## Specialist Diploma in Building Information Modeling (BIM)

### BM3804: BIM for Design Coordination and Documentation

BIM Lab 2: BIM Design Visualization



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- **BIM for Design Visualization Content** 
  - General Notes overview and objective
  - Viewing tools
  - Area and Space Planning
  - Project Phases and Phased Design
  - Design Options
  - Rendering & Walkthrough

#### Overview

- In this Lab, you will explore the tools available in the Autodesk Revit software to create several types of common project views and specify the information that appears in them
  - you will learn how to:
    - Create 2D views of their building model, such as plans, elevations, and sections—creating new views from scratch and duplicating existing views
    - Create 3D views by duplicating and editing the default 3D orthographic view
    - Customize the information presented in those views

- Objective:
- After completing this lesson, students will be able to:
- Use 2D and 3D views to accurately convey information about their design to different audiences
- Adjust the properties of model views to emphasize key elements of their design and hide unnecessary or unwanted detail

### Lab Exercise 2.1.1: Creating Plan Views

In this exercise, students will learn how to:

Create new plan views

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- Select which types of elements appear by setting visibility graphics overrides
- Turn on cropping and resize the crop region
- Adjust the view range (the height of the cutting plane and the view depth)
- Select another level to underlay

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#### **Creating New Plan Views**

Duplicating plan views with and without detailing (annotations)

- Select plan view
- Right-click view name in Project Browser
- Duplicate with or without detailing
- Duplicate as a dependent
  - Rename new view



#### **Creating New Plan Views**

Using the Plan View tool to create additional plan views for a level

- Open the Plan View tool
- Uncheck Do not duplicate existing views checkbox
- Choose view scale
- Select levels of new views to create
- Repeat for ceiling plans, plan regions, and area plans



#### **Customizing and Presenting Views**

Filtering the elements to show in a view

- A C A D built envir
- Set Visibility/Graphics overrides
  - Model objects
    - Walls / Doors / Windows
    - Floors / Roofs
    - Components
    - Annotation objects
      - Object Tags
      - Dimensions / Text
    - Imported objects

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### **Filtering Elements Displayed**

Filtering and highlighting elements using visibility graphics overrides

- Open visibility graphics overrides
- Adjust appearance of element categories
- Turn on or off visibility
- Override line weight or color
- Choose halftone or transparent display effect



#### **Setting View Properties and Display Options**

Turning on cropping and resizing the crop region for a plan view



- Use controls in View Control bar to quickly set whether to:
  - Crop the view
  - Display crop region
- Select boundary of crop region, then:
  - Drag boundary to move it
  - Drag blue arrows to resize it



#### **Setting View Properties and Display Options**

Changing the scale and adjusting the level of detail

- C A U
- Use controls in View Control bar to quickly set
  - View scale
  - Level of detail
- Elements in view may change to show more or less detail
- Text annotations and dimensions maintain the same absolute size

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#### **Setting View Properties and Display Options**

Adjusting the view range (cut plane and view depth) for a plan or region

- Edit the view range in view properties
- Set elevation of:
  - Cut plane
  - Top and bottom of range
  - View depth
- Create plan regions to use a different view range for specific areas within a plan



#### **Setting View Properties and Display Options**

Selecting another level to underlay

- Select another level to underlay in view properties
- Underlay displayed as gray lines in view
- Use underlay to align elements between levels



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