

# EXTERNAL DRAWING GUIDELINES and PROCEDURES

## **British Columbia**

Ministry of Citizens' Services

Real Property Division

Approvals:

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Note: This document is for External usage only.

For the RPD internal version of this document

See RPD Internal Drawing Guidelines and Procedures



REAL PROPERTY  
A DIVISION *of* SHARED SERVICES BC

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## Document Control

### Change Record

Date	Author	Version	Change Reference
12 February 2009	Todd Evans	A	Initial Release
12-April 2013	Todd Evans	B	Updated to reflect new department RPD
2-Feb-2014	Todd Evans	C	Updated to reflect RPD name change
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### Reviewers

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## **Preface**

A large portion of data handled by RPD (Real Property Division) relates to space and drawings. Accurate, up-to-date drawings are essential both for short term planning purposes as well as the long-term requirements for lease renewals, tenant improvements, disposals, etc.

AutoCAD drawings have become the industry standard and integrating AutoCAD drawings with an inventory database to provide competent facilities management is an important step forward. This integration can be achieved through a CAFM (Computer Assisted Facilities Management) system such as TRIRIGA or other inventory management software.

Increased staff productivity, improved strategic decision making, enhanced operational efficiency and minimized capital expenditures are the results of implementing these modern facility management tools. In order to support this direction that RPD is taking, having a comprehensive Drawing Management Policy to provide direction for all stakeholders on the provision, indexing, storage, and retrieval of drawings is essential.

## **Introduction**

### **Purpose**

The purpose of this document is to implement concise standards and procedures regarding drawing usage requirements for RPD staff and external partners/consultants.

## Drawing Guidelines

### Drawing Definitions

Working drawings which RPD uses will be broken down into two groups.

Master Floor Plates – include floor plans and are the day to day business usage for RPD. Correct floor plan drawings are required as these “drive” all departments from leasing, planning, portfolio and TRIRIGA

Building Schematics – these include specialized drawings related to building construction, systems, maintenance etc. These have just as great an importance for use as master floor plan plates as these are used for reference in development projects, preventive maintenance schedules warranties etc...

RPD should have As-built drawings for each of the following disciplines for each strategic building or complex:

- Architectural
- Structural
- Mechanical
- Electrical
- Plumbing
- Telecommunications
- Fire Protection
- Site Plan
- Location Plan

For non-Strategic buildings only, the following drawings are required:

- Architectural
- Site Plan

### Master Drawing Files

#### Master Drawing usage

In an effort to control drawings and ensure correct information only those drawings residing in the Electronic Document Management (EDM) system will be classified as the most current revisions. Drawing files residing on personal work computers will be classified only as working drafts and should be input into the EDM system through Appendix A –Drawing Request Process for Projects and deleted at the earliest convenience.

### **Master Libraries**

RPD will control master copies of digital building schematics and floor plans located in the EDM system. Satellite drawing libraries located in their respective buildings in hardcopy or electronic form will be CBRE responsibility for cataloging and safe storage. These satellite libraries will be referenced only for day to day usage for trades and operational staff. Any revisions to building layout or systems must be relayed back to RPD through process outlined in Appendix A –Drawing Request Process for Projects

### **File use by Consultants/Contractors**

When electronic drawing files are required by consultants/contractors they are to contact CBRE. If CBRE cannot supply the current revisions of required files CBRE is to contact the RPD Drawings Coordinator for current revisions in either PDF or AutoCAD formats as requested through Appendix A –Drawing Request Process for Projects.

### **Drawing Quality Control – Revisions**

For drawing quality control purposes AutoCAD or edit-able drawings will only be sent to Consultants or Contractors currently engaged in an approved RPD project. For all other drawing requirements PDF or un-editable drawings will be used.

### **Electronic – Hardcopy Matching**

All submitted electronic drawings must match submitted plotted PDF or hard copies. If drawings do not match plotted versions or adhere to RPD CAD Standards they will be sent back to the consultant/contractor for revisions.

Hardcopy and electronic drawings will be retained or archived according to government records retention schedule.

## Stakeholder Considerations

### Workplace Development Services

#### Drawings Requirements

Workplace Development Services contracts require AutoCAD format drawings for every job including new construction or modifications to building systems. Drawings are to be provided to RPD Drawings Coordinator by the CBRE project manager. Drawings are to be obtained by the Drawings Coordinator to review for quality purposes and project close out activities outlined in Appendix A –Drawing Request Process for Projects. Note digital files must match electronic PDF copy submissions.

#### Drawings Format

For all new construction complete As-built drawing sets encompassing all building systems and disciplines are required in AutoCAD DWG file format at a minimum. These drawings should be a full assembly together with all building systems shown on differing files including necessary x-references.

Portable Document files (PDF's) generated from AutoCAD files plotted at 100% are to accompany the electronic AutoCAD drawing submissions. These PDF sets will be used for quality assurance to the electronic AutoCAD versions.

Three sets of drawings are required:

1. Electronic AutoCAD files to drawing coordinator
2. Electronic PDF to RPD Workplace Development Solutions and Drawings Coordinator
3. Hard Copy plotted at 100% D size (24" x 36") (609.6mm x 914.4mm) to CBRE Facility Manager

Drawings will conform to applicable RPD CAD standards.

#### Electronic Drawing Media

Digital drawings files to be received through RPD's share point site. The preferred methods of receiving large quantities of digital drawing files will be either USB thumb drives or utilizing RPD's share point site.



## **Drawing Storage**

Drawings will be supplied by either the WDS Project Manager, or CBRE Project Manager in electronic As-Built and PDF format to the Drawings Coordinator. The Drawings Coordinator will confirm drawings for quality control to RPD standards and input drawings into Livelink as per Appendix A –Drawing Request Process for Projects. The Drawings Coordinator will mark USB or Share Point drawings as input into Livelink and destroy as per Document Disposal Act. Any staff member who requires access to a drawing can do so by following the process outlined in Appendix A –Drawing Request Process for Projects and/or refer to the Internal Drawing Guidelines and Procedures.

### **Drawings receipt; Project communications close out.**

After receipt and quality assurance processes the Drawings Coordinator will notify affected project staff that drawings have been accepted and closure relating to project drawings can be signed off as per Appendix A –Drawing Request Process for Projects.

## **1.1. Client Services – Projects**

### **Drawing Requirements**

Project Services contracts require AutoCAD As-built drawings for every job modifying or new construction for which drawings are necessary. Additionally, all space related and HVAC projects require as built drawings. Client Services will oversee the project with project management provided by CBRE. Drawings are to be provided by CBRE to the Drawings Coordinator. Digital AutoCAD drawing files must match plotted hard and soft copy submissions.

### **Drawings Format**

For all new construction complete As-built drawing sets encompassing all building systems and disciplines are required in AutoCAD DWG file format at a minimum. These drawings should be a full assembly together with all building systems shown on differing files including necessary x-references.

Portable Document files (PDF's) generated from AutoCAD files plotted at 100% are to accompany the electronic AutoCAD drawing submissions. These PDF sets will be used for quality assurance to the electronic AutoCAD versions.

Three sets of drawings are required:

1. Electronic AutoCAD files to drawing coordinator

2. Electronic PDF to RPD Workplace Development Solutions and Drawings Coordinator
3. Hard Copy plotted at 100% D size (24" x 36") (609.6mm x 914.4mm) to CBRE Facility Manager

Drawings will conform to applicable RPD CAD standards.

### **Electronic Drawing Media**

Digital drawing files to be received on Share Point the preferred method of receiving large submissions of digital drawing files will be USB or Share Point.

CBRE is responsible for obtaining the electronic As-Built drawings from consultants at the conclusion of projects as per Appendix A –Drawing Request Process for Projects. Drawings are required on USB or Share Point for distribution to the following:

### **Drawing Storage**

CBRE will send As-built drawings to the Drawings Coordinator for project closeout activities. Drawings Coordinator will confirm drawings for quality control to RPD standards and input drawings into the EDM system. The Drawings Coordinator will mark USB or Share Point as input into EDM system and CDs to be destroyed as per Document Disposal Act.

Staff members that require secure drawings access should contact the Drawings Coordinator and follow process outlined in Appendix A –Drawing Request Process for Projects and or refer to Internal Drawing Guidelines and Procedures.

### **Drawings receipt; Project communications close out.**

After receipt and quality assurance processes the Drawings Coordinator will notify affected project staff that drawings have been accepted and closure relating to project drawings can be signed off as per Appendix A –Drawing Request Process for Projects.

## **CBRE Project Delivery**

### **Drawing Requirements**

CBRE will provide complete sets of As-built AutoCAD drawings and required x-references of all disciplines for projects that modify existing building systems.

CBRE is required to provide As-built drawings or sketches for all projects where any space related projects occur. On small value projects <\$5,000 these can be "rough" sketches showing wall placements with dimensions. These are to be transferred to the Drawings Coordinator who will then update the existing AutoCAD floor plan drawings with the space change.

CBRE FMO staffs are to notify the Drawings Coordinator of any space related projects affecting RPD or RPD customers when not undertaken by an authorized RPD project number. These notifications will be via email to [CITZ\\_RPD\\_Geomatics\\_Drawings\\_Request@gov.bc.ca](mailto:CITZ_RPD_Geomatics_Drawings_Request@gov.bc.ca) . The Drawings Coordinator will then notify and confirm these unmanaged projects with RPD Customer Services department.

Any HVAC system alterations must be fully documented with As-built drawings and specifications to comply with Workers Compensation Board for Internal Air Quality management. Copies of both are to be forwarded to the RPD Drawing Coordinator for input into the EDM system.

### **Drawing Format**

Where drawings are required, they are to be in AutoCAD format at a minimum.

RPD will track receipt of As-Built drawings and conformance to the RPD drawings policy and CAD standards for all projects which require AutoCAD drawings.

### **Electronic Drawing Media**

CBRE is responsible for obtaining the electronic As-built drawings including any x-references needed from the consultants at the conclusion of tenant improvement projects. Drawings are required on USB or Share Point for distribution to the following:

CBRE – Provides 1 copy to the CBRE Facilities Manager for inclusion in their document management framework

CBRE – Provides 1 copy to the Drawings Coordinator to do a quality assurance and input into the EDM system. The Drawings Coordinator will then forward link to the drawings to Project Services Assistant for the project closeout activities as per Appendix A –Drawing Request Process for Projects.

### **Drawing Storage**

For electronic drawings the Drawings Coordinator will confirm drawing quality control to RPD standards and input drawings into the EDM system. The Drawings Coordinator will notify affected staff that drawings have been accepted and closure relating to project drawings will be signed off.

## Space Specific Requirements

### Leased space

#### Drawing Requirements

The Leasing Department is required to secure from the landlord floor plan drawings in AutoCAD file format for all RPD new or renewed leases greater than 50 square meters (500sqft).

On new and renewal leases where no AutoCAD floor plan drawing exists the Leasing Department is to negotiate with the landlords of these buildings to retain an accurate As-built file(s) in AutoCAD file format or equivalent. If landlords cannot supply drawings and buildings are deemed critical to RPD business process RPD will have drawings commissioned with costs charged back to the clients leasing the space.

#### Drawing Format

The CAD drawing will be the entire floor (although other tenant's areas need not be detailed) even if only a portion of it is leased. This leased portion will be identified. All common space must be identified. Each Organization (client) dedicated space to be identified.

Verification of clients and occupancy descriptions will be performed by CBRE before drawings are input into the EDM system. After verification the Drawings Coordinator will input drawings into the EDM system and notify affected staff members that drawings have been accepted.

Drawing files saved in PDF or TIFF format are acceptable for non-strategic properties only.

#### Electronic Drawing Media

Digital drawing files are to be received on CD or via email. Preferred method of delivery will be via Email specifying in the message title block – The RPD building number, the attached lease number, the exact street address and floor level of the drawing.

### Owned Buildings

### **Drawing Requirements**

Complete As-built drawing sets encompassing all building systems are required in AutoCAD minimum DWG file format for all RPD Strategic and secure buildings. These drawings should be as a full assembly with all building systems shown on differing files. If drawings are nonexistent RPD will generate a project to have these commissioned either internally or through CBRE.

Drawings Coordinator will generate a quality review of all RPD owned buildings to ensure Master floor plans and all building systems drawings are available in the EDM system.

### **Drawing Format**

Drawings are required in native AutoCAD format and electronic PDF at a minimum, which conform to all applicable RPD CAD standards and best industry practices.

### **Electronic Drawing Media**

Digital drawing files to be received on USB or via Share Point the preferred method of receiving digital drawing files will be Share Point.

### **Drawing Storage**

Drawings are to be sent to the Drawings Coordinator for input into the Livelink system as per Appendix A –Drawing Request Process for Projects.

One hardcopy set required in “D” size format (24” x 36”), for quality control purposes, to reside with CBRE Facilities Manager. CBRE will be responsible for the safekeeping of these records as per CBRE records management framework.

## **Managed Buildings**

### **Drawing Requirements**

Drawings are required for all Managed buildings over 50 square meters (500sqft). For newly managed buildings where CBRE has maintenance responsibilities, and or RPD/CBRE conduct projects the drawings will be made available at the expense of the RPD Client. Drawings will adhere to RPD CAD Standards. No residences, minor sites, or RCMP sites will be required to be tracked and stored by RPD. Any charges incurred for drawing generation will be charged back to the requestor.

### **Drawing Storage**

Drawings will be sent directly to the Drawings Coordinator for input into Livelink as per Appendix A –Drawing Request Process for Projects.

The Drawings Coordinator will input drawings into the EDM system. The Drawings Coordinator will notify affected staff members that drawings have been accepted.

## **Secure / Sensitive Drawings**

Secure / Sensitive drawing files are drawings of a facility that is of a sensitive nature that could put the safety of the building and occupants at risk if they were widely distributed.

Site types that are included but not limited to are:

- Courthouses
- Jail
- Detention Centres
- Hospital
- Laboratory
- School
- Sensitive Services

### **Drawings Storage**

RPD will review and incorporate any third-party organizations policies in regard to storing of their drawing information for security purposes as required.

### **Drawings Availability**

Sensitive/Secure drawings will only be accessible by either the Drawings Coordinator, designate of the Drawings Team, or RPD senior management. These drawings will be located in a secure directory location within the EDM system.

Secure/Sensitive drawings will be made available only to the following through Appendix A –Drawing Request Process for Projects:

- RPD personnel engaged directly to a project
- CBRE personnel engaged directly to a project
- Contractors, or consultants hired by CBRE who require drawings for use in a project. Prior to drawings being sent they must adhere to non-disclosure agreements as stated in Master Service Agreement sections 10.1 and article 17.

### **Drawings transfer to and from RPD**

All digital drawings of secure sites will be sent with password protection when transferring drawings via USB. Hardcopy drawings will be sent and returned via registered courier service when required.

### **Special requirements**

Drawings of secure sites will not have any information relating to names or information of any personnel shown on the drawing in hardcopy format. For identification of offices/cubicles only room numbers will be visible on the drawing.

### **Drawings usage offsite**

If electronic copies must be taken offsite, they are to be transferred using the above security features. Hardcopy drawings are always to be in the contractor's possession when off site.

The contractor is responsible for the accounting of all drawings at all times.

At the end of the project all hard copies and digital copies are to be returned to RPD.



## Other Media

### Technical / O&M Manuals

#### Requirements

Two copies of O&M manuals are required in electronic searchable PDF format, One for RPD records and one for the CBRE Facility Manager. An additional hardcopy of the O&M manual is to be sent to the CBRE facility manager for storage at the buildings satellite library.

Consultant's contracts require that an O&M Manual in PDF format will be provided for every job that modifies or changes existing building systems. The Drawings Coordinator will obtain these documents from the consultant.

If the project modifies or changes existing building systems Project Services will oversee the project. In this case Project Services will be responsible for the close-out activities which will include obtaining the O&M Manual.

#### Storage

At the conclusion of the project, the assistants will forward all electronic or hardcopy (if no PDF exists) O&M manuals to the attention of the Drawings Coordinator who will add the document to the Livelink system. Hard copy versions will be scanned into searchable PDF format and added to Livelink.

Hardcopy Manuals will be archived off-site or destroyed according to government records retention guidelines.

Any staff member who requires access to a manual can follow the Internal Drawing Guidelines and Procedures document.

Contractors/Consultants requiring access to a manual will contact CBRE for information following Appendix A –Drawing Request Process for Projects.

## Photographs

### Requirements

RPD Superintendents and CBRE Facility Managers will be responsible for the photographing of RPD buildings when requested in the course of their regular site visits or inspections.

### Electronic Media

Photographs will be sent to the RPD personnel who made the request via email, USB or Share Point; email will be the preferred method of transfer.

### Storage

Photographs will be input into Livelink by the Drawing Coordinator into the EDM.

Photographs will be named with the following convention "Building number-Description of the Photograph-Date the photo was taken "E.g.: B44380-NorthWest Elevation-Jan 14-2007

Any staff member who requires access to the photograph can do so on Live link following the Internal Drawing Guidelines and Procedures document.

Photographs will be retained only as long as RPD retains ownership or retains lease space within the building.

## Drawing Stockpile

RPD Superintendents and CBRE are responsible for notifying the Drawings Coordinator of the location of drawing stockpiles around the Province.

The Drawings Coordinator will have the drawings stockpiles tracked and resolved for indexing, scanning and retention requirements.

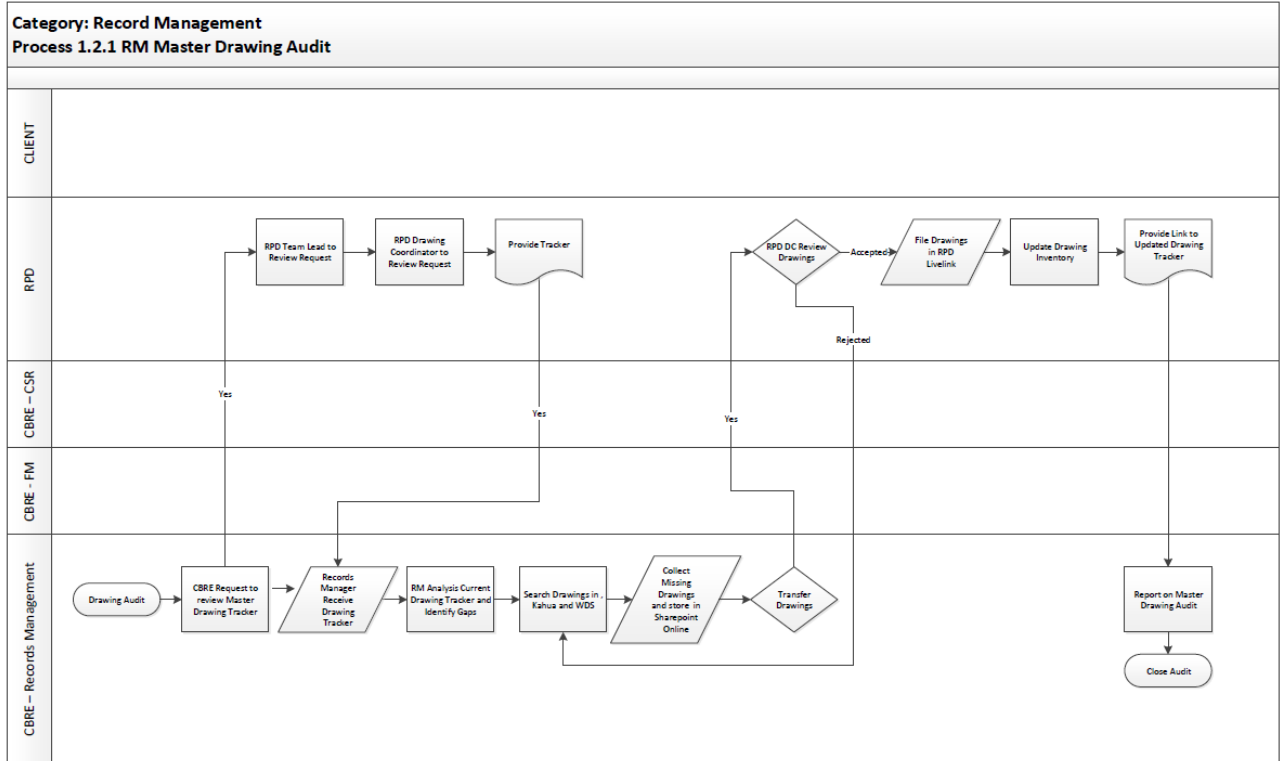
The Drawings Coordinator or contractor reporting to the Drawing Coordinator will index, package and ship drawings to RPD for cataloguing.

Drawings will be scanned and input into the EDM system as per procedures and guidelines.

Drawings will be archived or destroyed according to government records retention guidelines

## Guideline and Procedure Review

Guidelines and procedures to be reviewed and updated annually or as required during business usage.



# RPD External Drawing Guidelines and Procedures

## Appendix A –Drawing Request Process for Projects

British Columbia  
Ministry of Citizens' Services  
Real Property Division

### Appendix A –Drawing Request Process for Projects

 			<u>Drawing Request Form</u>
<b>SITE INFORMATION</b>			
Property #	Building Number#	Building Name:	
Building Address:			
<b>REQUESTER INFORMATION</b>			
Project# or WO#:	Project Name	Project Title:	
Requester Name:	Requester Phone Number:	Requestor Email Address:	
Date Requested:	Date Required:		
<b>DRAWING TYPES (Double click on the box to check mark the applicable type/s of drawings)</b>			
<input type="checkbox"/> Architectural	<input type="checkbox"/> Mechanical		
<input type="checkbox"/> Electrical	<input type="checkbox"/> Plumbing		
<input type="checkbox"/> Mechanical	<input type="checkbox"/> Structural		
<input type="checkbox"/> Telecommunications	<input type="checkbox"/> Fire Protection		
<input type="checkbox"/> Other			
<b>DESCRIPTION (Enter any specific details)</b>			
▪			
<b>PSM/PPM SIGNATURE IS REQUIRED FOR APPROVAL OF ALL DRAWING DISTRIBUTIONS RELATED SECURE OR SENSITIVE LOCATIONS.</b>			
WDS Name: _____			
WDS Signature: _____			
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# RPD External Drawing Guidelines and Procedures

## Appendix A –Drawing Request Process for Projects

