

## 8.7 REVISIONS USING THE FDOT ELECTRONIC DELIVERY SUITE

Revisions are an often confused function for novices of Electronic Delivery, however by reading this section carefully, file management for revisions are handled in a consistent and automation manner. When processing revisions in the context of Electronic Delivery (ED), it is important to recognize the need to protect legacy data previously delivered. The methods described in this section are the recommendation for revising plan sheets using current software in the Electronic Delivery suite of tools.

The processes described include operations to do revisions as part of the overall contemporary (revised) version of the project. The project is brought up-to-date; a revised project data delivery is created.

1. **Back up your original delivery** (make assurances you have a secured version available of your earlier delivery). Make all edits on a “copy” of the original. The software depends upon you having the original delivery available!

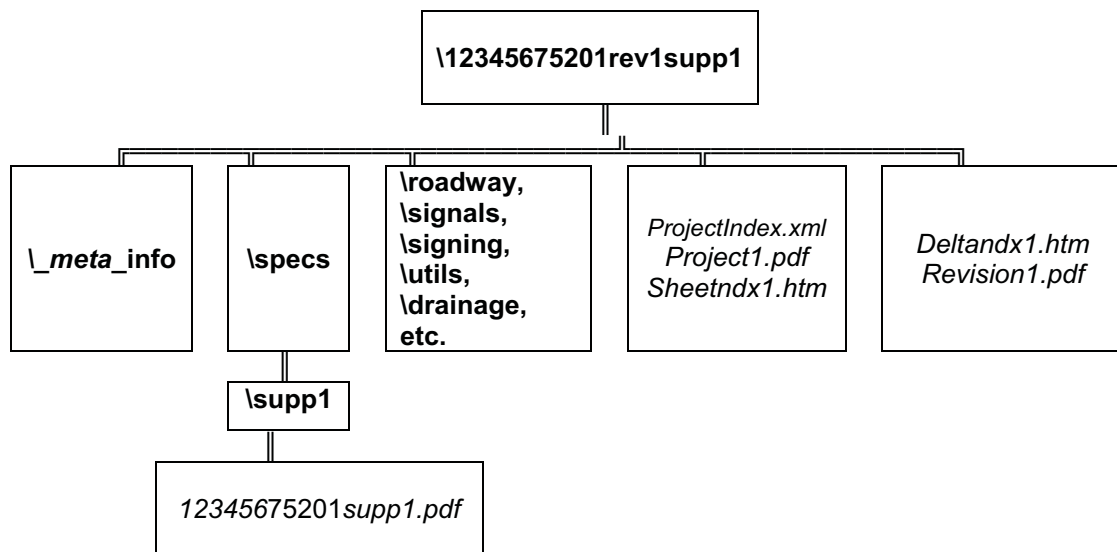
**Note:** Make certain that you have removed any “read-only” attributes on the project’s file copies you will be revising including the Index file(s) (ProjectIndex.xml), Sheetndx.htm, Project.pdf, and the \\_meta\_info\ folder, etc.

Delivered directory structure for project Revisions / Supplements submissions:  
(revised “Plans and Specs CD” only):

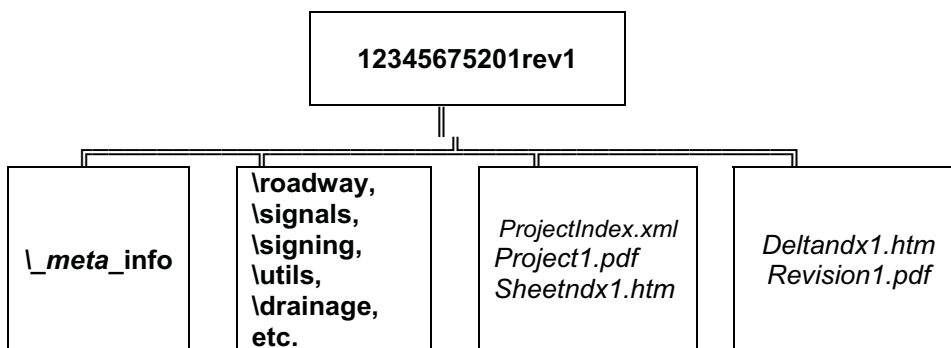
Central Office or District plans processing units working outside of a managed environment (such as TIMS or PEDDS-DB) require the revised “Plans and Specs” data submittal (contrasted with the “Project CD” submittal) on their servers to use a specific directory naming convention for revisions and / or supplements. This convention can be created with the SetMaker tool, but the user must be aware of the conventions (it’s not automatic).

**Note: This does not apply for the “Project CD” submissions (that directory name NEVER changes, regardless of revision); only for the subsets created for revisions and/or supplements (“Plans and Specs CD”).**

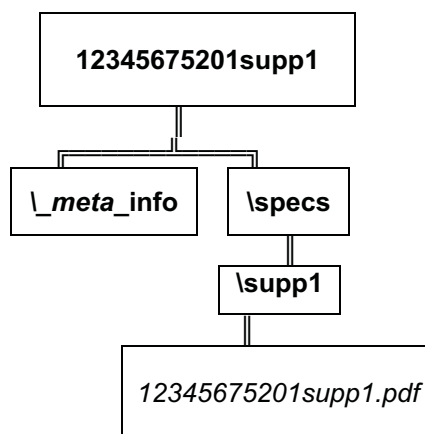
When both a plans revision and specifications changes (called a supplement) are needed, the directory structure (and content) for the “Plans and Specs” subset for the revision 1 and supplement 1 is shown below:



If there are plans revisions only, the following directory structure would be used:



If there are specifications supplements only, the following directory structure would be used:



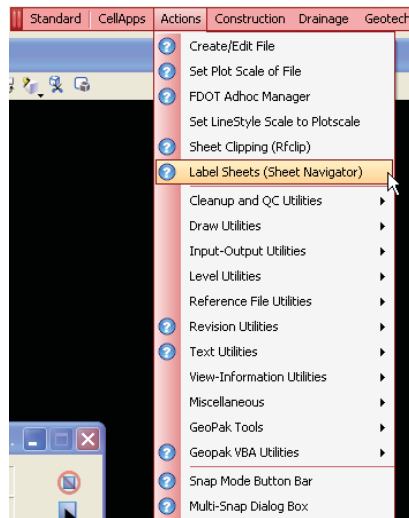
The *root directory name* for “Plans and Specs CD” data sets created for a revision and/or supplement are then:

	<b><u>Project CD</u></b>	<b><u>Plans and Specs (Revision) CD</u></b>
Original Delivery	12345675201	12345675201
After Revision 1	12345675201	12345675201rev1
After Supplement 1	12345675201	12345675201supp1
After Supplement 2	12345675201	12345675201supp2
After Revision 2	12345675201	12345675201rev2
After Revision 2, Supplement 2	12345675201	12345675201rev2supp2

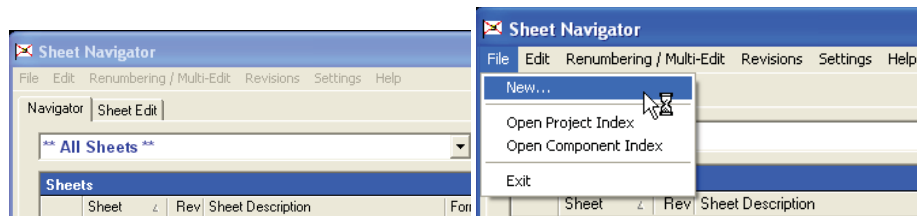
Now that this concept has been introduced, let’s discuss the remaining steps necessary to create a revision.

**IMPORTANT** - When preparing the revision, the user should preserve data in the original delivery’s DGNs, and any plots made from them, because these may be signed & sealed by a signatory in the earlier delivery. **Do not over plot any signed and sealed file from an earlier delivery – doing so will make the Signatory of those files not Authenticate in PEDDS.**

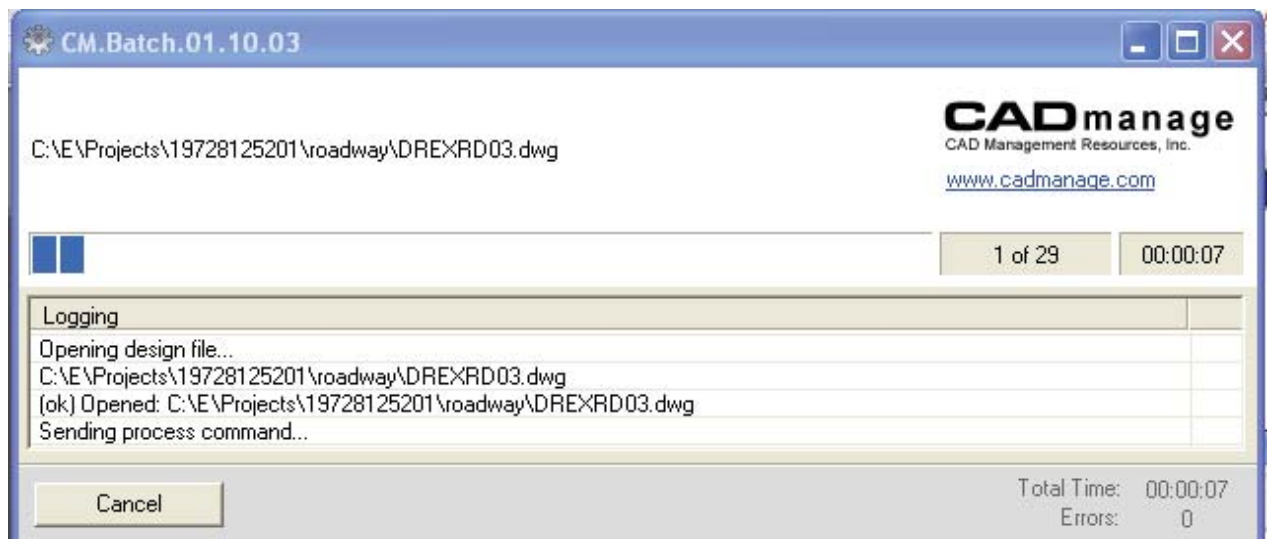
- In MicroStation, from the FDOT Menu interface, select Actions -> Label Sheets to select the Sheet Navigator application. Sheet Navigator can now help you manage revisions to sheets.



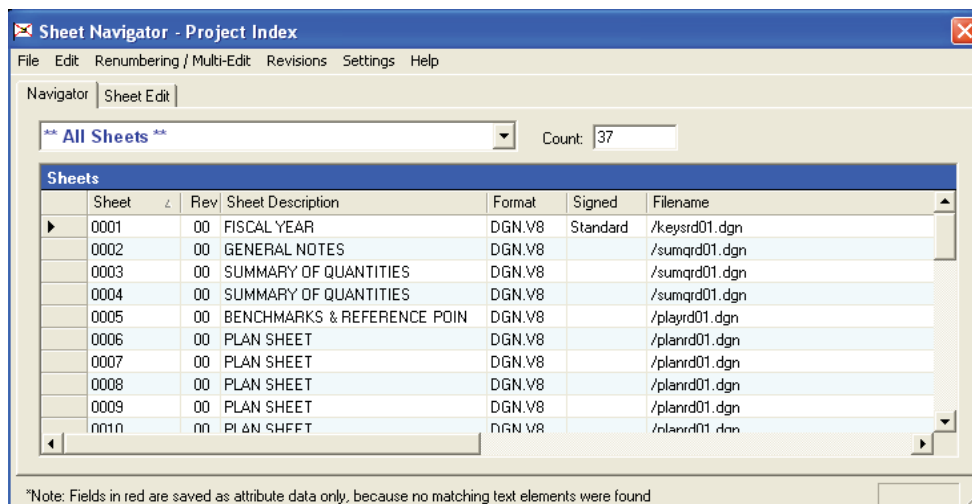
- First, go into Navigator mode (making certain the Navigator tab has focus) and from the File pull down, select the "New" option to create a new *SheetInfo.xml* file, unless you have one already and it is completely up to date (In which case you would Open the Project Index (SheetInfo.xml)).



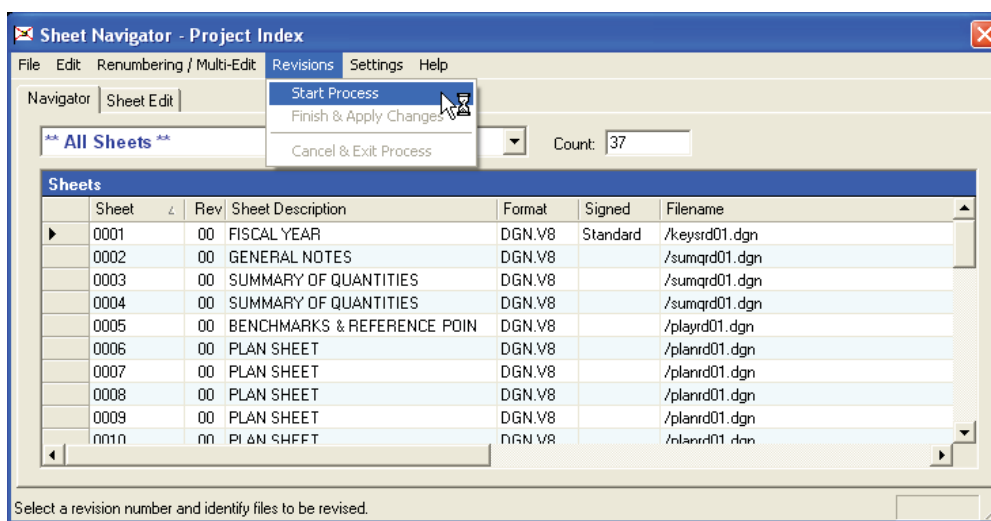
SheetNavigator will process each design file in the project directory structure looking for design file that have properly formatted sheet border cells if a new SheetInfo.xml file is being created.



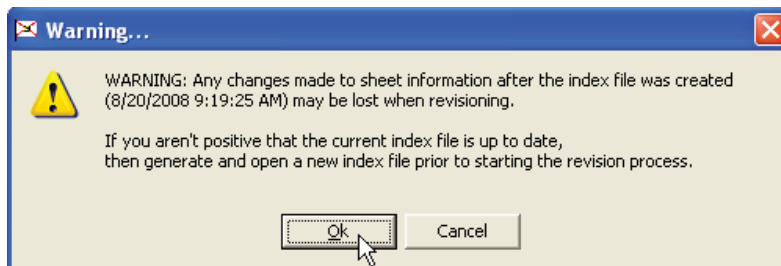
When SheetNavigator has finished, the Navigator dialog is displayed showing the current active sheets in the project. Always inspect for missing sheets, extra sheets, incorrect sheet descriptions (see the first entry for the Key Sheet in the capture below as an example), etc.:



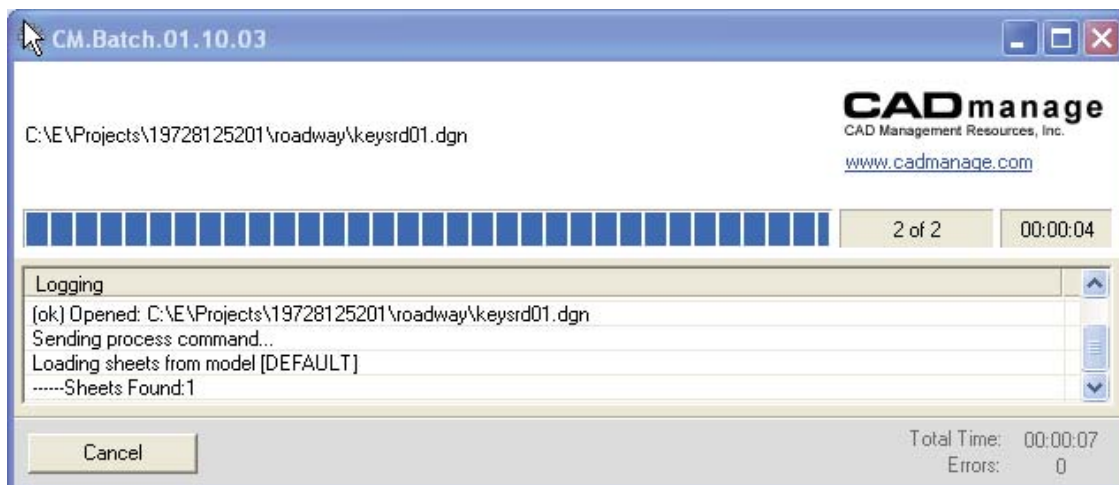
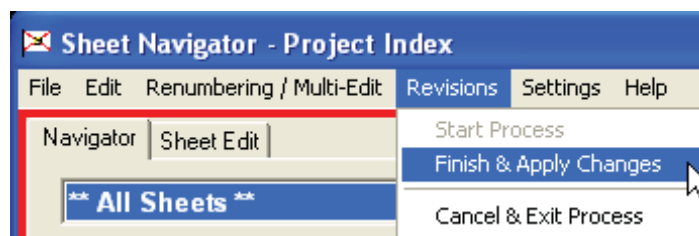
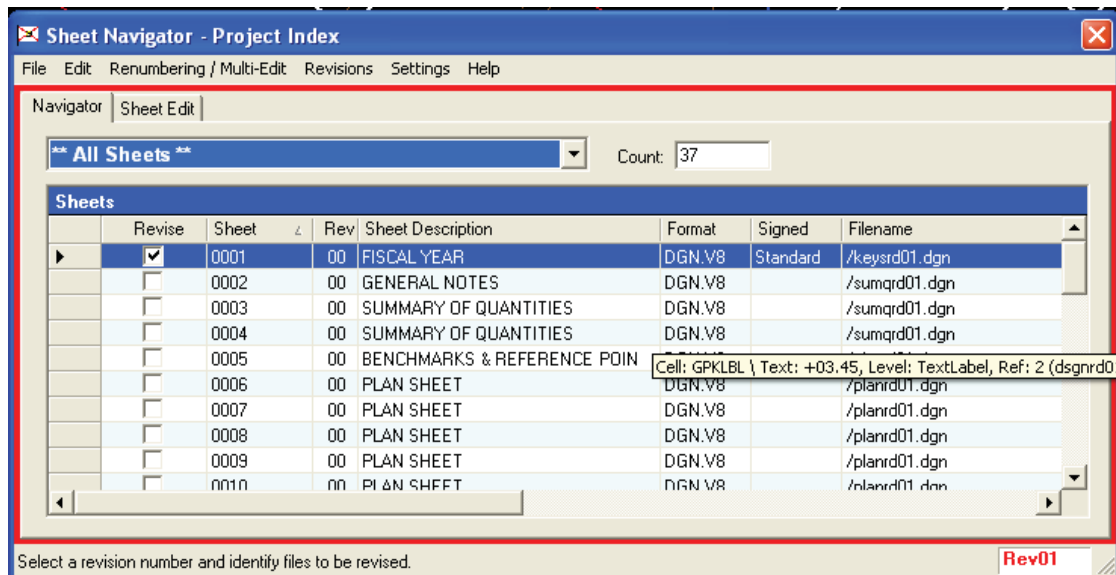
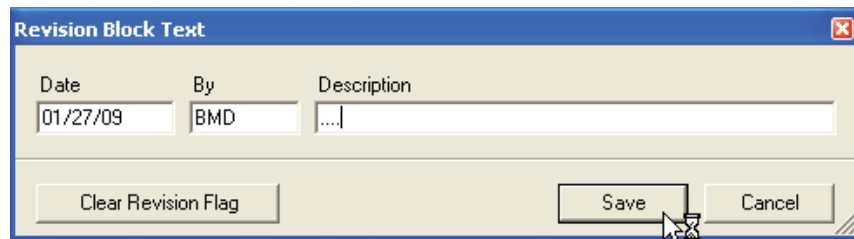
- To begin the revision process, choose Revisions -> Start Revision Process option from the pull-down menu.



Note the warning shown below. Select the revision number and continue with the [OK] button.



- Select the revision number for the revision. Note you should choose the “official” revision number that will appear in the revision blocks and Key sheet. You must also choose which sheets to revise with the check boxes below. Enter the information to appear in the Revision Block on the Sheet, and Press the [OK] button and SheetNavigator will process the highlighted sheets.



6. The SheetNavigator dialog will return in appearance to what it looked like prior to step 4, showing the Revision Number in the column for those sheets to be revised. When SheetNavigator was processing the revision, it was making changes to the revised sheets and doing other file manipulation behind the scenes.
  - The design file being revised is copied so it may be preserved. In this case, **PLANRD01.DGN** is copied to **PLANRD01\_2009-01-27.OLD** (notice the date in the name of the backup file, this is the current date the revision is being processed on)
  - In **PLANRD01.DGN**, the sheets that are not revised will have the “*allow plot*” attribute removed. This way, only the sheets that are to be plotted later for the revision will be allowed to do so from the batch plotting process in the Electronic Delivery Indexer.
7. In **PLANRD01.DGN** (or the design files containing the sheets needed to be revised) complete the necessary revisions and complete appropriate tagging and notations with Sheet Navigator.
8. Plot the revised sheets by plotting the effected design files in their own plotting session in EDI. **DO NOT re-plot any design files containing existing unchanged sheets, otherwise you risk overwrite existing signed and sealed files, and invalidate existing PEDDS signature files – Be very careful here!**

**Note:** EDI will warn if you are about to over plot a signed and sealed file – **Don’t Do it!**

9. Update the Project Index (Project.XML), and edit and save a sheet index (ProjectIndex.XML) with **Electronic Delivery Indexer (EDI)** to reflect the newly revised sheets in the plans.
10. Create **NEW Signatory(s)** in PEDDS (even if it is the same physical person signing / sealing a revision as the original delivery) to sign / seal the newly revised sheet image files you plotted. **DO NOT use the old Signatory files - leave the files signed with old Signatories and Signatory file intact.** Also create a new (different) Signatory to sign any specifications supplements. **PEDDS** allows for multiple signatory files for any given professional of record. **Sign and Seal the revised sheet Postscript files with the NEW Signatories. This is a very important step!**

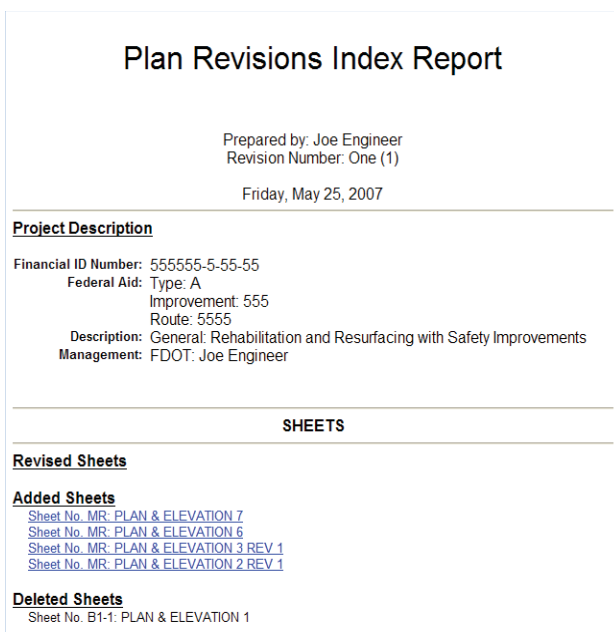
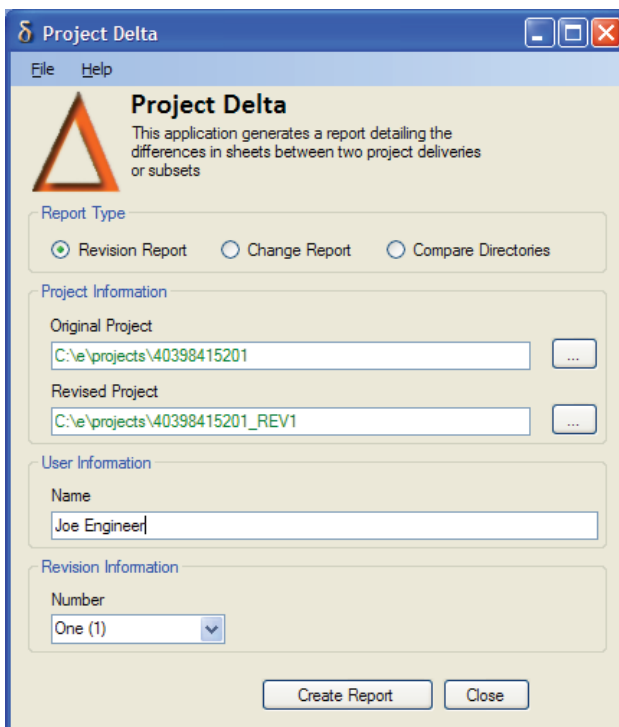
**Note:** Up to this point, all steps have been defined in terms of producing the Revised Project CD deliverable to reflect the updated state of the project with the revisions. In the remaining steps, certain actions are needed to also produce the Plans and Specs Revision CD used in the letting process. Some Districts reserve this process in-house.

11. Create the Plan Revisions Index Report using the *ProjectDelta* application, comparing the original project delivery to the revised (contemporary) version of the project.

*ProjectDelta* will no longer output a file simply named DeltaNDX.htm, but it will append the revision number selected to the end of the file in the format of DeltandxN.htm (**N** being the revision number).

The report (**DeltandxN.htm**) is placed in the root directory of the revised project and only displays information about indexed sheets and their impacted files that have been added, removed, or revised.

**Note: Other non-indexed files that may have changed are not reported. This action is needed for producing the Plans and Specs Revision CD deliverable required for the letting process.**



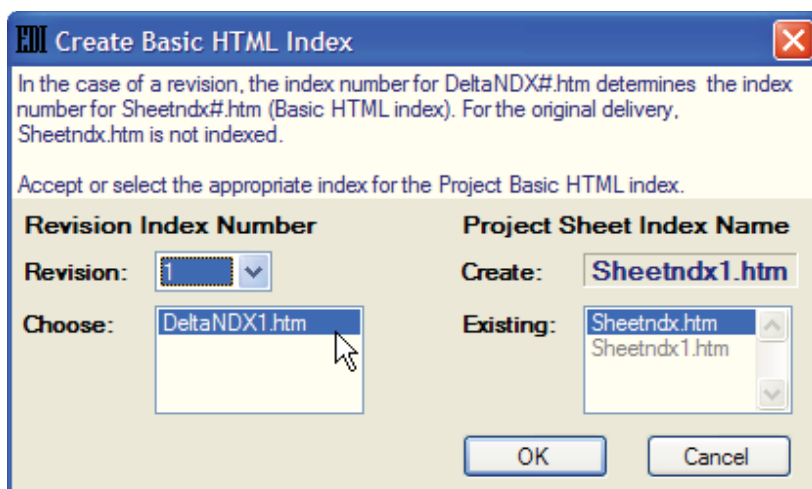
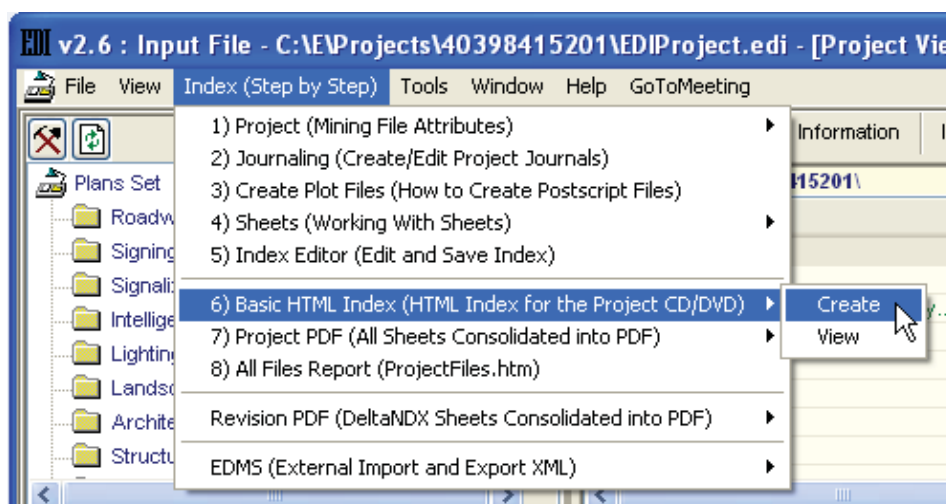
**Note:** Both the Revision and Change options produce the changes between two sets of project data.

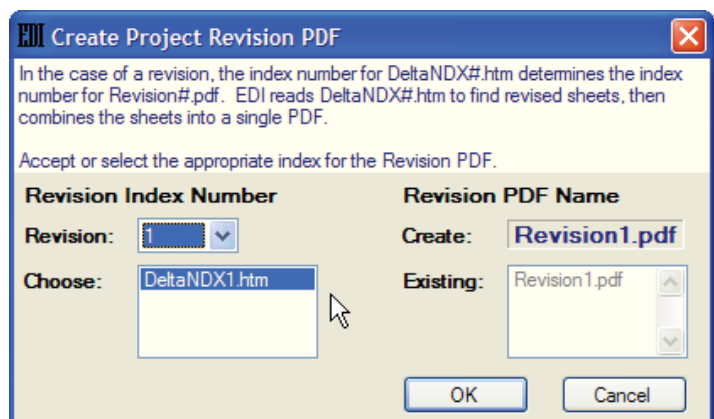
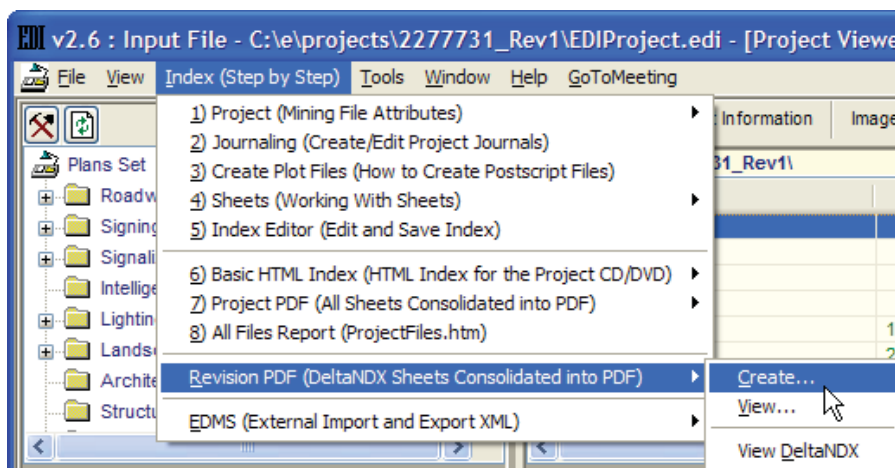
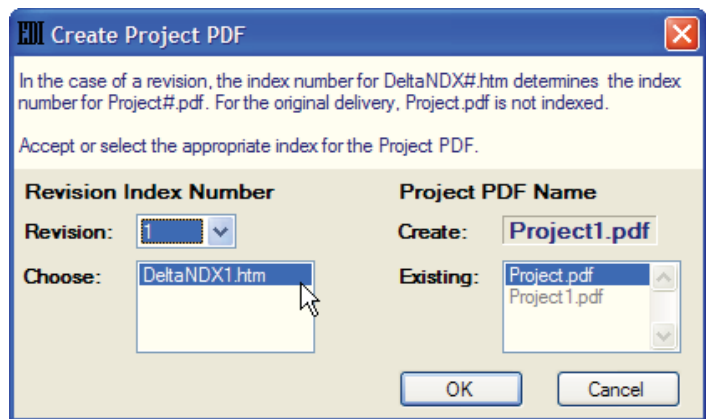
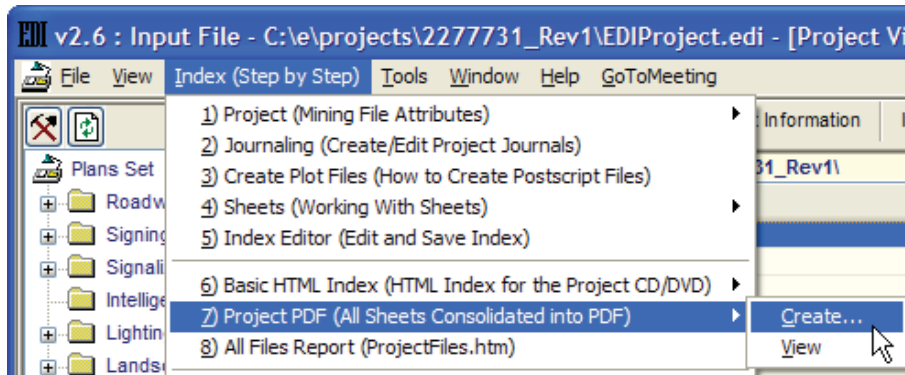
- The **Revision Report** option is used in producing the Plans and Specs Revision CD deliverable and creates the necessary file DeltandxN.htm.
- The Change Report option produces a report of the **differences** between the Index of an earlier delivery and the contemporary (revised) projects index. It does not produce any intelligent hyperlinked reports (but the output can be saved). It is merely a tool to assist when one desires to compare two sets of data to know what has changed between them.

- The Compare Directories option creates a report of the actual file differences between the Original and Revised project directories; no type of actual project information is validated. This option gives the user some reporting options and uses the *CSDIFF* application to compare the original and revised project directories.

12. Update the Sheet Index Report (**SheetndxN.htm**) and project composite PDF (**ProjectN.PDF**) using **EDI**.

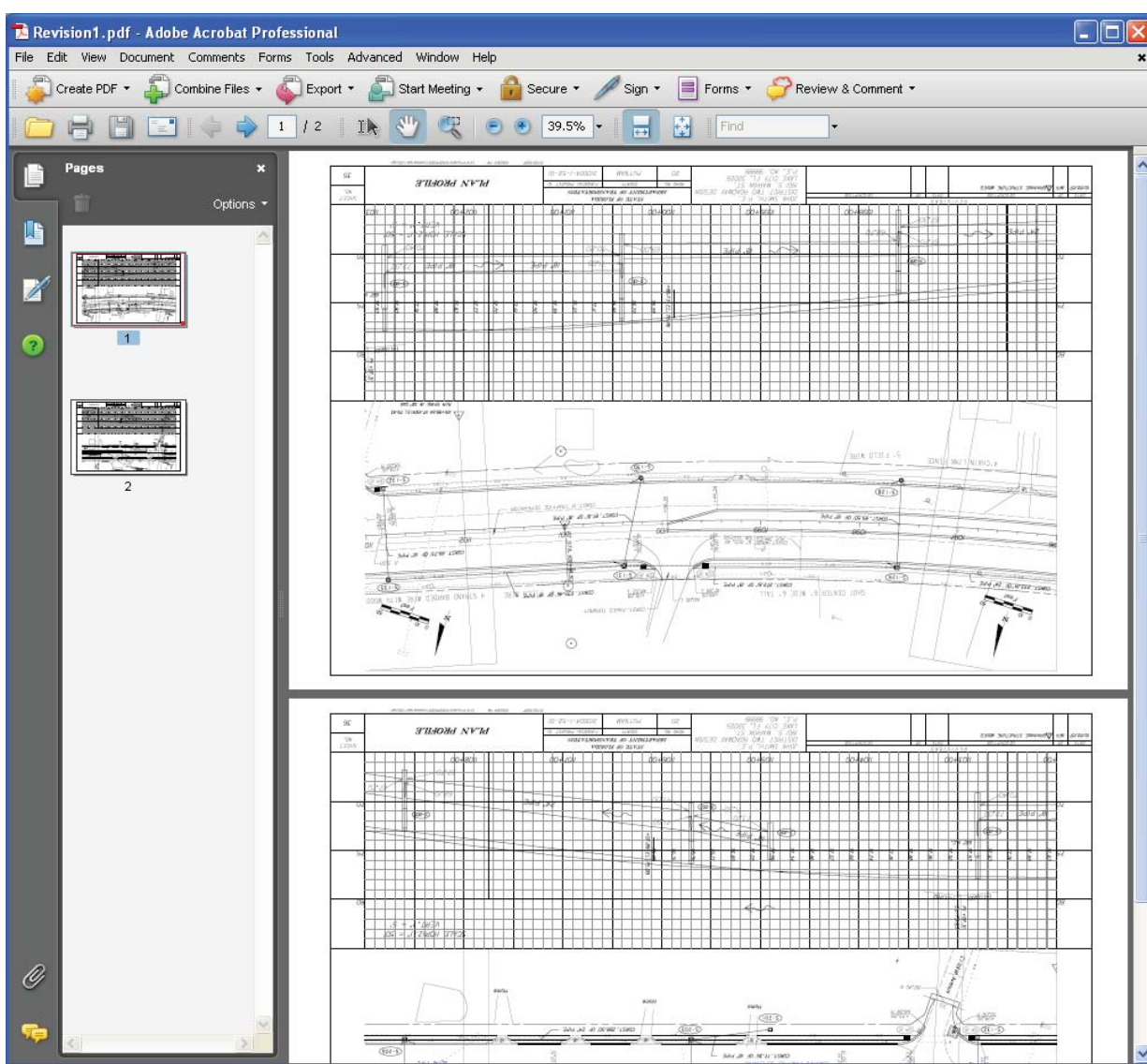
**Note:** These actions in Step 12 are necessary for defining the state of the project as will be reflected in the Revised Project CD deliverable. The new SheetndxN.htm file and ProjectN.pdf file will make reference to all sheets currently active in the project following the revision. However, as shown below, the updated project sheets are assembled into a composite RevisionN.pdf as needed for the Plans and Specs Revision CD deliverable used in the letting process.





13. Create the composite ProjectN.pdf with EDI. This file contains all sheets currently part of the project. Select the appropriate index as defined by DeltandxN.htm for each revision.
14. Create the Sheetndx#.htm, which is the index for all sheets in the project. Select the appropriate index as defined by DeltandxN.htm for each revision
15. Additionally create the composite RevisionN.pdf by selecting the appropriate DeltandxN.htm, from the project root folder. EDI will automatically prompt for and then reads the data from DeltandxN.htm to create RevisionN.pdf. Only revised sheets are included in the revision PDF, as found in the DeltandxN.htm index.

**Note:** This action is necessary to produce a PDF file of the revised sheets to be included in the Plans and Specs Revision CD deliverable. An example of a Revision1.PDF is shown below:



16. Secure the new project delivery with *PEDDS*. The “Revised Project CD” (now containing revisions) can be prepared and burned for delivery.

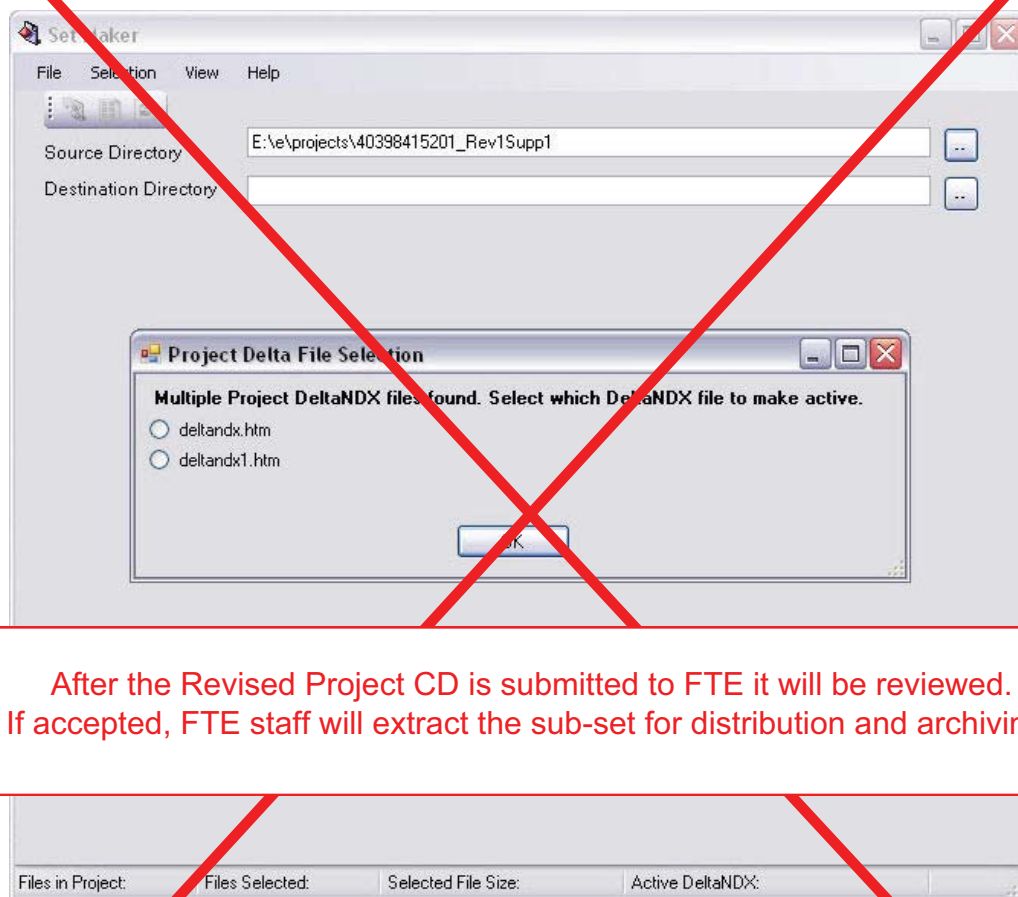
**Note:** Remember the revision is developed within the complete contemporary project that is brought up-to-date, making a “Revised Project CD” delivery.

Label the Revised Project CD carefully, distinguishing the label with the Revision or Supplement number, as well as the other required text on the CD label. After the CD had been burned, always authenticate the CD (the physical media) using *PEDDS*, to make sure the CD burning process went smoothly.

**For submittal to FTE, stop after completing step 16.**

17. Create a sub-set using *SetMaker* for the “Plans and Specs Revision CD” for the revised project. The *Destination Folder* field should contain the directory name using the Naming Structure discussed after Step 1 earlier.

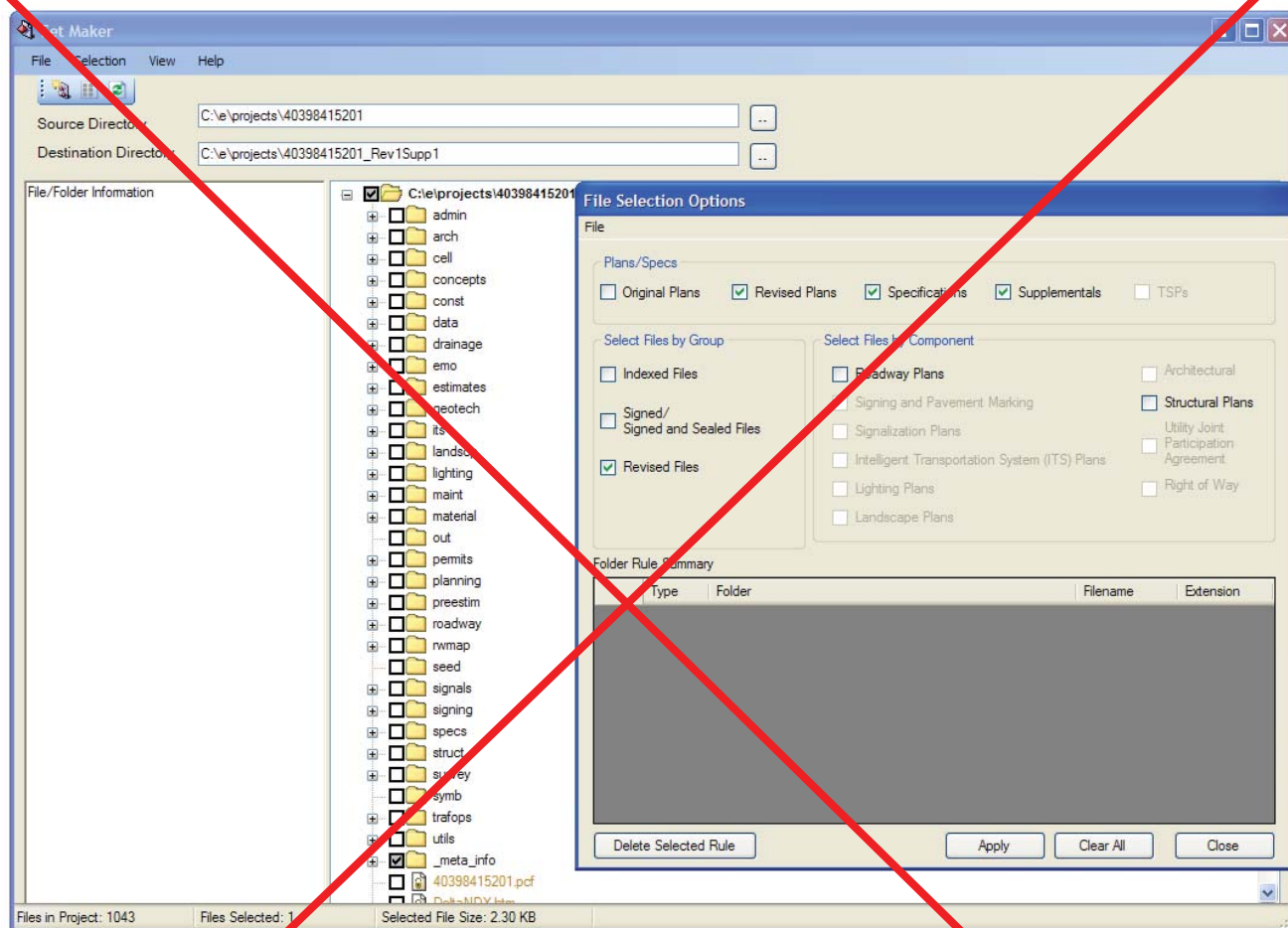
**Note:** In *SetMaker*, if the Source Directory folder contains more than one *deltandx.htm* file, the user will be given the option to select which *deltandxN* file will be the active one. See image below.



After the Revised Project CD is submitted to FTE it will be reviewed. If accepted, FTE staff will extract the sub-set for distribution and archiving.

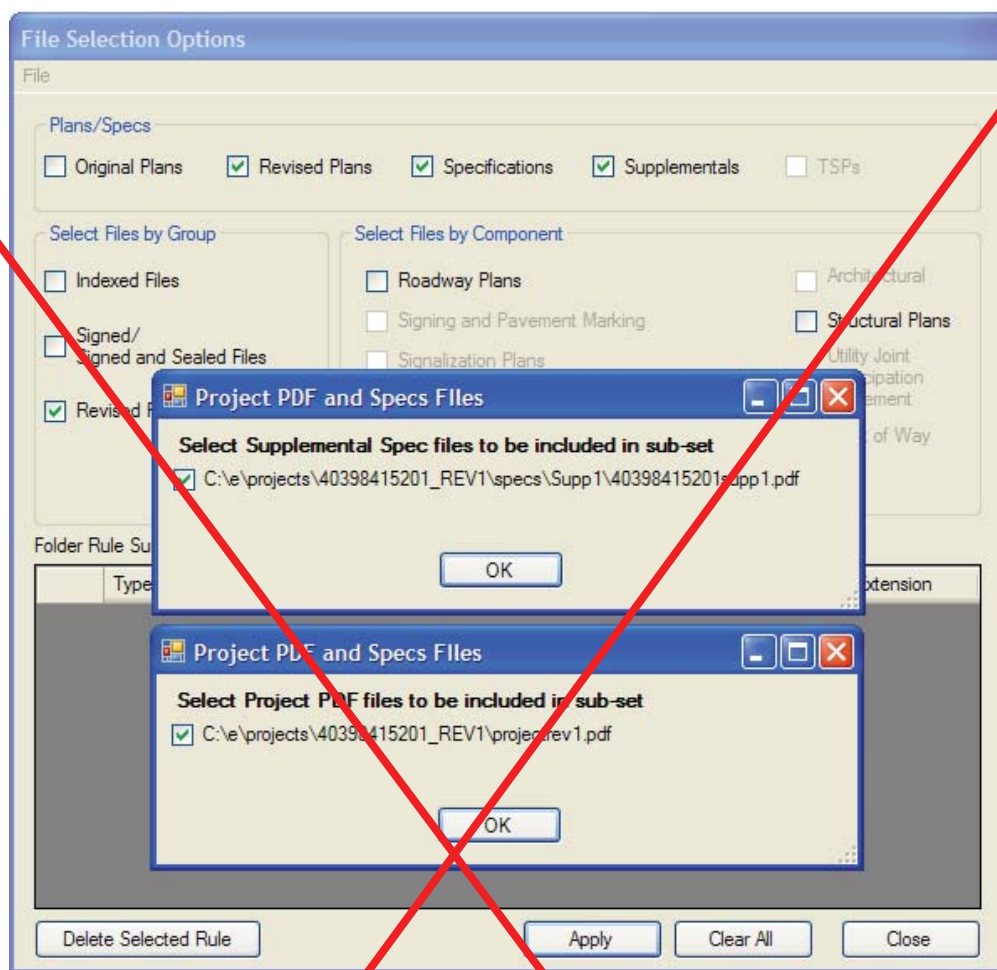
File selection settings in *SetMaker* are shown to create the updated project subset representing the “Plans and Specs Revision” CD. Note that the specifications supplement has been selected using the Supplemental File Selection rule as shown below:

**Special Note:** Selecting the “Revised Plans” rule in the “Plans/Spec” rule group will automatically select the “Revised Files” in the “Select Files by Group” rule group. The difference is that the “Revised Plans” rule also selects the revised project.pdf file and the project revision report (DeltaNDX.htm).

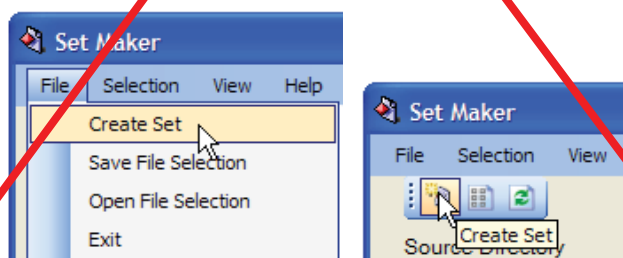


\*\* Seek guidance from the State Specifications Office for the required sub-directory structures and file naming conventions for specifications supplements.

Once the Apply button has been pressed, *SetMaker* will present a list of all Project<sup>N</sup>.pdf and Supplemental.pdf files that are detected. The latest file of each type will automatically be selected; the user at this point has the option of selecting/de-selecting any file at this point.



Once the file selection rules are complete, the “Plans and Specs Revision” set is ready to be created by either selecting the File>Create Set menu item or pressing the Create Set button from the button bar.



*SetMaker* copies the selected files, along with the minimum necessary directory structure to the *Destination Folder* and automatically Secures the Subset of the project it creates.

18. Make sure to print the *Manifest Report* generated by *SetMaker*, and burn your “Plans and Specs Revision CD.”

**Note:** Always Authenticate the physical CD-ROM after burning your CDs to ensure a secure delivery set for submission to FDOT.