OpticVyu

360° Image-Based Construction Documentation and Collaboration: User Manual

OpticVyu Construction Monitoring & Documentation Solutions

Overview

Interior construction monitoring has evolved from still photographs to 360-degree image monitoring. Using 360-degree images of Interior construction monitoring, you can realistically view the entire interior project through your dashboard.

OpticVyu offers 360-degree image and video-based interior construction monitoring solutions for large construction projects.
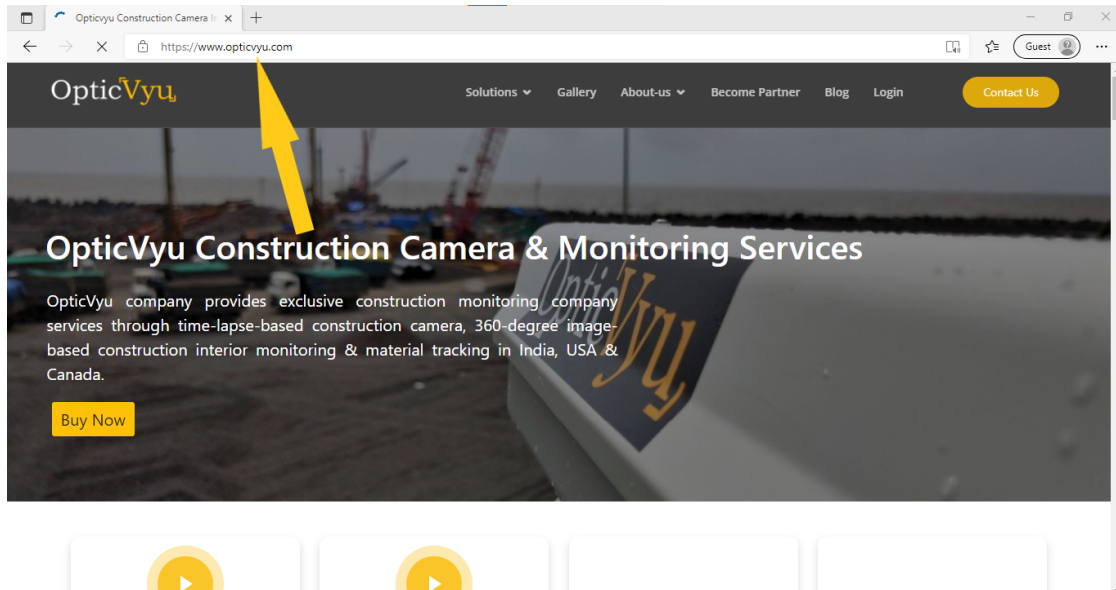
Contents

Login, Project, and Module Selection
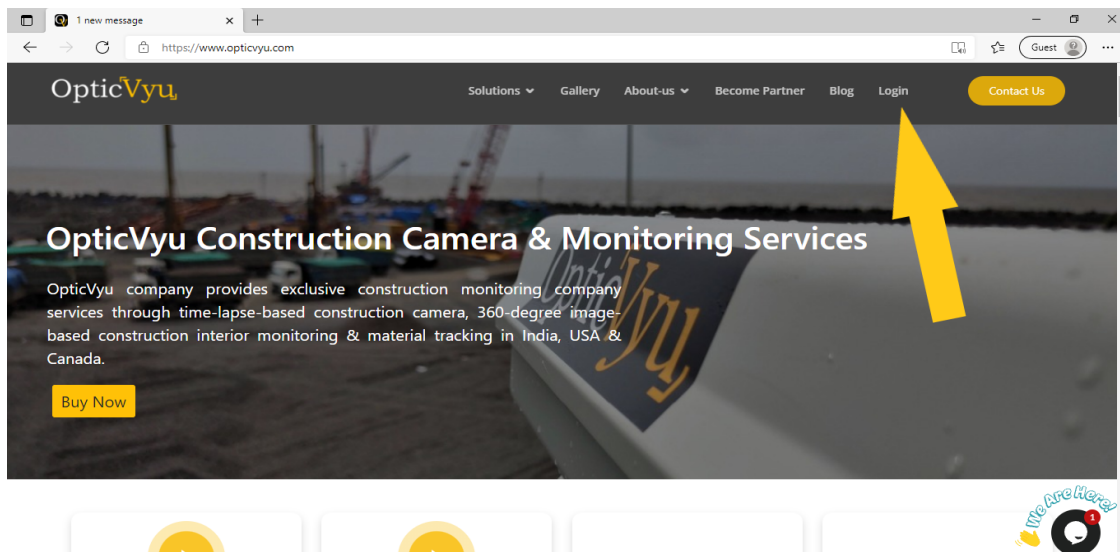
Step 1. Visit the OpticVyu website

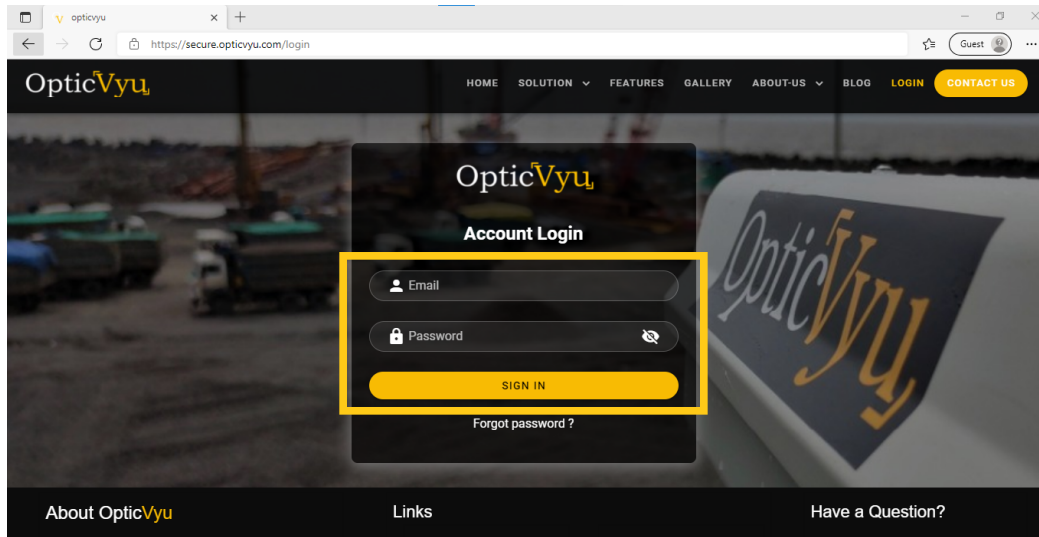Visit www.opticvyu.com in your web browser

Step 2. Click on login

Go to the login page.

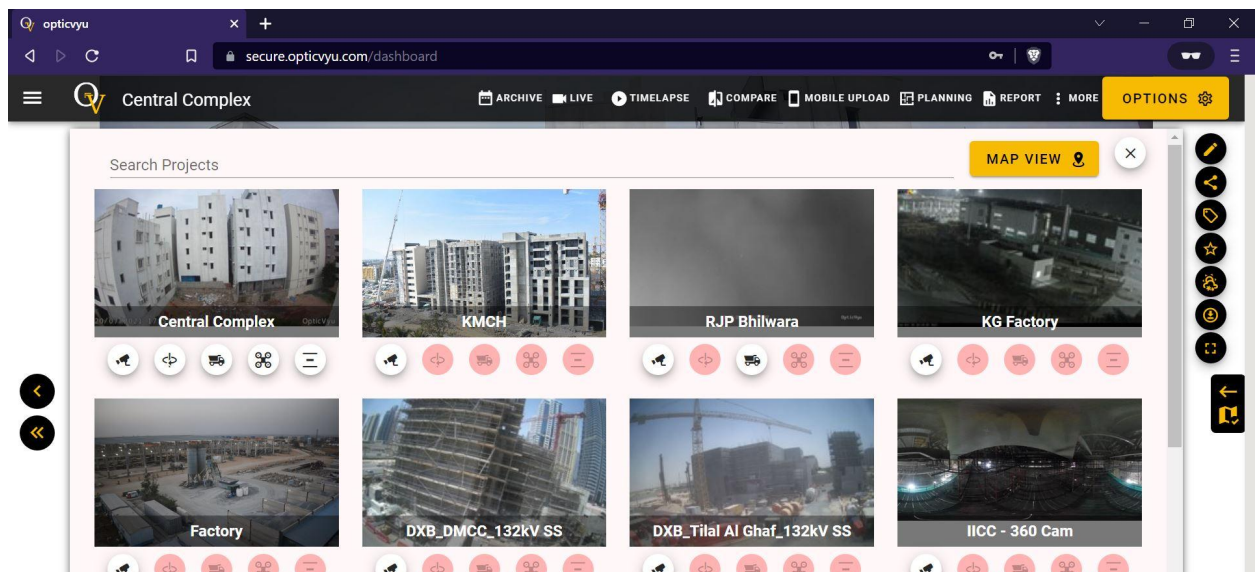**Step 3.** Login with credentials

Enter your login credential here.

You may enable Multi-factor authorization for secured login.

Step 4. Explore Projects & Select Module

Here is the project explorer. You can see all your projects here. Simultaneously, you can also check the module enabled on any project.


Here are 5 modules available for any project - construction camera, **360-degree Interior monitoring**, material tracking, drone integration & linear construction monitoring.
You can select any project with a 360-degree interior monitoring module enabled on it & check corresponding zones.
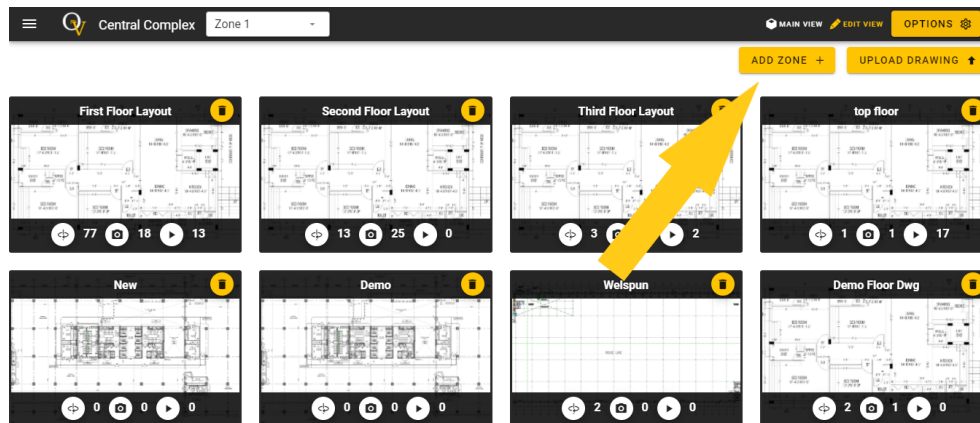
Zone Creation and Selection

Step 1. Switch to Edit View

There are two views available in the 360-degree monitoring dashboard navbar - one is the **main view** and another is the **edit view.** Click on the **edit view** to switch to the edit mode.
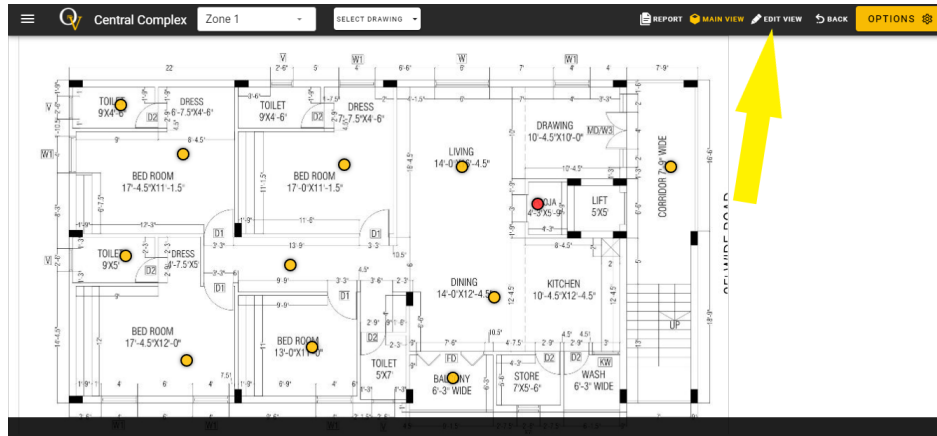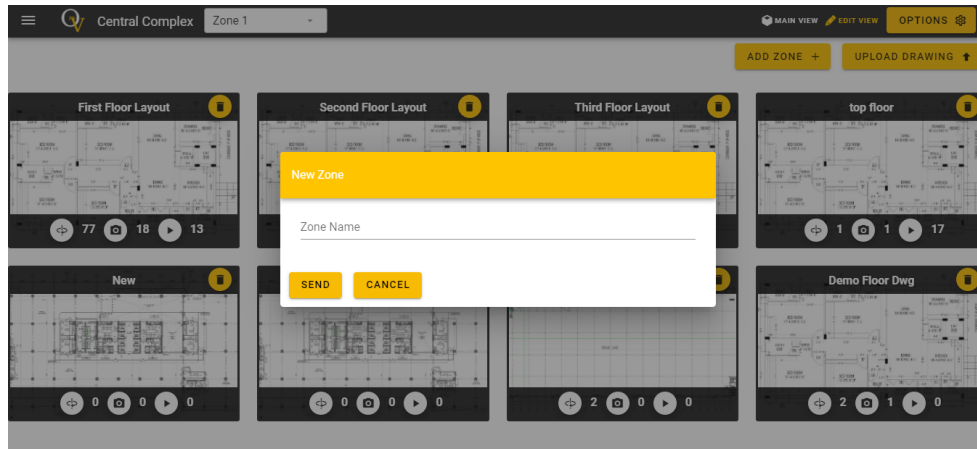

Step 2. Add new zone

Once you change to edit view, you will see two options one is, to **add zone** and **upload drawings**. Click on add new zone.
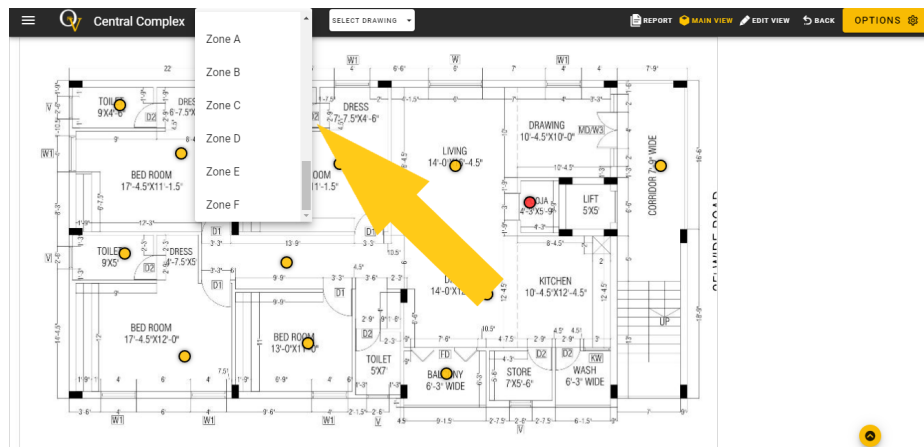

Once you click on "add zone", a popup form will appear. Enter the division or zone name here and hit send. "Zone" can be the building name, phase name, etc which broadly divides the project into multiple areas.
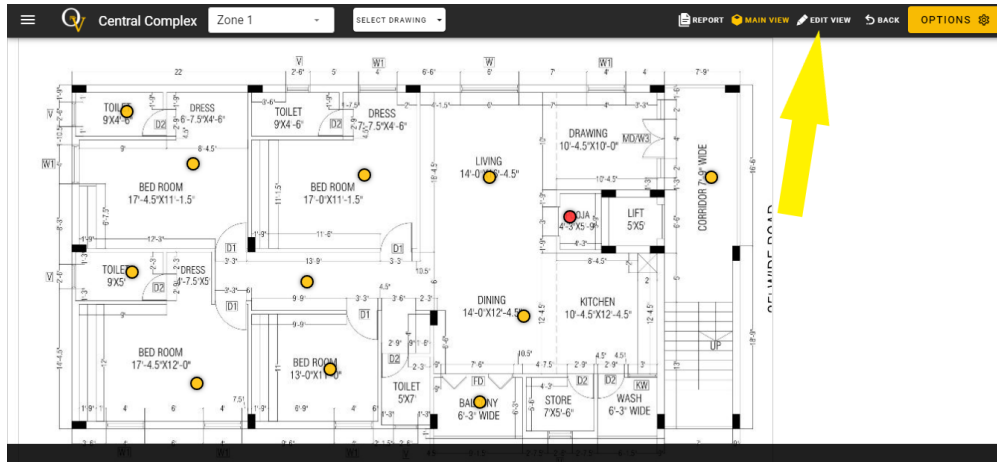
Step 3. Select a Zone

There is a zone dropdown beside the project name. All the zones defined for given projects can be seen here in the main view.
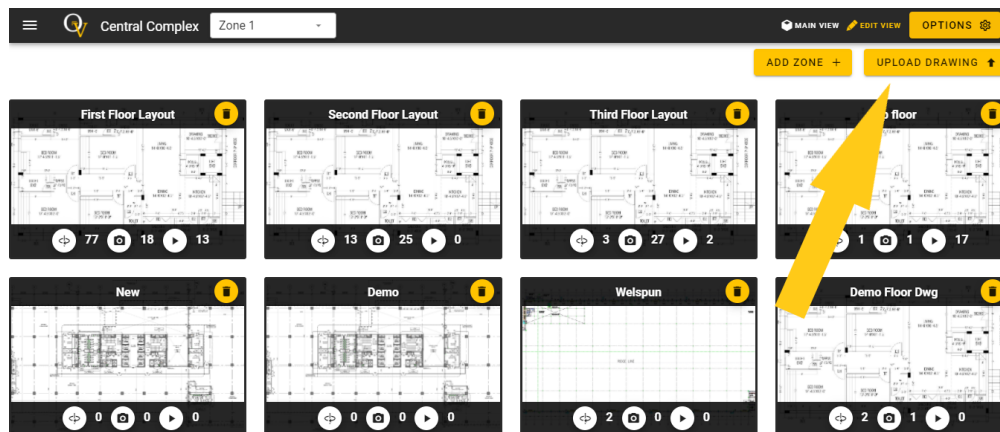
Upload Layouts

Step 1. Switch to Edit View
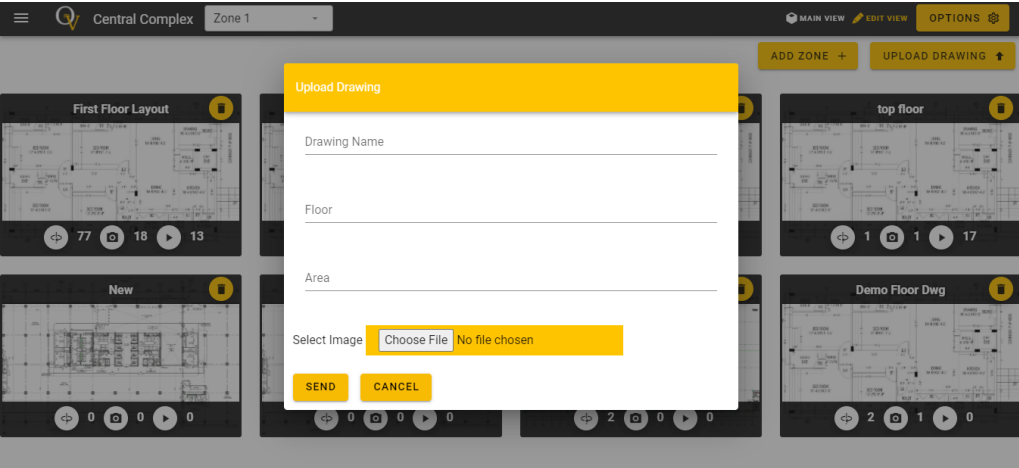
Go to edit view.

Step 2. Upload Drawings (Only JPEG drawings are allowed to upload)

As you switch to the edit view, hit the **upload drawing** button.

A popup form for layout upload will appear. Fill out this form, upload the drawing here, and hit send.

Upload Drawing

Drawing Name

Floor

Area

Select Image Choose File No file chosen

SEND   CANCEL

First Floor Layout

77   18   13

New

0   0   0

top floor

1   1   17

Demo Floor Dwg

2   1   0

Central Complex   Zone 1

MAIN VIEW   EDIT VIEW   OPTIONS

ADD ZONE +   UPLOAD DRAWING

0   0   0

2   0   0

Create Strategic Points

Step 1. Select the Layout in Edit View

Select the layout for creating strategic points.
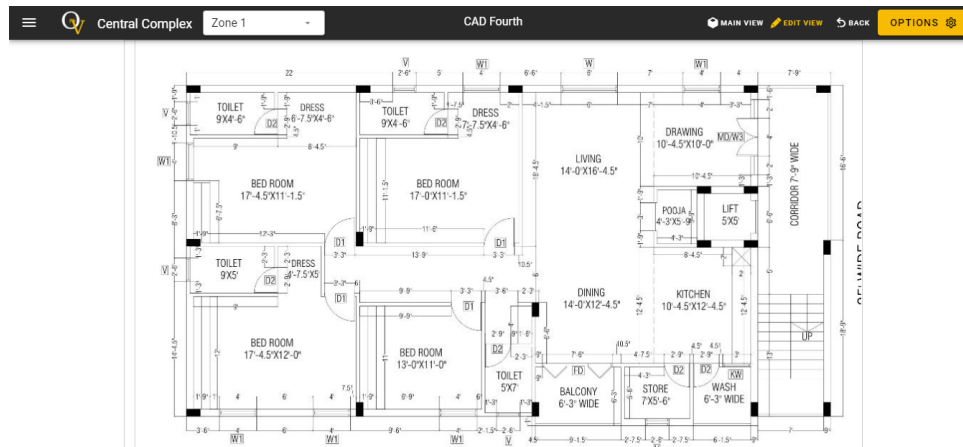
Step 2. Create Strategic Point

Strategic points are the points at which a site engineer or OpticVyu representative captures the 360-degree images/videos etc until the project completion. A strategic point will be highlighted as a yellow dot once created.

Click on the layout where you want to create a strategic point. A window alert will appear to show the strategic point creation notification. Click on okay.
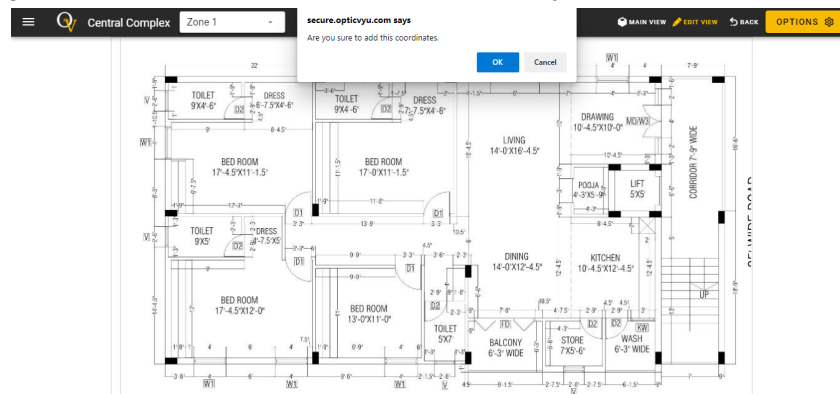
Now, a point creation pop-up form will appear. Fill out the form with the information that best represents that point and hit send.

A point can be a normal point or a 360-degree walkthrough point depending on its use case & marked location. The 360-degree walkthrough category will allow you to upload the 360-degree

videos only and the normal category will allow you to upload normal images, 360-degree images, videos, tasks, comments, etc.


Create as many strategic points as required to cover the entire area. Make sure not to create points so close that data collection becomes very difficult.

# Capture & Upload 360-Degree Images

You have to connect the Richo Theta camera with the OpticVyu android application in order to capture and upload 360-degree images to the OpticVyu interior monitoring dashboard. Follow these steps to capture and upload 360-degree images

Step 1: Turn on your smartphone mobile data
Step 2: Open OpticVyu mobile application and navigate to the corresponding project & layout on which you want to capture 360-degree images.
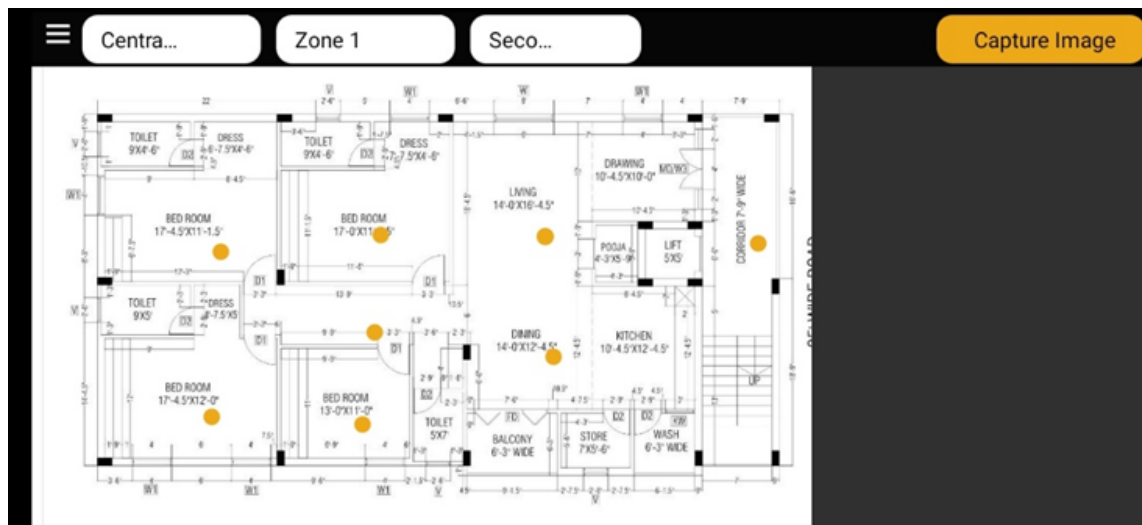

Step 3: After clicking on the "**Capture Image**" button, you'll be notified to connect the mobile with Ricoh Theta Camera through Wifi.
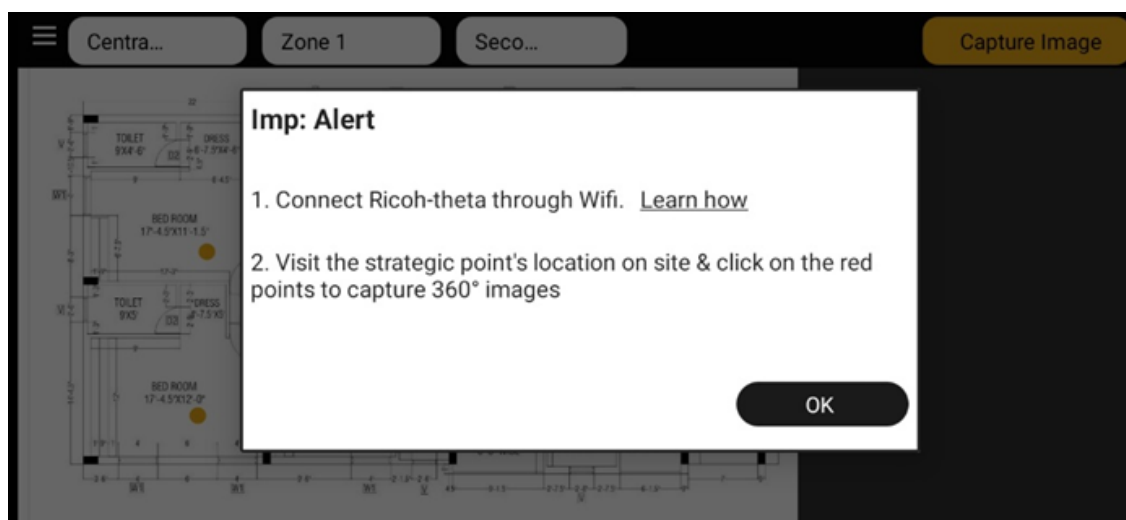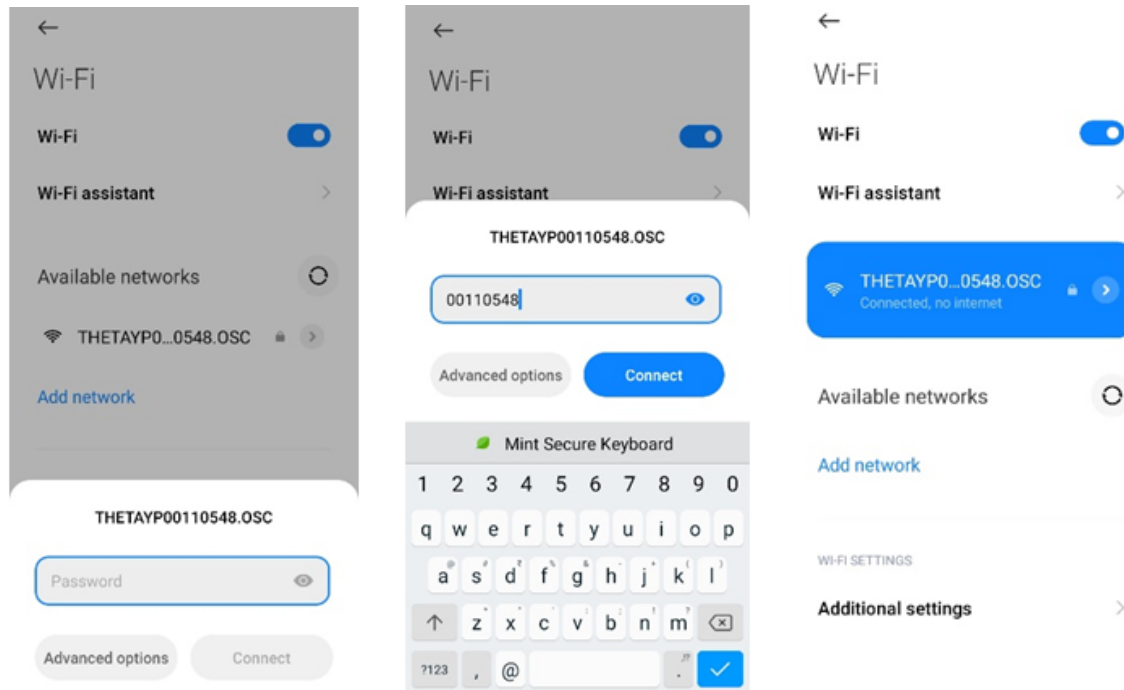

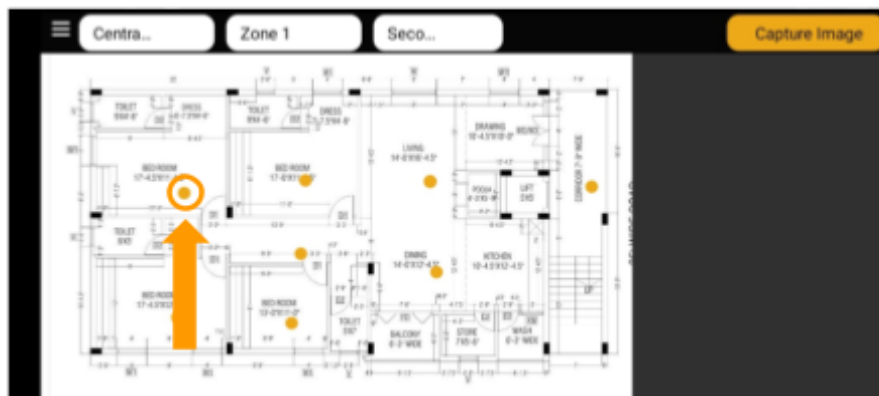**Step 4:** Switch ON the mobile Wifi.

Turn on the Wifi option (on your Richo Theta Camera) and connect your mobile Wifi using the password mentioned at the bottom of your Richo Theta camera. Ignore the 1st two digits of the code and enter only the last 8 digits as a password.
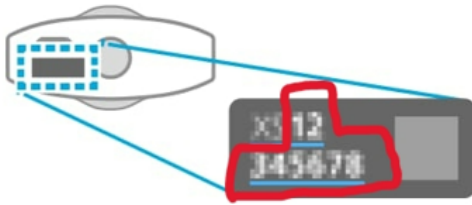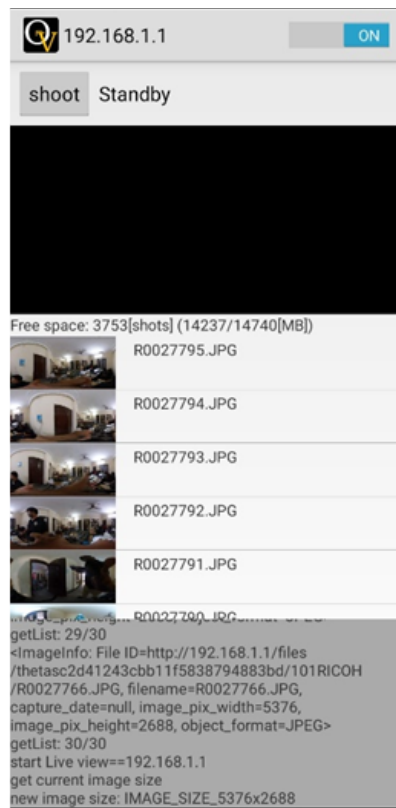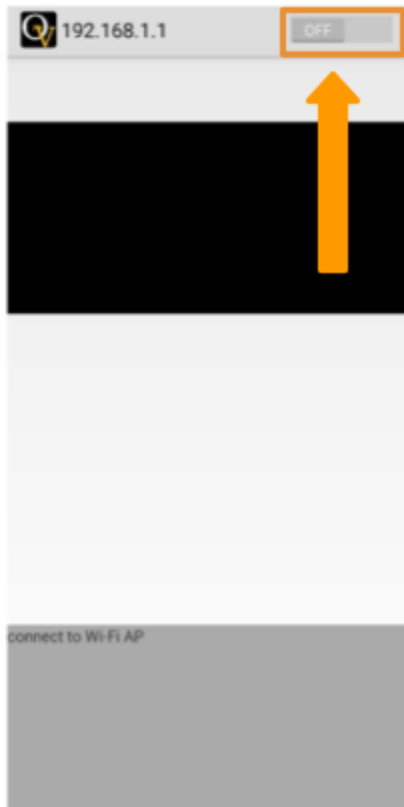

The serial No. is written on the base of the camera

**Step 5:** Go to the OpticVyu app and click on the strategic point at which you want to capture the image



Step 6: Switch ON the button as shown below snapshot

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Free space: 3753[shots] (14237/14740[MB])

	R0027795.JPG
	R0027794.JPG
	R0027793.JPG
	R0027792.JPG
	R0027791.JPG

getList: 29/30
<ImageInfo: File ID=http://192.168.1.1/files
/thetasc2d41243cbb11f5838794883bd/101RICOH
/R0027766.JPG, filename=R0027766.JPG,
capture_date=null, image_pix_width=5376,
image_pix_height=2688, object_format=JPEG>
getList: 30/30
start Live view==192.168.1.1
get current image size
new image size: IMAGE_SIZE_5376x2688

Step 7: Click on the "**Shoot**" button, and wait till the application completes image synthesizing.

Once the image is synthesized you can preview the 360-degree image on your mobile phone.

Step 8: Click on the back button

Step 9: Now you can see 1 image has been captured at the corresponding location

Step 10: Repeat the above steps to capture the images at all the strategic points marked on the layout.

Step 11: Turn off the mobile wifi and start the mobile data.

Step 13: Now click on the "Upload Image" button & press "Yes" to upload the 360° images captured.
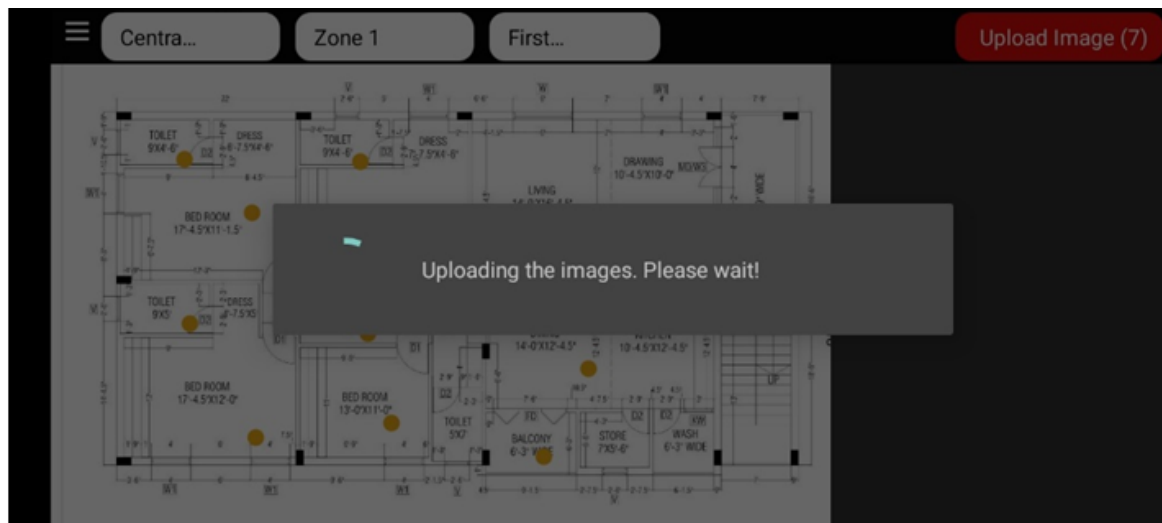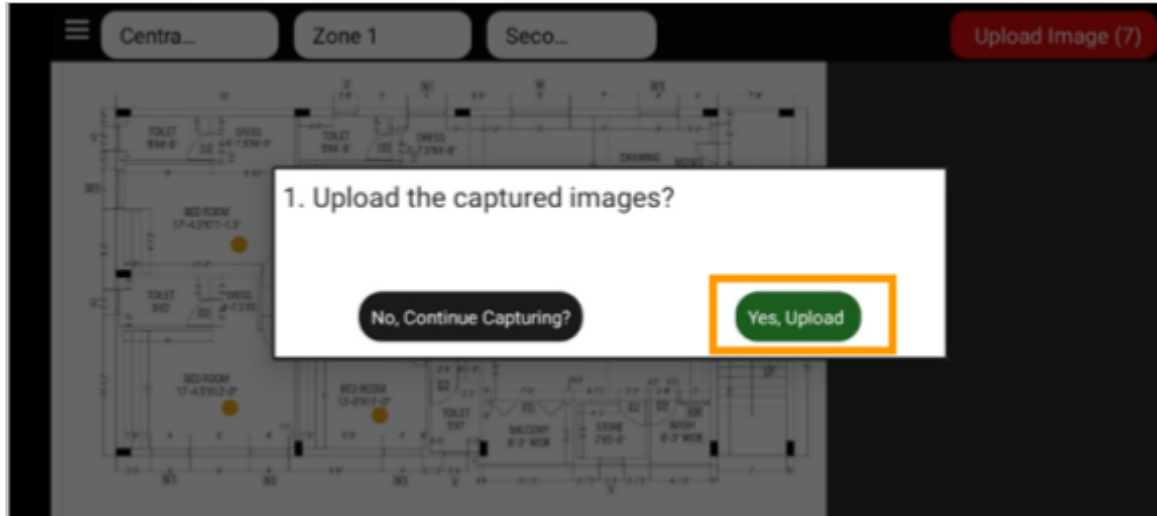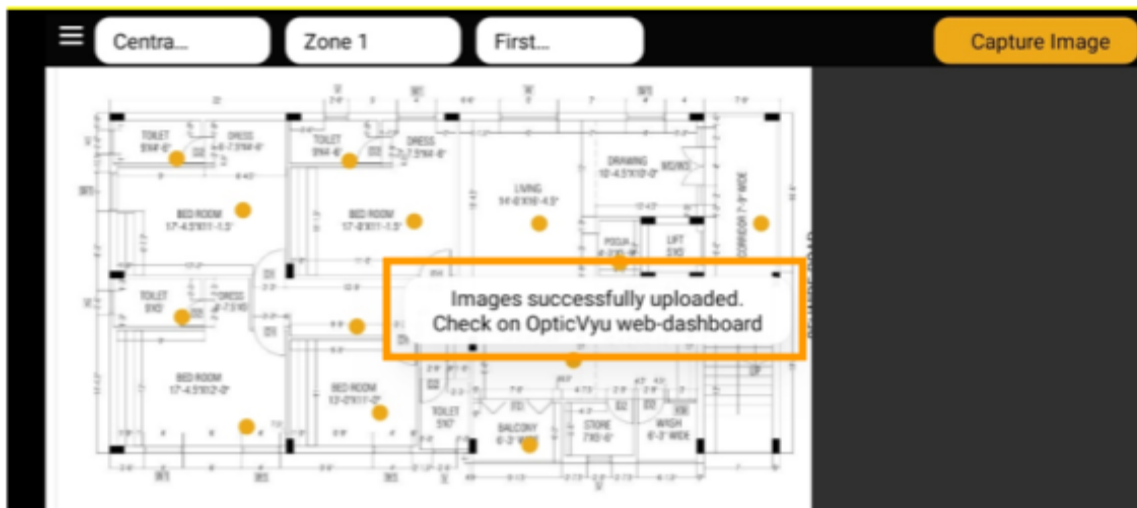
Note: If the application restarts while uploading the images, click on the "Upload Image" button until all the images are successfully uploaded.
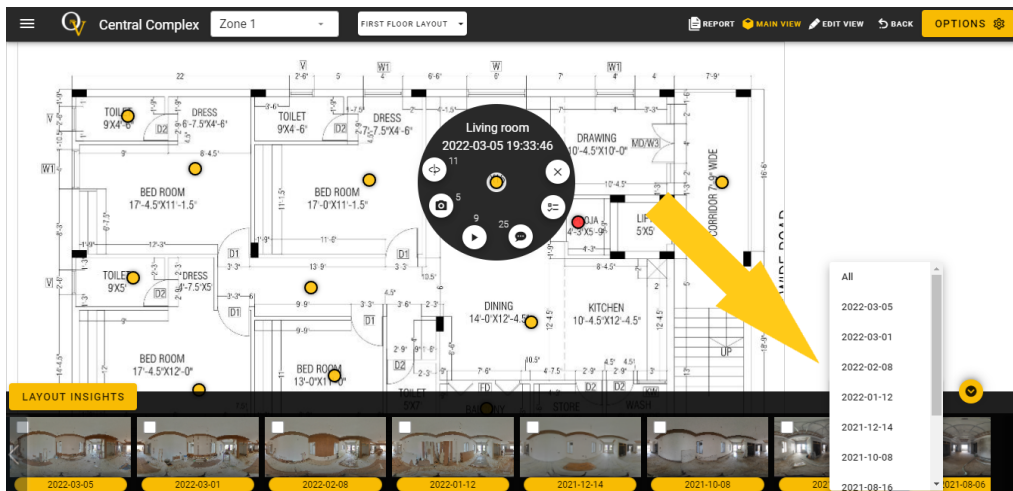
Features

Feature 1. Timeline View

Access historical data pertaining to every strategic location marked on a layout through the timeline view.

To check the timeline view click on any strategic point and select the images or videos icon. As you select the image icon, an image's timeline will appear at the bottom.
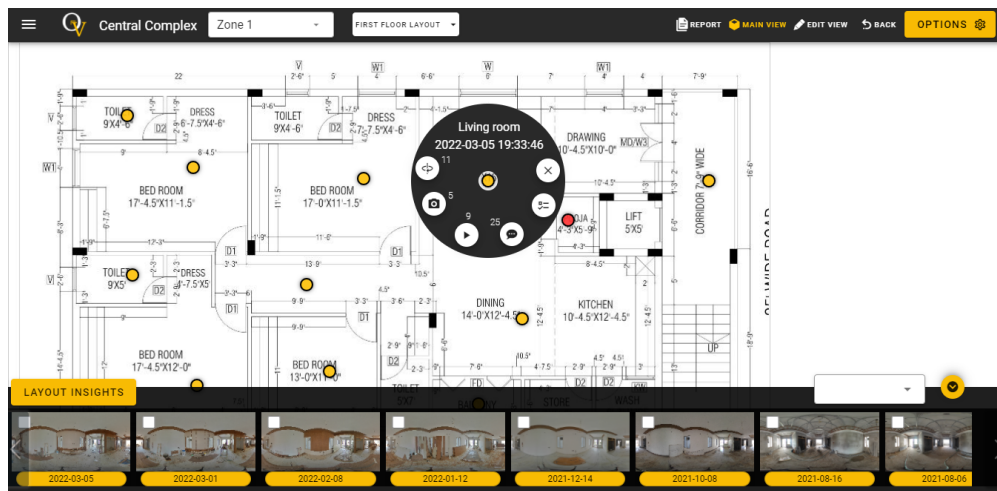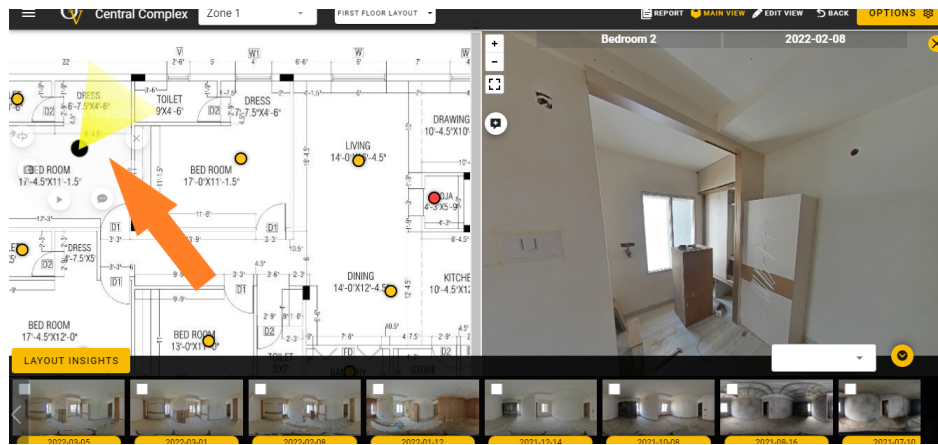

You can also filter the timeline by date by selecting the dropdown at the top-right of the timeline.

Feature 2. Watch Images/Videos

Select an image/video from the timeline & watch it alongside the layout. If it's a 360° image, a yellow-colored highlighter on the layout points towards the area visible in the current image view.
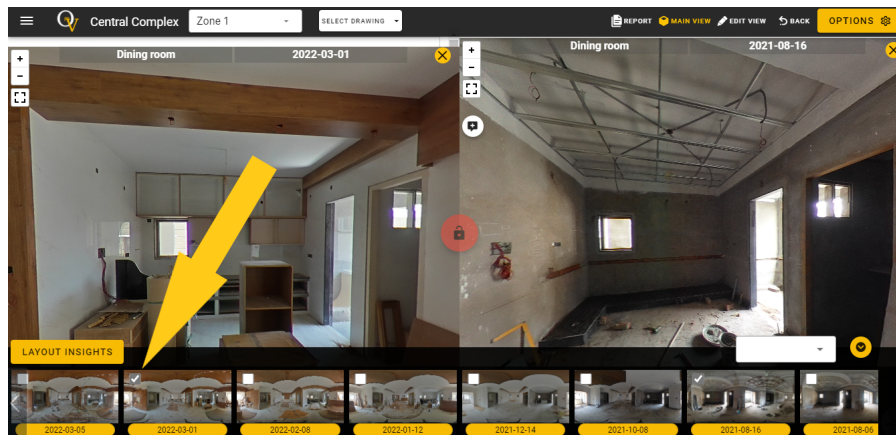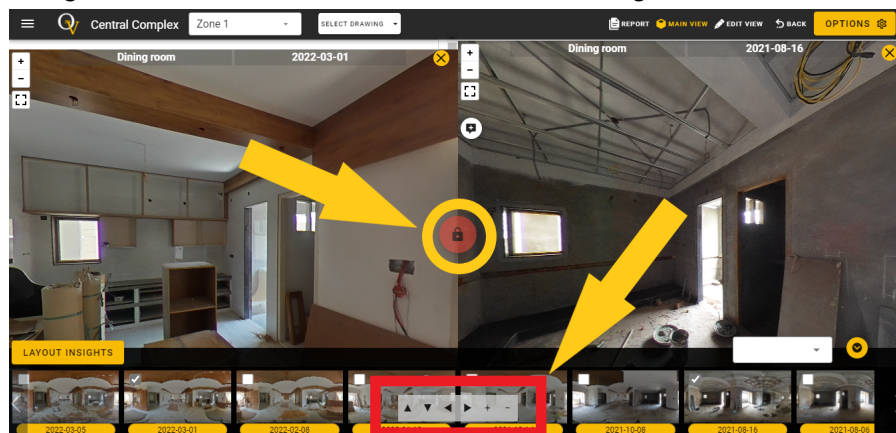
Feature 3. Compare to Review Progress

Comparing images is the best way to check the progress of the project.
Check an image from the timeline and click on it.
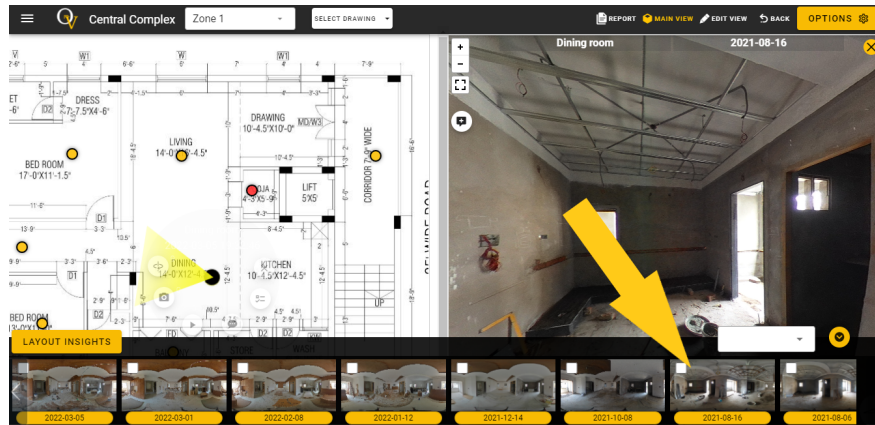
Now check the second image and click on it.

Now drag the images to an identical location & lock them using the lock button at the center.

You can rotate both images synchronously using the controls at the bottom.

Feature 4. Put Comments/ Create Snag List

Select a 360° image from the timeline & click on the comment icon. As you click on the comment icon, a comment form will appear. Fill out the form, edit the image if needed and submit it.

You can check all the comments by clicking on the comment/snag list icon on the strategic point menu. Under the snag-list, you can get all the comments, their details & status.

Note: The snag-list is created separately for each point.

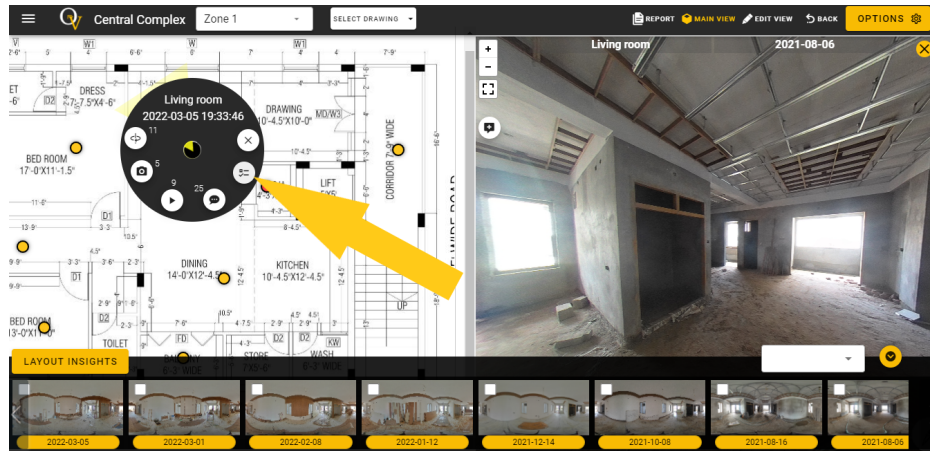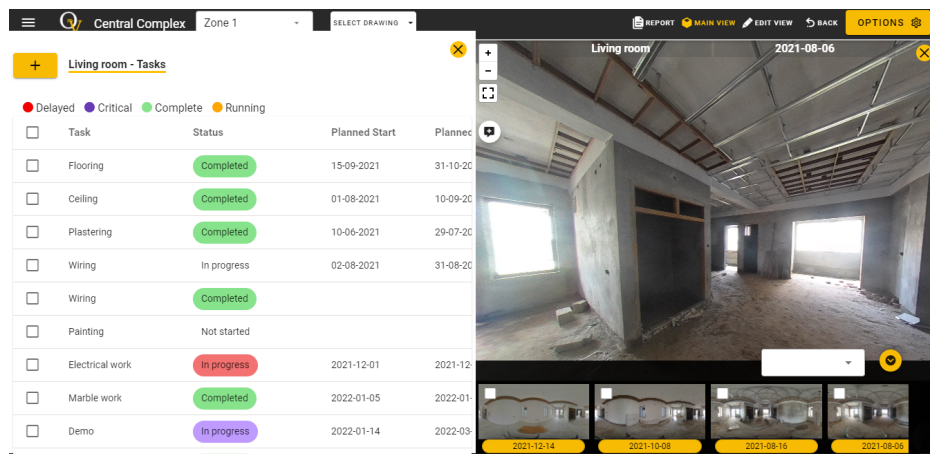**Feature 5.** Create & Manage Task Checklist

To create or manage a task checklist, click on the tasks icon from the strategic point menu.


As you click on the strategic point task checklist, you will be able to view the complete task checklist here. By clicking the plus button, you can also add more tasks here.

Note: The tasklist is created separately for each point.

Feature 6. Compare the 360° image with the BIM model

If you have uploaded the BIM Revit model of your project to the OpticVyu portal from the Options menu > BIM Model, you can view the BIM 3D model alongside the 360° image to compare as-built vs. as planned construction.
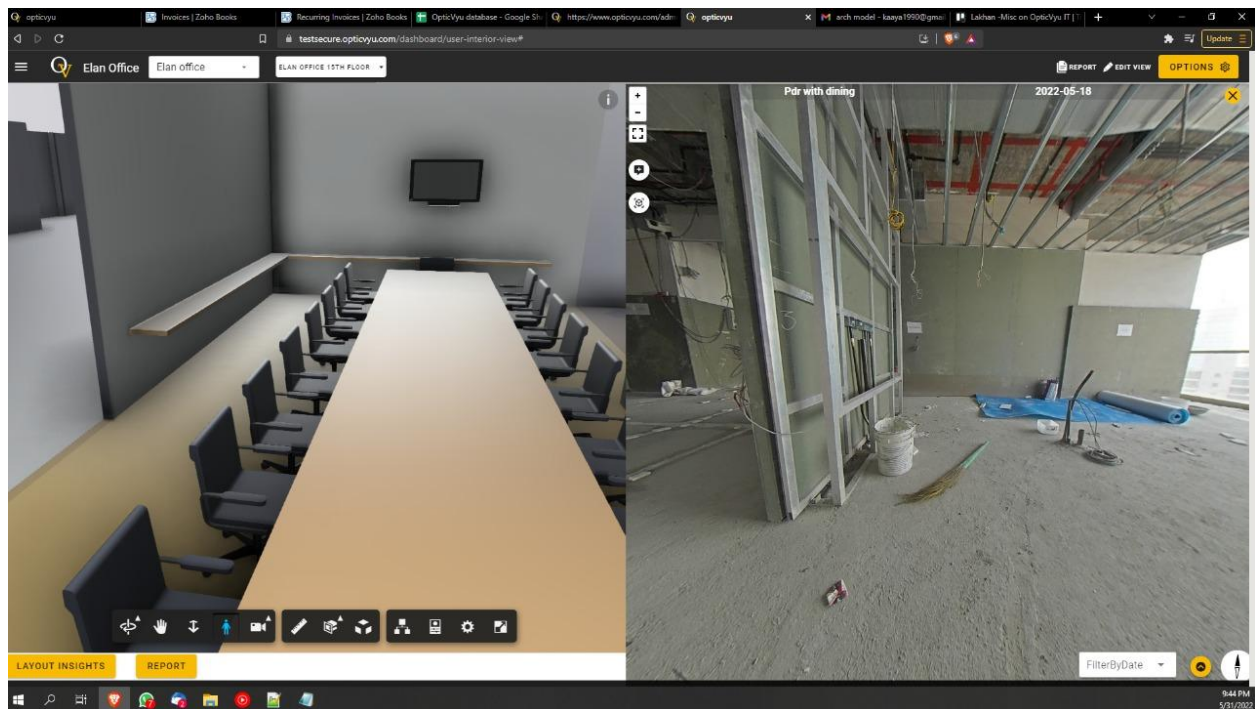
To enable the feature, contact admin@opticvyu.com

Reports

OpticVyu interior monitoring dashboard allows you to create "Floorwise" & "Pointwise" reports. These two types of reports are further classified into 360-degree image report or tasklist/snag list report as explained below.

1. Floorwise reports
   a. Task-list reports
   b. 360° image-based report
2. Pointwise reports
   a. Snag-list report
   b. 360° image-based report

Floorwise Reports:

A Floorwise report can be created by clicking on the reports button in the right top corner. These reports will be useful for getting insights into the whole plan.
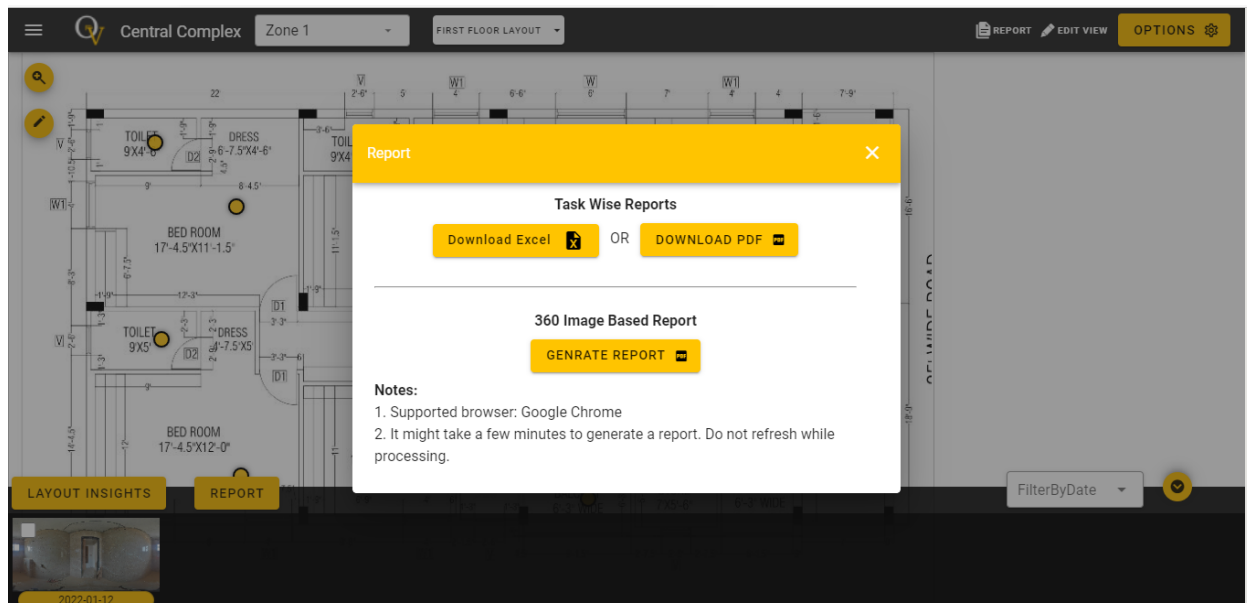

1. Floor-Tasklist Report

To check the tasks, their start dates, end dates, percentage completion, status etc for all the points marked on the plan

Task	Status			Progress %	Tag
Living room					
Bedroom 2					
Marble work	In progress	2021-10-14	2021-12-23	70	
Wiring	Completed	2021-07-05	2021-10-30	95	
Kid bedroom					
Bed	In progress	2022-01-14	2022-03-10	10	
ceiling	Completed	2021-08-11	2021-10-30	95	
Dining room					
Kitchen Platform	Progress	01-07-2021	25-07-2021	10	
Marble work	Completed	2021-10-14	2021-12-23	70	
Modular fitting	Completed	2022-04-09	2022-04-30	60	
Bedroom 1					
Wiring	Completed	2021-08-09	2021-10-30	90	
Flooring	In progress	2021-08-09	2021-10-30	80	

2. Floorwise - 360° Images Report

Creating a pdf report with the latest 360° images captured on all the points of the plan.
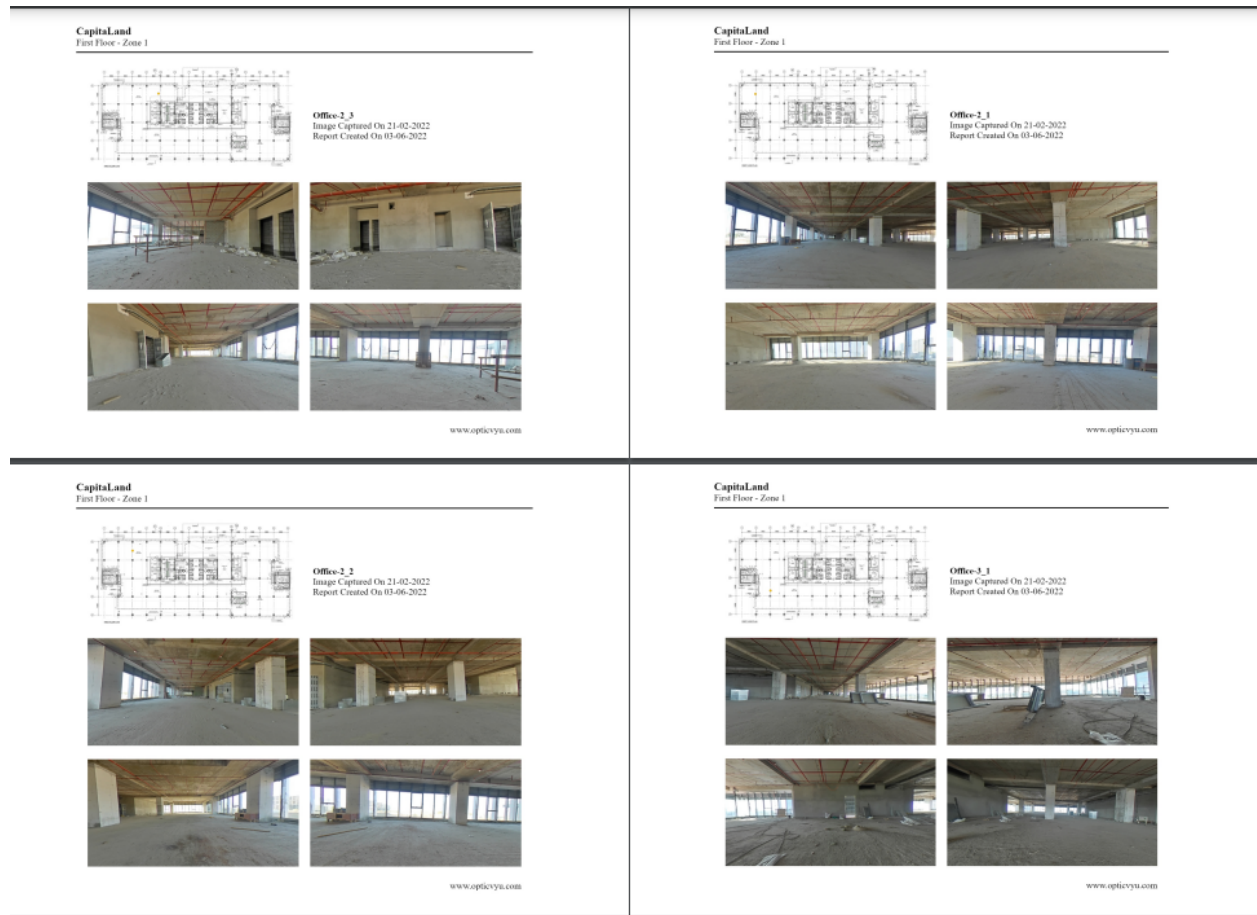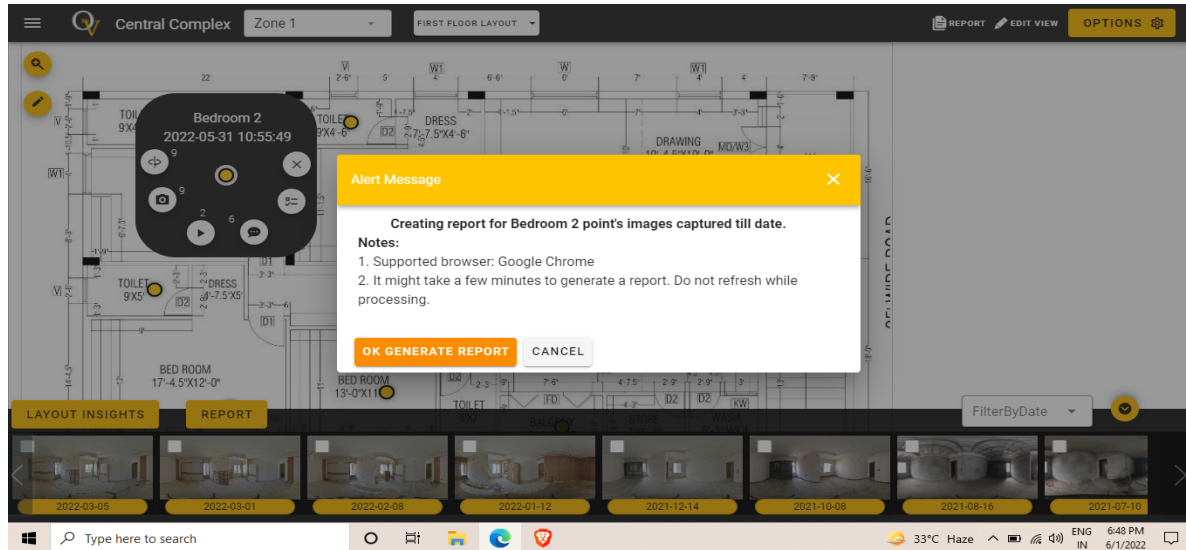
Pointwise Reports:

You must select a point first for which you want to generate a report.

1. Pointwise - 360° Image Report

First select the point and click on the "Report" button placed at the left top of the image timeline.
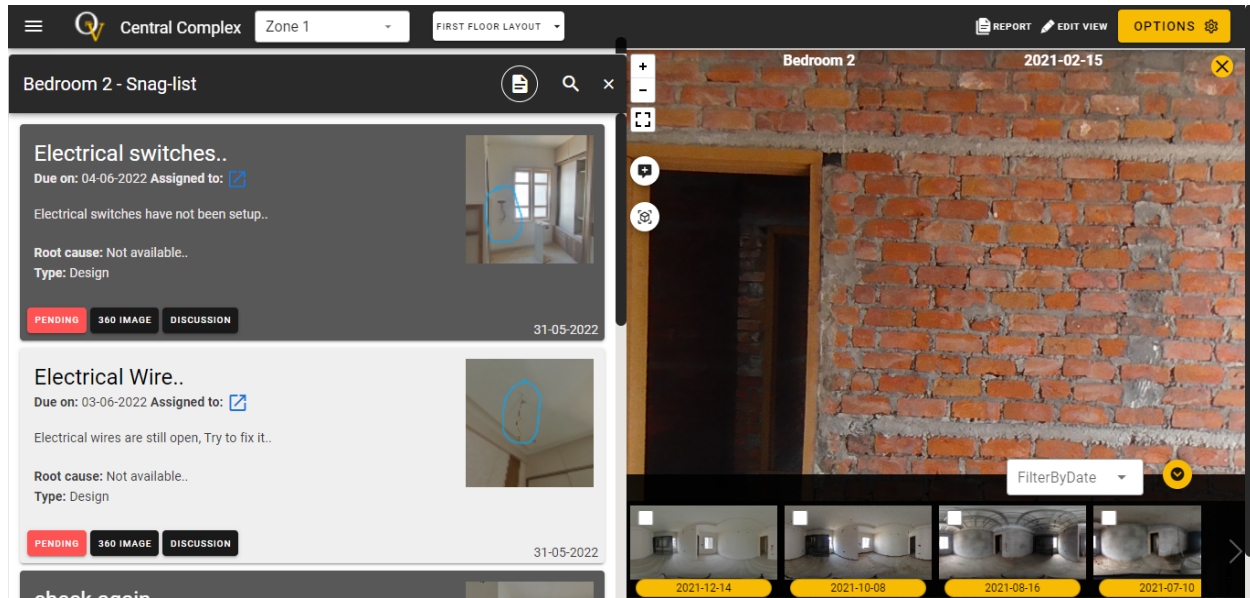

Example of pointwise 360-degree image report

2. Pointwise - Snaglist Report

To create a pointwise snag list report, select the point, open the snag list and click on the report icon.

Example of pointwise snag list report