

## ENGINEERING DEPARTMENT ELECTRONIC FILE FORMATTING

#### STANDARD FILE NAMING FOR ELECTRONIC SUBMISSIONS:

New
<b>Submittals</b>

"Projectfile No"	"blau b C#	"Document, Map of Plan"	_	"Additional Datails"
PDEV23-001	PC1	Sewer	-	Plan
PM-20000	PC1	Parcel Map	-	Мар
B202300001	PC1	LLA	-	Legal & Plat

Example: PDEV23-001 PC1 Sewer - Plan

Revised Submittals

"Projectfile No"	"Asu box	"Document, Map of Plan"	- Raditional Details
PDEV23-001	PC2	Sewer	- Revised Plan
PM-20000	PC2	Parcel Map	- Revised Map
B202300001	PC3	LLA	- Revised Legal & Plat

Example: PDEV23-001 PC2 Sewer - REVISED Plan

Markups, Comment Letters, etc.

"Projectfile Mo".	. that Corrections	"that becky	"Document was of Prati	. Additorial Details
PDEV23-001	UTL ENG Corrections	PC1	Sewer	- Mark-Ups
PM-20000	KDM Corrections	PC2	Parcel Map	- Comment Letter
B202300001	Harris Corrections	PC3	LLA	- Sample

**Example:** PDEV23-001\_UTL ENG Corrections PC1 Sewer – Mark-Ups



## ENGINEERING DEPARTMENT **ELECTRONIC FILE FORMATTING**

#### PDF FORMATTING REQUIREMENTS:

Portable Document Format (PDF) is the industry standard for electronic plans. The City of Ontario only accepts PDF files for plan review, which must be properly formatted as described below. Please read the following instructions carefully, as improperly formatted plans will delay the plan review process for your project.

Layers: No multiple layers. Layers must be merged or flattened.

Format: **Vector preferred** 

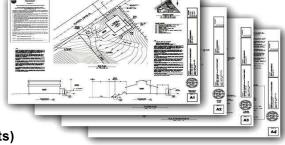
Resolution: 300 pixels per inch (PPI)

**Color Depth:** Monochrome (1-bit)

File Size: 1 megabyte (MB) avg. per sheet.

100 MB total

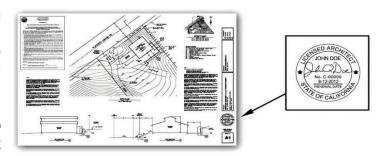
**Grouping:** Multiple-sheet PDF (single file with multiple sheets)



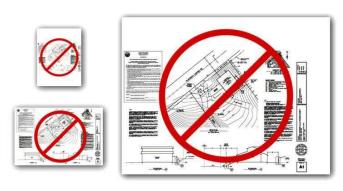
plans.pdf (multiple sheets)

✓ Correct

See "Formatting Q&A" for more information on formatting and tips on how to create, convert, and merge PDF files. Each sheet of the plans must be sealed and signed by the designer of record. The may be applied to the drawing electronically (CCR Title 16, Div. 5, Sec. 411e). All sheets must be consolidated into one plan set, up to a maximum size of 100 MB, and into the fewest number of files possible.



√ Correct



Incorrect sheet size, scale, or margins



**Unnecessary color plans** 



Incorrect orientation will not be accepted



## **ENGINEERING DEPARTMENT ELECTRONIC FILE FORMATTING**

#### FORMATTING Q&A:

Question: Why does Ontario require a standard file name convention?

Ontario sends electronic submissions to different city departments. The file names help Answer:

reviewers easily identify the plans they need to review.

Question: Why does Ontario only accept PDF plans?

Ontario is responsible for maintaining records of plans and providing the public with access to Answer:

> them. Files kept in our electronic database must be compatible with a wide range of computer software for storage, viewing, and printing. In addition, the file sizes must be manageable for

transfer and for use by the public and City staff.

The PDF standard is constantly evolving, and Ontario will continue to evaluate these standards

as necessary.

Question: Are raster-based PDF files acceptable?

Yes, however, the City prefers vector-based files given the ability to scale these files. Raster-Answer:

based files are accepted when vector-based files are either unavailable or too large to transmit

(greater than 100 MB total).

Question: How do I combine multiple PDFs into a single file?

There are numerous PDF tools freely available on the Internet, which can be used to merge, Answer:

rotate, and rearrange PDF files.

My PDF files are too big. What am I doing wrong? Question:

The industry standard software for working with PDF files is Adobe Acrobat; however, there are Answer:

numerous PDF tools freely available on the Internet.

· Saving the plans as 8-bit (grayscale) or 24-bit (full-color) raster files will drastically increase the file size. Even if the images contain only black and white objects, 8-bit and 24-bit files still contain all of the shade and color data. Plans must be saved as 1-bit (monochrome).

 Uncompressed files are much larger than compressed files. Construction plans contain mostly white space. The data required to store this white space can be significantly reduced. When converting your PDFs to raster images, be sure to use a form of lossless compression (such as LZW). When creating or saving PDF files, remember to specify "compressed."

Question: How do I convert a vector-based PDF to a raster-based PDF if my file size is too large? The industry standard software for working with PDF files is Adobe Acrobat; however, there are Answer:

numerous PDF tools freely available on the Internet.

Step 1: Save the vector-based PDF files as raster images (TIF or PNG). The format of the raster images is important (300 ppi, monochrome). We recommend TIF files with LZW compression.

Step 2: Convert the raster images back to compressed PDF files.

Step 3: Merge the individual PDF files into a single multi-sheet PDF file.



# ENGINEERING DEPARTMENT ELECTRONIC FILE FORMATTING

Question: Some raster images are loading slowly in the PDF reader. What am I doing wrong?

Answer: Transparent raster images require considerable resources to display. Even though the source

image is not transparent, your CAD software may be plotting it with transparency (white pixels

plotted as see-thru). Be sure to set image transparency "off" before plotting.