



Development Application Management System

Building Plans: Electronic Submission Process and Requirements



From 1 January 2015 the City of Cape Town's Planning & Building Development Management Department requires that all building plans seeking approval for building work prepared /drawn with electronic devices must be submitted electronically on a flash drive at the district office counters.

This document specifies the process and requirements for electronic building plan submissions.

Online submission will become available during the second quarter of 2015. Guidelines and protocols dealing with these submissions will be made known closer to the time. The use of flash drives can then be phased out as applications and dealing with submissions and subsequent correspondence and approvals can be done through the City's e-portal directly with clients.

Building Plan Submissions

Requirements for Electronic Plans

All **electronic documents & plans / drawings submitted must comply with the following requirements.**

1. Submission Process

The submission process is as follows:

- 1.1 **Zoning** and other **Clearances** must be obtained from the different sections responsible and must be logged on the CRM system, prior to the submission of Building Plans. A Service Request Number/s or Service Ticket/s will be provided as reference. These are linked to provide a history of services transactions and information provided to clients per property.
- 1.2 Applicant Submits Application on a **flash drive** as per requirements listed.
 - Submission is checked for completeness.
 - Customer Interface creates a Clearance Request and submission documents, which includes the Building Plan. Documents are uploaded to CRM.
 - The flash drive is handed back to client.
 - The clearance request is work-flowed to the relevant Land Use Planner or Land Use Plans Examiner for checking and to provide zoning and other clearances.
 - Customer receives a CRM Service Request Number on his/her phone.

- 1.3 If the plan is cleared, the plan is submitted (See Section 2 hereunder for document requirements)
- Case is created, invoice issued, payment made and verified and applicant issued with application CRM and Case Number.

2. Submission Requirements

2.1 Document Format

- 2.1.1 "Portable Document Format" (**PDF/A** or **PDF/E** as), also known as Adobe Acrobat (version 10 or higher) on a **Flash Drive**. The flash drive will be given back to applicant after upload of documentation and plan in into CRM. Scanned or "image" PDFs will only be accepted for documents and plans where there is no other way of producing the document.
- 2.1.2 **Any plans submitted that are not in PDF/A or PDF/E format will not be accepted.**
- 2.1.3 All submission documents, construction plans, product approvals, project manuals and energy calculations shall be submitted electronically in PDF format.
- 2.1.4 **No e-mail or fax submissions will be considered.**

Plans larger than 500 m² must be in **PDF/E** format (vector format) as it is much smaller in size than PDF/A files.

- These vector based PDF's (or PDF/E's) can be scaled by any amount without any degrading of image quality. It allows the plans to be reviewed in a much higher level of clarity on a computer screen.
- A PDF/E Plan clearly shows the different layers on the left under the Layers indicator. A PDF/E document displays proposed work in layered themes. See example under 2.3.3.

2.2 Additional Requirements

1. **Signatures on plans** (i.e. affected neighbours' signatures for departures) and other legal documentation that contains signatures must preferably be the original signed document.
2. **Electronic signatures** by Architects, Owners and on Home Owners Association /Body Corporate endorsements are accepted as long as it can be authenticated and verified as electronically signed by that person. See *Requirements for Electronically Signed Documents* hereunder.

Requirements for Electronically Signed Documents

When submitting electronically signed documents, it is important that the documents comply with the following requirements to ensure that recipients can:

- Verify document **authenticity** – confirming the identity of each person who signed the document.
- Verify document **integrity** – confirming that the document has not been altered in transit.

This can be obtained by using **Adobe Reader XI** or **Adobe Echo Sign**.






2.2 Building Plan Submissions: Folder & File Structure

For ease of importing plans with the necessary application documents into our system, please use the following Folder Name for building plan submissions.

Please note: The folder name must indicate what the application is about (in this case a *Building Plan Application*) plus the *Erf Number* and the *Area (Erf # plus Suburb/Allotment)*.

Example: Building Plan Erf 3459 Cape Town

Files/Documents in the Building Plan Application Folder

Name	Date modified	Type	Size
 Application Forms.pdf	2014/10/24 02:53 ...	Adobe Acrobat D...	1 329 KB
 Building Plan Incl Fire Plan.pdf	2014/10/24 02:53 ...	Adobe Acrobat D...	1 329 KB
 Electrical Plan.pdf	2014/10/24 02:53 ...	Adobe Acrobat D...	1 329 KB
 Mechanical Ventilation.pdf	2014/10/24 02:53 ...	Adobe Acrobat D...	1 329 KB
 Structuraal Engineering.pdf	2014/10/24 02:53 ...	Adobe Acrobat D...	1 329 KB

2.3 Electronic Requirements for Plans







2.3.1 Scanned Plans & Documents (PDF Images)

- a) Only one page plans and documentation that cannot be submitted as either PDF/A or PDF/E can be submitted as scanned images (PDF images) provided they are less than 3MB in size.
- b) Quality of PDF images must be such that all lines, points and fine print must be clearly legible.

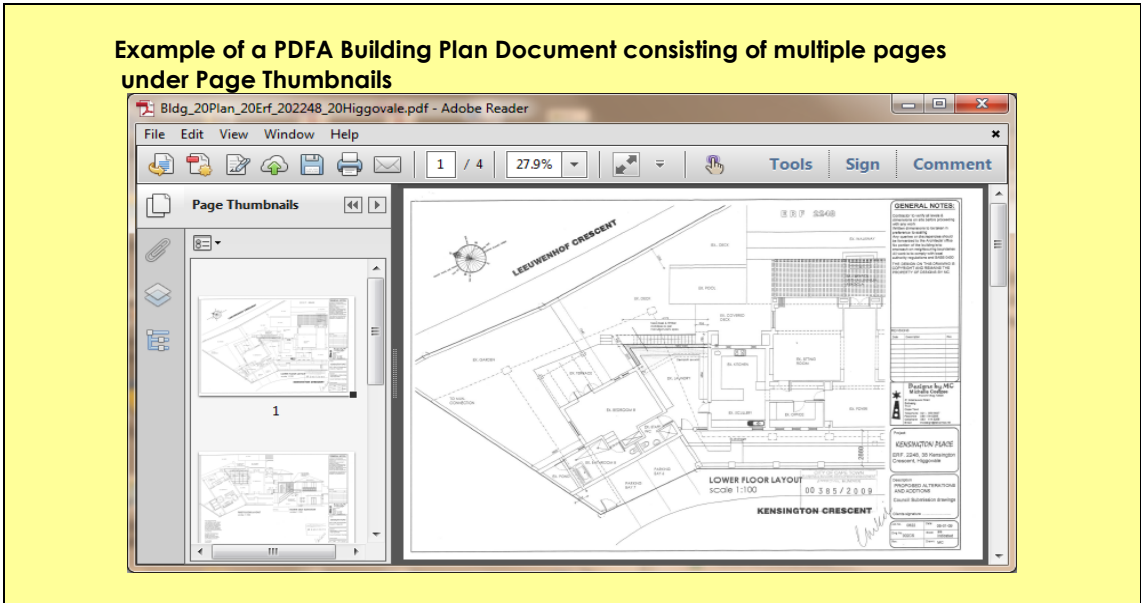
2.3.2 PDF/A for the **Building Plan** (only for plans under 500 m²).

c) PDF/A plans to be less than 5Mb in size.

d) All plans to be **separate documents/files** clearly named as follows:

-  Building Plan Including Fire Protection Plan(document). This includes the following as pages -
 - Site Plan,
 - Floor Plan,
 - Elevations
 - Sections
 - Specifications
 - Roofing Plan and
 - Drainage Plan
 - Storm water
 - Fire Protection Plan
 - Other
-  Mechanical Ventilation Plan (document)
-  Electrical Plan (document)
-  Structural Engineering Plan (document)
-  Landscape Plan
-  Other

Example of a PDF Building Plan Document consisting of multiple pages under Page Thumbnails

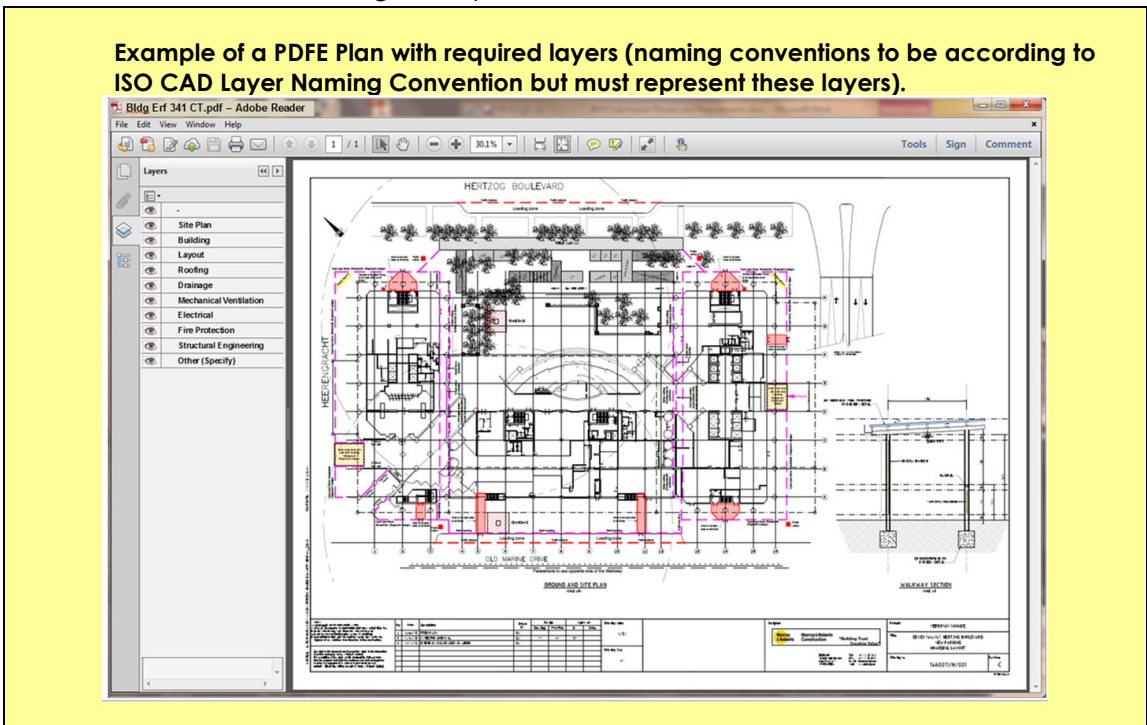


2.3.3 PDF document (required for plans over 500 m² due to size) for *Building Plan* (includes all plans as clearly named **layers where applicable in **one document/file** as indicated hereunder. **ISO CAD Layer Naming Convention can be used but need to represent these layers.****

- Site Plan (base plan)
- Building Plan
- Layout Plan
- Roofing Plan
- Drainage Plan
- Fire Protection Plan
- Mechanical Ventilation Plan
- Electrical Plan
- Structural Engineering Plan
- Other layers as required

For **multiple floors**, each floor can be treated as a **page** under **Page Thumbnails** including the layers.

Example of a PDF Plan with required layers (naming conventions to be according to ISO CAD Layer Naming Convention but must represent these layers).



2.4 Document Protocols

2.4.1 Page, File Orientation, Layout, Security, etc.

- a) **Orientation:** All plan sheets shall be properly oriented so that the top of the page is always at the top of the monitor/screen.
- (a) Design professionals are required to set the **scale of drawings** in the *Measuring Preferences* (2D and 3D where applicable) in Adobe so that electronic measurements can be made accurately with the *Adobe Measuring Tool*. All lines and fonts must be readable when printed or photocopied.
PDFs and scanned PDFs to be 1:100 scale or else contain a scale bar to allow for accurate measurements.
- (b) The **security options** selected by the design professional shall allow officials to mark up digital documents, create notes, and to insert/remove sheets to create a complete set of plans.

When creating a PDF file please ensure that the correct **settings** are chosen for *Document Properties* regarding *PDF Description*, *Security* and *Custom Document Properties*.

3.0 Amendments

3.1 Amendment Process

- a) Applicants will be notified of required amendments per SMS or e-mail and must collect the Amendments Requested at the relevant office.
- b) The amendments requested letter from the City will be loaded upon presentation by the client onto the client's flash drive under a folder marked "**Amendments Requested**". Clients must provide a flash drive for this to be loaded thereon.
- c) Amendments completed to plans must be indicated in a folder on the flash drive marked "**Amendments Submitted**" and resubmitted to the relevant District office of the City of Cape Town Building Development Management Services.

3.2 Amendment Requirements

- a) The full set of plans must be included in the *Amendments Submitted* folder. This is necessary for approval and electronic stamping of the plans.
- b) Amendments made must be clearly indicated on the Amendment plans.
- c) It is necessary for all amendments submitted to be in the same format as the original plan submission (PDF/A or PDF/E).
- d) Amendments/Revisions to the original building plan could be indicated by clouding and deltas, with a narrative in the title box (through comments and mark-ups).
- e) "Counter amendments" (minor amendments required) can be made at the District Office if the design professional do that on his/her own electronic device (laptop/tablet) so that these changes can be displayed under his/her name in the PDF document or file (see d)).

4.0 Approval

4.1 Approval Process

- a) Applicants will be informed via SMS and/or e-mail when approved plans are ready for collection.
- b) Electronic building plans are stamped electronically with the necessary information and signatures upon approval.
- c) This “stamp” is an image on each sheet of the latest building plans that indicates the plans have been reviewed for compliance according to the National Building Regulations.
- d) Approved plans will be uploaded to the applicant/client's flash drive upon presentation at the counter.
- e) Applicants to please ensure that -
 - i. All the necessary is on the flash drive
 - ii. Documentation and plans can be opened before leaving the office and
 - iii. All required sheets / pages of a Building Plan contain a stamp.

4.2 Approval Requirements

- a) The applicant needs to present a flash drive to receive the approved building plan and documentation. If the applicant or owner requires a hard/paper copy of the plan, normal tariffs for copies of plans apply.
- b) The applicant must print a set of approved plans for use on the building site as per NBR requirements where the Building Inspector will verify it against his/her approved copy and the unique approval number and date of approval contained in the stamp.

5.0 Refusals

Refusals will be treated the same than for approvals. The only difference is that there would not be a stamp on the building plan, only the decision document.

Communication Channels

Please visit the website below to view latest newsletters on the topic:
<http://www.capetown.gov.za/en/Planningportal/Pages/default.aspx>

Link to ISO CAD Layer Convention (ISO 13567) compliance guidelines
<http://info.cadcam.org/blog/topic/iso-13567-layer-format>

Annexure A

BUILDING PLAN APPLICATION SUBMISSION CHECKLIST & PROTOCOL

		Application Type					
		Building Plan		Minor Work		Permit	
		Required	Comply	Required	Comply	Required	Comply
General Requirements							
Minimum supporting information / documentation required	Scrutiny Fees	√		√		√	
	BDM Application Forms	√		√		√	
	SANS 10400-A FORMS	√					
	Signature Requirements met	√		√		√	
	Cape Town Zoning Scheme requirements to ground levels, height restrictions and overlay zones	√					
	Land Surveyor's Certificate (where applicable)						
	Title Deed (where applicable)	√		√			
	SG Diagram (where applicable)						
	Integrated Waste Management Plan (for Demolition Permits)					√	
	Clearances						
	Land Use Management Clearance	√		√		√	
	Fire Clearance					√	
	Environmental Clearance	√					
	Heritage Clearance	√					
	Roads Clearance						
	Transportation Clearance						
	Plans and Specifications						
	1 x Hard Copy to be submitted (if drawn by hand)						
	Site Plan with all requirements	√		√		√	
	Layout Drawings with all requirements (where applicable)	√		√			
	Drainage Installation Drawing with all requirements (where applicable)	√					
	Plans must be drawn to scale	√		√			
	Fire Protection Plans	√					
General structural arrangement drawings & structural details	√		√				
Colouring of Plans (as per NBR requirements)	√		√				
Full Constructional Specifications relevant to the application	√		√				