

British Columbia

Ministry of Labour and Citizens' Services

Shared Services BC

Accommodation and Real Estate Services

ARES EXTERNAL DRAWING GUIDELINES and PROCEDURES

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Note: This document is for External usage only.

For the ARES internal version of this document

See ARES Internal Drawing Guidelines and Procedures



1. Document Control

Change Record

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Reviewers

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PREFACE

A large portion of data handled by ARES (Accommodation & Real Estate Services) relates to space and drawings. Accurate, up-to-date drawings are essential both for short term planning purposes as well as the long term 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.

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 ARES 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

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2. Introduction

2.1. Purpose

The purpose of this document is to implement concise policies and procedures regarding drawing usage and requirements for all ARES staff and its partners/consultants.

3. Drawing Guidelines

3.1. Master Drawing Files

Master Drawing usage

In an effort to control drawings and ensure correct information only those drawings residing in Live link 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 or deleted at the earliest convenience.

Master Libraries

ARES 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 Brookfield LePage Johnson Controls – Workplace Solutions Inc. (WSI) responsibility for cataloging and safe storage. These satellite libraries will be referenced only for day to day usage for trades and operational staff. Any changes to building layout or systems must be relayed back to ARES.

File use by Consultants/Contractors

When electronic drawing files are required by consultants/contractors they are to contact WSI. If WSI cannot supply the current revisions of required files WSI is to contact the ARES Drawings Coordinator for current revisions in either PDF or AUTOCAD formats.

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 ARES project. For all other drawing requirements PDF or un-editable drawings only will be used.

Electronic – Hardcopy Matching

All submitted electronic drawings must match submitted plotted hard copies. If drawings do not match plotted versions 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.

3.2. Development Services

Drawings Requirements

Development Services contracts require AutoCAD drawings for every job > \$2,000,000. Drawings are to be provided by the general contractor or architect. Drawings are to be obtained by the Development Manager as part of the close out activities for the project and forwarded to the Drawings Coordinator.

Drawings Format

For all new construction complete As-built drawings sets encompassing all building systems (Architectural / Structural/ Mechanical / Electrical) are required in AutoCAD 2004 DWG file format. These drawings should be as a full assembly with all building systems shown on differing files.

Two hardcopy sets required plotted at 100% size or in a size as required by Development Services; One set to be archived offsite through Development Services the other to WSI Facility Manager for which the drawings have been done to be included in the buildings satellite library.

Drawings will conform to all applicable ARES CAD standards.

Electronic Drawing Media

Digital drawing files to be received on CD or via email, the preferred method of receiving digital drawing files will be CD. Digital drawing files must match plotted hard copy files.

Drawing Storage

The Development Manager or Development Assistant will send both the hardcopy and electronic As-built drawings to the Drawings Coordinator

The Drawings Coordinator will confirm drawings for quality control to ARES standards and input drawings into Livelink. The Drawings Coordinator will notify affected staff that drawings have been accepted and closure relating to project drawings can be signed off.

The Drawings Coordinator will mark CDs as input into Livelink and CDs to be destroyed as per Document Disposal Act.

Any staff member who requires access to a drawing can do so on Livelink via the property folder for the particular property.

3.3. Project Services

Drawing Requirements

Project Services contracts require AutoCAD 2004 As-built drawings for every job > \$50,000 and < \$2,000,000 for which drawings are necessary. All space related and HVAC projects require as built drawings. Project Services will oversee the project with project management provided by WSI. Drawings are to be provided by WSI.

Drawings Format

For all new construction complete As-built drawings sets encompassing all building systems (Architectural / Structural/ Mechanical / Electrical) are required in AutoCAD 2004 DWG file format. These drawings should be as a full assembly with all building systems shown on differing files.

PDFs plotted at 100% size to accompany electronic AutoCAD drawing submissions. The PDF sets will be used for quality assurance to the electronic AutoCAD versions. WSI Facility manager will require 1 set of Hardcopy prints plotted at 100% to be included in the buildings satellite library. WSI will be responsible for the safekeeping of these records within their records management framework.

Drawings will conform to all current ARES CAD standards.

Electronic Drawing Media

Digital drawing files to be received on CD or via email, the preferred method of receiving digital drawing files will be CD. Digital drawing files must match plotted hard copy submissions.

WSI is responsible for obtaining the Electronic As-Built drawings from the consultants at the conclusion of projects. Drawings are required on CD for distribution to the following:

WSI – Provides 1 disk to the WSI Facilities Manager to be maintained within their document management framework.

WSI – Provides 1 disk to the Project Services Assistant for project closeout activities. This disk is then to be forwarded to the Drawings Coordinator for input into the EDM system.

Drawing Storage

WSI to send As-built drawings to the Project Services Manager or Assistant for project closeout activities. These are then to be forwarded to the Drawings Coordinator.

The Drawings Coordinator will confirm drawings for quality control to ARES 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.

The Drawings Coordinator will mark CDs as input into EDM system and CDs to be destroyed as per Document Disposal Act.

Any staff member that requires access to a drawing can do so on Livelink via the property folder for the particular property.

3.4. WSI services (projects under \$50,000)

Drawing Requirements

WSI to provide complete sets of As-built AutoCAD drawings for all projects <\$50,000 for which drawings are necessary.

WSI is required to provide As-built drawings or sketches for all projects < \$50,000 where any space related projects occur. e.g.: removal or addition of walls. These can be "rough" sketches showing wall placements with dimensions. These are to be faxed or emailed to the Drawings Coordinator who will then update the existing AutoCAD floor plan drawings with the space change.

WSI FMO staff are to notify the Drawings Coordinator of any space related projects affecting ARES or ARES customers when not undertaken by an authorized ARES project number. These notifications will be via email. The Drawings Coordinator will then notify and confirm these unmanaged projects with ARES 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 ARES Drawing Coordinator for input into the EDM system.

Drawing Format

Where drawings are required, they must be in AutoCAD 2004 format

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

Electronic Drawing Media

WSI is responsible for obtaining the electronic As-built drawings from the consultants at the conclusion of tenant improvement projects. Drawings are required on CD for distribution to the following:

WSI – Provides 1 disk to the WSI Facilities Manager for inclusion in their document management framework

WSI – Provides 1 disk to the Project Services or the Project Services Assistant for project closeout activities. The Project Services Assistant will then forward the drawings to the Drawings Coordinator for input into the EDM system.

Drawing Storage

The Drawings Coordinator will confirm drawing quality control to ARES 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.

3.5. New and renewal leased space

Drawing Requirements

The Leasing Department is required to secure from the landlord floor plan drawings in AutoCAD file format for all ARES new or renewed leases greater than 500 square meters and leased for a term greater than two years.

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 ARES business process ARES will have drawings done with costs charged back to the clients leasing the space.

Drawing Format

The CAD drawing will be the entire floor (although other tenants 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 WSI 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 ARES building number, the attached lease number, the exact street address and floor level of the drawing.

3.6. ARES owned buildings – Record Drawing Review

Drawing Requirements

ARES should have Architectural / Structural/ Mechanical / Electrical As-built drawings as well as complete Site Plans and location plans for all owned buildings and complexes.

Complete Architectural / Structural/ Mechanical / Electrical As-built drawing sets encompassing all building systems are required in AutoCAD 2004 DWG file format for all ARES Strategic and Secure buildings. These drawings should be as a full assembly with all building systems shown on differing files .If drawings are non existent ARES will generate a project to have these done either internally or through WSI.

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

Quality review will be broken down to

Strategic Buildings	A large, urban building usually with multiple customers that experience high levels of churn and high demand that is either owned or ARES
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	has secured for a long period
Secure Buildings	A facility that is of a sensitive nature
Long Term ownership	

Drawing Format

Drawings will conform to all applicable ARES CAD standards and best industry practices.

Electronic Drawing Media

Digital drawing files to be received on CD or via email, the preferred method of receiving digital drawing files will be CD.

Drawing Storage

Drawings are to be sent to the Drawings Coordinator for input into the Livelink system.

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

3.7. ARES Managed Buildings

Drawing Requirements

ARES will not track nor commission any drawings for managed buildings unless it is specifically requested to do so. 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.

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

3.8. 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.

Drawings Storage

ARES will review and incorporate any third party organizations policies in regards 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 Coordinator, (Planning Analysts) or ARES 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:

- ARES personnel engaged directly to a project
- WSI personnel engaged directly to a project
- Contractors, or consultants hired by WSI 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 ARES

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

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

Drawings (electronic and hardcopy) are not be taken offsite at any time by a contractor. If electronic copies must be taken offsite, they are to be transferred using the above security features. Hardcopy drawings are to be in the contractor's possession at all times 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 ARES.

3.9. Technical / O&M Manuals

Requirements

Two copies of O&M manuals are required in searchable PDF format, One for ARES records and one for the WSI Facility Manager.

Consultants' contracts require that an O&M Manual in PDF format will be provided for every job >\$2,000,000. The Development Assistant will obtain these documents from the consultant.

If the project is <\$2,000,000, Project Services will oversee the project and the Project Management will be provided by WSI. In this case Project Services will be responsible for the close-out activities which will include obtaining the O&M Manual.

O&M Manuals coming from Leasing projects and WSI should also be forwarded as indicated below.

Storage

At the conclusion of the project, the assistants will forward all electronic and hardcopy (if no PDF exists) O&M manuals to the attention of the Drawings Coordinator who will add the document to the Livelink System. The manuals will be kept in the buildings directory located in : Stewardship / Properties / Current Properties. Hard copy versions will be scanned into searchable PDF format and also added to Livelink.

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

Any staff member who requires access to the manual can do so on Livelink via the O&M Manual folder.

Contractors/Consultants requiring access to a manual will contact WSI for information.

3.10. Photographs

Requirements

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

Electronic Media

Photographs will be sent to the ARES personnel who made the request via email or CD; email will be the preferred method of transfer.

Storage

Photographs will be input into Livelink by the ARES personnel or the Drawing Coordinator into the EDM system under the correct properties folder under `photographs and maps`

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 via the drawings "photographs" folder to view or via the link within the property folder using Explorer.

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

3.11. Drawing Stockpile

ARES Superintendents and WSI 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 ARES 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

4. Drawing Definitions

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

Master Floor Plates – include floor plans and are the day to day business usage for ARES. 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...

5. Guideline and Procedure Review

Guidelines and procedures to be reviewed and updated every 6 months or as required during business usage.