14\Use On Construction).
2. The PM/DPL will then scan their sheets to or place their existing electronic sheet images in the PI Number sub-folder just created, remembering to scan the cover letter as the first document.
 - i. The filenames shall conform to the standards documented in [Section 1](#). (ie: *123456_0001.pdf, 123456_0002.pdf, etc.*). The filenames do not have to correspond to the actual sheet numbers they represent as that is the responsibility of our Engineering Document Management staff.
 - ii. The first file will always be the transmittal letter named PI Number_0000.pdf (ie: *123456_0000.pdf*). The “0000” file will always represent the Transmittal letter. If there is no transmittal letter attached to the Revision, it will be returned and will not be processed. The revision sheets will follow the transmittal letter and will be in the format specified above.
3. Then, the PM/DPL will email the Print Request Work Order form to the Print Room e-mail address: (printroom@dot.ga.gov) and the plans will be printed according to the Distribution List and Work Order Form.
4. The DPL/PM will also send an email to EDM@dot.ga.gov with a **Subject Line of *PI# - UOC*** to notify the EDM staff that there is a revision to be processed.
5. The Print Room staff will contact the PM/DPL to notify them to come to the Print Room to attach the letters for distribution when done.

2. Internal Processing of Revisions by Engineering Document Management staff:

For detailed information on the process used by the EDM staff to process Use on Construction Revisions as described below, please refer to the EDM internal document entitled *UOC Process_SharePoint.docx*.

1. The EDM staff will QA the images. If they are not acceptable, the responsible staff will coordinate to obtain quality images.
2. The EDM staff will back-up the original revision before any work is done ([\\gdot.ad.local\gdot\Preconstruction\RoadDesign\RD14\Use on Construction\Original Revisions\](\\gdot.ad.local\gdot\Preconstruction\RoadDesign\RD14\Use on Construction\Original Revisions)).

3. The EDM staff will then rename the scanned images to the correct file-naming scheme for the project*** (i.e.: correct PI Number and sheet number for the revised sheets) by using the TransPI search utility.
 4. The EDM staff will determine if each sheet is a “new” revision (has not been submitted previously) or a “replacement” revision (has been previously submitted) by using the TransPI search utility.
 5. The EDM staff will rename the submission folder to only the PI number (including the dash if it is a 6-digit PI number). This step allows the new Upload Tool to see the project plan images in the folder in the Use on Construction share.
 6. The EDM staff will upload the Cover Sheet as a “Construction Plan” design plan type using the Upload Tool.
 7. The EDM staff will upload the remaining revision sheets, specifying “Construction Plan Revisions” as the design plan type, using the Upload Tool.
 8. The EDM staff will “stamp” the existing Construction plans that were revised as “VOID”.
 9. All files, regardless of the process, should be processed within 48 hours after receipt. After uploading, the plans will be returned to the Designer by the staff processing the revisions.
3. **Revision Tracking:** Either the responsible staff or the EDM Group Manager will update all information on the Construction Revision Tracking Spreadsheet through completion of the revision work.

*** In some cases, sheet numbering will cause the filename to exceed the 4-digit extension (ie: 123456_1025A.pdf exceeds the 4-digit extension beyond the underbar which will cause issues when *Loading* and *Migrating* the metadata. Therefore, the filename in this case will be the last filename used for the project (ie: 123456_1087.pdf) plus one and following (ie: 123456_1088.pdf, 123456_1089.pdf, etc.).

Special Note: In some cases, revisions may be “Void on Construction” Revisions. In this case, they will be handled in the same manner as “Use on Construction” Revisions. The original plan sheet (“Construction Plan” design plan type) will have “VOID” placed on it electronically and the “Void on Construction” Sheet will be uploaded as a “Construction Plan Revision” design plan type.

Special Note: Under the new process documented above, the use of “A” sheets is eliminated unless a new sheet is actually added as part of a revision. However, if older revisions done prior to this process contain “A” sheets, the “A” sheets will be maintained since that revision is tracked as an “A” sheet in the Revision Summary sheet, etc. Files will be named as follows: 123456_132A.pdf.

BRIDGE AS-BUILT PLANS

In addition to Construction Revisions, the Office of Bridge Design also submits what are called “Bridge As-Built Plans”. These as-built plans are comprised of shop drawings from fabricators or sheets on which in-field dimensions or elevations have been entered. When these type As-Built sheets are received, they are to be uploaded as “As Built Revision Plans” design plan type for the appropriate project. The reason for them being considered as “As Built Revision Plans” is that the shop drawing sheets will not contain sheet numbers and are not listed on the Index for the plans. The process for handling Bridge As-Built plan sheets is much the same as Construction Revisions with the following exceptions:

- There will be no Cover Sheet submitted or to process.
- The submittal letter shall have a subject line of *Bridge As-Built Plans*.
- The revised sheets will be uploaded as “As Built Revision Plans” instead of “Construction Revision Plans”.
- After scanning and QA, the original sheets will then be destroyed by the Engineering Document Management staff.

The file-naming of Bridge As-Built plans will adhere to the following guidelines:

1) Sheets on which in-field dimensions or elevations have been entered

Typically, these type sheets were part of the original bid set and have sheet numbering included. Therefore, the filename will be the same as the filename of the corresponding sheet in the original bid set plans. If the sheet filename in the original bid set is 123456_0059.pdf, the revision sheet will be renamed to 123456_0059.pdf and will be placed in the *As-Built/Bridge* folder.

2) Shop Drawings

Typically, Shop Drawing sheets are new sheets to be added to the plans. They were not part of the original bid set plans and contain no sheet numbering whatsoever. Therefore, they will be placed in the *As-Built/Bridge* folder as well, but with a filename of the next sequential number after the last number in the original bid set plans (initial shop drawing submission) or the next sequential number after the last number in the last shop drawing submission plans (additional shop drawing submission).

(SEE EXAMPLES BELOW)

Examples:

a. Initial Shop Drawing submission

Original bid set plans sheet numbering:
123456_0001.pdf – 123456_0192.pdf

Initial Shop Drawing submission sheet numbering:
123456_0193.pdf – 123456_0212.pdf

b. Subsequent Shop Drawing submissions

Initial Shop Drawing submission sheet numbering (as shown above):
123456_0193.pdf – 123456_0212. pdf

Subsequent Shop Drawing submission sheet numbering:
123456_0213.pdf – 123456_0224.pdf

Subsequent Shop Drawing submission sheet numbering:
123456_0225.pdf – 123456_0242.pdf

SECTION 4 - PROJECT ARCHIVAL PROCESS

NOTE: This process is dependent on State Archives implementing an electronic archival process. Therefore, once that is in place, this process will be updated and implemented.

Once construction on a project is completed and all revisions have been included, a Final Acceptance Letter will be received by the Office of Design Policy & Support. The Final Acceptance Letter is the “trigger” by which the project archival process takes place. According to the Department’s current records retention policies, all Construction plans shall be sent to the State Archives upon completion for permanent archival. This section documents the process by which the final project archival occurs.

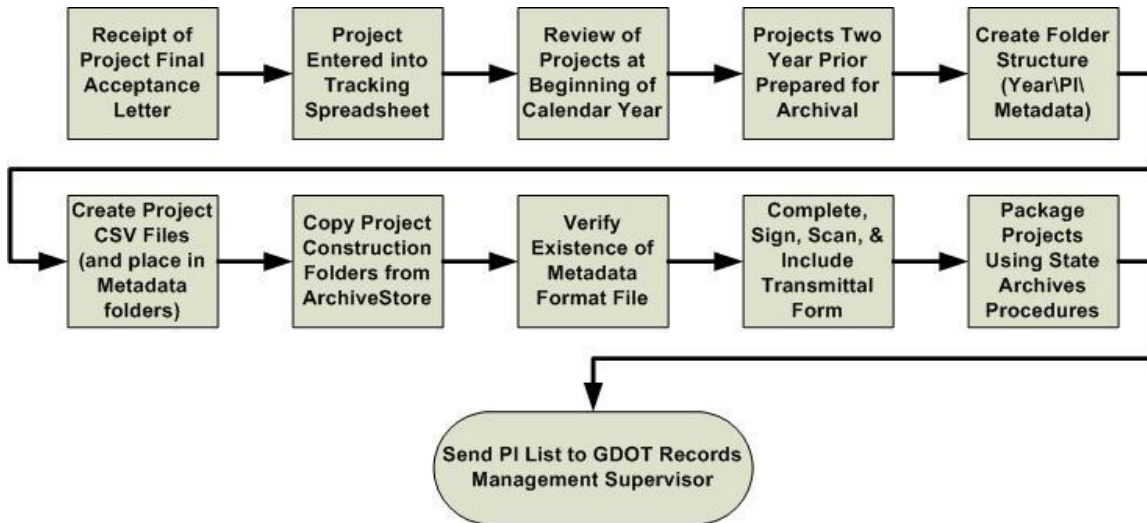


Figure 4-1 – Project Archival Process Diagram

1. **Final Acceptance Letter (cc: Design Policy & Support Office Head):** All Final Acceptance Letters will include a copy to the State Design Policy & Support Engineer and/or the Engineering Document Management Manager. This letter will be provided to the responsible staff within Engineering Document Management.
2. **Tracking of Final Acceptances:** As a Final Acceptance Letter is received, the responsible staff within Engineering Document Management will enter the project information into a spreadsheet (<\\gdot.ad.local\gdot\Preconstruction\RoadDesign\RD14\Final Acceptance Letters\FinalAcceptance.xlsx>) containing tabs representing each calendar year.
3. **Archival of Final Acceptance Projects:** At the end of each calendar year (typically in early January), the spreadsheet will be provided to the Engineering Document

Management Manager for review and processing. The Engineering Document Management Manager will first review the previous year's spreadsheet. The spreadsheet for two years back will then be accessed and all projects on that spreadsheet will be prepared for archival.

For example, in January 2010, the projects listed under the "2008" tab in the spreadsheet file will be processed for archival. The year lag allows for any revisions not previously submitted to be included to produce a true "final" set of plans for archival purposes.

- ✓ The responsible Engineering Document Management staff will be assigned to access the projects on the spreadsheet for the appropriate year.
- ✓ Under the GDOT_Data_Archive folder in the project Archival Staging Area folder ([\\gdot.ad.local\gdot\Preconstruction\RoadDesign\RD14\Project Archival Staging Area\GDOT_Data_Archive\](#)), create a folder with the name of the year of the projects being archived (ie: archiving all projects receiving final acceptance in the year 2000, create a folder named "2000").
- ✓ Under the year folder just created, create folders by the name of each PI Number being archived. Be sure to include the dash ("-") on all 6 digit PI Numbers.
- ✓ Under each PI Number folder, create sub-folders named "Construction", "Revisions", and "Metadata".
- ✓ The CSV file for each project will be generated using the query in TRAQS (*RD Metadata Archive Extract*), following the procedures documented in the internal document *TRAQS Query_RD Metadata Archive Extract.docx*.
- ✓ The metadata CSV file can be created directly in the "Metadata" folder for the appropriate project or it can be moved to the "Metadata" folder from where it is created.
- ✓ Next, download the "Construction Plans" and "Construction Plan Revisions" plan images from TransPI, using the zip utility (see associated documentation on searching and downloading plan images).
- ✓ Unzip all the "Construction Plans" images to the "Construction" folder created above.
- ✓ Unzip all the "Construction Revision Plans" images to the "Revisions" folder created above.
- ✓ After all CSV files have been created and placed in the "Metadata" folder for each projects and after all the "Construction" folders have been COPIED to the appropriate projects, verify that there is a file called *Metadata_Format.docx* in the root "GDOT_Data_Archive" folder.

- ✓ Complete the *State Archives Transmittal Form for Digital Records*, sign it, and then scan the form to PDF for internal archival purposes and to send with the package to State Archives.
- ✓ The scanned PDF of the transmittal form is to be placed in the root “GDOT_Data_Archive” folder along with the metadata format file.
- ✓ The images and CSV information will be packaged and transferred to the State Archives according to the established procedures listed in the internal document provided by State Archives entitled *Transferring Digital Records to the Georgia Archives.pdf*.
- ✓ Once records are ready to be sent to State Archives, a list of the PI Numbers being archived will be sent to the GDOT Records Management Supervisor.

SECTION 5 - CONSTRUCTION AS-BUILT PLANS PROCESS

Once construction is complete and all changes have been recorded on the “As-Built” plans, the plan set is to be submitted directly to the Office of Design Policy & Support and will be processed as follows.

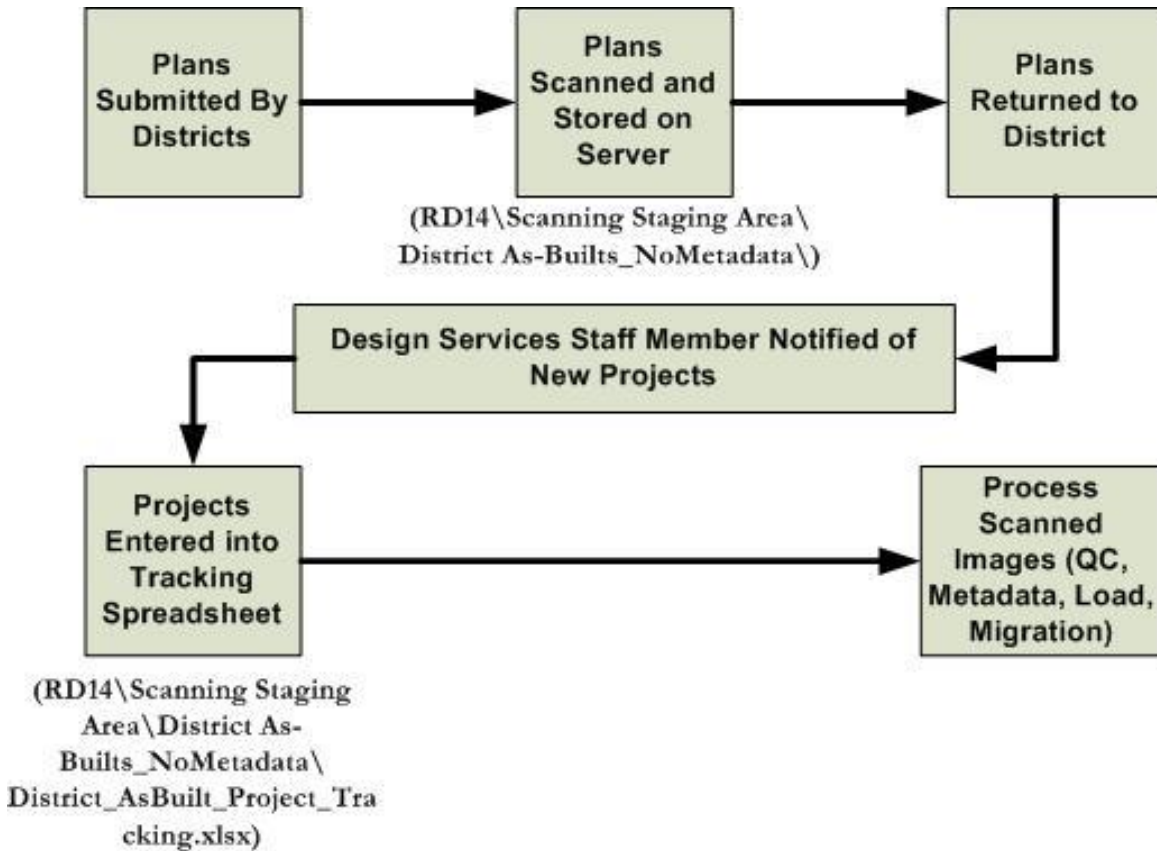


Figure 5-1 – Construction As-Built Plans Process Diagram

1. **Plans submission from the Districts:** All As-Built plans are to be submitted to the Office of Design Policy & Support, State Design Policy & Support Engineer, Attn: EDM Group Manager. The plans are to be clearly designated as “AS-BUILT PLANS”.
2. **Plans Scanning:** In-house staff (or a contract vendor) will scan all plan sheets. If contract vendor, the plans will be scanned to a CD/DVD. If in-house, the plans will be scanned to a PI Number sub-folder under the appropriate District folder under \\Gdot.ad.local\gdot\Preconstruction\RoadDesign\RD14\Scanning Staging Area\District As-Built_NoMetadata\. If scanned by a contract vendor, the images will be placed in a PI Number sub-folder under the appropriate District folder under \\Gdot.ad.local\gdot\Preconstruction\RoadDesign\RD14\Scanning Staging Area\District As-Built_NoMetadata\.

3. **Return Plans to District:** All As-Built original hard-copy plans will be sent back to the appropriate District Office by the Print Room Supervisor once they are scanned.
4. **Notification of New Project(s):** At the time the plans are prepared for return to the District, the EDM Group Manager will send an email to the Engineering Document Management staff member responsible for entering the project information into the tracking spreadsheet with a listing of the PI Number(s) of the new project(s).
5. **Plans Tracking:** From the Cover Sheet, the responsible Engineering Document Management staff member will enter all new projects submitted by the EDM Group Manager into the tracking spreadsheet by PI Number, PA Number, County, and District Number. (<\\gdot.ad.local\gdot\Preconstruction\RoadDesign\RD14\Scanning Staging Area\District As-Built NoMetadata\District AsBuilt Project Tracking.xlsx>)
6. **Processing of Scanned Images:** Engineering Document Management is responsible for processing the scanned images, which includes QC, metadata gathering, and loading the project. The project plans will remain in this folder until they have been completely processed and migrated to TransPI/SharePoint.

SECTION 6 - ELECTRONIC RW PLANS PROCESS

The Electronic RW Plans Process consists of several sub-processes as shown below – Pre-Approval Process, Approval Process, Revision Process, and Final Acceptance Process.

PRE-APPROVAL PROCESS

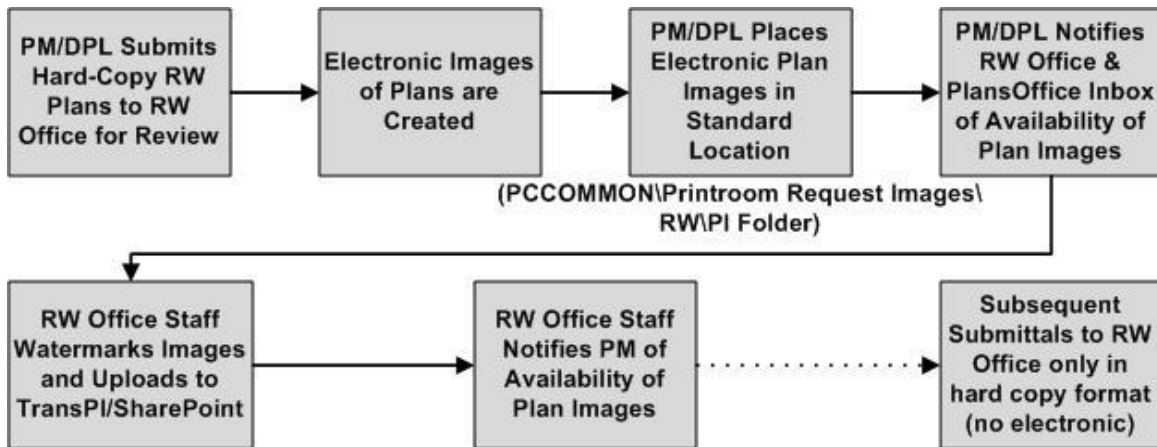


Figure 6-1 – Electronic Right of Way Plans Process Diagram – Pre-Approval Process

1. **PM/DPL Submits Plans to RW Office for Review:** Two sets of **full-size** hard-copy RW Plans will be submitted by the Project Manager (PM)/Design Phase Leader (DPL) to the Office of RW for review and approval.
2. **PM/DPL Creates Electronic Images of Plans:** At the time of submission, the PM/DPL will scan and create electronic images in the standard electronic file format ([Section 1](#)) that represent the RW Plans being submitted.
3. **PM/DPL Places Electronic Plan Images on PCCOMMON:** The resulting electronic plan images shall be placed in a PI_Date format folder (ie: 123456_3-31-10) in the standard location (\gdot.ad.local\gdot\Preconstruction\RoadDesign\Pccommon\Printroom Request Images\RW) for posting of RW Plans to TransPI/SharePoint.
4. **PM/DPL Notifies RW Office Staff/NEPA Coordinator of availability of plans:** The PM/DPL will send an email to the RW Plans Office (PlansOffice@dot.ga.gov) and the NEPA Coordinator notifying of the availability of the plans in the standard location.
5. **RW Office Staff Processes Images:** The RW Office Staff will access the image files in the standard location and process them using the *KIP Request* software to add the watermark of “For Review Only”. The plans will then be uploaded to TransPI/SharePoint. At that point, the plans will be available electronically for **INTERNAL** access only through the TransPI search utility.

6. **RW Office Staff Notifies of Availability of Plans:** After QA is completed on the resulting images, RW Office staff will send an email to the PM/DPL notifying them that the plan images are available on through the TransPI search utility.

NOTE: Any subsequent submissions (ie: second, third, etc.) shall be in hard-copy form only and submitted only to the RW Office. No further pre-approved plan submissions are to be made in electronic format.

APPROVAL PROCESS

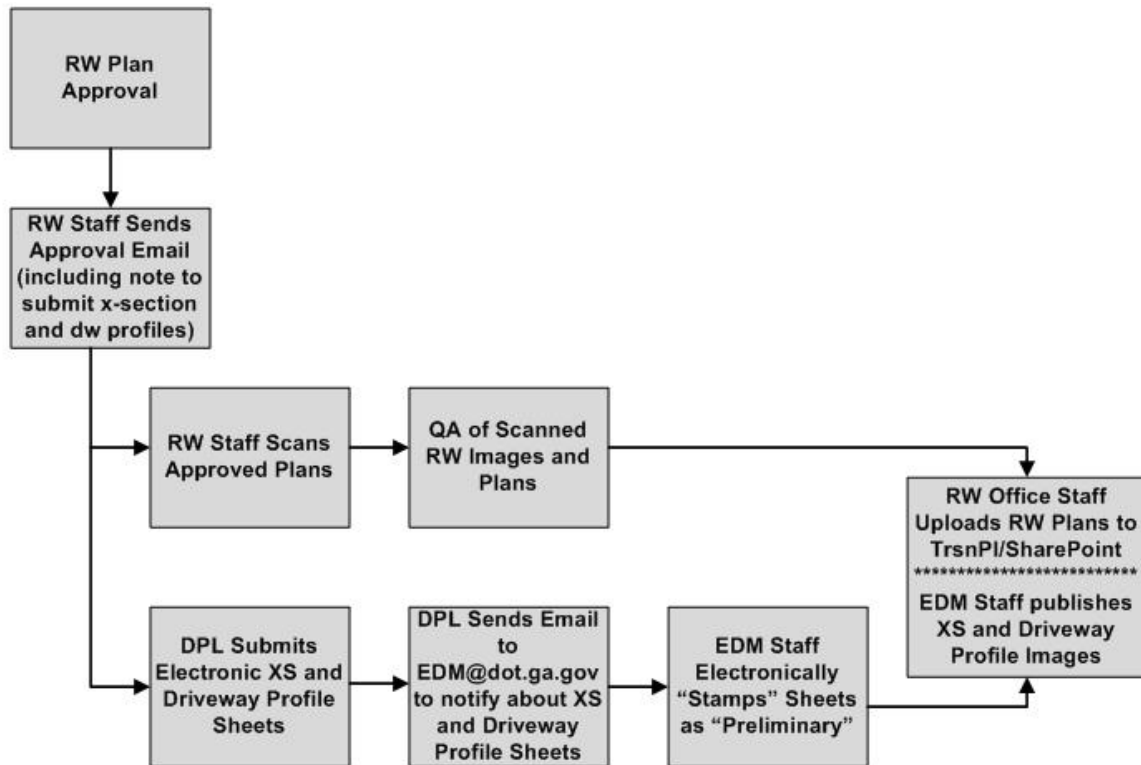


Figure 6-2 – Electronic Right of Way Plans Process Diagram – Approved RW Plans

1. **RW Plan Approval:** Final RW Plans (**full-size**) are submitted for approval to the RW Office according to the Plan Development Process (PDP).
2. **RW Staff Sends Approval Email:** The RW Staff will send out a standard email to notify of the approval of the plans.
NOTE: The approval email will direct the Design Phase Leader to submit the current cross-section and driveway profile sheets electronically in a PI_Date folder under <\\gdot.ad.local\gdot\Preconstruction\RoadDesign\Pcommon\Printroom Request Images\XSDW>.
3. **RW Staff Scans Approved Plans:** Once the RW Plans are approved, the RW Staff will scan the approved plans into electronic format.
4. **RW Office Staff Uploads Files to TransPI/SharePoint:** If the images are acceptable after QA, the RW Office Staff will upload the image files to TransPI/SharePoint (If pre-approval - “For Review Only” – plans exist already, they will remain but as an unpublished previous version). At that point, the plans will be available electronically for INTERNAL access only through the TransPI search utility.

5. **Design Phase Leader Submits X-Section and Driveway Profile Plan Sheets Electronically:** Once the Design Phase Leader receives notification that the RW Plans have been approved, the Design Phase Leader shall submit the X-section and Driveway Profile sheets to the following location electronically:

<\\gdot.ad.local\gdot\Preconstruction\RoadDesign\Pccommon\Printroom Request Images\XSDW>.

X-S AND D/W PROFILE SHEET FILE-NAMING NOTE: Since there is typically a large number of x-section sheets, the file-naming scheme for the x-section sheets and the driveway profile sheets being submitted can vary from the standard file-naming scheme for electronic files. In this case, due to the large number of sheets, the creation of the PDF files may be done by using the existing PRF files (instead of scanning the sheets). Therefore, the resulting PDF files will be named according to the DGN and PRF files. In the “new world” plotting (MicroStation v8i), PDF files will be created as a default directly from the MicroStation DGN files.

NOTE: X-Section and Driveway Profile Sheets: If any revisions occur after the original submittal of the X-Section and Driveway Profile Sheets, it will be the responsibility of the District RW Team Manager to work directly with the Project Manager to get updated x-section or driveway profile sheets for a particular parcel.

6. **Design Phase Leader Sends Email to EDM Inbox:** The DPL shall send an email to the EDM Inbox (EDM@dot.ga.gov) to notify the EDM staff that the X-Section and Driveway Profile sheets have been placed in the XSDW folder.
7. **EDM Staff “Stamps” X-Section and Driveway Profile Plans:** Once the X-Section and Driveway Profile plans are received from the Design Phase Leader, the EDM Staff shall electronically “stamp” the submitted images with a “Preliminary” stamp on the right side border of the images using the current imaging software.
8. **EDM Staff Places X-Section and Driveway Profile Plans on RWStore:** Once the plans are stamped Preliminary, the EDM Staff shall create a folder named “XSDW Plan” under the Project PI Number folder on RWStore and place the submitted and stamped plan images in it. At that point, the X-Section and Driveway Profile plans will also be available electronically for INTERNAL access only.

RW REVISION PROCESS (Electronic Process Only)

Refer to [Appendix B](#) for further documentation on the RW Revision process as documented in the RW Manual.

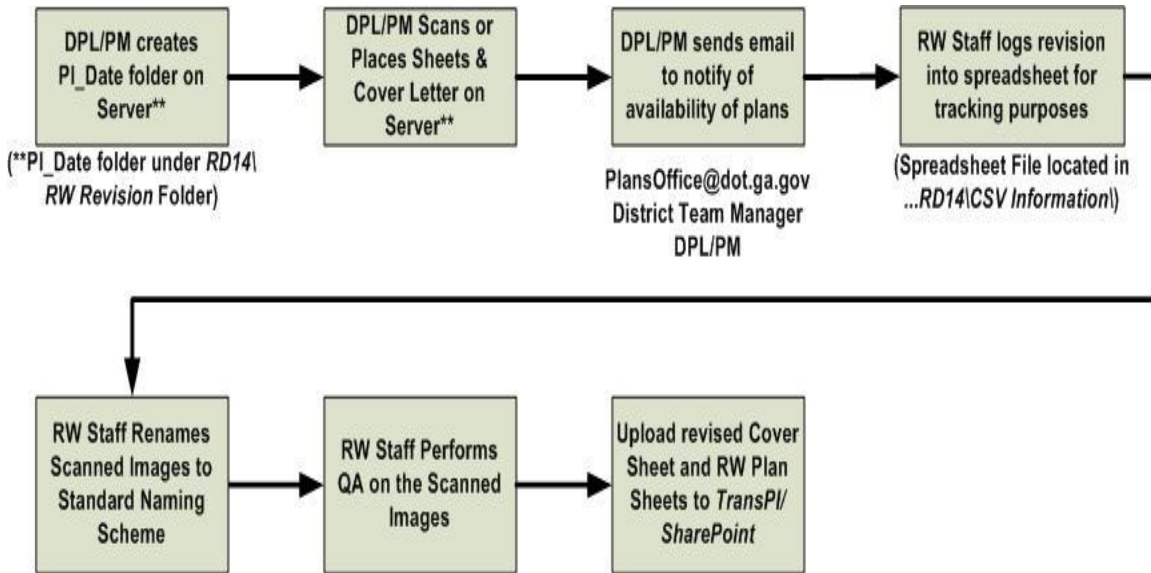


Figure 6-4 – Electronic Right of Way Plans Process Flowchart

1. Plan revisions shall be submitted by the Project Manager or by the Design Phase Leader in electronic format ONLY. (No hard-copy sets of revisions are to be submitted to the Office of RW!)
2. The Design Phase Leader (DPL)/Project Manager (PM) shall create a *PI Number_Date* sub-folder (ie: 123456_5-13-09) under [\\Gdot.ad.local\gdot\Preconstruction\RoadDesign\RD14\RW Revision\](http://Gdot.ad.local/gdot/Preconstruction/RoadDesign/RD14/RW Revision/).
3. The DPL/PM shall place the electronic sheet images of the RW Plans Cover Sheet, the revised RW Plan Sheets, and the electronic copy of the cover/transmittal letter in the PI Number sub-folder just created, remembering to scan the cover/transmittal letter (PDF format) as the first document (ie: 123456_0000.pdf).
 - ✓ The filenames of the revised RW Plan sheets shall conform to the standards documented in [Section 1](#) (ie: 123456_0001.pdf, 123456_0002.pdf, etc.).
 - ✓ The first file will always be the transmittal letter in PDF format named PI Number_0000.pdf (ie: 123456_0000.pdf). The “0000” file will always represent the Transmittal letter. If there is no transmittal letter attached to the Revision, it will be

returned and will not be processed. The revision sheets will follow the transmittal letter and will be in the formats specified above.

4. The DPL/PM will send an email to the following people to notify staff that revisions have been submitted.
 - ✓ RW Office Inbox (PlansOffice@dot.ga.gov)
 - ✓ District Acquisition Team Manager
 - ✓ Design Phase Leader/Project Manager
5. Internal Processing of Revisions by RW Staff: The responsible staff shall:
 - ✓ The RW staff will QA the images. If they are not acceptable, the responsible staff will coordinate to obtain quality images.
 - ✓ The RW staff will back-up the original revision before any work is done.
 - ✓ The RW staff will then rename the scanned images to the correct file-naming scheme for the project (i.e.: correct PI Number and sheet number for the revised sheets) by using the TransPI search utility.
 - ✓ The RW staff will rename the submission folder to only the PI number (including the dash if it is a 6-digit PI number). This step allows the new Upload Tool to see the project plan images in the folder in the RW Revision share.
 - ✓ The RW staff will upload the revised sheets as a “Right of Way” design plan type using the Upload Tool.
 - ✓ All files, regardless of the process, should be processed within 48 hours after receipt. After uploading, the plans will be returned to the Designer by the staff processing the revisions.

FINAL ACCEPTANCE PROCESS

When RW plans are placed within the TransPI/SharePoint environment, they can only be seen and accessed internally. Once Final Acceptance occurs for a project, it will be designated as such in TrnsPort. TransPI/SharePoint is configured such that it reads the flag within TrnsPort. Once it is set to signify Final Acceptance, the RW plans will then be set to be able to be seen and accessed externally. At that time, it will be the responsibility of the RW staff to go to RWStore and delete any remaining folders for that project (ie: *XSDW Plan* folder).

SECTION 7 – ELECTRONIC FIELD PLAN REVIEW PROCESS

In an effort to reduce the amount of printing for Field Plan Reviews, the Department chose to print only half-size sets of plans to distribute with the exception of the Construction Engineer and the Area Engineer (see the *Engineering Services FPR Distribution List* at http://www.dot.ga.gov/doingbusiness/PoliciesManuals/roads/EngineeringServices/Distribution_List-for_FPR.pdf). Since some details may not be clear on a half-size set of plans, the decision was also made to make the plans available electronically for review before the Field Plan Review as well. These plans are made available through what is called *ReviewStore* (<\\gdot.ad.local\gdot\Preconstruction\RoadDesign\ReviewStore>). Additionally, all special provisions and any other documents composing the FPR package are compiled into a multi-page PDF file and are made available on *ReviewStore* in addition to the plans (responsibility of the Project Manager). Below is the process that is to be followed for all Field Plan Reviews.

1. **Printing Work Order is submitted for FPR:** The DPL shall submit hard-copy plans with a Print Work Order Form to the Print Room. The Work Order Form shall be submitted with the option of *PFPR/FFPR* selected.
2. **Plans are printed:** The Print Room staff shall scan the plans and print the desired sets of plans.
3. **Notify customer:** Once the printing is complete, the DPL shall be notified by the Print Room staff that plans are ready for pick-up and distribution.
4. **Scanned images placed on ReviewStore:** The Print Room staff shall create a new folder on *ReviewStore* (<\\gdot.ad.local\gdot\Preconstruction\RoadDesign\ReviewStore>) using the standard format of *PI_Date* (ie: *123456_11-22-10*) and place the scanned images in that folder for access during the FPR process.
5. **Print Room Staff sends email to EDM Manager:** Once the plans are posted to *ReviewStore*, the Print Room staff shall send an email to the EDM Manager notifying him that plans have been posted.
6. **Plans removed when approved FPR Report is received by EDM Manager:** The plans/package will be available for viewing and printing during the FPR process. Once the approved FPR Report is received by the EDM Manager, the plans/package and folder will be deleted from *ReviewStore*.

In the event that printing is not required on a project by the Print Room staff (ie: plans were printed in the District Office, plans were printed by the Consultant, etc.), the plans still need to be posted on *ReviewStore* during the FPR process. The following process shall be followed if no printing is required:

Hard-Copy:

- a. Submit the hard-copy plans with a hard-copy Print Work Order Form to the Print Room with *PFPR/FFPR* selected, but no printing designated.
- b. In the *Comments/Additional Information* box at the bottom of the form, please direct the Print Room staff to scan and load the images to *ReviewStore*, but to do no printing.

Electronic:

- a. Submit the electronic Print Work Order Form to the Print Room email address with *PFPR/FFPR* selected, but no printing designated.
- b. Place the plan images in a *PI_Date* folder at the following location:
<\\\\gdot.ad.local\gdot\Preconstruction\RoadDesign\Pcommon\Printroom Request Images\FPR>
- c. In the *Comments/Additional Information* box at the bottom of the Print Work Order Form, please direct the Print Room staff to load the images to *ReviewStore*, but to do no printing.

SECTION 8 – ENVIRONMENTAL DOCUMENTS PROCESS

**NOTE: This process is not being actively used.
Updates will be made if it is ever implemented.**

In an effort to provide easier access to documents produced within the Environmental section of the Office of Environment/Location, the following process has been established for storing some of these documents in electronic format.

- 1) **OEL Produces the Electronic Document:** The filenames of the files created must begin with the PI Number of the project followed by an underscore, and then any text desired. (ie: *123456_EnvAssess.pdf*, *0000345_GreenSheet.pdf*, etc.) Including the PI Number will assist in future scripting efforts to automate the transfer of files.
- 2) **OEL Places File(s) on Server:** The documents that are ready for transfer to their electronic storage location are placed on the server in the standard transfer folders. The folders are located on PCCOMMON (<\\gdot.ad.local\gdot\Preconstruction\RoadDesign\PCCOMMON>) under a main folder named “*OEL Work Product Transfers*”. The files are placed in the appropriate sub-folder (*Design_ArchiveStore* or *ProjectStore*) based on their desired destination.
- 3) **Design Policy & Support (Engineering Document Management) Monitors Folders:** The Engineering Document Management staff in Design Policy & Support will monitor the folders and, on the last working day of the week, will transfer any files in the folders to their appropriate destinations. Once transferred, the files will be removed from the PCCOMMON folders. (NOTE: If the project does not yet exist in any of these locations, the Design Policy & Support, Engineering Document Management staff, will create the PI Folder and the associated “*Environmental*” sub-folder for that project and transfer the files.)

The folder structures are shown in **Figure 1-1 in Section 1 (General) under Plans Repositories Folder/Directories/Filename Structures** for the ArchiveStore location, as well as in **Figure 7-4 in Section 7 (Project Correspondence Files Process)** for the ProjectStore location. In all cases, the OEL documents will be stored in the “*Environmental*” folder.

SECTION 9 – ELECTRONIC PLANS REPRODUCTION PROCESS

In addition to the standard and traditional hard-copy plans reproduction process, an automated statewide plans reproduction process also exists.



Figure 9-1 - Electronic Plans Reproduction Process Diagram

- 1) **Design Phase Leader Receives or Creates Scanned Images:** The Design Phase Leader may receive sheet file images from a Consultant or may create them by scanning hard-copy sheets. If creating the files, it is recommended to scan them locally as a backup. **All images shall be created according to standards for electronic file formats and filenames in [Section 1](#).**
- 2) **Design Phase Leader Copies Images to Standard Folder:** From wherever the files are created or stored, they must be copied to a standard folder for reproduction and named correctly.

Folder Creation:

The location of the standard folders for reproduction requests is as follows:

<\\gdot.ad.local\gdot\Preconstruction\RoadDesign\PCCOMMON\Printroom Request Images>

Under this main folder, there is a sub-folder for each office. Under the appropriate office sub-folder, the Design Phase Leader must create a Project folder for the project to be printed according to the standard of **PI Number, underbar, the date that the images are scanned.** (See **Figure 10-2** below) Including the date will help distinguish previous reproduction requests for a project from a current one for the same project if the situation should occur. Once the folder is created, the images are to be copied to the folder.

It is the responsibility of the Design Phase Leader to first verify that the plans to be scanned are arranged in the correct order. The plans must then be scanned in sequential order (in the order to be printed).

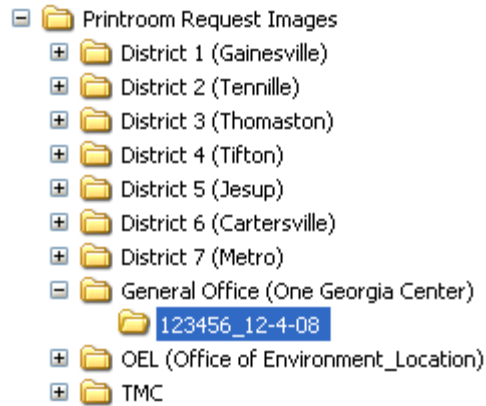


Figure 9-2 - Electronic Plans Reproduction Process Folder Structure Diagram

- 3) **Design Phase Leader Sends Standard Work Order Form by Email:** The standard Work Order Form (See **Figure 9-3** below) can be obtained from the Design Policy & Support Internal Web Page:
http://mygdot.dot.ga.gov/offices/designpolicies/Documents/printroom_workorderform.pdf

The form allows for saving, printing, and emailing directly from the form. Please see the information below for automation and use.

Print Room Work Order Form

Date Ordered:

Date Needed:

Ordered By:

Name:


Phone Number:

Project Number:

PI Number:

County:

Office:



Georgia Department of Transportation
 Print Room Services
 600 W. Peachtree Street
 Floor 1
 Atlanta, GA
 30308
 Phone: 404-347-0600
 Email: printroom@dot.ga.gov

Type of Request:

<input type="checkbox"/> PFPR / FFPR	<i>Preliminary/Final Field Plan Review</i>	<i>Prints / ReviewStore</i>
<input type="checkbox"/> UOC / Bridge As-Built	<i>Use on Construction/Bridge As-Built Revisions</i>	<i>Distribution / Processing</i>
<input type="checkbox"/> General Printing	<i>Includes Final Plans, Amendments, Etc.</i>	<i>Prints Only</i>

Source of Plans:

<input type="checkbox"/> Hard-Copy	<input type="checkbox"/> Previous Submission <i>(General Prints Only)</i>
<input type="checkbox"/> RWStore	<i>(RWStore Prints)</i>
<input type="checkbox"/> TransPI/SharePoint <i>(Previously ArchiveStore)</i>	<i>(Electronic Prints - see options below)</i>

Print images for:

<input type="checkbox"/> Construction Plans	Sheets: <input type="text" value="ALL"/>
<input type="checkbox"/> Revisions (CST/AB)	Sheets: <input type="text" value="ALL"/>
<input type="checkbox"/> Right of Way Plans	Sheets: <input type="text" value="ALL"/>
<input type="checkbox"/> As-Built Plans	Sheets: <input type="text" value="ALL"/>

PCCOMMON\Printroom Request Images\ *(General Printing)*

RD14\Use On Construction\ *(Use on Construction Revisions)*

Size/Number of Prints:

<input type="checkbox"/> Half-Size Prints	Number of Sets: <input type="text"/>
<small>NOTE: Full-Size plans only to be requested for: (1) Final Plan submission to CBA or District Construction, (2) RW Plan submission, (3) Limited Utility submissions (at the discretion of the District Utility Engineer), or (4) Limited PFPR, FFPR, and UOC submissions.</small>	
<input type="checkbox"/> Full-Size Prints	Number of Sets: <input type="text"/>

Comments/Additional Information:

Revised 10/5/11

Figure 9-3 - GDOT Standard Internal Work Order Form

- 1) Select the type of printing request: (1) PFPR/FFPR, (2) Use on Construction Revisions/Bridge As-Built Revision, (3) General Printing
- 2) Select the source of your plans: Hard-copy, Previous Submission, TransPI/SharePoint, PCCOMMON (complete text field with correct Office folder and PI-Date sub-folder – see tool tip on form for example), RD14 (complete text field with actual PI-Date folder name – see tool tip on form for example)
- 3) Specify the desired number of sets of full or half-size plans in the next section.

4) Include any additional information or comments in the box at the bottom.

To save the form:

Click on the diskette icon in the toolbar or select *File=>Save*.

To print:

Click on the **Print Form** button in the top right corner of the form. It will automatically open the Windows printing dialog to select your printer, etc.

To email:

Click on the **Submit by Email** button in the top right corner of the form and the form will be sent to the Print Room email address as documented below.

- ✓ The *Select Email Client* dialog will appear and just make sure the first option of **Desktop Email Application** is selected and click on **OK**.
- ✓ **ONE TIME TASK:** If the *Send Data File* dialog appears, click the **Don't Show Again** checkbox and then click on **Send Data File**. (The dialog will not appear again.)
- ✓ A new Outlook email message will be automatically opened with the completed PDF Work Order Form attached , the Print Room email address already in place, and a standard Subject inserted. If you want to edit the subject line to include the project number, etc. you can do so and then click on **Send**.
- ✓ **ONE TIME TASK:** If the *Email Confirmation* dialog appears, click the **Don't Show Again** checkbox and then click on **Close**. (The dialog will not appear again.)

Automation Features:

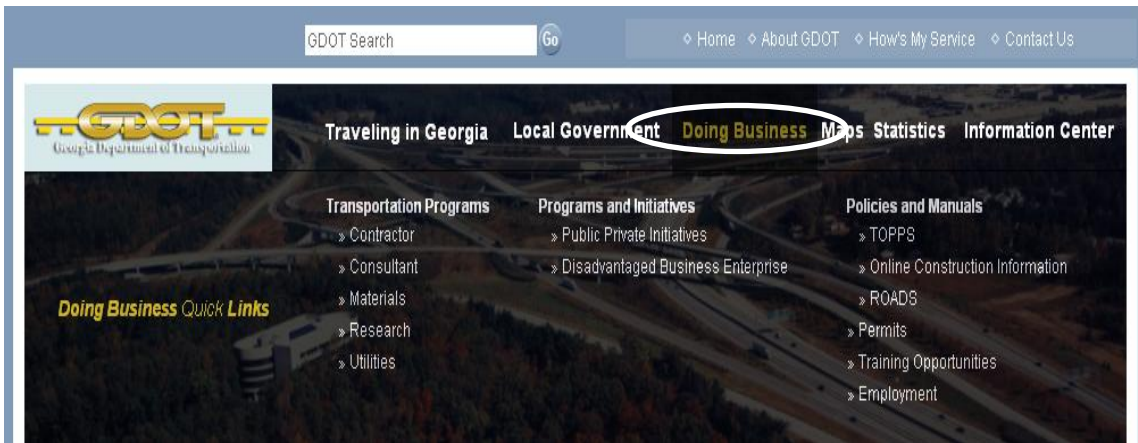
- Auto-entry text: If you do not save the form and open the same downloaded form, previously entered information will automatically appear when typing in text to save time. Basically, it has an auto-entry text feature in the form.
- Calendar Date Fields: The date fields are now calendars that allow for easy entry of submitted and needed dates.

- 4) **Images are Printed:** The images will be printed by the Print Room Staff according to the directions and specifications in the Work Order Form.
- 5) **Design Phase Leader Will Be Notified Upon Completion of Printing:** The Print Room Staff will contact the Design Phase Leader to let the know printing has been completed and the plans are ready for pick-up, shipping, or distribution. The Print Room staff is NOT responsible for attaching letters for distribution. The Design Phase Leader (or designee) must attach the letters to the plans.

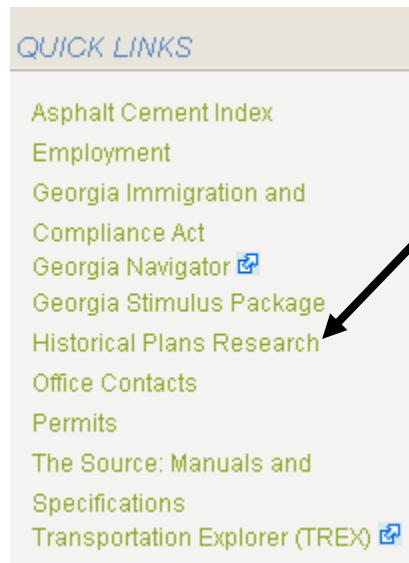
SECTION 10 – ELECTRONIC PLANS RESEARCH PROCESS

Over the past five years, the Department has successfully transitioned from a hard-copy plans environment to an electronic-plans archival environment for Construction Plans, ROW Plans, and As-Built Plans. The transition now enables internal and external customers to search and retrieve plans electronically and from their own locations. Three options exist for searching and retrieving plans.

- 1) First, go to the main GDOT Homepage at www.dot.ga.gov
- 2) From the main section, select *Doing Business*.



- 3) From the *Quick Links* menu on the right side of the screen, select *Historical Plans Research*.



- 4) From the **Historical Plans Research** web page, you can access all of the options for performing research documented below.

TRANSPI SEARCH UTILITY

TransPI is the new search utility that is used to find all historical plans. Please refer to either *TransPI_Search_Internal.pdf* or *TransPI_Search_External.pdf* for documentation on the use of TransPI.

PLANS FILE ROOM

If you have looked and not been able to locate the plans for which you are searching or if you would like for us to do the research for you, simply complete the form at the bottom of the same web page with any of the information you may know, and the GDOT research staff will gather the desired plans for you!

USING THE FORM – CONTACT INFORMATION

The top portion of the form contains the requestor Contact Information. All fields in bold must be completed.

Contact Information: GDOT Employees Check This Box --> Internal

First Name	<input type="text"/>	Company	<input type="text"/>	<input type="button" value="≡"/>
Last Name	<input type="text"/>	Address	<input type="text"/>	<input type="button" value="≡"/>
Phone	<input type="text"/>	City	<input type="text"/>	
Email Address	<input type="text"/>	State	<input type="text"/>	Zip <input type="text"/>

If you are a GDOT Employee, you can simply click on the checkbox at the top of the form.







Contact Information: GDOT Employees Check This Box --> Internal



Employee ID	<input type="text"/>	Office	<input type="text"/>	<input type="button" value="≡"/>
Name	<input type="text"/>	Address	<input type="text"/>	<input type="button" value="≡"/>
Phone	<input type="text"/>	City	<input type="text"/>	
Email Address	<input type="text"/>	State	<input type="text"/>	Zip <input type="text"/>

The form will change to display an **Employee ID** field as shown above. Once the ID is entered and the user presses **Return**, all the employee's information will be filled-in automatically.

USING THE FORM – PROJECT INFORMATION



Project Information:

Date Needed  (Document additional requests in Comment field)
 County  **Type Plans Needed (Plan Sheets, etc.)** 
 Route # **Media** 
 Project #
 PI Number
 Landmark (Intersection, Creek, Railroad, etc.) 
 Comment 

Date Needed  ← Click on the icon to display a calendar to select date
 County  ← Click on the dropdown to select a county from list
 Route # Enter a route number
 Project # Enter a Project Accounting Number (if known)*
 PI Number Enter a Project ID Number (PI #) (if known)**

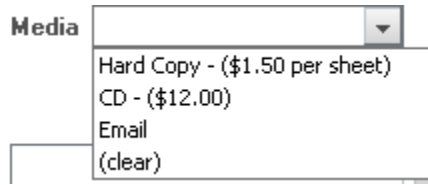
* Example: FR-165-1(409), TSAP-120(1), etc.

** Example: 0000365, 123456-, etc.

(Document additional requests in Comment field)
Type Plans Needed (Plan Sheets, etc.)  ← Click the dropdown to select a plan sheet type***
Media  ← Click the dropdown to select a media type from list

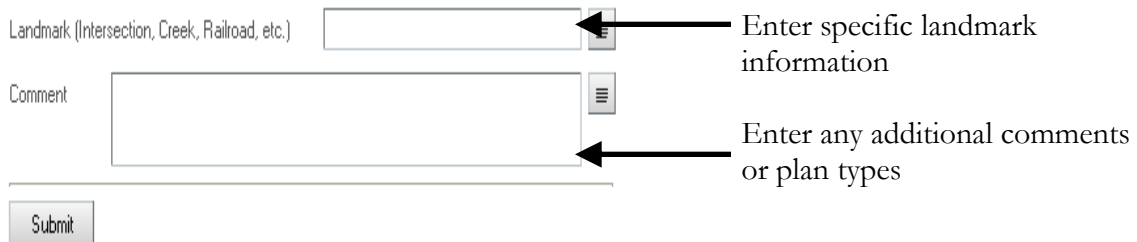
*** You can only select ONE plan type from the dropdown, but you can enter all additional plan types you need in the **Comment** field at the bottom of the form.

The options available from the Media dropdown are show below along with the prices for each type media.



The screenshot shows a dropdown menu labeled "Media". The menu is open, displaying four options: "Hard Copy - (\$1.50 per sheet)", "CD - (\$12.00)", "Email", and "(clear)".

NOTE: The maximum number of sheets that can be requested to be sent by email is 10. If you need more than 10 sheets to complete your request, please select another media type under the **Media** dropdown.

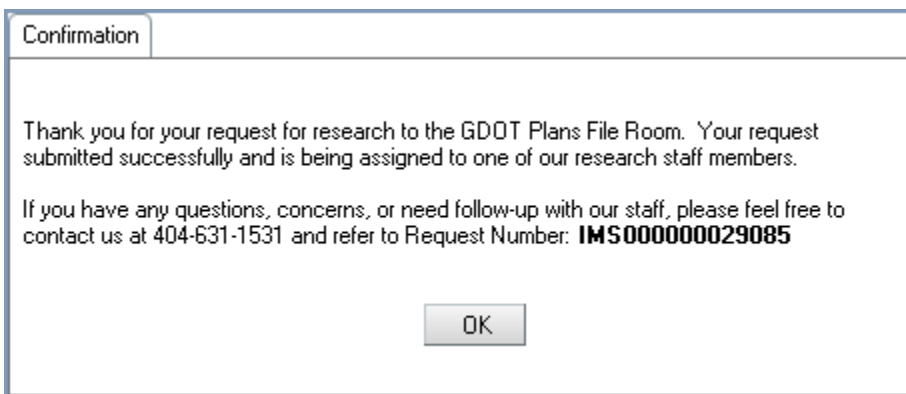


The form contains two input fields. The first is labeled "Landmark (Intersection, Creek, Railroad, etc.)" and has a small icon to its right. An arrow points from the text "Enter specific landmark information" to this icon. The second is a larger text area labeled "Comment" with a list icon to its right. An arrow points from the text "Enter any additional comments or plan types" to this icon. Below the fields is a "Submit" button.

Once you have completed the form, click on the **Submit** button to submit your request.

REQUEST SUBMISSION CONFIRMATION

You will immediately receive a confirmation message as shown below with a request number. If you need to follow-up on this request, please refer to the request number.



The confirmation dialog box has a title bar "Confirmation". The text inside reads: "Thank you for your request for research to the GDOT Plans File Room. Your request submitted successfully and is being assigned to one of our research staff members." Below this, it says: "If you have any questions, concerns, or need follow-up with our staff, please feel free to contact us at 404-631-1531 and refer to Request Number: **IMS000000029085**". At the bottom center is an "OK" button.

(Based on the type of plans requested, the contact information may vary.)

RESEARCHER EMAIL

You will also receive a system email that will contain the contact information of the specific research staff assigned to your request. If you have any attachments you would like to send in order to provide clarification, you can reply to the email address of the specific person in the body of the system email and attach your information.

APPENDIX A – PLAN REVISION PROCEDURES FLOWCHART

Plan Revision Procedures Flowchart

For detailed information concerning the Plan Revision Procedures, please refer to the Plan Development Process, Appendix "P".

Revision Prior to Advertisement
(Concurrence of Construction Bidding Administration)

10 Weeks **FINAL PLANS SUBMISSION To Construction Bidding Administration**

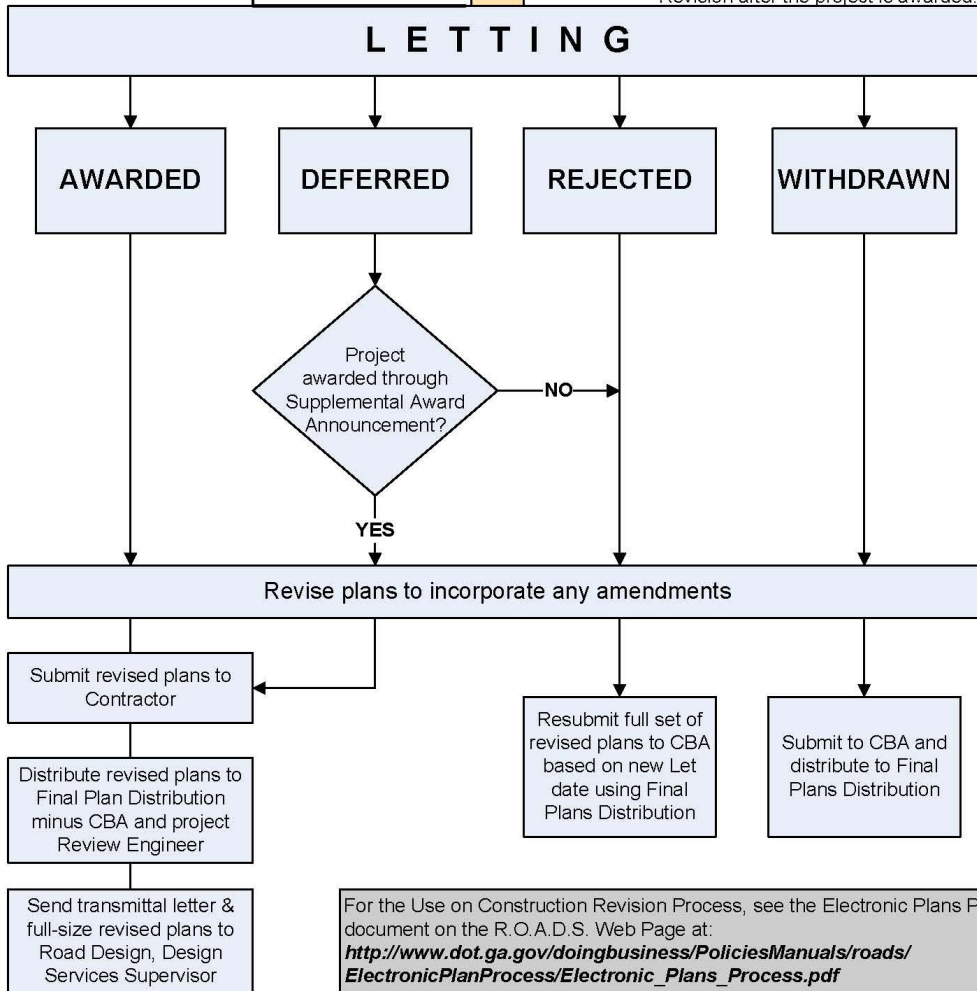
Revision By Advertisement
(Concurrence of Construction Bidding Administration & Approval by Chief Engineer)

6-7 Weeks **Non FOS:** 6-½ Weeks
FOS: 7-½ Weeks

5 Weeks **ORIGINAL PLANS SUBMISSION To Road Design Print Room**

No Changes to Plans

10 Days Changes to Plans within 10 days of the Letting are to be handled by a "Use on Construction" Revision after the project is awarded.



APPENDIX B – CHAPTER 7 - RW MANUAL – RW REVISION PROCESS

Chapter 7 Right of Way Manual

Revision Submittal (Electronic Process Only)

The DPL/PM submits R/W Revisions electronically only adhering to the following process:

- Create the electronic images and place them in a PI_Date folder under <\\gdot.ad.local\gdot\Preconstruction\RoadDesign\RD14\RW Revision> using the [Standard Filename Structure](#)
- Create an electronic image of the transmittal letter and place on the above RD server.
- Sends an email notification of the availability of plans to the following:
 - PlansOffice@dot.ga.gov
 - District Acquisition Team Manager for DOT acquired projects/Local Government Coordinator for Local acquired project
 - Design Squad Leader or Project Manager

For uniformity, please email the above persons with the following information included in the email:

SUBJECT: “PI # - RW Revisions” example: *PI 1234567 RW Revisions*

BODY: Revisions can be accessed through RWStore within 2 days

Include a brief descriptive explanation of the revision and the plan sheets revised.

If additional information is required, please contact “DPL/PM” at (xxx) yyy-zzzz

**** NOTE:** Please do not send a hardcopy of the revisions to the Right of Way Plans Office. Only R/W plans which are considered for review and approval should be submitted as a hardcopy.

Should you have any questions concerning the above, please contact the Right of Way Squad Leader at 404-347-0210, One Georgia Center.