

# Architectural

Submission Template for Archicad 28

> HUB OF HUTS, ITALY NOA NETWORK OF ARCHITECTURE, NOA.NETWORK PHOTO: ©ALEX FILZ

Publishing, reproduction, paraphrasing or translation without express prior written permission is strictly prohibited.

#### Trademarks

Archicad<sup>®</sup> is a registered trademark of GRAPHISOFT. All other trademarks are the properties of their respective holders.

#### Credits

Courtesy of GRAPHISOFT

--- Links last accessed: October 15, 2024 ---

If you have any comments, suggestions, or clarifications, please contact:

#### **GRAPHISOFT** Singapore

152 Beach Road #10-05 Gateway East Singapore 189721

support.sg@graphisoft.com

#### **Building and Construction Authority**

52 Jurong Gateway Road, #11-01 Singapore 608550

# Table of Contents

INTRODUCTION	5
GETTING STARTED	6
THE ARCHICAD NAVIGATOR	9
STOREYS, PROJECT LOCATION AND REFERENCE LEVELS	
SITE AND CONTEXT FROM EXTERNAL CONTENT	16
DWG	
Surveyors' Data File	
Point Clouds	
BIM SUBMISSION TOOLS AND INTERFACE	22
View Map Overview	22
Quick Options	23
Favorites	24
Find & Select Criteria Sets	
PREPARING THE FILE FOR SUBMISSION	27
3D Plan Views (Option <mark>al)</mark>	27
Creating/Modifying 3D Plan Views - 3D Cutting Planes	
ACCESSIBILITY & VENTILATION	
Accessibility Routes	
Accessible Doors	
Clearance Boxes	
Zone Accessibility	
Examples of 2D plans and 3D showing accessibility:	
Modes of Ventilation	
Lifts	
Toilets and Toilet Compartments	43
Accessibility Objects	
Accessible (Audience) Seating	
Parking Lots	50
Accessible/Elderly Friendly Rooms (Hospitality Projects Only)	
All Rooms	
Stairs	
Shelters	
AREA TABULATION	59
GFA	
STRATA	61
SGFA	62
COVER PAGE	63
A&A WORKS (RENOVATION)	65
COLLISION DETECTION (OPTIONAL)	
MERGING THE TEMPLATE INTO AN EXISTING COMPANY TEMPLATE	68

Favorites	
Attributes	
Project Info	
Views, Layouts and Master Layouts	
Publisher Sets	
Renovation Filters	
Graphic Override Combinations	
Submission Requirements	
Final Check	
File Formats	
ACKNOWLEDGEMENT	



### INTRODUCTION

The objective of this document is to assist qualified persons (QPs) in developing BIM models to meet the new requirements of the Building Information Model (BIM) submission (Native BIM Submission).

The document describes the features of the Architectural Native BIM Submission Template for Archicad 28 and provides a step-by-step guide to apply them in projects. The template creates a basic structure to assist the QPs in preparing the BIM models for regulatory approval according to the Architectural BIM e-Submission and CORENETX Requirements. It is by no means an exhaustive template and QPs are allowed/required to edit/change it accordingly to suit their needs.

For any additional requirements that require customizations to a certain extent, QPs are also advised to make reference to the training materials distributed or to consult the respective software vendor for any enquiries on the application.

If there are contradictions between this submission guideline and vendor's instructions, BCA BIM team shall be contacted for clarification. Please note that any BIM Submission Guidelines and templates shall be collected from the BCA BIM team.

This material is to serve as a reference for GRAPHISOFT Archicad 28 users only.

Find the **BIM e-Submission Templates and Guidelines** at the CORENET website here: https://www.corenet.gov.sg/general/building-information-modeling-(bim)-esubmission.aspx

Find the **CORENETX Requirements and Guidelines** at the CORENETX website here: https://www1.bca.gov.sg/regulatory-info/building-control/corenet-x

Find the **Archicad Libraries** for each template on the GRAPHISOFT SG website here: (requires GRAPHISOFT ID and SSA license to log in) https://graphisoft.com/sg/ssa/downloads

## **GETTING STARTED**

Once you have downloaded the template from the CORENET website, do the following preparations before using the template for the first time.

- Place the sg\_arch-submission-template\_v28.tpl file to: Option 1: On your file server in a dedicated template folder. Then in Archicad 28 New dialogue, use "Browse" and load this template. If the path or name changes, then you'll need to browse again to load this template again. Option 2: Copy the template to the Archicad application folder, the template will auto load into the new dialogue when you start the application. This folder is usually located at
   C:/Program Files/GRAPHISOFT/ARCHICAD 28/Defaults/ARCHICAD.
- 2 Place both the **GSSG ARCH Library.lcf** and **GSSG General Library.lcf** library container files into a folder where they will not be modified/moved/deleted, such as a company file server. There are following sections that will go into this in more detail.
- 3 Launch **GRAPHISOFT Archicad 28** using the desktop shortcuts.



- 4 The Start Archicad 28 dialog appears, choose **New...** at the top of the dialog.
- 5 Click into the dropdown list and use the **Browse Template...** option to locate the **sg\_arch\_submission-template\_v28.tpl** template file.
- 6 Choose the Architectural Profile 28 Work Environment and click New.

Create a New Project from:				
Template				
sg_arch-submission-	-template_v28.tpl		~	
O Latest Project Settings				
<ul> <li>This will create a new Profile.</li> <li>Launch a new instance of Ar</li> </ul>		ected templ	ate	
Work Environment Profile			_	
Current Profile			~	
	Cancel	New		

**Note 1**: To ensure the authenticity of the downloaded template file, make sure you obtain it from the CORENET BIM Support Team at:

https://corenet.gov.sg/general/building-information-modeling-(bim)-esubmission.aspx

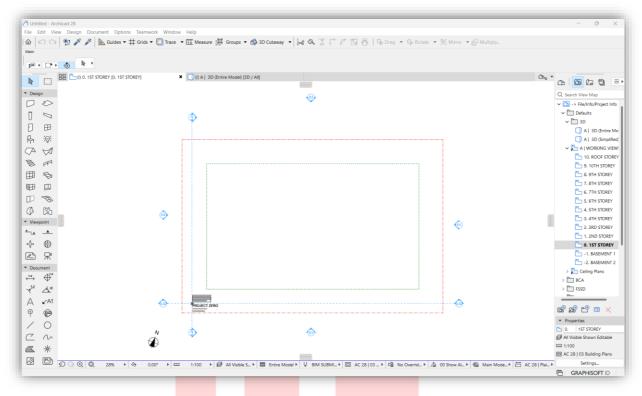
**Note 2**: The template is constantly improved based on user feedback, therefore minor differences may occur between the actual version and the screenshots presented in this guide. Only the latest versions of the template are available on CORENET. The naming of the template file indicates the updates and revisions, such as **...template\_v28.tpl** for the initial version, then **...template\_v28.1.tpl**, **...template\_v28.2.tpl**, etc., if available subsequently.

7 Once Archicad 28 is launched, it will not prompt for missing libraries as all warnings are collated into the Action Center, therefore go to File/Libraries and Objects/Library Manager... to check if both the GSSG ARCH Library.lcf and GSSG General Library.lcf are linked to the project. If not, then you need to Add them.

ibraries in Project Embedded L	brary		
Q Search Libraries			
	Location	Size Status	
💼 Embedded Library		0 bytes	
✓ Archicad 28			
🟦 Archicad Library 28	C:\Program Files\Graphisofticad 28\Archicad Library 28	933 MB	
🟦 GSSG ARCH Library.lcf	C:\Program Files\Graphisoftd 28\GSSG ARCH Library.ld	f 1.1 MB	
🚡 GSSG General Library.lcf	C:\Program Files\Graphisoft28\GSSG General Library.lcf	f 9.6 MB	
🟦 MEP Library 28	C:\Program Files\Graphisoft\Archicad 28\MEP Library 28	16 MB	
			•
Add 🔻	Library loaded from:		Ţ
Add 🔻	Library loaded from: Placed objects:		÷
Add			
Add 💌 🈥	Placed objects:		

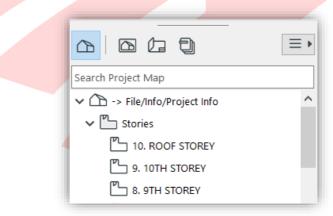
- 8 Click **Add...** Locate the LCF file and click **Open**.
- 9 Click **OK** to close the Library Manager and load the libraries.

# THE ARCHICAD NAVIGATOR

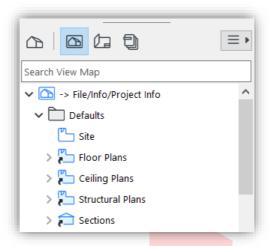


The Navigator palette is displayed on the right side of the interface, containing the following tabs/selectors:

• **Project Map** - the entire model structure and the different viewpoints of the project.



• **View Map** - model views filtered for different purposes. The folder structure here is organized for the native BIM submission.



 Layout Book – some predefined layouts and master layouts are included in the Template, such as the required Cover Page which lists Views, Drawings and Schedules in the Project. All 2D Views and Schedules should be added to Layouts for submission.

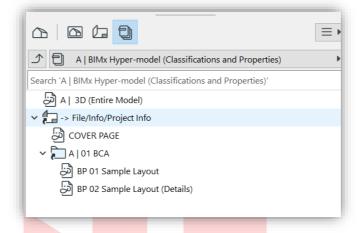
For CP83 submission or project phases after the submission you may still want traditional 2D format deliverables. The title blocks can be edited from the **Masters** section, and can be customized for the different authorities and departments if not submitting a native Archicad file.

Search Layout Book
✓ 🗁 -> File/Info/Project Info
✓ COVER PAGE
BCA_BP_ VIEW LIST
BCA_BP_ DRAWING LIST
BCA_BP_ SCHEDULES LIST

**Note 1**: Avoid changing other parts of the master layout unless you are sure that the AutoText fields (fields containing # marks) are kept intact, otherwise some texts might not appear correctly on the final layouts.

**Note 2**: Updating the master layouts is a one-time procedure. To update the original template use **File/Save as...** menu option and override the existing template file using **Archicad Project Template (\*.tpl) file** type setting. From now on the new template file can be used for new projects.

• **Publisher Sets** - collection of items referring to elements of the View Map and the Layout Book set for simplified and repeated document output. The most necessary formats are set as guidance and new publisher sets can be created with combined formats within the same publisher set.



The BIM submission template serves as a basic platform to help you in preparing your model for regulatory approval. Submitting native files is not mandatory and you are free to submit your projects in the traditional way and edit the template according to your needs as long as the final results presented to the authorities meet the requirements specified in the Code of Practice for BIM Submission documents.

**Note**: Traditional submission formats are still accepted, but not supported or recommended by BCA, nor GRAPHISOFT Singapore as the creator of this template, from July 2016 onwards.

# STOREYS, PROJECT LOCATION AND REFERENCE LEVELS

By default, the template contains 10 generic storeys, a roof and foundations. To edit the Story Settings to go the **Design/Story Settings...** menu.

All generic storeys have a consistent floor-to-floor height of 3500 mm, which can be edited for the requirements of the specific projects. Major changes in the story settings, such as the number of storeys and heights should be carried out before starting the project.

1 If your project has less storeys than in the template, select the unwanted storeys and click **Delete Story**. If you want to add storeys select an existing story and use the **Insert Above/Insert Below** buttons respectively.

No. Name	Elevation	Height to Next	<b>* *</b>
9 10TH STOREY	31500	3500	
8 9TH STOREY	28000	3500	
7 8TH STOREY	24500	3500	
6 7TH STOREY	21000	3500	
5 6TH STOREY	17500	3500	
4 5TH STOREY	14000	3500	
3 4TH STOREY	10500	3500	
2 3RD STOREY	7000	3500	
1 2ND STOREY	3500	3500	
0 1ST STOREY	0	3500	
-1 BASEMENT 1	-1000	1000	
Insert Above Insert B	ow Delete Story		
		Cancel	ОК

#### Find more information on the **Story Settings** on the Archicad 28 Help here: https://help.graphisoft.com/AC/28/INT/index.htm?#t=\_AC28\_Help%2F140\_UserInter faceDialogBoxes%2F140\_UserInterfaceDialogBoxes-33.htm

The current template uses the Singapore Height Datum as the height reference when displaying manually placed elevation dimensions using the Dimension tool, meaning that all elevation heights will be measured from -5913. Section and Elevation story levels are referenced to the Sea Level, by default showing an altitude of -5.913 for Project Zero. Altitude (AMSL, or Sea Level) is set for a default of +5.913 meters for Singapore. To change the sea level reference:

1 Go to **Options/Project Preferences/Location Settings...** and change the **Altitude (Sea Level)** value (also change Time Zone (UTC) if settings differ from Singapore time zone).

PROJECT LOCATIO	N
Project Name:	-> File/Info/Project Info Edit
Site Full Address:	Address 000000 SINGAPORE Edit
Latitude:	1° 21' 3.7098* N 🗸 💽
Longitude:	103° 51' 7.5687" E ~
Time Zone (UTC):	(UTC+08:00) Kualumpur, Singapore V
Altitude (Sea Level):	5.91 🕨 m
	Show in Google Maps (j)
Symbol Type:	
	-30090429
POSITION  Easting Northing Elevation	-30090429 -37015613 -5913
POSITION Easting Northing Elevation GEOREFERENCING PARAMETER	-30090429 -37015613 -5913 s FOR IFC
	-30090429 -37015613 -5913 s FOR IFC Tranverse Mercator
POSITION     Easting     Northing     Elevation     Projected CRS Name     Description	-30090429 -37015613 -5913 <b>5 FOR IFC</b> Tranverse Mercator SVV21 is a geodetic coordinate datum based on the V
POSTION     Easting     Northing     Vervation     Vervation     Vervation     Projected CRS Name     Description     Geodetic Datum	-30090429 -37015613 -5913 s FOR IFC Tranverse Mercator SVV21 is a geodetic coordinate datum based on the V SVV21
→ Position         → →           Easting         → →           Northing         Elevation           GEOREFERENCING PARAMETER         Projected CRS Name           Projected CRS Name         Description           Geodetic Datum         Vertical Datum	-30090429 -37015613 -5913 S FOR IFC Tranverse Mercator SVY21 is a geodetic coordinate datum based on the V SVY21 Singapore Height Datum (SHD)
POSTION     Easting     Northing     Vervation     Vervation     Vervation     Projected CRS Name     Description     Geodetic Datum	-30090429 -37015613 -5913 <b>s FOR IFC</b> Tranverse Mercator SVV21 is a geodetic coordinate datum based on the V SVV21

- 2 Input the Easting, Northing and Elevation values for the model's [X], [Y] and [Z] coordinates. These values are received from survey drawings.
- 3 Additionally, you can also set Project North either by typing the value or simply clicking on the symbol and rotating it within the dialog.

**Note**: The Easting, Northing and Elevation values are to be entered by changing the sign in mm. If it is positive, change it to negative (or vice versa). For Altitude & Elevation, you may enter in SHD format (E.g., For SHD 104, enter 4).

Find more information on **Project Location and Project North** settings on the Archicad 28 Help here: https://help.graphisoft.com/AC/28/INT/index.htm?#t=\_AC28\_Help%2F020\_Configur ation%2F020\_Configuration-35.htm

Depending on the project, you may want to edit the existing project reference levels.

1 Go to **Options/Project Preferences/Reference Levels...** dialog and change the values of the **2nd Reference Level**. The units of the values follow the working unit settings, millimeters by default. The 1st Reference Level has been altered to display *Singapore Height DATUM* By choosing, under Relative to, then when placing your elevation dimensions, level dimensions or adding height value inputs for mesh points, the exact values provided by the land surveyors.

Project Preferences		? X	1
Reference Levels	Elevation	Relative to	
$\begin{array}{c} & & \\ \hline \\ \hline$	0 0 -5913 -5913	☑	
Note: Reference Levels are display elements are always calculated fro the Project Location dialog box.		(Sea Level) can be set in	

#### Find more information on the **Reference Levels** on the Archicad 28 Help here:

#### https://help.graphisoft.com/AC/28/INT/index.htm?#t=\_AC28\_Help%2F140\_UserInter faceDialogBoxes%2F140\_UserInterfaceDialogBoxes-28.htm

2 To apply the new reference level, select the Sections or Elevations you want to be modified from the Project map, right-click and in the context menu and choose Section/Elevation Settings. On the Story Levels Symbol and Text panel choose the Reference Level (by default Sea Level).

▼ 🖉 STORY LEVELS SYMBOL AND TEX	т
🔹 🕨 📑 🕁 Story Marker Geom	etry >
Show Marker Head	Reference Level
Fills and Colors	1st Reference Level ~
Air Space	Story Name Placement Abc
0. Abc +1, 000 300 • 2762 • 20	

3 When adding Elevation Dimensions to the Sections/Elevations with the new elevation reference, adjust the **Elevation Dimension settings** as well to the new reference level.

Dimension Default Settings	? ×
公 ·	Default
Dimension Type: $4 \rightarrow 4 \rightarrow$	Dimension Origin:       Singapore Height Datum       Static Dimension
Witness Line:	<b>U</b> 85

# SITE AND CONTEXT FROM EXTERNAL CONTENT

Context to the site can be imported and created from many different formats, such as 2D DWGs, tabulated text files (XYZ coordinates) or Point Clouds.

#### DWG

There are two main methods to link DWG files into Archicad. For both methods, it is advised to create a new **Independent Worksheet**, and use the **Trace and Reference** functionality to view the DWG from the Worksheet on the relevant floor plan.

- 1 Place Drawing Use the Drawing Tool, to add into a Worksheet. Make sure to set the Drawing Units when prompted and check any linked images/SHX (fonts) files. Once placed, within the Drawing Tool, the DWG Embedded Layers can be turned on/off as needed. The Drawing can be exploded and the 2D content embedded by using right-click, Explode into Current View.
- 2 Attach Xref From the File/External Content/Attach Xref dialog. Set to Drawing's own origin, check the Translator being used before attaching, and any linked images/SHX (fonts) files when prompted. Place the DWG in the correct location and choose which Layers you wish to import. These imported Layers will be available in the projects Layer Settings, separated after all other Layers. If the Xref will be deleted from the Project, these separated Layers will also be removed as well.

To accommodate the extents of the DWG and site boundary, Section and Elevation markers may need to be adjusted on the floor plan. To create the 3D terrain from the 2D DWG:

- 1 Use the **Mesh Tool** from the Toolbox, to trace the boundaries of the terrain.
- 2 To trace the continuous ridge lines, select the **Mesh** in the plan, and activating the **Mesh Tool** in the Toolbox.
- 3 Activate the Magic Wand, by holding the **SPACEBAR** and click on the ridges of the DWG reference.

Keep **Fit to User Ridges** selected in the appearing dialog and click **OK**. Create the remaining ridges in the same way.

Cancel	OK	_
Fit to User Ridges		$\sim$
O Create Hole		
Add New Points		
🔼 New Mesh Points	?	×

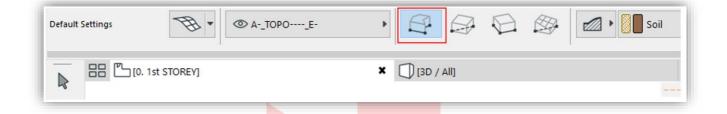
4 After tracing all the ridges, make sure that the Mesh is selected, and the Mesh Tool is still activated. Click on a **node** of a ridge line and from the pet palette choose the **Elevate Mesh Point...** command. Check the **Apply to All** checkbox to raise all nodes of the clicked ridge and choose the appropriate reference plane, for example the False Datum. This way you can enter the same values as on the surveyor's plan. Elevate the remaining ridges in the same way.

A Mesh Point Height ?	×		
Height:			
5913	+		
to Singapore Height D	atum 🕨	Mesh Reference Plane	
Apply to All		Project Zero	
		1st Reference Level	
Cancel C	к	Singapore Height Datum	
		Sea Level	

5 As a last step adjust the corner nodes of the Mesh (**uncheck Apply to All**) manually in 3D or 2D.

In case the imported topography only contains spot points, and not ridges, you can still add and elevate the points as follows:

1 Select the **Mesh** and **activate the Mesh Tool**. Set the Geometry Method in the InfoBox to **Polygonal geometry method**. Note that other Geometry Methods will not be able to create spot points.



- 2 Double-click the referenced surveyor points to create a spot point. Click **OK** with the **Fit to User Ridges** option selected in the appearing dialog. Create the remaining points in the same way.
- 3 Elevate the points one-by-one using the **Elevate Mesh Point...** command (similarly to the ridges).

#### Surveyors' Data File

The surveyor can also provide a topographic file in TXT or XYZ format which will be easier to import into Archicad, without the need to Trace over the original.

- 1 Go to File/Interoperability/Place Mesh from Surveyors Data....
- 2 Select the surveyor data file and click **Open**, a dialog will pop up for configuration settings for placement and altitude. Set the altitude according to the Project Location settings.

Place Mesh from Surveyors Da	ita	?	$\times$
Surveyors Unit:	meter		~
Placement:			
Define graphically			
Original location			
Zoom to the new mesh			
Project Zero is above Sea Level by:			
	0.00	meter	
	Cancel	C	к

3 Click **OK** and **click into the model** to place the resulting generated Mesh.

**Note**: The topographic files of both TXT and XYZ format must be saved with ANSI encoding prior importing them into Archicad to be shown in the model space.

#### **Point Clouds**

Archicad natively supports the industry standard E57 and XYZ point cloud file formats which can be imported and used to model existing buildings before renovations, surroundings or as-built structures.

- 1 Open File/Interoperability/Import Point Clouds... from a floor plan viewpoint.
- 2 Select the point cloud file and click **Open**.In the case of XYZ format, the **Format Conversion** dialog will appear.
- 3 In case of E57 format, the **Create Point Cloud Objects** dialog will appear, you need to specify the name of the object the point cloud will be converted to and the location of the generated library.

Create Point Clo	ud Objects		?	×
LCF files will be gene added to the Linked	erated from every imported F Library.	Point Cloud and au	tomatical	ly
Generate LCF files in	this folder:			
C:\Users\GSSG-crive	eral\Documents\GRAPHISOFT	\Point Clouds	Brows	e
Point Cloud names:		c	Converted	files: 1
Source Name	<ul> <li>Object Name</li> </ul>	LCF File Name	9	
GSSG sample.e57	GSSG sample	GSSG sample	.lcf	^
				~
Point Cloud Ol automatically r	bjects and LCF files sharing t renamed.	he same name and	d location	will be

4 Click Create and Place.

5 The **Place Point Clouds** dialog will prompt for the placement location of the generated object. Set the position and click **OK**, the object will be placed into the floor plan selected.

	?	$\times$
gin Inually		
0. 1st STOREY		~
Cancel	OK	
	nually 0. 1st STOREY	nually 0. 1st STOREY

**Note**: The recommended use of imported point clouds is for referencing only, these objects cannot be used for visualizations.



#### Find more information on **Importing Point Clouds** on the Archicad 28 Help here: https://help.graphisoft.com/AC/28/INT/index.htm?#t=\_AC28\_Help%2F120\_Interoper ability%2F120\_Interoperability-33.htm

# **BIM SUBMISSION TOOLS AND INTERFACE**

#### **View Map Overview**

The Navigator - View Map contains predefined views, which can be used as-is for the submission:

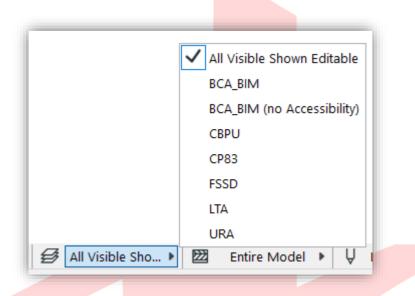
- The **DEFAULTS** folder contains views to help the QPs with modeling, by storing default settings in which all elements are visible and editable - 3D views for generic references and the **WORKING VIEWS** folder, a Cloned Folder of the Stories viewpoints of the Project Map for both architectural and structural modeling.
- For traditional BIM submissions, the BCA/BP folder contains folders and views that the officers will check upon submission. The folder contains both 2D and 3D views. The 2D PLANS folder is to be checked primarily, while views in 3D PLANS will be used for the same purpose and to clarify issues, which are not visible from the 2D plans. The latter might need manual adjustments, depending on the project design and the level/slab positions.
- The views in the **SCHEDULES** folder will also be checked by the officers to ensure that the model complies with the regulations. The QPs can use them for data input as well.
- The **COVER PAGE** folder is purely to collect views that are part of the submission cover page.

Search View Map				
✓ 🏠 -> File/Info/Project Info				
> 🛅 Defaults				
> 🛅 BCA				
> 🛅 FSSD				
> 🗋 URA				
> 🛅 LTA				
> 🛅 NPARKS				
> 🛅 РОВ				
> 🛅 NEA				
> 🛅 SCHEDULES				
> 🛅 COVER PAGE				

#### **Quick Options**

During modelling and working in the project, switching to a pre-defined View can modify what is visible on the screen. To avoid modifying these Views, at any time you can switch the settings on the **Quick Options Bar** at the bottom of the working window, for example switch the Layer Combination to *All Visible Shown Editable* – or switch to any of the DEFAULTS in the View Map.

Changing these **Quick Options** will not affect the stored View, to revert back to a stored View, just double-click the item in the View Map.



When working with Schedules the Quick Options bar is not visible, but all schedules are still editable. As an alternative, you can show the Quick Options palette by **Window/Palettes/Quick Options** menu command. This palette can also be used on other viewpoints, instead of the Quick Options bar.

#### **Favorites**

The template contains many predefined favorites for the QPs' convenience. These can be easily accessed by hovering on a Tool in the Toolbox and clicking on the appearing arrow. Alternatively, in the InfoBox, in the Main panel, click the arrow next to the Tool Settings button.

Favorites			$\times$
Q Search Favorites			• £
∽ 🔄 Favorites			
✓ ☐ ARCH FAVORITES			H
V 🛅 BIM SUBMISSION			
🗋 Accessibility Symb	ols/Objects		
ARCH FAVORITES	DEFAUL	rs	
뜻 🔁 🗙		Apply	ŀ

- Arch favorites items under this has **BIM SUBMISSION** folder containing the Favorites needed specifically for submission and free floating Favorites which are generic.
- **Defaults** contain Favorites from the standard Archicad template and the defaults for each element. These can be deleted if need be.
- **STRUCTURAL ELEMENTS** are used in case structural elements will be used when working together with the structural teams in an integrated model workflow.

To ensure that the information stored in a Favorites applies the desired information to elements, check the Element Transfer Settings. This allows to choose which settings are applied, either when using Favorites or using Pick Up and Inject.

To adjust which transfer setting is used when double-clicking a Favorite to apply, go to **Window/Palettes/Favorites**, click the **cogwheel** on the top right of the palette and choose **Element Transfer Settings...** or access the dialog via **Edit/Element Settings/Element Transfer Settings.** 

The left side are presets, the row with a star icon and tick represents the default for Favorites. To change, select a preset and click into this column, to make sure that the **star** icon appears next to Transfer All Settings (excl. Home Story) [FOR FAVORITES].

Q Search Transfer Sets		Name:	Editable:
Name 🍝 🏂	1	Transfer All Settings (excl. Home Story) [FOR FAVORITES]	
Exclude ID / Home Story	^	Ontine d Settine at la dude durine Transfer	522
Exclude ID / Layer		Optional Settings to Include during Transfer:	203
Exclude Label Text		Q Search Transfer Sets	
Exclude Library Part		> ☑ A <sup>α</sup> Angle Dimension	
Exclude Metadata		> E Beam	
Exclude Size / Height / Elevation		> 🛛 🏠 Cable Carrier Branch	
Stair 2D Symbol			
Stair Geometry		> 🗹 🖏 Cable Carrier Fitting	
Stair Structure / Finish		> 🗹 🖒 Cable Carrier Routing	
Transfer All Settings		> 🗹 🎲 Change Marker	
Transfer All Settings (excl. Home Story) [FOR FAV 🏌	~	> 🗔 🗍 Column	
Transfer Structure / Display / Library Part		> 🖃 🌐 Curtain Wall	
		> 🗹 🕀 Detail/Worksheet	
	$\sim$		
New Delete	<u>_</u>	Cancel	OK

#### Find more details on the **Element Transfer Settings**

on the Archicad 28 Help here:

# https://help.graphisoft.com/AC/28/INT/index.htm?#t=\_AC28\_Help%2F030\_Interaction n%2F030\_Interaction-99.htm

#### Find & Select Criteria Sets

To quickly select elements with specific criterion, use the **My Criteria Sets** in Find & Select, access by **Edit/Find & Select** or **CTRL+F**.

Criteria Set Name:	Accessibility - Clearance Boxes	✓ ►
	Built-in Criteria Sets	
Criteria	All Elements	- L I
Element Type	All 2D Elements	
Layer	All 3D Elements	
	All elements on unlocked and visible layers	
	Inverted elements	
	Invalid Stairs	
	My Criteria Sets	
	Accessibility - Clearance Boxes	
	Accessibility - Routes	
	Accessibility - Symbols	
	Accessibility - Zones	
	All Elements	
	All MEP Elements	
	All Modeling Elements	_ ~ [
Add 💌	BScore - by Descriptions	1
Addim	BScore - Undefined	
	Details - Air Space CFills	
Selected:	Details - Anotations	
Editable:	Details - Background CFills	
	Details - Non-BMat Fills	
	Layers Archi	
	Layers Landscape	
	Layers MEP	
	Layers STR	
	Position - Exterior	
	Position - Interior	
	Position - Undefined	
	Structural - Load Bearing	
	Structural - Non Load Bearing	
	Structural - Undefined	
	Zone MOV - Mechanical	
	Zone MOV - Mechanical and AC	
	Zone MOV - Natural	
	Zone MOV - Natural and AC	
	Zone MOV - Mechanical Zone MOV - Mechanical and AC Zone MOV - Natural	

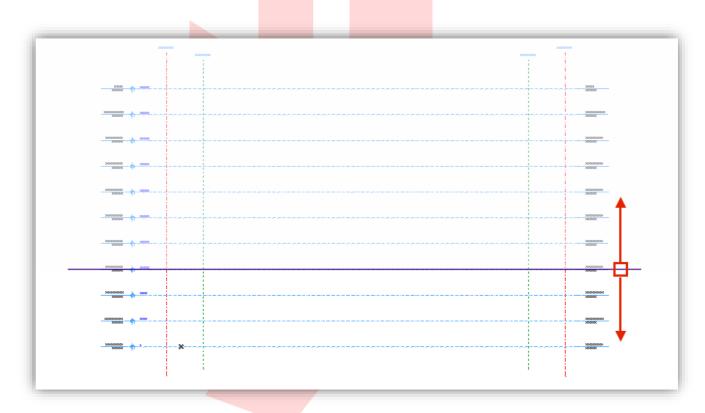
When opening the element settings from the whole selection, by using **CTRL+T**, only the settings of the last selected element type will be visible and editable. To change the settings of a different element, double-click that Tools icon in the Toolbox. To edit some details of the entire selection, like Layer and Properties, go to **Edit/Element Settings/Edit Selection Set...** 

# PREPARING THE FILE FOR SUBMISSION

#### **3D Plan Views (Optional)**

As part of the preparation process the QPs need to set and refine the **3D Plan** views of the different stories. Since the Slab positioning and levels may vary significantly there is a high chance that some manual adjustments are needed to the preset 3D views.

The preset 3D Plan views use the 3D Cutaway function to limit the vertical range of the 3D view. Once the view is opened from the View Map, you can adjust the **Cutaway plane** by clicking on it and dragging it or simply switch to the **Project Map** in the Navigator and open a section/elevation to see the plane. If needed, click on the purple line and drag it to the desired height to modify which stories are visible.



#### **Creating/Modifying 3D Plan Views - 3D Cutting Planes**

- 1 Open any of the views in the **BCA/BP/3D PLANS** folder in the View Map.
- 2 Use the **3D Cutaway** function of the Standard Toolbar to set the cutting planes.



- 3 After adjusting, click **Finalize**.
- 4 From the View Map, save the View using the **Save Current View...** button at the bottom of the Navigator.



5 To change an existing view, right-click on the view you'd like to modify and choose **Redefine with Current Window Settings** from the context menu.

Open	
New Folder	
Rename	
Redefine with Current Window S	ettings
× Delete	

**Note**: When changing story heights (**Design/Story Settings...**) the elevation of Cutaway Planes must be readjusted manually.

#### Find more details on the **3D Cutting Planes**

#### on the Archicad 28 Help here:

#### https://help.graphisoft.com/AC/28/INT/index.htm?#t=\_AC28\_Help%2F050\_ViewsVB %2F050\_ViewsVB-23.htm

Creating/Modifying 3D Plan Views - Filter and Cut Elements in 3D

- 1 Open any of the views of the **BCA/BP/3D PLANS** folder in the View Map.
- 2 **Turn off** the 3D Cutaway, to show the full 3D model.



3 Right-click the 3D Window Tab of the opened view and choose **Filter and Cut Elements in 3D...**.

[3D / All]	Recent Related View	vs	
	Save as View		
	🖉 Pick Up View Setting	gs	
	Get Last Settings		
	Match All to Current	t	
	3D Styles		<u> </u>
	💩 3D <u>P</u> rojection Settin	igs Ctrl+Shift-	+F3
	Set Window Size		
	Perspective	Shift-	+F3
	Axonometry	Ctrl-	+F3
	🚯 3D <u>C</u> utaway	Ctr	I+Y
	Filter and Cut <u>E</u> leme	ents in 3D Ctrl+Alt	:+A
	🖵 <u>C</u> lose Tab 3D / All		

4 Set Stories to Show in 3D to **Limited** and adjust both the To and From controls to the range you want visible in 3D and click **OK**.

Filter and Cut Elements in 3D		?	×
Stories to Show in 3D			
○ Infinite			
Limited:			
То	0. 1ST STOREY		~
From	0. 1ST STOREY		~
Trim Elements to Story ra	ange		

5 From the View Map, save the View using the **Save Current View...** button at the bottom of the Navigator.



6 To change an existing view, right-click on the view you'd like to modify and choose **Redefine with Current Window Settings** from the context menu.

	Open New Folder
	Rename
	Redefine with Current Window Settings
×	Delete

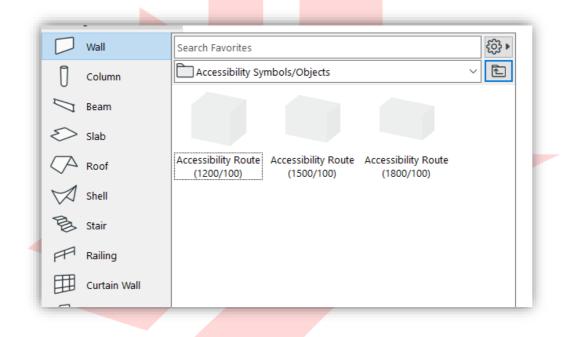
# **ACCESSIBILITY & VENTILATION**

Accessibility and Modes of Ventilation has to be marked by adding accessibility routes, clearance boxes, accessibility objects (symbols) and by setting the properties of zones regarding both. This part summarizes ventilation and accessibility in general, the use of the accessibility related objects will be introduced in later parts of this document.

#### **Accessibility Routes**

Accessibility routing uses the Wall tool.

1 To place, use the **Wall Favorite**, **Accessibility Route** (1200/100), under the **BIM SUBMISSION/Accessibility Symbols/Objects** folder.



- 2 **Double-click the preview** to activate the Wall tool and apply the Favorite settings. Check the following **Classification and Properties** settings:
  - Element Classification = (Unclassified)
  - ID = (according to company naming standards)
  - Structural Function = Undefined
  - Layer = Accessibility Route.BCA\_BP

- 🖹 (	CLASSIFICATION AND PROP	PERTIES	
	CLASSIFICATIONS		^
	ARCHICAD Classification -	v 2.0 (Unclassified)	
	MEP Submission Classific	ation (Unclassified)	~
•	ID AND CATEGORIES		^
	ID	ACCR_004	
	Structural Function	Undefined	
	Position	Interior	
-	RENOVATION		

3 Create the Wall using the **Chained geometry method**. When reaching doors, **make sure the route is not intersecting with the frames** or leaves.

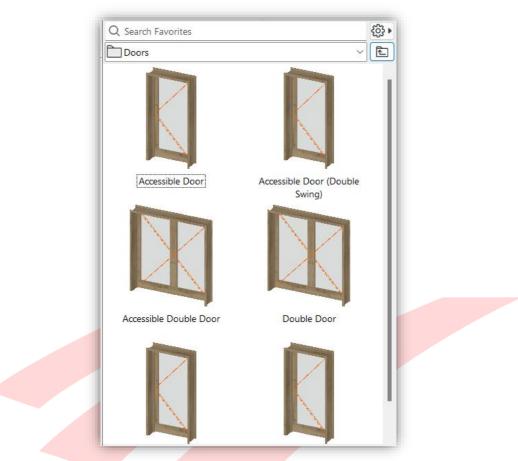
Default Settings		essibilit	ty Route.BCA_BP	<b></b> ,		<u>F</u>

Note: The Bottom offset of the wall is set to 0 by default. Always make sure that the accessibility route is positioned on the top surface of the actual Slabs to avoid clashes.

#### **Accessible Doors**

Accessible doors have to be placed where access to an accessible zone/room is required. The only difference between regular and accessible doors is that the latter have their minimal spaces defined and shown automatically on accessibility related plan views.

1 To place, use any of the **Door** Favorites starting with **Accessible** under the **BIM SUBMISSION/Doors** folder.



2 **Double-click the preview** to activate the Door tool and apply the Favorite settings.

Check the following settings:

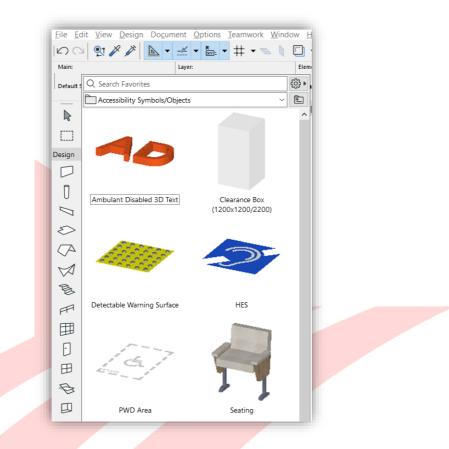
- Minimum space requirements, for double doors only one door needs to be accessible
- Under Classification and Properties panel, Accessible = True
- 3 Place the Accessible Doors into the relevant Walls.

**Note**: To insert a regular door, use the Favorites from the same folder without the 'Accessible' prefix.

#### **Clearance Boxes**

Clearance boxes are only to be placed for accessible doors which have their minimal spaces defined and shown.

1 Use the **Object** Favorite **Clearance Box (1200x1200/2200)** under the **BIM SUBMISSION/Accessibility Symbols/Objects** folder.



2 **Double-click the preview** to activate the Object tool and apply the Favorite settings.

Check the following **Geometry** settings:

- Bottom offset is level with the Slab top surface
- Box height is in accordance with the Door height

Check the following **Classification and Properties** settings:

- Element Classification = Building Element Proxy
- ID = (according to company naming standards)
- Structural Function = Non-Load-Bearing Element
- Accessible = True
- Layer = Clearance Boxes.BCA\_BP

Place the box object using the **Rotated Diagonal geometry method**, to easily snap to the corner points of the Door 2D minimal space (even for non-orthogonal elements).

	Layer:	Element:	Geometry Method:
Default Settings	O - Clearancexes.BCA_BP >	Clearance Box	
	//		
	H		H
$\langle \rangle$	N N		
	3		
	G <sup>35.57</sup>	And Del	
	✓ Distance 1320 ⊲ Angle 116.57		VIIIIA
F 2		T	T
1 Angle 26.57°			
**************************************			

**Note**: The final clearance has to show both the 2D (solid color fill) and 3D clearance (dashed fill in 2D, box in 3D).



#### **Zone Accessibility**

Accessibility of Zones needs to be set if the accessibility route goes through the zone or is reaching it via an accessible opening.

1 Open the Zone settings **Classification and Properties** panel and set the **Accessible** (spaces and elements) property value to **True** under **ARCH | REGULATORY REQUIREMENTS**.

	CLASSIFICATIONS				
$\checkmark$	ARCHICAD Classification - v 2.0	Space			
	Renovation Status	New	Ē		
	Show On Renovation Filter		11-m		
	ARCH   REGULATORY REQUIRE	MENTS			
C_ 1	Accessible (spaces and elemen.	True	l		
G	Mode of Ventilation	Mechanical			
G	Accessible Room (hospitality o True				
ര	Elderly Friendly (hospitality only) False				
	ARCH   SHELTERS				
e	Dwelling Unit Type (shelter zon.	Undefined			
ര	GFA of Unit (sqm) /to be adde				
ര	Nominal Occupancy /to be ad				
-		-			

**Note 1**: Zone Favorites include stored information about accessibility.

**Note 2**: Zones can only be placed using **boundary construction methods** if the *Renovation Statuses* of those match the Zones. For example, if the bounding Walls' Renovation status is *New*, only a *New* Zone can be auto placed inside. Therefore, **check the Renovation palette (Window/Palettes/Renovation)** of both the bounding Walls and the Zone being placed.

	Renovati		×			
4	Selected El	ements:				
	靏 🔒	Ĩ		ß		
	Renovation Filter:					
	00 Show All Elements $\sim$					

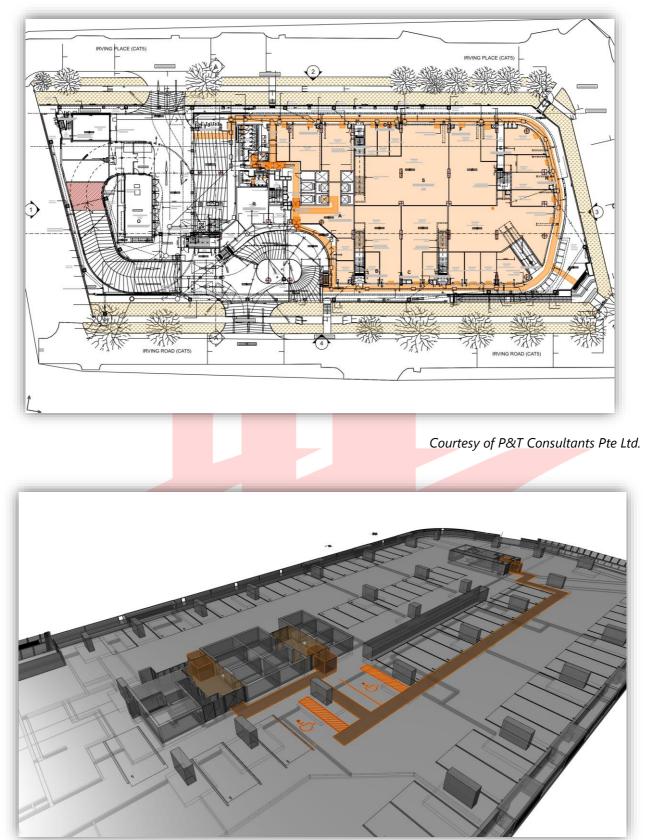
As an alternative data input method, you can also use Schedules once the Zones are placed but their accessibility has not been defined yet.

- 1 Open the **BCA\_BP\_ROOMS (All)** Schedule from the **Project Map** or **View Map**.
- 2 **Click into any of the checkboxes** of the **Accessible** column to change the accessibility of the Zones.

	<b>.</b>	Accessible	Hotels, guesthouses, dormitories, etc.		
Mode of Ventilation	Area	(space)	Accessible Room	Elderly Friendly Room	
Mechanical and Air-Conditioned	14.38				
Mechanical	24.64				
Mechanical	29.85				
Mechanical	30.98				
Mechanical	36.86				
Mechanical	62.78				
Mechanical	104.97				
Mechanical and Air-Conditioned	15.06				
Natural	14.46				
Natural	15.07				
Natural and Air-Conditioned	16.63				
	365.68 m <sup>2</sup>				

**Note 1**: *Accessible Room* and *Elderly Friendly Room* checkboxes refer to hospitality spaces only, where the room provides better accessibility and more space.

**Note 2**: The default accessibility property value is *False* therefore non-accessible Zones do not need to be modified.



Examples of 2D plans and 3D showing accessibility:

Courtesy of P&T Consultants Pte Ltd.

## **Modes of Ventilation**

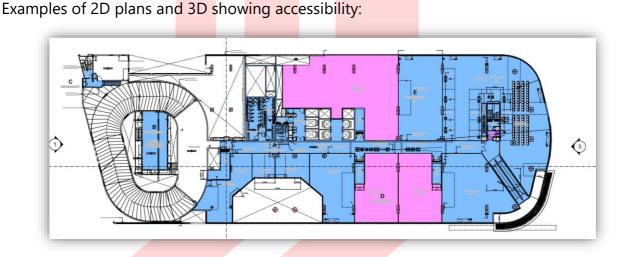
Setting the Mode of Ventilation for Zones follows the same method as accessibility described above, through either:

**Zone Settings:** Open the Zone settings **Classification and Properties** panel and set the **Mode of Ventilation** property value to the required one under **ARCH | REGULATORY REQUIREMENTS**.

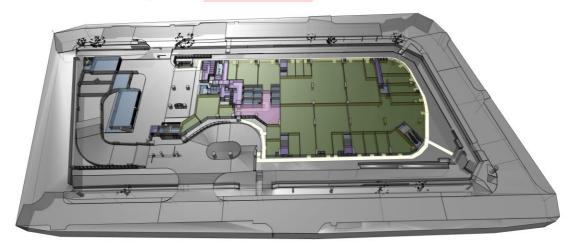
or

**Schedule:** Open the **BCA\_BP\_ROOMS (All)** Schedule and click into any of the cells of the **Mode of Ventilation** column, then choose a value from the option list.

**Note**: The default Mode of Ventilation property value is *Mechanical*.



Courtesy of P&T Consultants Pte Ltd.

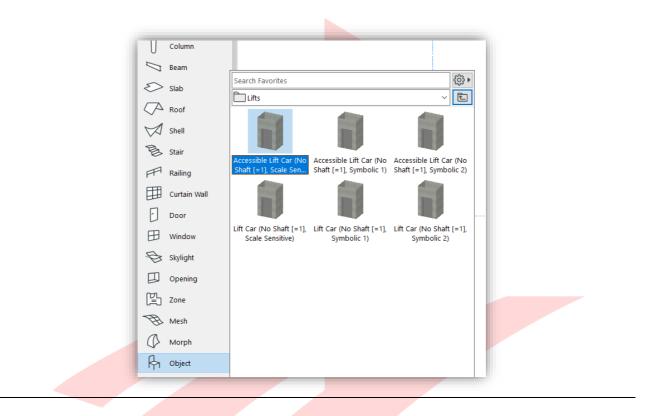


Courtesy of P&T Consultants Pte Ltd.

## Lifts

Accessible lifts have to be set according to the accessibility code and will be highlighted on plans. For actual requirements please refer to the relevant codes.

1 Use the **Object** Favorite **Lift Car** or **Accessible Lift Car** under the **BIM SUBMISSION/Lifts** folder. Choose a version based on the required graphical appearance on plans (Symbolic 1/Symbolic 2/Scale Sensitive).



**Note**: The stored Favorites include the lift shaft set at a minimum thickness of 1mm. This is only necessary to make the lifts visible in their full heights when highlighted for accessibility. Actual shafts are to be built using the **Wall tool** and an additional **Empty opening** (Door tool) placed.

**Double-click the preview** to activate the Object tool and apply the Favorite settings.

Check the following **Classification and Properties** settings:

- Element Classification = **Elevator**
- ID = (according to company naming standards)
- Structural Function = Non-Load-Bearing Element
- Accessible = False or True (as needed)
- Layer = A-\_LIFT---\_E-
- 2 Place the necessary lifts.

Add the 2D symbol for accessibility to mark the elevators on plans as well.

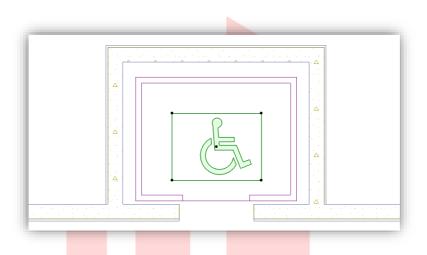
1 Use the **Object** Favorite **Symbol of Access under the BIM SUBMISSION/Accessibility Symbols/Objects** folder.

in some state of the local division of the l	-		
Beam			
Slab	Search Favorites		<b>ଏ</b> ପ୍ରୈତି
Roof	Accessibility Symb	ols/Objects	~ 1
Shell	~0		
🗟 Stair	Ambulant Disabled 3D	Clearance Box	Detectable Warning
Railing	Text	(1200x1200/2200)	Surface
Curtain Wall	-37	187	
Door		the second second	11
H Window	HES	PWD Area	Seating
Skylight	167		1 the second
Opening	5.S./	<u> </u>	2. <b>GL</b> /
[말] Zone	Seating (Accessible)	Symbol of Access	WC Clearance (1000x1000)
H Mesh			
Morph	E)		
G Object	WC Clearance		
<ul> <li>Viewpoint</li> </ul>	(d=1000)		
Document			

2 **Double-click the preview** to activate the Object tool and apply the Favorite settings.

Check the following **Classification and Properties** settings:

- Element Classification = **Building Element Proxy**
- ID = (according to company naming standards)
- Structural Function = Non-Load-Bearing Element
- Accessible = **True**
- Layer = **A-\_ANOT----\_A-**
- 3 Place the necessary symbol to the lifts which are to be marked as accessible.



4 Open the **Schedules/Element/A | Lifts** schedule in the **Project Map** to check the results and make the necessary changes as needed.

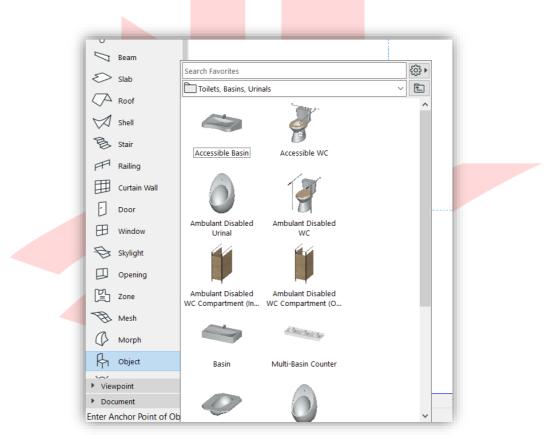
	LIFTS							
		Car Inner Dimensions			_			
Accessible	ID	Clear Opening Width	Width Depth		Quantity	Remarks		
	AL - 001	900	2,000	1,500	1			
					1			
	L - 001	900	2,000	1,500	1			
	L - 002	900	2,000	1,500	1			
					2			
					3			

## **Toilets and Toilet Compartments**

Accessible toilets have to be set according to the accessibility code and will be highlighted on plans. For actual requirements please refer to the relevant codes.

**Note**: There is a difference between individual toilets and toilet compartments. If you want to add compartments to your model you may decide whether to **use the Commercial Bathroom Stall objects** with or without the stall separators **or built walls with single WC elements**. **Mixing the different types is not recommended**.

1 Use the **Object** Favorites under the **BIM SUBMISSION/Toilets, Basins, Urinals** folder.



**Note**: A default Cluster ID property is stored with the Favorites, therefore it has to be changed manually.

2 **Double-click the preview** to activate the Object tool and apply the Favorite settings.

Check the following **Classification and Properties** settings:

- Element Classification = **MEP Element**
- ID = (according to company naming standards)
- Structural Function = Non-Load-Bearing Element
- Accessible = False or True (as needed)
- Layer = **A-\_SANI----\_E-**
- 3 Place the necessary toilets.

Add the 2D symbol for accessibility to mark the accessible and ambulant disabled toilets on plans as well.

1 Use the **Object** Favorites **Ambulant Disabled 3D Text** and/or **WC Clearance** (d=1000) under the **BIM SUBMISSION/Accessibility Symbols/Objects** folder.

Search		<b>دژ</b> یکه (
Accessibility Symbols/Object	cts	ᅌ 🔁
40		

2 **Double-click the preview** to activate the Object tool and apply the Favorite settings.

Check the following **Classification and Properties** settings:

- Element Classification = **Building Element Proxy**
- ID = (according to company naming standards)
- Structural Function = **Non-Load-Bearing Element**
- Accessible = True
- Layer = **A-\_ANOT----\_A-**
- 3 Place the necessary symbol next to the toilets which are to be marked accessible to highlight the function and their clearances.

**Note**: The 2D linework of the compartment toilets is limited. Grab bars, toilet paper dispensers, etc. need to be added manually.

4 There are separate Schedules for single toilets and compartment toilets. They should not be mixed.

**Single Toilets:** Open the **Schedules/Element/Toilets** schedule in the **Project Map** to check the results and make the necessary changes as needed.

TOILETS							
Home Story	Accessible	Туре	Quantity	Remarks			
1st STOREY,	Cluster 01	I					
		Urinal 20	3				
		WC 20	6				
	$\square$	Urinal 20	1				
	$\square$	WC Disabled 20	1				
			11				
1st STOREY,	Cluster 02						
		Urinal 20	2				
		WC 20	4				
	$\square$	Urinal 20	1				
		WC Disabled 20	1				
			8				
2nd STOREY	, Cluster 03		· · ·				
		Squatting Toilet 20	4				
		Urinal 20	3				
		WC 20	2				
	$\boxtimes$	Urinal 20	1				
		WC Disabled 20	1				
			11				

**Compartment Toilets:** Open the **Schedules/Element/Toilets (Compartments)** schedule in the **Project Map** to check the results and make the necessary changes as needed.

TOILETS (Compartments)								
Home Story	Accessible	Number of Stalls (toilets)	Remarks					
1st STOREY,	Cluster 01							
		3						
	$\boxtimes$	1						
		4						
2nd STOREY	, Cluster 02							
		3						
	$\boxtimes$	1						
		4						
		8						

## **Accessibility Objects**

The linked *GSSG ARCH Library.lcf* contains objects that can be used during the submission phase, such as the **Detectable Warning Surface** and **PWD Area** objects and the **Parking Lot Symbol** objects (2D only).

SSSG ARCH Library.lcf	~ E = ::	
SSSG ARCH Library.lcf     SG SSG ARCH Library.lcf     SG ARCH Library     Accessibility Objects	AD Ambulant Disabled 3D Text Clearance Box.gsm Usabled 3D Text	
	Parking Lot Parking Lot PWD Area.gsm	
	Symbol (Accessi Symbol (Family) Seating (Accessible).gsm (Single).gsm Symbol of Access.gsm Name: Accessibility Objects	~
	Placed objects: Placed instances: Library parts used in attributes:	0 0 0
		D

When using these objects, make sure that their settings (for example Accessible: True/False) will allow them to be highlighted in the relevant views and schedules. Refer to object settings of similar objects in this chapter.

The additional 2D parking lot symbols are only to be used if the built-in representation of the parking lots does not suffice. However, note, that the submission process only requires the function and accessibility of the parking lots and not their final appearance, therefore the default ones can be replaced later for tendering, construction, etc. phases.

**Note**: The final parking lot schedule has to indicate the number of all parking lots and the breakdown in between accessible and regular spaces. If needed, change the schedule criterion accordingly when using these additional elements.

## SCHEDULES

The officers will use the Schedules to perform manual code-checking to see whether the model is built according to the regulations and will comment as necessary. The following sections will introduce the template schedules and present the necessary settings for the related elements.

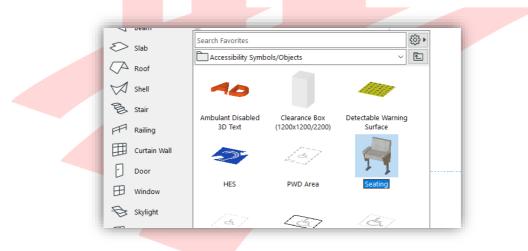
To access, go to the **SCHEDULES** folder in the **View Map**.

## Accessible (Audience) Seating

This schedule lists the total number of auditorium-type seating and the number of accessible seating and sorts them based on accessibility per stories/rooms. For actual requirements please refer to the relevant codes.

**Note**: The schedule does not list the *Audience Seating 26* object in the *Archicad Library 26*.

1 Use the **Object** Favorite Seating or Seating (Accessible) under the BIM SUBMISSION/Accessibility Symbols/Objects folder.



2 **Double-click the preview** to activate the Object tool and apply the Favorite settings.

- Element Classification = Furniture or Building Element Proxy (as needed)
- ID = (according to company naming standards)
- Structural Function = Non-Load-Bearing Element
- Accessible = False or True (as needed)
- Layer = **A-\_FURT----\_E-**

- 3 Place the necessary objects.
- 4 Open the **SCHEDULES/BCA\_BP\_AUDIENCE SEATING** schedule to check the results and make the necessary changes as needed.

ACCESSIBLE SEATING								
Home Story	Accessible	ID	Remarks					
1st STOREY,	1st STOREY, Auditorium							
		REGSEAT						
		121						
	$\boxtimes$	ACCSEAT						
	5							
		126						

### Hearing Enhancement Systems

This schedule lists the number of Hearing Enhancement Systems (HES) symbols per rooms. For actual requirements please refer to the relevant codes.Use the **Object** Favorite **HES** under the **BIM SUBMISSION/Accessibility Symbols/Objects** folder.

No. Committee	it View Design Document		NOW E
00		• 👼 • # • ø (	0
Main:	Layer:		Elem
Default S	Q. Search Favorites		\$; }
R	Accessibility Symbols/Objects	~	E
A			
Design			
0	Ambulant Disabled 3D Text	Clearance Box (1200x1200/2200)	
0		(1200x1200/2200)	
$\sim$	000		
$\mathbb{A}$		10-	
$\bowtie$			
B			
FF	Detectable Warning Surface	HES	
田			
Đ	1	1-	
田	de la		
B		1	
	PWD Area	Seating	
B			
B			
Ø	167	100	. 1
R	Concernant		
201			
Viewpoir	Seating (Accessible)	Symbol of Access	

1 **Double-click the preview** to activate the Object tool and apply the Favorite settings.

- Element Classification = **Building Element Proxy**
- ID = (according to company naming standards)
- Structural Function = Non-Load-Bearing Element
- Accessible = True
- Layer = **A-\_ANOT----\_A-**
- 2 Place the necessary objects.
- 3 Open the **SCHEDULES/BCA\_BP\_HEARING ENHANCEMENT SYSTEMS** schedule to check the results and make the necessary changes as needed.

	HEARING ENHANCEMENT SYSTEMS							
Home Story	e Story Room		ne Story Room Quantity		Remarks			
1st STOREY								
	Auditorium	1						
		1						
2nd STOREY								
	Training Room 1	1						
	Training Room 2	1						
		2						
		3						

### **Parking Lots**

This schedule lists the number of parking spaces and sorts them based on accessibility. For actual requirements please refer to the relevant codes.

**Note**: The schedule only lists the variants of the *Parking Place 26* object of the default *Archicad Library 26.* 

1 Use the **Object** Favorites under the **BIM SUBMISSION/Parking Lots** folder.

		t Options Teamwork Window	
$ $ $\Omega$		< • 🚋 • # • 🔊 🖡 🖸	
Main:		yer: Elen	
	Q Search Favorites	(3)	,
	Parking Lots	~ 🖻	
Design			
	Accessible (Double - 2x 3600x5000)	Accessible (Single - 3600x5000)	
	,		
$\langle A \rangle$	1	111	
$\triangleleft$	all in the country		
B			
FF1	Accessible (Triple - 3x 3600/5000)	Car (Double - 2x 2500/5000)	
⊞	3000/3000/		
Ð	/ /		
⊞			
Ð	7		
	Car (Double Minimal - 2x	Car (Multiple - 10x 2500/5000)	
Ľ	2400/5000)		
Ē		/	
Ø			
R			
2005 Viewpoir			
Documei	Car (Multiple Minimal - 10x 2400/4800)	Car (Single - 2500/5000)	
Enter An		~	

2 **Double-click the preview** to activate the Object tool and apply the Favorite settings.

- Element Classification = **Building Element Proxy**
- ID = (according to company naming standards)
- Structural Function = Non-Load-Bearing Element
- Accessible = False or True (as needed)
- Layer = **A-\_CPRK----\_E-**
- 3 Place the necessary objects.

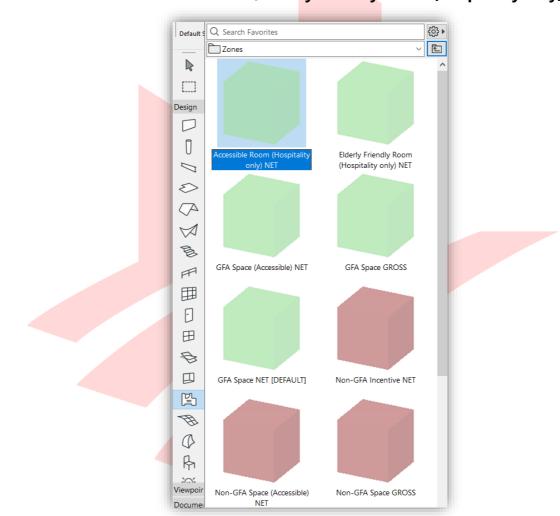
- 4 Open the **SCHEDULES/BCA\_BP\_PARKING LOTS** schedule to check the results and make the necessary changes as needed.
- 5 **Add remarks** to the Accessible/Family Car Park Spaces to confirm that the required total width is provided.

			PARKI	NG LOTS		
Home Story	Accessible/Family Car Parking Lot	ID	Minimal Width	Length	Number of Parking Spaces	Remarks
1st STOREY	I		1	-1		1
		CPRK - 001	2,500	5,000	38	
		CPRK - 002	2,500	5,000	38	
		CPRK - 003	2,500	5,000	38	
		CPRK - 004	2,500	5,000	38	
		CPRK - 005	2,500	5,000	38	
		CPRK - 006	2,500	5,000	38	
					228	
		A-CPRK - 001	2,500	5,000	2	additional width of 1100 provided
		A-CPRK - 002	2,500	5,000	2	additional width of 1100 provided
					4	
					232	

# Accessible/Elderly Friendly Rooms (Hospitality Projects Only)

This schedule lists the number of Accessible Rooms in hotels, dormitories, guesthouses and other hospitality buildings. For actual requirements please refer to the relevant codes.

**Note**: All Accessible Rooms and Elderly Friendly Rooms are Accessible spaces; other room type may or may not be considered Accessibly spaces.



1 Use the **Zone** Favorite **Accessible/Elderly Friendly Room (Hospitality only) NET**.

2 **Double-click the preview** to activate the Zone tool and apply the Favorite settings.

- Element Classification = **Space**
- Accessible = True
- Accessible Room/Elderly Friendly = True (only one applies)
- Layer = A-\_AREAGFAA\_A-

- 3 Place the necessary zones.
- 4 Open the **SCHEDULES/BCA\_BP\_ROOMS (Accessible)** and **(Elderly Friendly)** schedule to check the results and make the necessary changes as needed.

ACCESSIBLE ROOMS (Hotels, guesthouses, dormitories, etc.)									
Home Story	Room Name	Room No.	Quantity	Remarks					
1st STORE	(		1						
	Room	101	1						
	Room	102	1						
	Room	103	1						
			3						
2nd STORE	Y								
	Room	201	1						
	Room	202	1						
	Room	203	1						
			3						
3rd STORE	Y								
	Room	301	1						
	Room	302	1						
	Room	303	1						
			3						
			9						

ELDERLY FRIENDLY ROOM S (Hotels, guesthouses, dormitories, etc.)											
Home Story	Room Name	Room No.	Quantity	Remarks							
2nd STOREY	,	1	1 1								
	Room	201	1								
	Room	202	1								
	Room	203	1								
			3								

### **All Rooms**

This schedule lists all rooms with their ventilation types, accessibility options and areas. The main purpose of this list is to enable easy data handling as described in the **ACCESSIBILITY & VENTILATION** section of this document.

- 1 Open the **SCHEDULES/BCA\_BP\_ROOMS (All)** schedule to check the results and make the necessary changes as needed.
- 2 Click into the Mode of Ventilation cells and use the arrow to open the option list or check/uncheck the checkboxes.

Mode of Ventilation	Aree	Accessible	dorm	guesthouses, itories, etc.	Quantity
wode of ventration	Area	(space)	Accessible Room	Elderly Friendly Room	Quantity

ROOMS (A	All Types)
----------	------------

Mechanical 🔹 🗈	Natural			1
Mechanical	Mechanical			1
Mechanical and Air-Conditioned	Natural and Air-Co			1
Mechanical and Air-Conditioned	Mechanical and Air Undefined	r-Conditioned		1
Mechanical and Air-Conditioned	02.10			1
Mechanical and Air-Conditioned	104.97	$\boxtimes$		1
Mechanical and Air-Conditioned	15.06			1
Mechanical and Air-Conditioned	15.07			1
Mechanical and Air-Conditioned	16.63			1
Natural and Air-Conditioned	24.64	$\boxtimes$		1
Natural and Air-Conditioned	14.46	$\boxtimes$	$\boxtimes$	1
Natural and Air-Conditioned	30.98	$\boxtimes$	$\square$	1
	605.12 m <sup>2</sup>			12

Natural and Air-Conditioned	24.64		$\boxtimes$	1
Natural and Air-Conditioned	14.46	$\square$	$\square$	1
Natural and Air-Conditioned	30.98	$\boxtimes$	$\boxtimes$	1
Mechanical	30.81			1
Mechanical	30.81			1
	131.70 m <sup>2</sup>			5

## Stairs

This schedule lists all Stairs elements. The main purpose of this list is to check the tread sizes and number of steps per flights. For actual requirements please refer to the relevant codes.

1 Open the **SCHEDULES/BCA\_BP\_STAIRCASE** schedule to check the details of the stairs you created and make the necessary changes as needed (might not be possible within the schedule).

BCA_BP_STARCASES														
D	Home Story	0	Detectable Warning	Number of Risers per	Tread Dept	hs (byrule)	Riser Heigl	hts (by rule)			Railings			Remarks
	rolle abry	Calcanoty	Surfaces	Rights	min.	mex.	min.	mex.	Distance Between Railing Posts	Distance from Landing/Right	Height of Qurb (perpendicularly)	Height of Curb (vertically)	Height of Railing	Manaka
STAIR - 00	TAIR - 001													
	1st STOREY	1		20	250	350	150	200	100	150	115	115	100	
STAIR - 00	02								II				1	
	1st STOREY	1		20	250	350	150	200	100	150	115	115	100	
STAIR - 00	03												•	
	1st STOREY	4		6; 13	250	350	150	200	100	150	115	115	100	
		6												

2 Add Comments/Remarks as needed.

Stairs that were created by other tools, will NOT be listed therefore need additional comments/remarks in the remark field stating:

- Tread sizes (riser and run)
- **Railing height** (total, including plinths/curbs)
- Number of steps per flight
- Flight widths

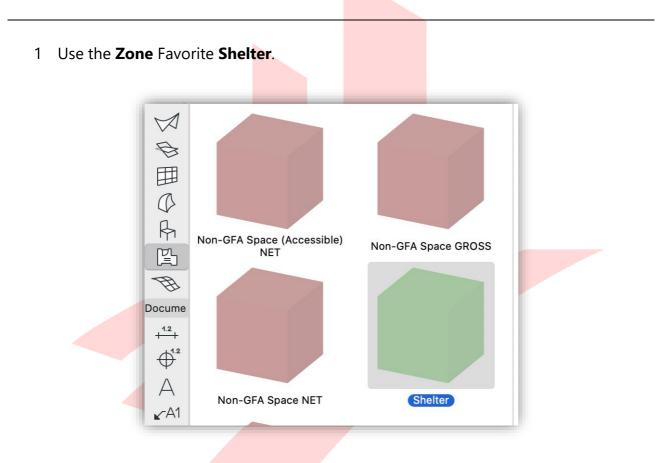
Using non-stair modeling tools is not recommended, but if used always **set the Element Classification to Stair** and adjust the Schedule criteria to include them.

The remarks can also be used to refer to Railings that will be used with the Stair.

## Shelters

These schedules list all household and staircase shelters. Shelters use the Zone tool for the area calculation as ordinary spaces, the setbacks are represented by Morphs. The list needs manual filling of properties of the above-mentioned elements as follows.

**Note**: The shelter setbacks are using one common layer that is only shown on the FSSD layer combination. Any additional layers that might be needed for shelter (setbacks) must be incorporated into the FSSD layer combination.



2 **Double-click the preview** to activate the Zone tool and apply the Favorite settings.

Check the following **Zone** settings:

- Zone Category = CDHS Household Shelter/CDSS Storey Shelter/CDSSS
   Staircase Storey Shelter (according to the type of actual shelter)
- Element Classification = **Space**
- Property Group = ARCH | SHELTERS the content of this group is only to be used for shelter zones
  - Dwelling Unit Type: according to the type of unit (create more property value options under **Options/Property Manager...** as needed

- GFA of Unit: input the total GFA of the unit in which the shelter is located
- Shelter Type (not for Staircase Storey Shelter): **HA/HB/SA/SB** according to the position of the shelter, this value can be set in the schedules as well
- No. of Square Units: expression-based calculation, according to the code of practice
- Required Internal Area: expression-based calculation, according to the code of practice
- Required Internal Volume: expression-based calculation, according to the code of practice
- Layer = according to the GFA/NonGFA type of actual shelter
- 3 Place the necessary Zones.
- 4 From the **Project Map**, open the **Element/Shelters** | ... schedules to check the results and make the necessary changes as needed.

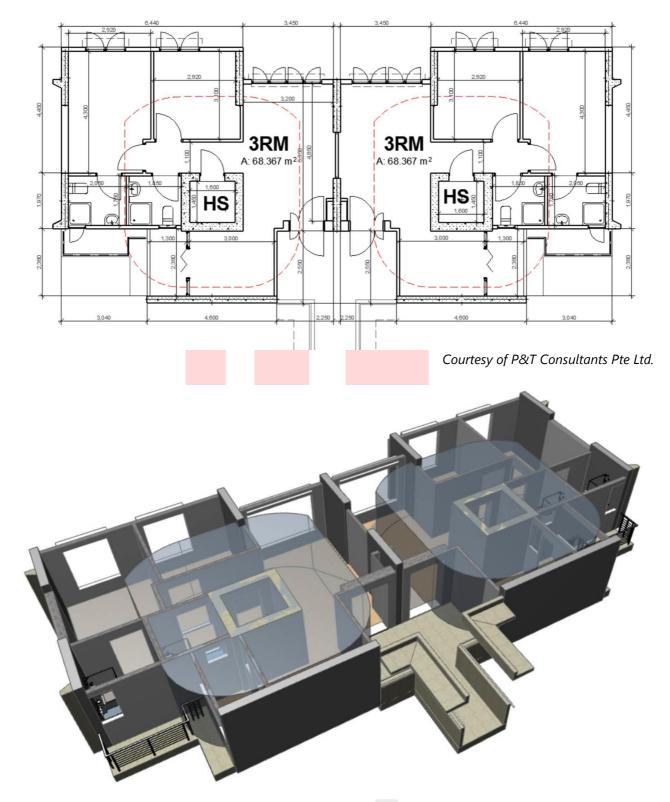
5	Click into the Sche	edule cells	s to chan	ge d <mark>etails</mark>	<mark>as nee</mark> ded.
				5	

DATA OF HOUSEHOLD SHELTERS											
Dwelling Unit Type GFA of Unit No. of HS Internal Area No. of Square Units Internal Volume Shelter											
Type 1	45.30	2	9.72	27	31.14	HA					
Type 2	60.20	2	14.34	39	45.88	HA					
Туре 3	87.40	2	9.72	27	31.14	HA					

	DATA OF STOREY SHELTERS													
	Develling theit Trans		Quantita	Internal Area of SS		Internal Volume of SS								
Home Story	Dwelling Unit Type	GFA of Unit	Quantity	Required	Provided	Required	Provided	Shelter Type						
1st STOREY														
	Undefined	132.50	1	3.00	14.95	9.00	47.86	HA						
2nd STOREY														
	Undefined	132.50	1	3.00	14.95	9.00	47.86	HA						
			2											

### Find more information on the **Expressions in Properties** on the Archicad 28 Help here:

### https://help.graphisoft.com/AC/28/INT/index.htm?#t=\_AC28\_Help%2F045\_Prope rtiesClassifications%2F045\_PropertiesClassifications-9.htm



Examples of a Floor Plan and 3D view showing shelters:

Courtesy of P&T Consultants Pte Ltd.

# AREA TABULATION

## GFA

Schedule URA\_LV\_ SUM OF GROSS FLOOR AREA (GFA) (New) can be viewed under the SCHEDULES folder of the View Map.

- 1 Open a **Floor Plan** viewpoint from the Navigator.
- 2 Activate the **Zone tool** and open its settings and choose the appropriate **Favorite** (any of the GFA Spaces/Non-GFA Spaces).
- 3 Set **Zone Category** and insert a **Zone Name**. Always set the **Zone Top** according to the actual story heights, consider top offsets when linked to a story above. The top of the Zones should always touch the bottom surface of the element(s) above. Subfloor Thickness also has to comply with the actual composite settings (finishes) of the bottom construction.

Zone Default Settings	? × Default	
<ul> <li>NAME AND POSITIONING</li> <li>Top Link:         <ol> <li>200</li> <li>200</li> <li>3200</li> <li>0</li> </ol> </li> <li>Home Story:         <ol> <li>1ST STOREY (Current)</li> <li>to Project Zero</li> <li>100</li> </ol> </li> </ul>	Number: <pre><room number=""> Name: </room></pre> category:  GFA GFA Zone  Category:  Or GFA Zone  Or Gross  Net  Interpretended to the second secon	

4 In the Classification and Properties panel, change the Mode of Ventilation property to define the type of ventilation. This will be displayed in the Zone Stamp. Also fill the BlockNo (Pset\_SpaceCommon) IFC property at the bottom of the list as necessary.

Check the appearance of the Zone Stamp under **Zone Settings**: Zone Name, Measured Area and Classifications and Properties should be displayed.

Zone Default Settings	?	×
公 ·		Default
► P NAME AND POSITIONING		
▶ [] <sup>1</sup> ] FLOOR PLAN		
> E ZONE STAMP		
▶ 1ĂÅ STAMP TEXT STYLE		
▼ XIII SETTINGS		
Content		Þ
1. Zone Name V - +		
2. Measured Area V - +		
3. Classificationd Properties V - +		

5 Set the Layer to **A-\_AREAGFAA\_A-\_.GFA** and create the Zone polygon of the floor plan. Click with the hammer icon to place the Zone Stamp.

**Note**: To turn on/off the display of the Ventilation Type parameter (or other properties from the Tags and Categories panel) in the **Zone Settings** dialog, go to **Settings panel**, **Classification and Properties page/1. Row** and change the value to **None** or select one from the available parameters.

To turn off the display of all metadata in general go to the **Zone Settings panel/Content page** and click the ( - ) **button** besides the Classification and Properties row.

- 6 Open the URA\_LV\_ SUM OF GROSS FLOOR AREA (GFA) (New) schedule.
- 7 To configure the contents of this and other Schedules, click the **Scheme Settings...** button at the top right.

### **STRATA**

Schedule URA-\_LV\_ STRATA can be viewed under the SCHEDULES folder of the View Map.

- 1 Open a **Floor Plan** viewpoint from the Navigator.
- 2 Activate the **Zone tool** and open its settings and choose the Favorite **UNIT**.
- 3 Set **Zone Category** and insert a **Zone Name**. Always set the **Zone Top** according to the actual story heights, consider top offsets when linked to a story above. The top of the Zones should always touch the bottom surface of the element(s) above. Subfloor Thickness also has to comply with the actual composite settings (finishes) of the bottom construction.

✓ Zone Selection Settings	? × Selected: 1 Editable: 1
NAME AND POSITIONING	Selected. I Editable. I
Top Link: 1. 2ND STOREY (Home + 1) ~	Number: <room number=""></room>
-200	Name: <zone name="">       Category:       GFA GFA Zone</zone>
Home Story:	Zone Polygon:
0. 1ST STOREY (Current) V to Project Zero V 100	Subfloor Thickness:

- 4 Place the necessary Zones.
- 5 Open the **SCHEDULES/URA\_LV\_STRATA** schedule to check the results and make the necessary changes if needed.

STRATA (Units)								
Home Story	Name	Area	Quantity					
1st STOREY								
	Unit A	137.75	1					
		137.75 m <sup>2</sup>	1					
	Unit B	64.34	1					
		64.34 m <sup>2</sup>	1					
2nd STOREY								
	Unit A	137.75	1					
		137.75 m <sup>2</sup>	1					
	Unit B	64.34	1					
		64.34 m <sup>2</sup>	1					
		404.18 m <sup>2</sup>	4					

### SGFA

These Schedules are found in the **SCHEDULES** folders of the View Map.

- BCA\_LV\_ STATISTICAL GROSS FLOOR AREA (SGFA) 2
- BCA\_LV\_ STATISTICAL GROSS FLOOR AREA (SGFA) GENERAL
- BCA\_LV\_ STATISTICAL GROSS FLOOR AREA (SGFA) SPECIFIED
- BCA\_LV\_SUM OF AREAS NOT INCL IN GFA COMPUTATION

To generate the SGFA table for areas NOT calculated as GFA automatically:

- 1 Activate the **Zone tool** and open its settings and choose the appropriate **Zone Category** and insert a **Zone Name**.
- 2 Set the building type of the Zone under **Classification and Properties/ARCH | SGFA/Building Type (SGFA)**, the other Properties in this group are expressionbased.

	ARCH   SGFA		^
e,	Building Type (SGFA)	General	
ര	Position to Sub-Level	<expression></expression>	
e	General Area	<expression></expression>	
ര	Specified Area	<expression></expression>	
ര	Elevation Calculation	<expression></expression>	
	ARCH   ZONES		
5	Purpose of Zone	Hospitality	
ര	Hotlink Master ID and Zone N	<expression></expression>	
e	Window Surface Area/Room A	<expression></expression>	
ര	Transparent Window Surface R	. 100.00	
_			~

- 3 Set the Layer to **A-\_AREAGFAD\_A-.NonGFA** if the Zone is a Non-GFA Zone and create the Zone polygon on the floor plan.
- 4 Open the respective schedules under the **SCHEDULES** folder of the View Map.
- 5 To view the final SGFA plans, open views from the **BCA/BP/2D PLANS/SGFA PLANS** folder in the View Map.

**Note**: Always check the Scheme Settings of each schedule before using and make sure you understand its Criterion and Fields.

# **COVER PAGE**

Though the Native BIM Submission is mainly based on views, Layouts are still required for submission. The Layout Book contains a COVER PAGE (which contains all the required project information), and some Sample layouts if needed.

1 Open the **COVER PAGE** layout from the Layout Book.

× +	

- 2 Fill the necessary project information using **Project Info**, access dialog from the context menu of the Layout Book or go to **File/Info**.
- 3 Use the revisions according to the project status to make use of the **Revision History Object** or remove the object on the **A1 LANDSCAPE** master layout and use the free space for your convenience.

Find more information about **Revision Management** on the Archicad 28 Help here: https://help.graphisoft.com/AC/28/INT/index.htm?#t=\_AC28\_Help%2F070\_Docu mentation%2F070\_Documentation-97.htm 4 Make sure that the **View List**, **Schedule List** and **Drawing List** are clearly visible. If necessary, change the cell sizes of the schedules in the **View Map/COVER PAGE** folder. If line breaks occur at wrong positions, modify the drawings using the **Restructure Table** command of the Pet palette. Click the bottom corners to activate it.



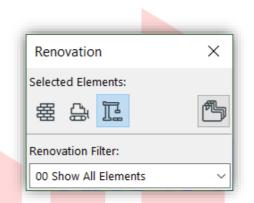
- 5 Fill the **Custom Fields** in the title block (remove the highlight boxes first) as needed.
- 6 Replace the Endorsements on the Master Layouts. Go back to the **Project Map/Worksheets/1 ENDORSEMENTS** and look for the necessary textbox. Copy and paste it to the **COVER PAGE** master layout.



# **A&A WORKS (RENOVATION)**

By default, all elements are defined as *New*. Renovation Filter colors are based on the CP83 color coding.

Use the Renovation palette (find in menu **Window/Palettes/Renovation**) to change the default renovation status of elements or change the current renovation status of specific elements, which are selected.



To change all Renovation Statuses of all elements (for example change all *New* elements to *Existing* after finishing a phase) use the **Document/Renovation/Reset Renovation Status...** dialog.

	?	$\times$				
Specify what happens with Elements currently in the project:						
E Keep Status as is		$\sim$				
🗙 Delete		$\sim$				
E Set to Existing		$\sim$				
in ALL Viewpoints!						
Cancel	OK					
	<ul> <li>₭ Keep Status as is</li> <li>★ Delete</li> <li>经 Set to Existing</li> <li>in ALL Viewpoints!</li> </ul>	in the project: 蜜 Keep Status as is Compared to Existing in ALL Viewpoints!				

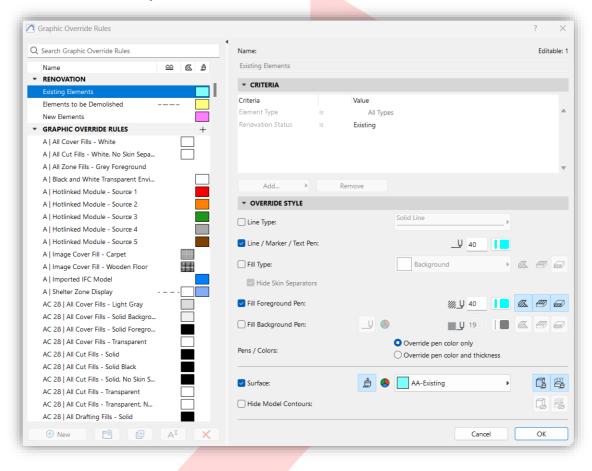
# Find more information about the **Renovation** feature

on the Archicad 28 Help here:

### https://help.graphisoft.com/AC/28/INT/index.htm?#t=\_AC28\_Help%2F050\_Views VB%2F050\_ViewsVB-123.htm

For additional Renovation filtering options:

- 1 Go to Document/Renovation/Renovation Filter Options....
- 2 Under Filter Settings, filtering options can be changed per filter. To edit the graphical appearance of elements with different statuses use the **Graphic Override Rules...** button at the bottom right.
- 3 Select the status at the top left to override to modify the 2D/3D representations under Override Style.



# **COLLISION DETECTION (OPTIONAL)**

Collision detection is optional and can be carried out in between accessibility elements and regular building elements to ensure access and clearances. This is completely voluntarily and will not be checked by the officers, however it can increase the quality of the BIM project.

- 1 Launch the **Design/Model Check/Collision Detection...** dialog.
- 2 **Define the two groups** you wish to check for collisions between. Pre-set Find & Select Criteria Sets can be used for this purpose. Then click **Check**.
- 3 The **Model Check Report** palette will open indicating all found collisions. If there are too many, it may be worth to delete the entries and run the Collision Detection again after adjusting the criteria between each group to fine tune the check.

Model Check Report					$\times$
	5 X			(j)	
Description	Element 1 ID	Element 2 ID	F	Creation Date	
Collision Detection	EXTWALL - 004	Duct-001		11/10/2021 4:40 pm	1
Collision Detection	EXTWALL - 001	Duct-006		11/10/2021 4:40 pm	
Collision Detection	EXTWALL - 002	Duct-002		11/10/2021 4:40 pm	
Collision Detection	EXTWALL - 001	Duct-004		11/10/2021 4:40 pm	
Collision Detection	EXTWALL - 002	Duct-005		11/10/2021 4:40 pm	
Collision Detection	EXTWALL - 001	Duct-005		11/10/2021 4:40 pm	

- 4 Review each entry by double clicking each to select and zoom to the elements in either the Floor Plan or 3D Window.
- 5 If the collision is a valid issue, either the issue should be fixed now or an **Issue** created, which can be managed by the team, by selecting the entry and clicking the icon with the Flag. If the collision is not a valid issue, then the Collision Detection criteria and/or visible Layers may need be adjusted to avoid the issue reappearing next time the Collision Detection is run.
- 6 If Collision entries have been added to the Issue Manager, a Flag icon will appear next to the entry in the report. To review all created Issues, go to Document/Issue Manager. From here, issues can be assigned to Teamwork members and managed.

Find more details on the **Issue Manager** on the Archicad 28 Help here: https://help.graphisoft.com/AC/28/INT/index.htm?#t=\_AC28\_Help%2F082\_IssueHan dling%2F082\_IssueHandling-5.htm

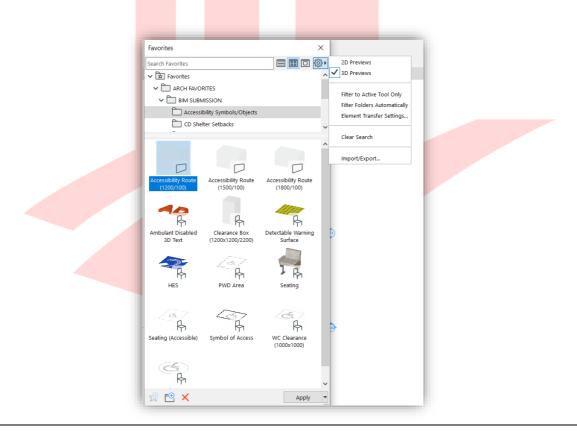
# MERGING THE TEMPLATE INTO AN EXISTING COMPANY TEMPLATE

The current version of the template contains most of the default settings that are shipped with the Archicad INT (International) version and the additional customizations to comply with the Native BIM Submission requirements. These template settings can be migrated into your existing company templates as follows.

## **Favorites**

The template contains many pre-defined favorites. To migrate and transfer these:

- 1 Open the favorites palette from the menu **Window/Palettes/Favorites** from either the company template or submission template.
- 2 Click the **cogwheel button** at the top right and choose **Import/Export...**.



### Find more details on the Favorites Import/Export process

on the Archicad 28 Help here:

https://help.graphisoft.com/AC/28/INT/index.htm?#t=\_AC28\_Help%2F020\_Configur ation%2F020\_Configuration-63.htm

## Attributes

Attributes include data such as Layers, Layer Combinations, Pens and Pen Sets, Lines, Fills, Composites, Complex Profiles, Surfaces and Building Materials.

- 1 Open **Options/Element Attributes/Attribute Manager...** of the **company template file**.
- 2 On the right side of the Attribute Manager you can import attributes from another file, by clicking the **Import** button.

	🕽 🗖 🔍 Search Att	tributes						
2	V ≃ Ø	÷ e	****	I	<b>E</b>		All Changes	
Layer	Combinations		in Proj	ject		Tem	porary	$\rightarrow$ ×
# 100 101		able		^	Duplicate Delete	*	# Name	^
101 102 103	BCA_BIM (no Accessi	bility)			Purge Reindex			
104 105	5 LTA				Append >>			
106 107	5 URA 7 CP83			~	By Index >>			~
Layers	s				By Name >>	Laye	ers	
$\checkmark$	# 1 2	Name Archicad Layer Hidden		^	Include All Associated Layers	#	# 😈 👁 📴 💯 Name	^
	3	- Drafting - General						
	4	- Accessibility Route.B						
	5	- Clearance Boxes.BCA	-					
	7	- SEO - Operator						
	8	- SEO - Operator (hide	den)	~	Save as TXT			~

- 3 After the attributes are added to the Temporary list, select the different types of attributes using the selector tabs on the top of the dialog.
- 4 Select the attributes to import on the right and choose **Append/By Index/By Name** to add them to the current project, the left list.
- 5 Click **OK/Apply**, a dialog will appear indicating number of changes being applied.

Find more information on the **Attribute Manager** on the Archicad 28 Help here: https://help.graphisoft.com/AC/28/INT/index.htm?#t=\_AC28\_Help%2F026\_Attrib uteManager%2F026\_AttributeManager-1.htm

<< Append	7	<b>X</b>	Concret					
<< By Index	8			e	· · · · · · · · · ·	!	510	
	-		Concret	e - Struc	tu		740	,
<< By Name	Associa	ited Attril	outes					
Include All Associated	Ту	/pe	#		Name			
Attributes	🕼 Fi	ll Type	7		Lightweight Cor	ncrete		1
	🕼 Fi	ll Type	8		Grid 50x100			
	ந் Su	urface	5	(	Concrete - 04			

**Note**: Some attributes are connected to other attributes, what is referred to as 'associated attributes', (for example Building Materials are linked to Surfaces and Fills). When transferring, some attributes might get duplicated, if an already existing associated attribute was added via their dedicated attribute panel for example. Check the **Changes** panel, to review all attributes being created before committing to avoid unnecessary attributes being generated.

Attributes in the downloaded templates are arranged with **Index number** sequencing to comply with the one-model concept as well as detailed in the following table (STR and MEP attributes are not appearing in the current template for Architectural BIM submission, but in their respective templates).

	Archicad Defaults/General	ARCHI	STR	МЕР
Layers	1-89	101+ Landscape 201+	301+ Civil 401+	Electrical 501+ Mechanical 601+
Layer Combinations	1-3	101+	301+	501+
Pen Sets	1-5	-	301+	501+
Lines	1-26	-	301+	501+
Fills	1-161	201+	uses ARCHI	uses ARCHI
Composites	1-26	201+	-	-
Profiles	1-42	201+	-	-
Surfaces	1-230	-	-	-
Building Materials	1-60	201+	-	-
Zone Categories	1-12	201+	12	12
MEP Systems	1-6	1-6 (defaults)	1-6 (defaults)	1-33

## **Project Info**

Open the **File/Info/Project Info...** dialog and fill out the relevant information for the project.

To transfer between projects, use the Export and Import buttons

PROJECT DETAILS		
Project Name	-> File/Info/Project Info	
Project Description		
Project ID		
Project Code		
Project Number	#Insert Project Ref. No.	
Project Status		
Keywords		
Notes		
Project Custom		
Accredited Checker	#Insert AC Name	
Surveyor	#Insert Surveyor Name	
Architect's Registration		
Architect's Address		
Mechanical Engineer		
Fire Safety Engineer		
Date of Issue	#Insert Date of Issue	
Template Created by	GRAPHISOFT Singapore, 2022	
Add Remove		-> [

### Views, Layouts and Master Layouts

Views, Layouts (and Layout Subsets) and Master Layouts cannot be exported directly.

However, by using the **Organizer**, and both project files open, you can show the contents of the second Project on the left, and use Drag/Drop to the current project on the right. Copied Drawings and Views will be linked from the second Project - which is a good method for splitting a project between Model and Documentation. Doing the same for Masters, will copy the Master content from one file to the other.

Alternatively, and maybe simpler, **copy** the contents of a Master Layouts from one file, and **paste** to the other file.



The View Map folders are generally using cloned folders. To create cloned content:

1 Use the **Clone a Folder...** button from the View Map.



2 Select the **Project Map folder** you want to clone, and review the ID, Name and General parameters, these will be used to generate the Views, and click **OK**, to automatically create views in the View Map that match the Project Map's content.

Choose Project I		_
_	Info/Project Info	^
Storie	ons	
[nn]		~
ID:	By viewpoint V	
Name:	By viewpoint V -> File/Info/Project Info	
Source:	-> File/Info/Project Info	
GENERAL		
DESIGN OP	TIONS	
2D/3D DOC	UMENTS	
> 3D ONLY		
▶ STRUCTUR	AL ANALYSIS	

3 In the Organizer (under Window/Palettes/Organizer), Drag the content of the cloned folders or the folders themselves from the View Map to the Layout Book. When dragging onto an existing Layouts, this will add those Views onto the Layout; when dragging between Layouts or onto a Subset, this will create a new Layout per View.

### Find more information on **Cloning a folder** on the Archicad 28 Help here: https://help.graphisoft.com/AC/28/INT/index.htm?#t=\_AC28\_Help%2F030\_Interactio n%2F030\_Interaction-7.htm

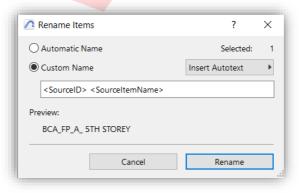
### **Publisher Sets**

Publisher Sets have to be created in the company template file. After the Layout Book subsets are created, use the **Add Shortcut** >>> button in the Organizer to create auto-updated content within the Publisher Sets (same as the Clone function described earlier, notice the additional arrow symbol on the icon in the Publisher Set).

Organizer - Publisher		×
Search View Map	ク 🗊 A   Views (PDF)	Þ
✓ ☐ BCA	Search 'A   Views (PDF)'	
✓ 🛄 вр	🗸 🍋 вса	^
✓ 2D PLANS	∽ 🔁 вР	
FLOOR PLANS (Accessibility)	V 💭 2D PLANS	
BCA_FP_A_ ROOF STOREY	FLOOR PLANS (Accessibility)	
BCA_FP_A_ 10TH STOREY	BCA_FP_A_ ROOF STOREY	
BCA_FP_A_ 9TH STOREY	BCA_FP_A_ 10TH STOREY	
BCA_FP_A_ 8TH STOREY	BCA_FP_A_ 9TH STOREY	
BCA_FP_A_ 7TH STOREY	BCA_FP_A_ 8TH STOREY	
BCA_FP_A_ 6TH STOREY	BCA_FP_A_ 7TH STOREY	
Add Shortcut >>>	BCA_FP_A_ 6TH STOREY	
<ul> <li>View Properties</li> </ul>	BCA_FP_A_ 5TH STOREY	
FLOOR PLANS (Accessibility)	BCA_FP_A_ 4TH STOREY	~
BCA_BIM		
I:100	Properties	
Entire Model	▼ Format	
	* FUTHAL	

The Publisher Set item names can also include Autotexts, such as codes, IDs, revision numbers, etc. Those custom fields that were created under the Layout Info Scheme can also be inserted.

- 1 **Right-click** on any item(s)/folder **and choose Rename Items...**.
- 2 Add Autotexts from the Insert Autotext control, these can be combined with custom text as well.



#### Find more details on Renaming Items in the Publisher

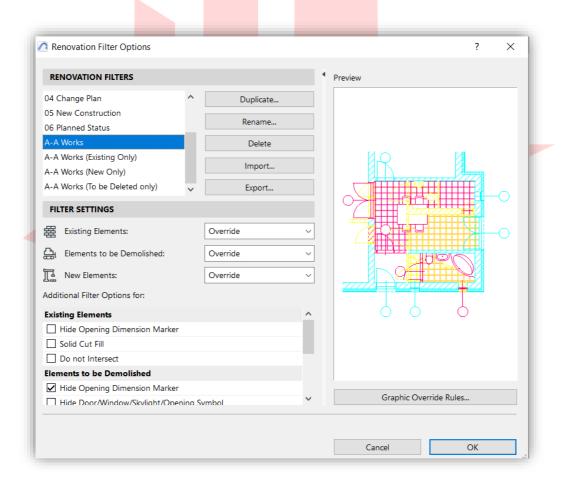
on the Archicad 28 Help here:

https://help.graphisoft.com/AC/28/INT/index.htm?#t=\_AC28\_Help%2F070\_Documentation%2F070\_Documentation-117.htm

### **Renovation Filters**

To transfer Renovation Filters between projects, do the following:

- 1 Open **Document/Renovation/Renovation Filter Options...** from the download template.
- 2 Select the **A-A Works** renovation filter on the left and click **Export...**.



3 From your company template file (or other project), use the **Import...** button in the same dialog, and select the previously Exported Renovation Filter.

Find more details on **Revision Management** in general

on the Archicad 28 Help here:

https://help.graphisoft.com/AC/28/INT/index.htm?#t=\_AC28\_Help%2F070\_Documen tation%2F070\_Documentation-97.htm

### **Model View Options**

To transfer Model View Options between projects, do the following:

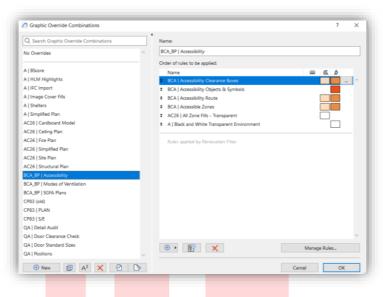
- 1 Open Document/Set Model View/Model View Options....
- 2 Select the **Model View Option** on the left and click the **Export** icon button.

Q Search Model View Combinations	A Name:	Editable
A   Simplified 3D	SUBMISSION	
AC26   01 Site	CONSTRUCTION ELEMENT OPTIONS	
AC26   02 Drafting	CURTAIN WALL OPTIONS	
AC26   03 Building Plans		
AC26   04 Ceiling Plans	STAIR OPTIONS	
AC26   Default	RAILING OPTIONS	
UBMISSION	DETAIL LEVEL OF STAIR AND RAILING SYMBOLS (ARCHICAD LIBRARY 27)	
UBMISSION (no Accessibility)	DETAIL LEVEL OF DOOR, WINDOW AND SKYLIGHT SYMBOLS (ARCHICAD LIBRARY 27)	
	MISCELLANEOUS SETTINGS FOR LIBRARY PARTS (ARCHICAD LIBRARY 27)	
	ZONE STAMP 03 CONTENT (GSSG)	
	ZONE STAMP 04 CONTENT (GSSG)	
	ZONE STAMP CONTENT (GSSG)	
	×	

3 From your company template file (or other project), use the **Import** icon button in the same dialog, and select the previously Exported Model View Option.

### **Graphic Override Combinations**

- 1 Open Document/Graphic Overrides/Graphic Override Combinations....
- 2 Select the **Graphic Override Combination** on the left and click the **Export** icon button.



3 From your company template file (or other project), use the **Import** icon button in the same dialog, and select the previously Exported Graphic Override Combination.

**Note**: Graphic Override Rules cannot be exported/imported individually but will transfer with the Combination.

Find more information about **Graphic Overrides** on the Archicad 28 Help here: https://help.graphisoft.com/AC/28/INT/index.htm?#t=\_AC28\_Help%2F050\_ViewsVB %2F050\_ViewsVB-137.htm

## **Submission Requirements**

**CORENET 2.0 Requirements** 

Saving the files requires a specific naming format to define the following.

1 Make sure that the **COVER PAGE layout is opened** and **moved to the beginning** of the Tab Bar, followed by the Floor Plan of the project (which must be open to keep the file open in Archicad). This COVER PAGE has to be the first one that officers see when they open the file. All other tabs are to be closed.

[COVER PAGE]	BCA_FP_A_ 1st STOREY [0. 1st STOREY]

- 2 Use **File/Save as...** menu command and save you file in one of the different formats.
- BIM native file format and software version in a single file:

Archicad **.PLA**, version **28**, indicated in the file name, for example:

ABCDEF\_A1\_BLK01\_A\_**A28**\_123456.pla

**Note**: PLA files include all library elements used in a project and make the file management easier for the submission, therefore it is highly recommended to use this format.

File naming conventions – as per the **BCA General Requirements**, indicating maximum number of characters per part:

	Proj	ect l (6)	D		_		Autrior (2)	_		M	ode ((	el Pa 5)	art		_	Submission Version (1)	_		ftwa ersio (3)		_		Use	er D (6	efir 5)	ned	
A	BC	D	Ε	F	_	А	1	_	В	L	К	0	0	1	_	А	-	A	2	8	_	1	2	3	4	5	6

Before submitting the file make sure all necessary views are set correctly and show the relevant information.

## **Final Check**

Before submitting the file, make sure all necessary views are set correctly and show the relevant information. Check the highlights using the **Graphic Override Combination** options **BCA\_BP | Accessibility** and/or **BCA\_BP | Modes of Ventilation**.

Make sure that all external references (2D drawings) are stored within the project file, to ensure that the checking officers will see the same content as the QP.

- 1 Select the linked drawings (this can be done through the **Drawing Manager**) and open their settings.
- 2 Check the **Store Drawing in the Project file** checkbox for each drawing.

公•		Selected: 1 Editable: 1	
	TION		
Drawing ID:	By View ID	✓ BCA_FP_A_	
	Include Drawing in ID see	juence	
Drawing Name:	By View: Name only	✓ 1ST STOREY	
Source File:	▶ Internal		
Archicad view:	\-> File/Info/Project Info\BC	A\BP\2DAccessibility)\BCA_FP_A_ 1ST STOREY	
Update Type:	Auto	Last updated: 20/11/2022 6:49 pm	
	OManual	Update Status: OK	
Store Drawing in the	he Project file		

### **File Formats**

Based on the BIM e-Submission General Requirements (v1.1, 2017), the deliverables must be submitted in the following formats. Before submission, always check the requirements as they may change from what are outlined in this document.

- URA and BCA:
  - Native file format: .PLA
  - Lightweight file format: .PDF and/or .BIMX
  - SCDF, NEA, PUB, NParks, LTA, HDB, JTC:
    - Lightweight files format: .PDF and/or .BIMX

All drawing views (plans, elevations, sections, layout views or sheets) must be compiled into a single file with the 3D model.

### **CORENETX** Requirements

As per the CORENETX Requirements, submission is to be done in **IFC4 format**.

- Go to 3D View and then make sure all the elements are visible in the 3D view before exporting.
- Go to the menu File/Save As and then select IFC Files Save as type.

Save in	n: Documents		🧹 🧿 🤌 🔛 🔻		
Home	Name	^ No items	Date modified match your search.	Туре	Size
Desktop					
Libraries					
	_				
Libraries	Export:	Visible elements (on all stories)		~	Filter
	Export: Translator:	Visible elements (on all stories)		~	Filter Options

• Use the **IFC-SG Export Translator** in this template to export the IFC file for submission.

Name       Description:         * Translators for Import       +         * Translators for Import       +         AECCoins Building Designer Import       Export based on the IFCA Reference View. This MVD allows you to share pracise geome (BREP), esport based control with straslator only if are certain that the recipient software supports IFCA and this MVD.         DDScad MEP Import       -         Exact Geometry Import       -         General Import       -         Modeling Applications Import       -         Revit MEP Import       -         Revit MEP Import       -         Structure Import       -         Sta Engineer Import       -         Structural Analysis Model Import       -         Timble nows Import       -         Structural Analysis Model Import       -         Tanslators for Export       +         ALPCosin Building Designer Export       -         Alpian Engineering Export       -         BibMYou Export       -         DDScad MEP Export       -         DDScad MEP Export       -         IFC-4 See IBP geometry       -         IFC-4 See IBP geometry       -         IFC-5G IFC4 Properties       -         IFC-5G IFC4 Properties       -	All IFC Schema	~	Name of Translator for Export:		
Translever   * Tanslever   * ACOsim Building Designer Import   DDScad MEP Import   Exct Geometry Import   * Tanslever   Modeling Applications Import   Modeling Applications Import   Revit MEP Import   Revit MEP Import   Revit MEP Import   Tanslever   Revit MEP Import   Revit MEP Import   Tanslever   * Tanslever   Model Import   Model Import   Revit MEP Import   Revit MEP Import   Tanslever   Model Import   Revit MEP Import   Revit MEP Export   IFC4 Beference View-based Export   IFC4 So BREP geometry   Property Mapping:   IfC5 So   IfVO (SD) Export   IFC4 Reference View-based Export   IFC4 Reference View-based Export   IFC4 Reference View-based Export   IFC5 So REP geometry   IfVO (SD) Export   IFC4 So BREP geometry   Revit Structure Export   IFC4 So BREP geometry   IFC4 So BREP geometry   IFC5 So BREP geometry   I	Q. Search IFC Translators		IFC-SG		
AECOsim Building Designer Import         AIplan Engineering Import         DDScad MEP Import         Exact Geometry Engort         Revit MP Import         Revit MP Import         General Import         Revit MP Import         Revit Structure Import         Sta Engineer Import         AECOsim Building Designer Export         AIRD Revit MP Import         Revit Structure Import         State Engineer Import         Trimble nova Import         Trimble nova Import         AECOsim Building Designer Export         AIlplan Engineering Export         AIlplan Engineering Export         BIMAYOL Export         Exact Geometry Export         Exact Geometry Export         IFC4 Reference View-based Export         IFC4 Reference View-based Export         IFC4 Reference View-based Export         IFC4 Reference View-based Export         IFC4 So BREP geometry         IFC4 Reference View-based Export      <	Name		Description:		
ALCCOM       are certain that the recipient software supports IFC4 and this MVD.         Alplan Engineering Import       are certain that the recipient software supports IFC4 and this MVD.         DDScad MEP Import       FSETTINGS         General Import       IFC4         Modeling Applications Import       IFC4         Revit MEP Import       Model View Definition:         Revit MEP Import       Model View Definition:         Revit MEP Import       Model View Definition:         Structurel Inport       Model View Definition:         Structure Import       Model Filter:         Transletors for Export       +         Allplan Engineering Export       Model Filter:         Tomble nova Import       -         BitM4You Export       -         BitM4You Export       -         BitM4You Export       -         Conversion       -         Conversion       -         Conversion:       -         Exact Geometry Export       -         IFC-SG MEP geometry       -         Geometry Export       -         IFC-SG In Conversion:       -         IFC-SG Type Mapping:       -         IFC-SG REP geometry       -         IFC-SG In CA Properties	<ul> <li>Translators for Import</li> </ul>	+ ^			
Allplan Engineering Import   DScad MEP Import   General Import   Modeling Applications Import   Revit MEP Export   Allplan Engineering Export   Allplan Engineering Export   DScad MEP Export   Exact Geometry Export   IFC4 Server-Severe Export   IFC4 Server-Severe Export   IFC4 Server-Severe Export   IFC4 Server-Severe Export   IFC4 Secrement and Component data   IFC4 Secrement Export   IFC4 Secrem	AECOsim Building Designer Import				anslator only if ye
Exact Geometry Import       FC4         General Import       IFC4         Modeling Applications Import       IFC4         Revit MSP Import       Model View Definition:         Revit MSP Import       Reference View         Scia Engineer Import       Model Import         Transfors for Export       +         ACCosine Building Designer Export       +         Allplan Engineering Export       +         Allplan Engineering Export       +         Allplan Engineering Export       +         FC4 Geometry Export       +         IFC4 Segner View-based Export       +         IFC4 Segner Export       +         FC5 Segner View-based Export       +         IFC4 Segner Export       +         I	Allplan Engineering Import		are certain that the recipient se	oftware supports IFC4 and this MVD.	
General Import Modeling Applications Import Revit McLure Import Revit McLure Import Sda Engineer Import Sda Engineer Import Timble nova Import Conversion Tige Mapping: IFC-SG BREP geometry Froeptry Import IFC-SG IPC4 Properties TifC-SG IPC4 Internet Nodel Revit MEP Export Tekia Structure Export Tifkia Structure Export Tifki	DDScad MEP Import				
General Import       IFC 3 chema:       IFC 4         Modeling Applications Import       IFC 3 chema:       IFC 4         Revit MEP Import       Model View Definition:       Reference View         Revit MEP Export       Model View Definition:       Reference View         State Engineer Import       Model Import       Import         Transfors for Export       +         Allplan Engineering Export       +         Allplan Engineering Export       +         DSSad MEP Export       IFC-SG Type Mapping         CostX Export       Geometry Conversion:         IFC4 Segner Logort       IFC-SG BREP geometry         IFC4 Segner Export       IFC-SG IPC Properties         IFC4 Segner Export       IFC-SG IPC Properties         IFC4 Segner Export       IFC-SG IPC Properties         IFC4 Segner Export       IFC-SG IPC A Properties         IFC4 Segner Export       IFC-SG IPC A Properties         IFC4 Segner Export       IFC-SG IPC A Properties         IFC-SG IPC A Properties       IFC-SG IPC A Properties         Revit MEP Export       IFC-SG IPC A Properties         Revit MEP Export       IFC-SG IPC A Properties         Revit Structure Export       IFC-SG IPC A Properties         Revit MEP Export       IFC-SG IPC A Properties<	Exact Geometry Import				
Revit MP Import       Model View Definition:       Reference View         Revit MP Import       Model View Definition:       Reference View         Scia Engineer Import       Model View Definition:       Reference View         Structural Analysis Model Import       Conversion Presets:       Model Filter:         Transfors for Export       +       HFC-SG Model Filter       Model Filter:         Allplan Engineering Export       +       HFC-SG Model Filter       Type Mapping:         DScad MP Export       -       IFC-SG Type Mapping       Geometry Conversion:         Exct Geometry Export       -       IFC-SG BREP geometry       -         IFC4 Design Transfer View-based Export       -       IFC-SG IRC4 Properties       -         IFC4 Design Torsfer View-based Export       -       IFC-SG IRC4 Properties       -         IFC4 Design Torsfer View-based Export       -       IFC-SG IRC4 Properties       -         IFC4 Design Torsfer View-based Export       -       -       -       -         IFC4 Design Torsfer View-based Export       -       -       -       -       -         IFC4 Design Torsfer View-based Export       -       -       -       -       -       -       -       -       -       -       -       -       <	General Import		▼ SETTINGS		
Revit Structure Import     Model View Definition:     Reference View       Scia Engineer Import     Model View Definition:     Reference View       Structural Analysis Model Import     Conversion Presets:       Trimble nova Import     Model Filter:       Trimble nova Import     IfC-SG Model Filter       Allplan Engineering Export     IfC-SG Model Filter       Allplan Engineering Export     IfC-SG Model Filter       OSsta KEP Export     IfC-SG BREP geometry       Exact Geometry Export     IfC-SG BREP geometry       IFC4 Reference View-based Export     IfC-SG BREP geometry       IFC4 Reference View-based Export     IfC-SG IFC4 Properties       IfWO (SD) Export     IfC-SG Element and Component data       Revit KDP Export     Unit Conversion:       Revit KDP Export     Model View Definition:       Revit Structure Export     IfC-SG Element and Component data       Revit KDP Export     Metric (mm) (deg) (SGD)	Modeling Applications Import		IFC Schema:	IFC4	~
Revit Structure Import         Scia Engineer Import         Scia Engineer Export         Trimble nova Import         AECosim Building Designer Export         Allplan Engineering Export         Allplan Engineering Export         DDScad MEP Export         DDScad MEP Export         IFC4 Design Transfer View-based Export         IFC4 Desererce Model         Revit KD	Revit MEP Import		Medel View Definition	Peferonce View	~
Sub digititie import         Tekla Structuria Analysis Model Import         Tekla Structures Import         Timble nova Import         Tekla Structuria Analysis Model Import         Tekla Structures Import         Timble nova Import         Texturiation Stro Export         Alplan Engineering Export         BIM4You Export         Costic Export         DDScad MEP Export         DDScad MEP Export         Exact Geometry Export         IFC4 Beference View-based Export         IFC4 Reference View-based Export         IFC4 Soft for Reference Model         Revit Export         Revit Structure Export         Revit Structure Export         Revit Structure Export         TickAse         Unit Conversion:         IFC-SG IBC2 Geomet Export         Revit Structure Export         Revit Structure Export         Tekla Structures Export         Tekla Structures Export	Revit Structure Import		Model view Definition:	Reference view	Ť
Tekka Structures Import       Conversion Presets:         Trimble nova Import       Model Filter:         AECosim Building Designer Export       IFC-SG Model Filter         Allplan Engineering Export       IFC-SG Model Filter         Allplan Engineering Export       IFC-SG Type Mapping:         DDScad MPE Export       IFC-SG Type Mapping         CostX Export       Geometry Export         DDScad MPE Export       IFC-SG BREP geometry         Field Sogn Transfer View-based Export       IFC-SG BREP geometry         IFC4 Design Transfer View-based Export       IFC-SG IFC4 Properties         ITWO (SD) Export       IFC-SG IFC4 Properties         Revit Export       IFC-SG Element and Component data         Revit Structure Export       Unit Conversion:         Revit Structure Export       Metric (mm) (deg) (SGD)	Scia Engineer Import		Name of Custom MVD:		
Instantations on import         * Trainations for Export         AECOsim Building Designer Export         Alplan Engineering Export         BilM4You Export         DDScad MEP Export         DDScad MEP Export         EXACL Geometry Export         IFC4 Design Transfer View-based Export         IFC4 Reference View-based Export         IFC4 Reference View-based Export         IFC4 SG FIC4 Reference View-based Export         IFWO (SD) Export         Revit Export for Reference Model         Revit Export         Revit Export         Revit Export         TitWD (SD) Export         Revit Export for Reference Model         Revit Export         Revit MEP Export         Revit Export         Revit Export         Revit Export <td>Structural Analysis Model Import</td> <td></td> <td></td> <td></td> <td></td>	Structural Analysis Model Import				
Translators for Export     Allplan Engineering Export     Allplan Engineering Export     Allplan Engineering Export     CostX Export	Tekla Structures Import		Conversion Presets:		
Translators for Export     AECOsim Building Designer Export     AECOsim Building Designer Export     Alplan Engineering Export     BM4You Export     DOScad MEP Export     Exact Geometry Export     IFC- SG BREP geometry     Froerly Mapping:     IFC-SG IFC4 Properties     Data Conversion:     IFC-SG Element and Component data     Unit Conversion:     Metric (mm) (deg) (SGD)	Trimble nova Import				
AE-Cosim Building Designer Export     Type Mapping::       Allplan Engineering Export     FC-SG Type Mapping:       BIM4You Export     FC-SG Type Mapping:       CostX Export     Geometry Conversion:       Exact Geometry Export     FC-SG BREP geometry       General Parametric Export     IFC-SG BREP geometry       IFC4 Reference View-based Export     IFC-SG IFC4 Properties       ITWO (SD) Export     IFC-SG IFC4 Properties       Revit Export for Reference Model     IFC-SG Element and Component data       Revit Structure Export     Unit Conversion:       Revit Structure Export     Metric (mm) (deg) (SGD)	<ul> <li>Translators for Export</li> </ul>	+			
Allplan Engineering Export     Type Mapping:       BIM/You Export     IFC-SG Type Mapping       CostX Export     Geometry Conversion:       DDScad MEP Export     Geometry Conversion:       Exact Geometry Export     IFC-SG BREP geometry       FIC4 Design Transfer View-based Export     IFC-SG BREP geometry       IFC4 Design Transfer View-based Export     IFC-SG IFC4 Properties       IFC4 Reference View-based Export     IFC-SG IFC4 Properties       IFC0 Design Torsfer View-based Export     IFC-SG IFC4 Properties       IFC-SG IFC4 Properties     Data Conversion:       IFC-SG IFC4 Properties     Unit Conversion:	AECOsim Building Designer Export		IFC-SG Model Filter		~
BIMAYou Export     IfC-SG Type Mapping       CostX Export     Geometry Conversion:       DScad MEP Export     IFC-SG BREP geometry       Exact Geometry Export     IFC-SG BREP geometry       Exact Geometry Conversion:     IFC-SG BREP geometry       IFC4 Reference View-based Export     IFC-SG IFC4 Properties       IFC0 Reference View-based Export     IFC-SG IFC4 Properties       IFC0 Reference View-based Export     IFC-SG IFC4 Properties       IFWO (SD) Export     IFC-SG Element and Component data       Revit IStructure Export     Unit Conversion:       Revit Structure Export     Metric (mm) (deg) (SGD)			Type Mapping:		
Cost Export     Geometry Export       DDScad MEP Export     Geometry Conversion:       Exact Geometry Export     IFC-SG BREP geometry       General Parametric Export     IFC-SG BREP geometry       IFC4 Design Transfer View-based Export     IFC-SG BREP geometry       IFC4 Design Transfer View-based Export     IFC-SG IFC4 Properties       IFC4 Design Transfer View-based Export     IFC-SG IFC4 Properties       IFC4 Design Transfer View-based Export     IFC-SG IFC4 Properties       IFC4 Design Transfer View-based Export     Data Conversion:       IFC-SG IFC4 Properties     Data Conversion:       IFC-SG IFC4 Properties     Unit Conversion:       Revit Export     Unit Conversion:       Revit Structure Export     Metric (mm) (deg) (SGD)	BIM4You Export				
Exact Geometry Export     IFC-SG BREP geometry       General Parametric Export     Property Mapping:       IFC4 Reference Wav-based Export     IFC-SG IFC4 Properties       ITWO (SD) Export     IFC-SG IFC4 Properties       Revit Export for Reference Model     IFC-SG IFC4 Properties       Revit Structure Export     IFC-SG Element and Component data       Scia Engineer Export     Unit Conversion:       Tekla Structure Export     Metric (mm) (deg) (SGD)	CostX Export		IFC-SG Type Mapping		~
General Parametric Export     FC4 Design Transfer View-based Export       IFC4 Design Transfer View-based Export     IFC-SG IFC4 Properties       IFC4 Reference View-based Export     IFC-SG IFC4 Properties       IFC4 Reference View-based Export     IFC-SG IFC4 Properties       IFC5G     Data Conversion:       IFWO (5D) Export     IFC-SG IFC4 Properties       Revit Export for Reference Model     IFC-SG IFC4 Properties       Revit KIP Export     Unit Conversion:       Revit Structure Export     Metric (mm) (deg) (SGD)	DDScad MEP Export		Geometry Conversion:		
General Parametric Export     Property Mapping:       IFC4 Design Transfer View-based Export     IFC-SG IFC4 Properties       IFC4 Reference View-based Export     IFC-SG IFC4 Properties       IFC50     Data Conversion:       ITWO (SD) Export     IFC-SG IFC4 Properties       IFWO (SD) Export     IFC-SG IFC4 Properties       Revit Export for Reference Model     IFC-SG IFC4 Properties       Revit Ktructure Export     Unit Conversion:       Revit Structure Export     Metric (mm) (deg) (SGD)	Exact Geometry Export		IEC-SG BREP geometry		~
IFC4 begin name based Export     IFC-SG IFC4 Properties       IFC4 Reference View-based Export     IFC-SG IFC4 Properties       ITWO (SD) Export     IFC-SG IFC4 Properties       ITWO (SD) Export     IFC-SG IFC4 Properties       ITWO (SD) Export     IFC-SG IFC4 Properties       Revit Export for Reference Model     IFC-SG IFC4 Properties       Revit Structure Export     Unit Conversion:       Revit Structure Export     Metric (mm) (deg) (SGD)	General Parametric Export		ne bo biter geometry		
/ IFC-SG       iTWO (SD) Export       Revit Export for Reference Model       Revit Structure Export       Revit Structure Export       Scia Engineer Export       Tekla Structures Export	IFC4 Design Transfer View-based Export		Property Mapping:		
ITWO (SD) Export     Data Conversion:       Revit Export for Reference Model     IFC-SG Element and Component data       Revit MEP Export     Unit Conversion:       Revit Structure Export     Metric (mm) (deg) (SGD)       Scia Engineer Export     Metric (mm) (deg) (SGD)	IFC4 Reference View-based Export		IFC-SG IFC4 Properties		~
ITWO (SD) Export     IFC-SG Element and Component data       Revit Export for Reference Model     Unit Conversion:       Revit Structure Export     Metric (mm) (deg) (SGD)       Scia Engineer Export     Metric (mm) (deg) (SGD)	↓ IFC-SG				
Revit Suport for Keiterinee Model     Unit Conversion:       Revit MLP Export     Unit Conversion:       Revit Structure Export     Metric (mm) (deg) (SGD)       Scia Engineer Export     Metric (mm) (deg) (SGD)	iTWO (5D) Export		Data Conversion:		
Revit Structure Export Scia Engineer Export Tekla Structures Export	Revit Export for Reference Model		IFC-SG Element and Com	nponent data	~
Revit Structure Export     Metric (mm) (deg) (SGD)       Scia Engineer Export       Tekla Structures Export	Revit MEP Export		Unit Conversion:		
Scia Engineer Export Tekla Structures Export					
Tekla Structures Export			Metric (mm) (deg) (SGD)		~
Trimble nova Export	Trimble nova Export				

Find more information on **Getting Started with IFC-SG**, **Submission Workflows** and **Archicad IFC-SG Tool Kit** at:

https://graphisoft.com/sg/solutions/corenet-x-and-ifc-sg

Find more details on **CORENETX Requirements** at BCA Website here: https://www1.bca.gov.sg/regulatory-info/building-control/corenet-x

**Note**: The projects stakeholders are responsible for coordinating their models with the other disciplines before submission. Archicad could be used as a coordination tool for openBIM formats using the following features:

Use **Collision Detection** function to identify collisions among 3D elements in the model: https://help.graphisoft.com/AC/28/INT/#t=\_AC28\_Help%2F080\_Collaboration%2F08 0\_Collaboration-65.htm

Use **Model Compare** to easily compare and visualize changes between two models: https://help.graphisoft.com/AC/28/INT/#t=\_AC28\_Help%2F081\_ModelCompare%2F0 81\_ModelCompare-1.htm

Archicad's **Issue Management** workflow supports an extensive collaborative workflow: https://help.graphisoft.com/AC/28/INT/#t=\_AC28\_Help%2F082\_IssueHandling%2F08 2\_IssueHandling-1.htm

# ACKNOWLEDGEMENT

Revision of the current template and guide done by GRAPHISOFT Singapore, with the help and input from our users.

### For any queries please contact:

#### **GRAPHISOFT Singapore**

152 Beach Road #10-05 Gateway East Singapore 189722

support.sg@graphisoft.com