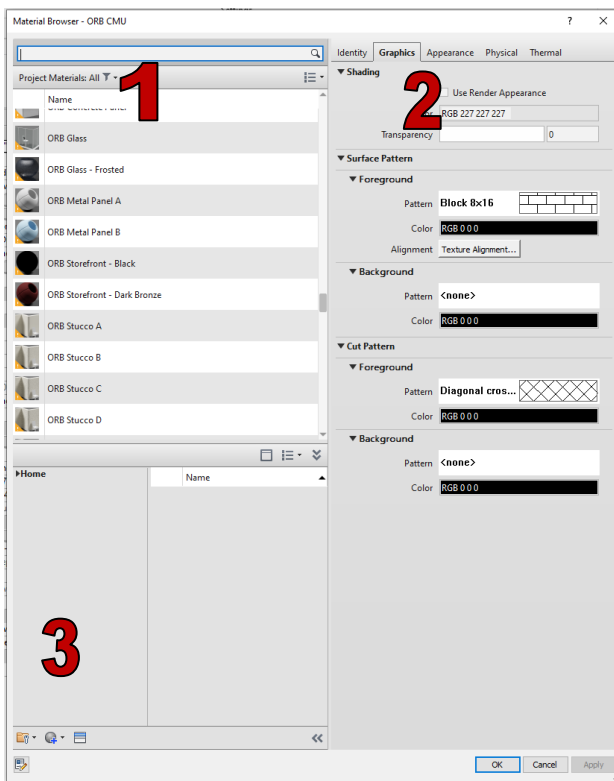# ORB MATERIAL LIBRARY

The ORB template file has pre-determined Revit materials based on the most common materials used in our typical projects. These materials are preset with basic information. As the project progresses, this information will be filled in, replaced, or enriched depending on the specific needs of the project.

Material Browser

The material browser is a repository of all the materials that are present in the project. All model elements are typically assigned a material; if no material is assigned then it will have a material assigned by the category of the object.

The material browser will have a list of the materials (1) , different tabs showing a variety of properties associated with the material (2) and access to other material libraries (3) , either by ORB or by project.
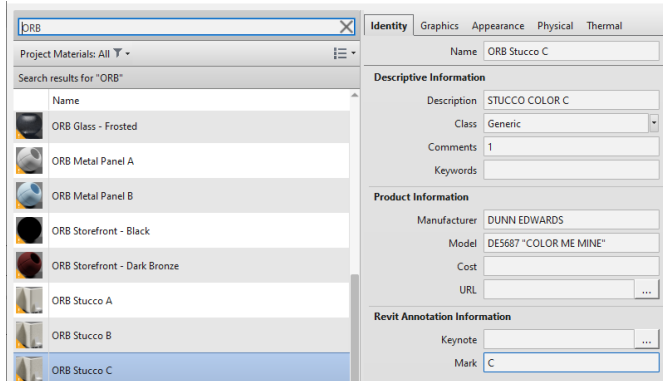

1. The material list only displays materials present in the project. Whenever new families are brought into the project, the materials that were in the family are also brought over. Try to maintain a clean list of materials when working in your project. All the additional and un-used information embedded in can become a problem as the project advances. Use the search bar at the top to find the intended material

2. Depending on the material type, you will find certain tabs. Some materials will have Physical and/or thermal properties, these are not used by ORB. We will be using the Identity, Graphics and Appearance tabs.

3. Revit can store selected materials in an outside file. From here, you can transfer materials from a specific library to the file you are working on.

Identity: The information here is what will be used in our material schedules.
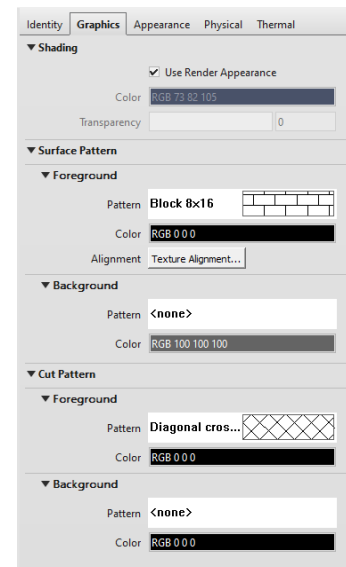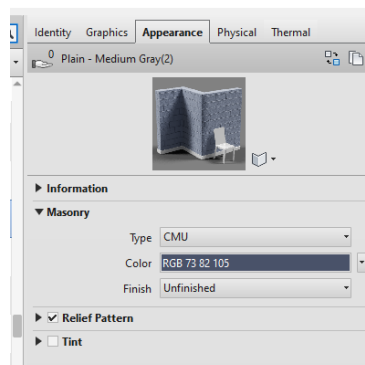

We can use the Material description to filter the schedules based on the project needs, i.e. an exterior finish schedule.

In the case below, the materials are filtered through the Material Mark parameter.

ORB Template - 2023_arfL2QNV - Schedule: EXTERIOR FINISH SCHEDULE

\<EXTERIOR FINISH SCHEDULE\>

A	B	C	D	E	F
COMMENT (HIDDEN)	MARK	ORB NAME (HIDDEN)	DESCRIPTION	MANUFACTURER	MODEL #
EXT 1	ST-A	ORB Stucco A	STUCCO COLOR A	SHERWIN WILLIAMS	SW ####
EXT 1	ST-B	ORB Stucco B	STUCCO COLOR B	SHERWIN WILLIAMS	
EXT 1	ST-C	ORB Stucco C	STUCCO COLOR C	SHERWIN WILLIAMS	
EXT 1	ST-D	ORB Stucco D	STUCCO COLOR D	DUNN-EDWARDS	DE ####
EXT 1	ST-E	ORB Stucco E	STUCCO COLOR E		
EXT 2	EC-#	ORB Brick	EXTERIOR CLADDING - BRICK		
EXT 2	EC-#	ORB Cement Board - Horizontal	EXTERIOR CLADDING - CEMENT BOARD A		
EXT 2	EC-#	ORB Cement Board - Vertical	EXTERIOR CLADDING - CEMENT BOARD B		
EXT 2	EC-#	ORB Cement Board - Panels	EXTERIOR CLADDING - CEMENT BOARD C		
EXT 2	EC-#	ORB Concrete Panel	EXTERIOR CLADDING - CONCRETE PANELS		
EXT 2	EC-#	ORB Metal Panel A	EXTERIOR CLADDING - METAL PANEL COLOR A		
EXT 2	EC-#	ORB Metal Panel B	EXTERIOR CLADDING - METAL PANEL COLOR B		
EXT 3	CM-A	ORB CMU-Color A	CMU COLOR A		
EXT 3	CM-B	ORB CMU-Color B	CMU COLOR B		
EXT 3	CM-C	ORB Concrete	CONCRETE		
EXT 3	CMU	ORB CMU	CONCRETE MASONRY UNITS		
EXT 4	MF-1	ORB Metal Finish	METAL FINISH		
EXT 4	MF-2	ORB Welded Wire Mesh	METAL FINISH - WIRE MESH		
EXT 5	SF-1	ORB Storefront - Black	STOREFRONT		
EXT 5	SF-2	ORB Storefront - Dark Bronze	STOREFRONT		
EXT 6	GL-A	ORB Glass	GLASS - CLEAR		
EXT 6	GL-F	ORB Glass - Frosted	GLASS - FROSTED		

Graphics: Provide the patterns shown on the materials on their surface as well as when they are being cut (in floor plan, rcp or sections). The pattern information is displayed in Hidden Line mode, Consistent Colors and Shaded. The color portion of the graphics tabs will be displayed only in Consistent Colors and Shaded.

Appearance: Provides detailed information typically reserved for more
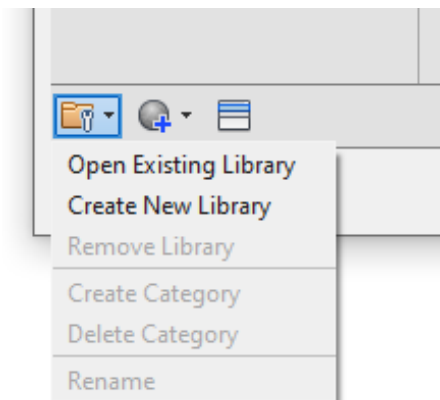
realistic representations of the model. These are typically used by rendering firms or 3rd party realtime rendering engines such as Twinmotion, Enscape or others.

REVIT MATERIAL LIBRARY

In the bottom left hand corner of the material browser, the small folder will allow you to navigate to specific Material Library files. These will be either the ORB Material Library or a Material library set up specifically for a project.
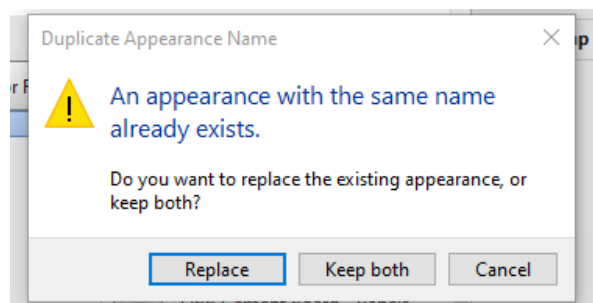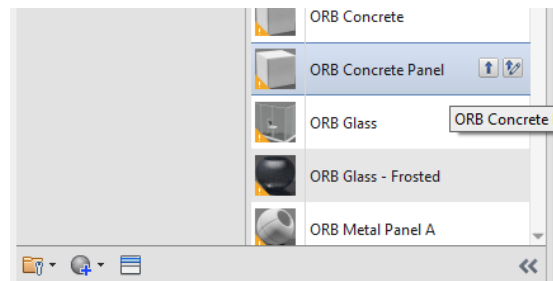

You will find the ORB Exterior Finishes Library in the link below:
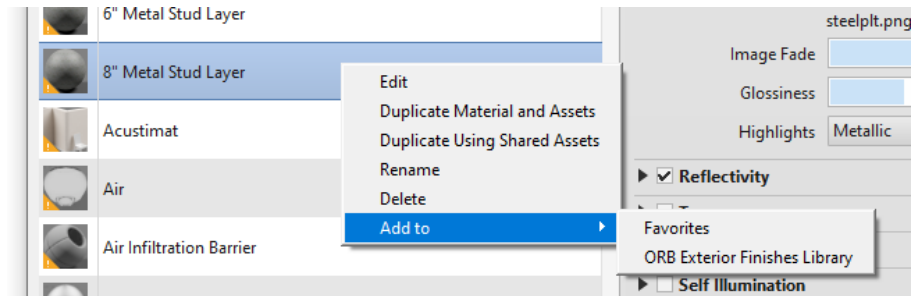
S:\Revit Support\ORB Libraries\Materials

Once the Library is open, you will be able to import any of those materials (one at a time). And all the information that was embedded in them will also come with.

You can Add the material if it is not already present in the project; Replace if the material is present but you need to update the information; keep both if you want to make a copy of the material without losing the original material.
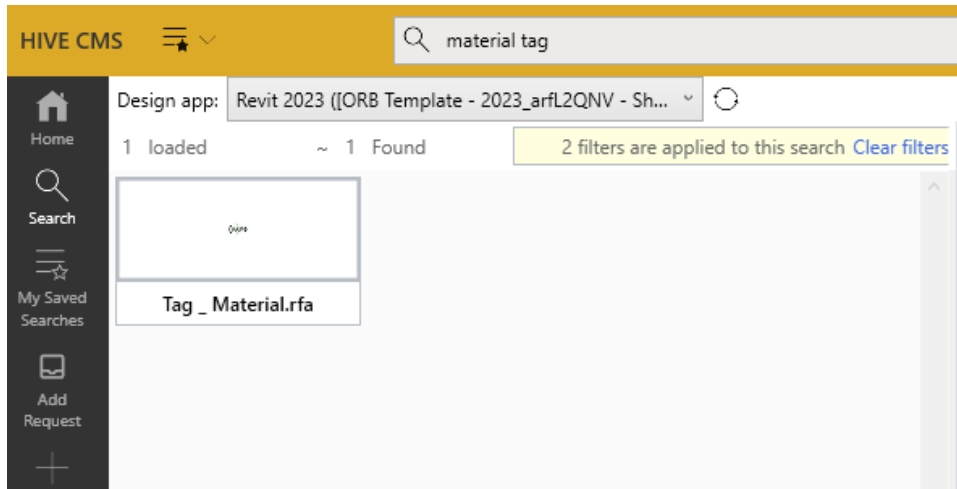
Materials from your project can also be uploaded to the Project Material Library. Hover over the material you need to transfer to the material library and right click to see the options. Click Add to and choose the correct library. Do not upload your materials to the ORB Project Library.

ORB ANNOTATION

You can download the material tag located in HIVE. Use this in your exterior elevations to denote your exterior finishes:

The ORB template will have some materials already put in place with place-holder information that as the project progresses, you will have to fill in with input from your project manager.

EXTERIOR MATERIALS

Exterior materials typically make their first appearance in zoning submittals. Using the appropriate schedules, we can set these up so that we have the information carry through to the construction documents.

Follow the "MARK" format for the project materials:

ST-#   Stucco Finish
>   List all the stucco colors to be used in the project

EC-#   Exterior Cladding
>   Includes finishes such as Cement Board, Metal Panels, Brick Veneers, Concrete panels attached to your wall system, etc.

CM-#   Concrete and Masonry
>   Concrete Walls, CMU,

MF-#   Metal Finish
>   Metal finish used for railings, trellis, welded wire mesh, painted metals, canopies, break metal cladding, etc

SF-#   Storefront Systems
>   Aluminum storefronts

GL-#   Glazing
>   Clear glazing in windows, tinted glass, tempered glazing in glass railings, etc.

Filter your exterior materials with the use of the Material Comment field and group the different materials according to their type.

BEST PRACTICES

1. Keep your materials up to date. Purge them often if they are not in use.
2. Don't use materials with large maps. A complex material may divert computer resources when you most need them.
3. Re-name your materials to find them easily.
4. Before bringing in a family from outside sources, eliminate any materials that won't appear in the project, or if you already have materials that can take their place, delete them from the family.
5. Use the different parameters within your material schedule to sort them to your specific project needs.
6. When working with multiple files, it is important to have your material library up to date. The Project Material Library needs to be saved in the Project BIM Folder. From here, the information can be disseminated to all other files and have all the information matching across your project.
7. Assign materials to your project so it gives you instant visual feedback and you get a clear picture of what you are looking at.
8. If you need to create a specific material, contact your project BIM manager to see the most efficient method.