



Lands Department

GBP BIM Checking Tool for Revit User Manual

for

**PROVISION OF SERVICES FOR THE IMPLEMENTATION OF TOOLS FOR FACILITATING
AUTOMATED CHECKING PROCESS ON ELECTRONIC BUILDING PLANS TO THE LANDS
DEPARTMENT AND BUILDINGS DEPARTMENT**

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1 Introduction

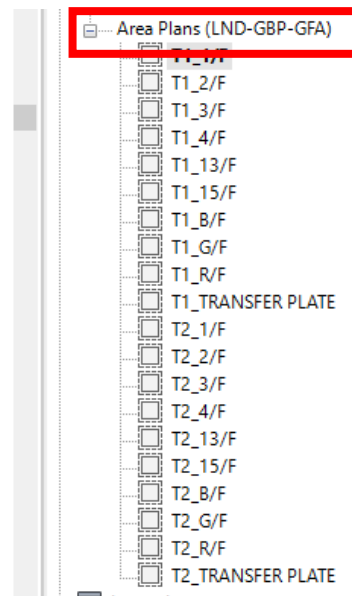
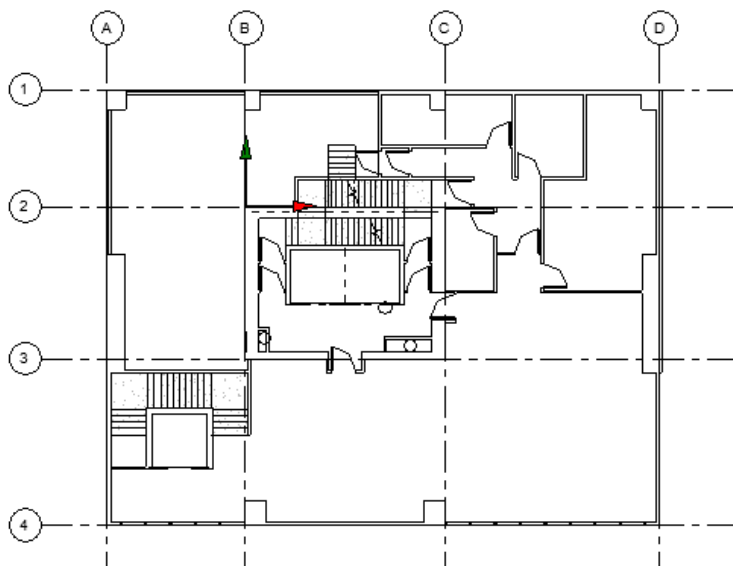
Lands Department provides the following two tools:

- i) Area Checking Tool – for generation of Lands Department General Building Plan Area Checking Report; and
- ii) Auto Coloring Tool – for automatic generation of area plans according to Lands Department requirements.

This manual will illustrate procedures to use the tools.

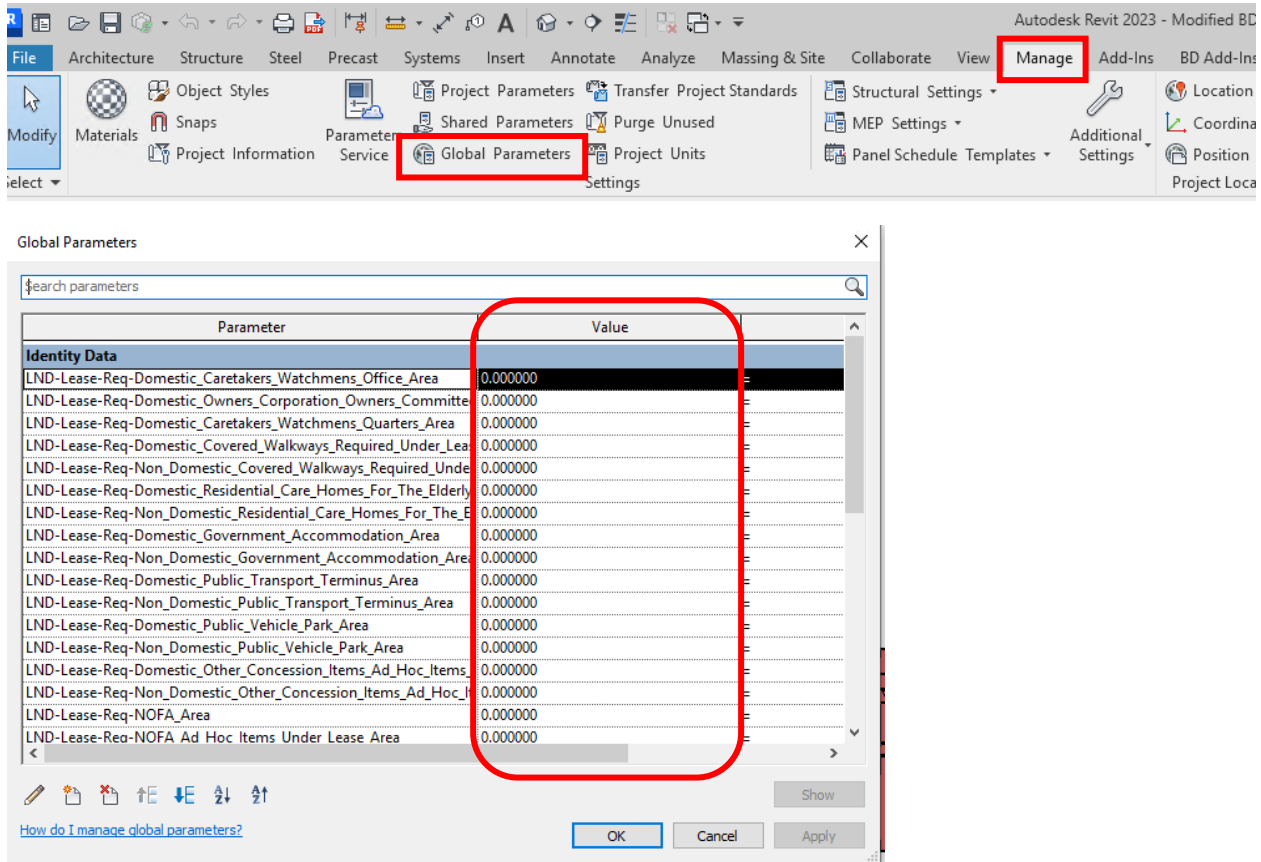
2 Prepare Revit File

- 2.1 Start a new project by using the provided template file “BD_LD_GBP_Template.rvt”, or refer to Section 8 to transfer relevant standards to your existing project. Create areas on area plans with “LND-GBP-GFA” template.

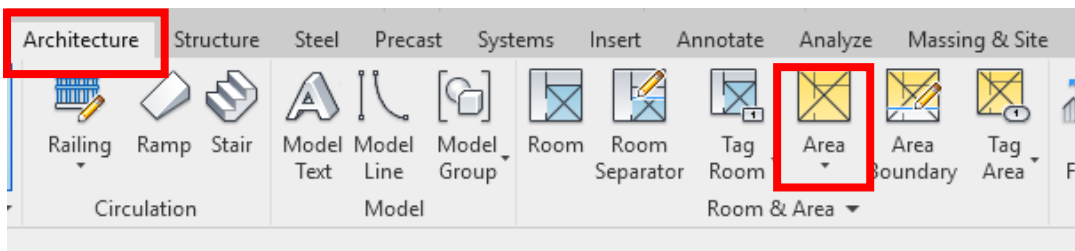


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2.2 Click “Manage” tag in ribbons and “Global parameters” under the tag. Provide areas under land lease requirements in the value of parameters starting with “LND-Lease-Req”.

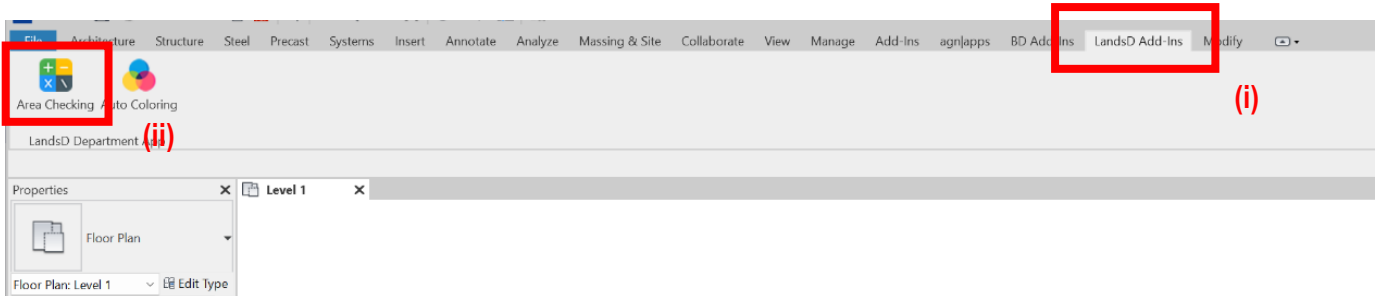


2.3 Define each area using “Area” in “Room& Area” under “Architecture” tag



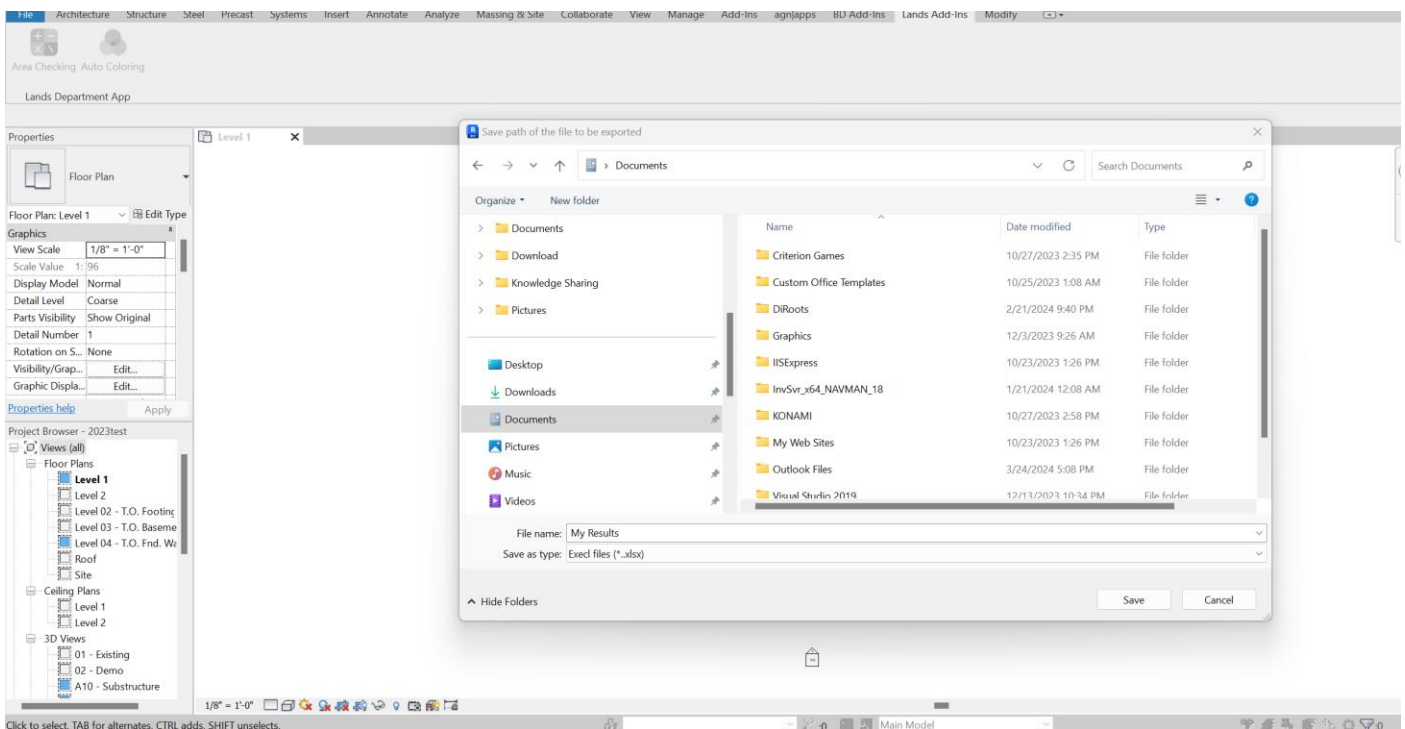
3 Area Checking Tool

- i) Click "LandsD Add-Ins" tab
- ii) Click "Area Checking"



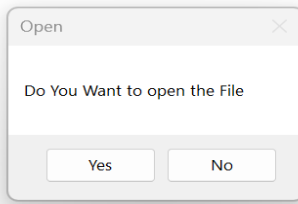
4 Area Checking Excel Result

After clicking the "Area Checking" button, a dialog window will appear for you to select a path to save the area calculation results. Once the location and file name are selected, click "Save" button to export the area calculation results as an Excel file.

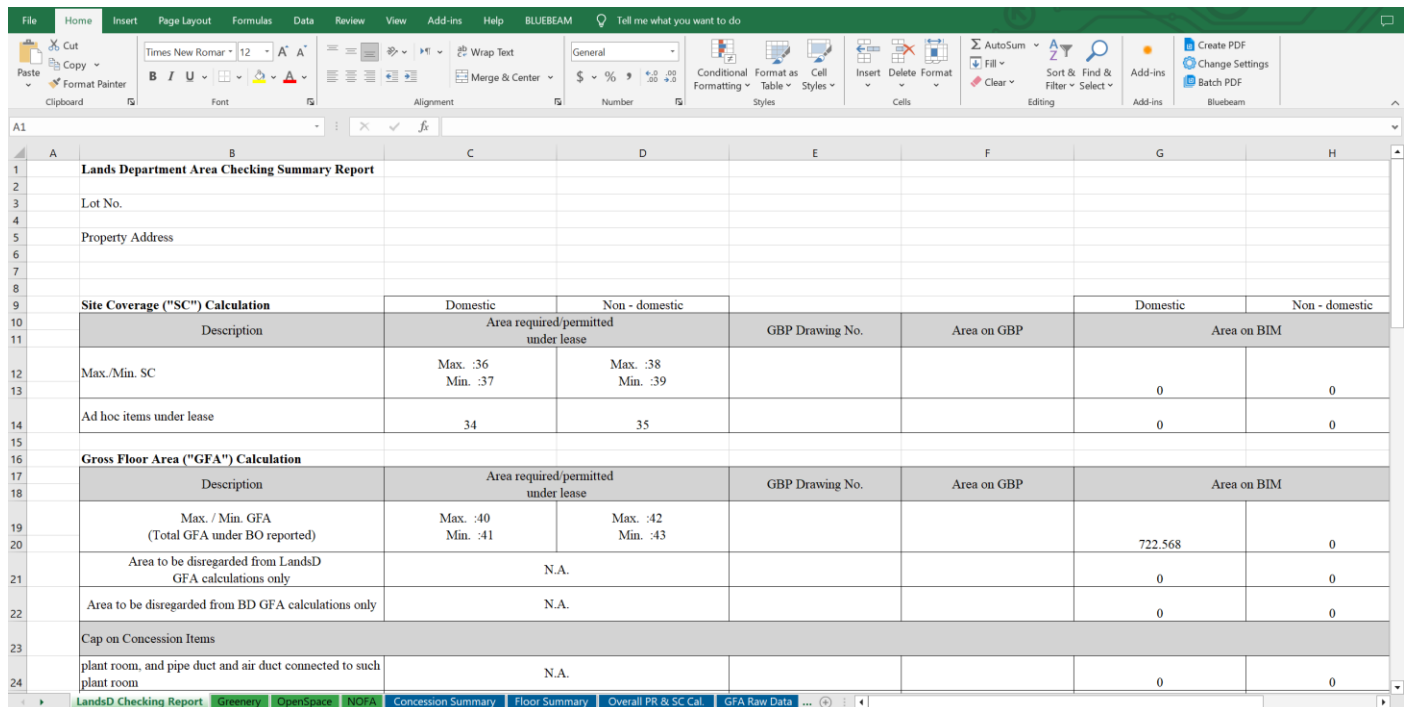


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Click "Yes" in the YES|NO Dialog window to open the excel results.



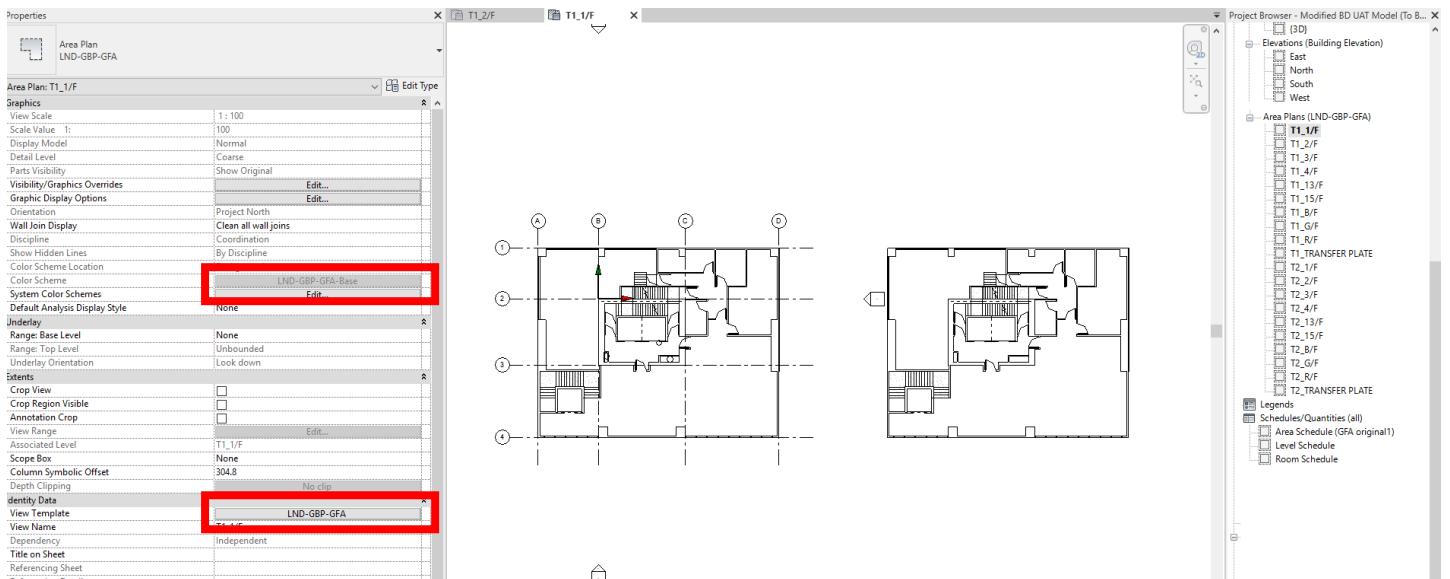
The result will be shown in Excel.



Lands Department Area Checking Summary Report							
Site Coverage ("SC") Calculation							
	Domestic	Non - domestic			Domestic	Non - domestic	
Description	Area required/permited under lease		GBP Drawing No.	Area on GBP	Area on BIM		
Max./Min. SC	Max. :36 Min. :37	Max. :38 Min. :39			0	0	
Ad hoc items under lease	34	35			0	0	
Gross Floor Area ("GFA") Calculation							
Description	Area required/permited under lease		GBP Drawing No.	Area on GBP	Area on BIM		
Max. / Min. GFA (Total GFA under BO reported)	Max. :40 Min. :41	Max. :42 Min. :43			722.568	0	
Area to be disregarded from LandsD GFA calculations only	N.A.				0	0	
Area to be disregarded from BD GFA calculations only	N.A.				0	0	
Cap on Concession Items							
plant room, and pipe duct and air duct connected to such plant room	N.A.				0	0	

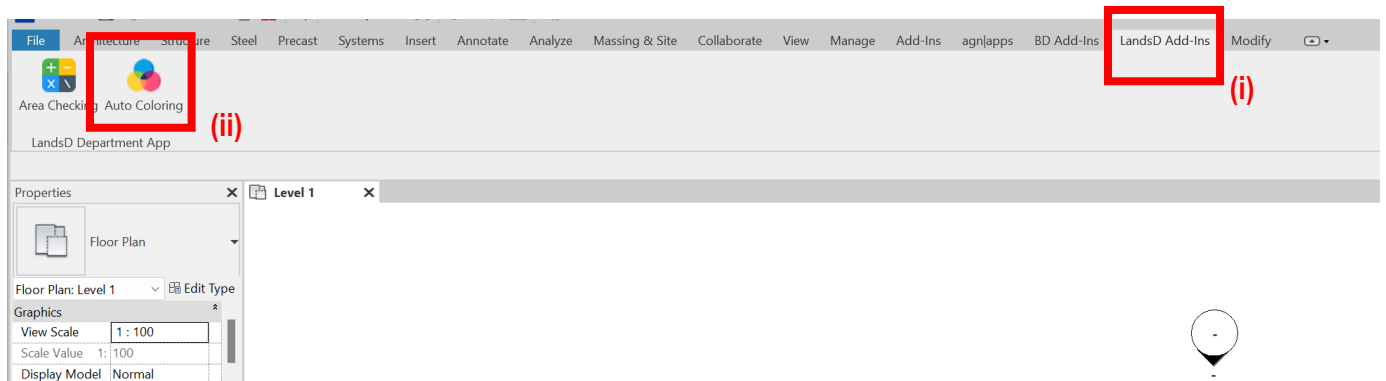
5 Auto Coloring Tool – Apply LandsD View Template

Apply View Template “LND-GBP-GFA” to relevant area plans and choose colour scheme “LND-GBP-GFA-Base”.



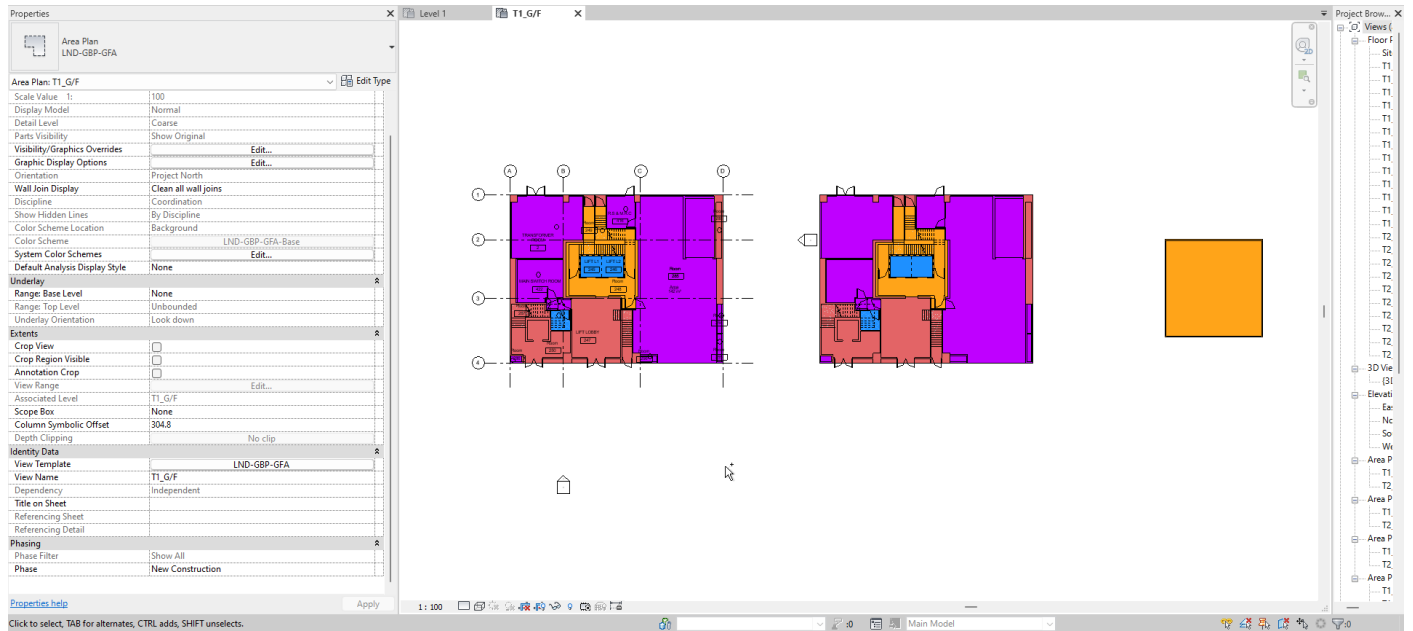
6 Run Auto Coloring Tool

- i) Click “LandsD Add-Ins” tab
- ii) Click “Auto Coloring”



7 Result of Auto Coloring Tool

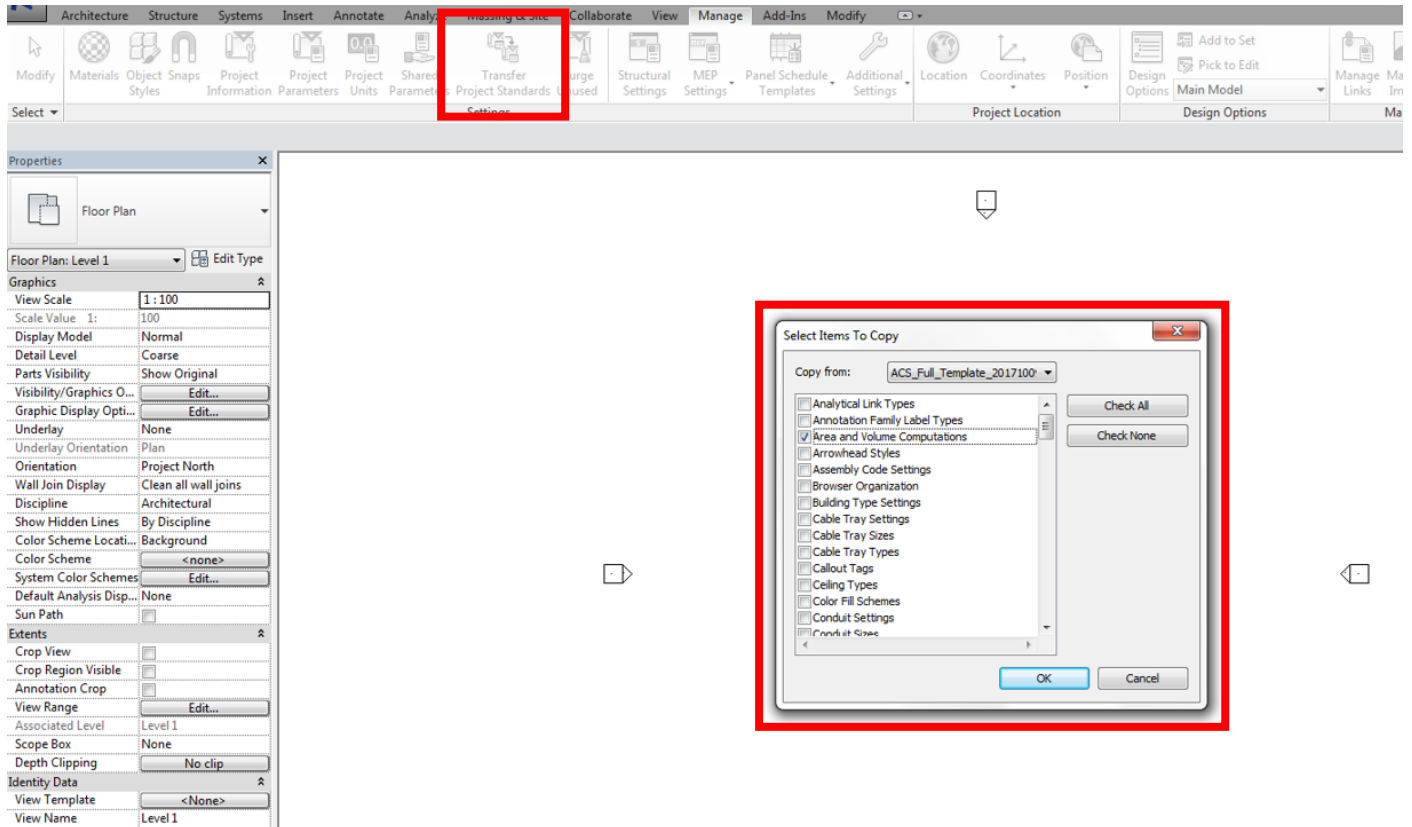
Color will be filled in automatically.



8 Transfer Template Settings (for existing projects only)

In order to transfer the template settings to your existing project, you may follow procedures below:

- 1) Open your active file with area information.
- 2) Open the template file.
- 3) Click “Manage” and “Transfer Project Standard”, then select the template file in the “Copy from” and check “Area and volume computations”, “Color Fill Scheme”, “Global Parameter”, “Project Parameters” & “View Template”.



A Appendix – List of Area Information and Parameter Naming

Calculations	Area Information	Related Parameter Name 1	Related Parameter Name 2	Remarks
Non-Domestic SC calculations	Site Coverage Definition	BUD-GBP-SC-Site_Coverage_Definition		
	Curtain walling system	LND-GBP-SC-Curtain_Wall		required only when accountable under lease
	Ad hoc items under lease	LND-GBP-SC-Non_Domestic_Ad_Hoc_Items_Under_Lease		
Domestic SC calculations	Site Coverage Definition	BUD-GBP-SC-Site_Coverage_Definition		
	Curtain walling system	LND-GBP-SC-Curtain_Wall		required only when accountable under lease
	Caretaker's/watchman office	LND-GBP-SC-Caretaker_Office		
	Caretaker's/watchman quarters	LND-GBP-SC-Caretaker_Quarter		
	Owners' corporation / owners' committee office	LND-GBP-SC-Owner_Office		
	Ad hoc items under lease	LND-GBP-SC-Domestic_Ad_Hoc_Items_Under_Lease		
Non-Domestic GFA calculations	GFA Definition	BUD-GBP-GFA-GFA_Definition	BUD-GBP-GFA-Function_of_Area	
	Car parking / Loading and unloading / Run-in/out or Driveway Zone ID	BUD-GBP-GFA-Carpark_Zone		
	Apportionment Factor	BUD-GBP-GFA-Bonus_GFA_Apportionment_Factor		
	GFA Concession Definition	BUD-GBP-GFA-GFA_Concession_Definition	BUD-GBP-GFA-GFA_Definition	
	GFA Concession 2 Definition	BUD-GBP-GFA-GFA_Concession_2_Definition	BUD-GBP-GFA-GFA_Definition	
	Curtain walling system	LND-GBP-GFA-Curtain_Wall	BUD-GBP-GFA-GFA_Definition	required only when accountable under lease
	Covered Walkway required under lease	LND-GBP-GFA-Covered_Walkway_Required_Under_Lease	BUD-GBP-GFA-GFA_Definition	
	Residential Care Homes for the Elderly	LND-GBP-GFA-Home_Elderly	BUD-GBP-GFA-GFA_Definition	
	Government Accommodation	LND-GBP-GFA-Government_Accommodation	BUD-GBP-GFA-GFA_Definition	
	Public transport terminus	LND-GBP-GFA-Public_Transport_Terminus	BUD-GBP-GFA-GFA_Definition	
	Public Vehicle Park	LND-GBP-GFA-Public_Vehicle_Park	BUD-GBP-GFA-GFA_Definition	
	Ad hoc items under lease	LND-GBP-GFA-Non_Domestic_Ad_Hoc_Items_Under_Lease	BUD-GBP-GFA-GFA_Definition	
Domestic GFA calculations	GFA Definition	BUD-GBP-GFA-GFA_Definition		
	Car parking / Loading and unloading / Run-in/out or Driveway Zone ID	BUD-GBP-GFA-Carpark_Zone		

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	Apportionment Factor	BUD-GBP-GFA-Bonus_GFA_Apportionment_Factor		
	GFA Concession Definition	BUD-GBP-GFA-GFA_Concession_Definition	BUD-GBP-GFA-GFA_Definition	
	GFA Concession 2 Definition	BUD-GBP-GFA-GFA_Concession_2_Definition	BUD-GBP-GFA-GFA_Definition	
	Curtain walling system	LND-GBP-GFA-Curtain_Wall	BUD-GBP-GFA-GFA_Definition	required only when accountable under lease
	Covered Walkway required under lease	LND-GBP-GFA-Covered_Walkway_Required_Under_Lease	BUD-GBP-GFA-GFA_Definition	
	Residential Care Homes for the Elderly	LND-GBP-GFA-Home_Elderly	BUD-GBP-GFA-GFA_Definition	
	Public Vehicle Park	LND-GBP-GFA-Public_Vehicle_Park	BUD-GBP-GFA-GFA_Definition	
	Ad hoc items under lease	LND-GBP-GFA-Domestic_Ad_Hoc_Items_Under_Lease	BUD-GBP-GFA-GFA_Definition	
NOFA calculations	NOFA Definition	LND-GBP-NOFA-Classification	LND-GBP-Common-Quantity	
	Ad hoc items under lease	LND-GBP-NOFA-Ad_Hoc_Items_Under_Lease	LND-GBP-Common-Quantity	
Greenery calculations	Greenery Definition	BUD-GBP-Greenery-Greenery_Definition	LND-GBP-Common-Quantity	
	Primary Zone	BUD-GBP-Greenery-Primary_Zone	LND-GBP-Common-Quantity	
	Area for green roof calculations	LND-GBP-Greenery-Green_Roof	LND-GBP-Common-Quantity	
	Ad hoc items under lease	LND-GBP-Greenery-Ad_Hoc_Items_Under_Lease	LND-GBP-Common-Quantity	
Open Space calculations	Open Space Definition	LND-GBP-OpenSpace-Classification	LND-GBP-Common-Quantity	
	Ad hoc items under lease	LND-GBP-OpenSpace-Ad_Hoc_Items_Under_Lease	LND-GBP-Common-Quantity	
Site Information	Lot Area under lease	LND-GBP-Common-Lot-Area-Under-Lease		
Common Properties	Area ID	BUD-GBP-Common-Area_ID		

B Appendix – Automatic Colouring Logic

Color	Parameter Name	Parameter Value
ORANGE	BUD-GBP-GFA-GFA_Definition	Domestic area or Domestic area to be disregarded from BD GFA calculations only
DEEP BLUE HATCHED WHITE	BUD-GBP-GFA GFA_Concession_Definition	05 Balcony or 12 Utility platform
DEEP BLUE CROSS HATCHED WHITE	BUD-GBP-GFA-GFA_Definition	Domestic area to be disregarded from GFA calculations or Domestic area to be disregarded from BD GFA calculations only or Non-Domestic area to be disregarded from GFA calculations or Non-Domestic area to be disregarded from BD GFA calculations only
	BUD-GBP-GFA GFA_Concession_Definition	14 Counters, Kiosks, Offices, Stores, Guard Rooms, and Lavatories for Watchmen and Management Staff (serving domestic) or 14 Counters, Kiosks, Offices, Stores, Guard Rooms, and Lavatories for Watchmen and Management Staff (serving non-domestic)
DEEP BLUE CROSS HATCHED BLACK	BUD-GBP-GFA GFA_Concession_Definition	14 Caretakers' Quarters
DEEP BLUE STIPPLED WHITE	BUD-GBP-GFA GFA_Concession_Definition	14 Owners' Corporation Office
DEEP BLUE STIPPLED BLACK	BUD-GBP-GFA GFA_Concession_Definition	15 Residential recreational facilities including void, plant room, swimming pool filtration plant room, covered walkway, etc. serving solely the recreational facilities
RED CROSS HATCHED WHITE	BUD-GBP-GFA-GFA_Definition	Non-domestic area or Non-domestic area to be disregarded from BD GFA calculations only
	BUD-GBP-GFA-Function_of_Area	Office
RED CROSS HATCHED BLACK	BUD-GBP-GFA-GFA_Definition	Non-domestic area or Non-domestic area to be disregarded from BD GFA calculations only
	BUD-GBP-GFA-Function_of_Area	Shopping Arcade
RED STIPPLED WHITE	BUD-GBP-GFA-GFA_Definition	Non-domestic area or Non-domestic area to be disregarded from BD GFA calculations only
	BUD-GBP-GFA-Function_of_Area	Hotel FOH or Hotel BOH (GFA accountable or Hotel Accountable GFA (Domestic accommodation)) or Hotel Accountable GFA (Non-Domestic accommodation)
Red	BUD-GBP-GFA-GFA_Definition	Non-domestic area or "Non-domestic area to be disregarded from BD GFA calculations only
DEEP BLUE	BUD-GBP-GFA GFA_Concession_Definition	Concessions With Cap And
	BUD-GBP-GFA-GFA_Definition	Domestic area to be disregarded from GFA calculations or Domestic area to be disregarded from LandsD GFA calculations only
LIGHT BLUE	BUD-GBP-GFA GFA_Concession_Definition	Concessions With Cap And
	BUD-GBP-GFA-GFA_Definition	Non-domestic area to be disregarded from GFA calculations or Non-domestic area to be disregarded from LandsD GFA calculations only

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PURPLE	BUD-GBP-GFA GFA_Concession_Definition	Not contains Concessions With Cap
WOOD	BUD-GBP-GFA GFA_Concession_Definition	01 carpark, loading/unloading areas and driveway that are 100% disregarded
WOOD HATCHED BLACK	BUD-GBP-GFA GFA_Concession_Definition	01 carpark, loading/unloading areas and driveway that are 50% disregarded
WOOD HATCHED WHITE	BUD-GBP-GFA GFA_Concession_Definition	01 driveway/carpark ancillary areas that are disregarded on pro rata

The table above provides a colour schema based on the value of certain parameters and below explains the conditions of “Or”, “And” and “Not Contains”:

- Or: This means that the colour applies if any of the listed conditions are met.
- And: This means that the colour applies only if all the listed conditions are met simultaneously.
- Not Contains: This means that the colour applies when a certain condition is not met.

“ConcessionsWithCap” values

1. "02.3 A/C plant room"
2. "02.3 AHU room"
3. "02.3 other Non-mandatory/non-essential plant rooms disregarded under B(P)R 23(3)(b)"
4. "11 Non-structural prefabricated external wall"
5. "14 Owners' Corporation Office"
6. "15 Residential recreational facilities including void, plant room, swimming pool filtration plant room, covered walkway, etc. serving solely the recreational facilities"
7. "17 Horizontal screen/covered walkway subject to 10% overall cap"
8. "18 Larger lift shaft - Office"
9. "18 Larger lift shaft - Hotel"
10. "19 Chimney shaft"
11. "20 Non-mandatory/non-essential plant room exempted under B(P)R 23(3)(a) such as boiler room, SMATV, filtration plant room"
12. "22 Pipe duct, air duct for non-mandatory or non-essential plant room"
13. "25 Void over main common entrance (prestige entrance) in non-domestic development"
14. "29 Other projection not covered in paragraph 3(b) and (c) of PNAP APP-19"
15. "05 Balcony"
16. "05 Covered area underneath Balcony"
17. "06 Wider common corridor and lift lobby for residential buildings"
18. "12 Utility platform"
19. "12 Covered area underneath Utility Platform"
20. "14 Counters, Kiosks, Offices, Stores, Guard Rooms, and Lavatories for Watchmen and Management Staff (serving domestic)"
21. "14 Caretakers' Quarters"
22. "18 Larger lift shaft - Domestic"
23. "26 Void in duplex domestic flat"
24. "26 Void in house"