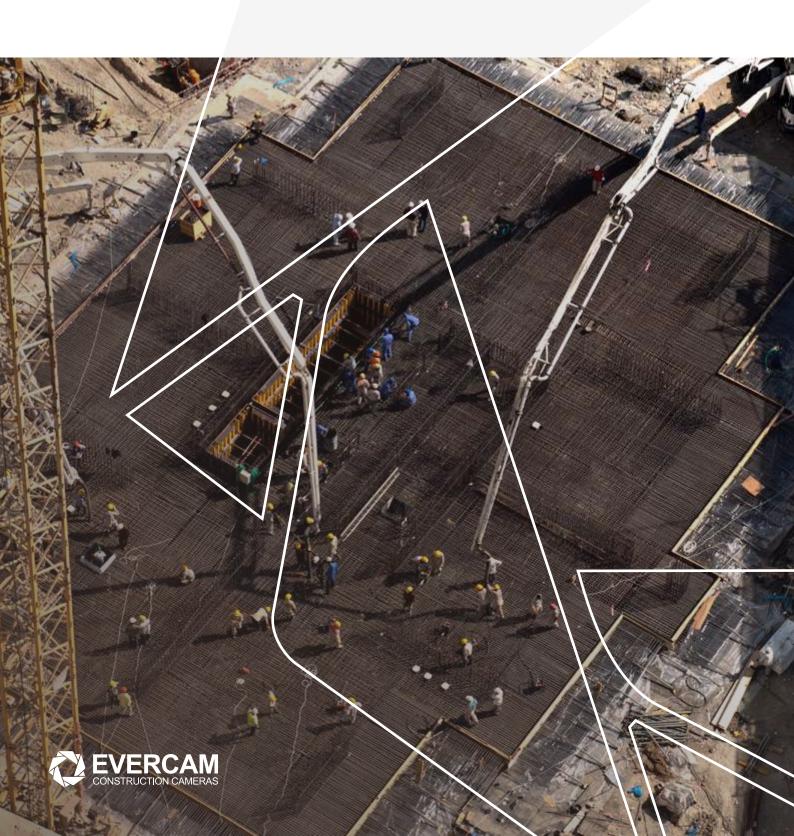
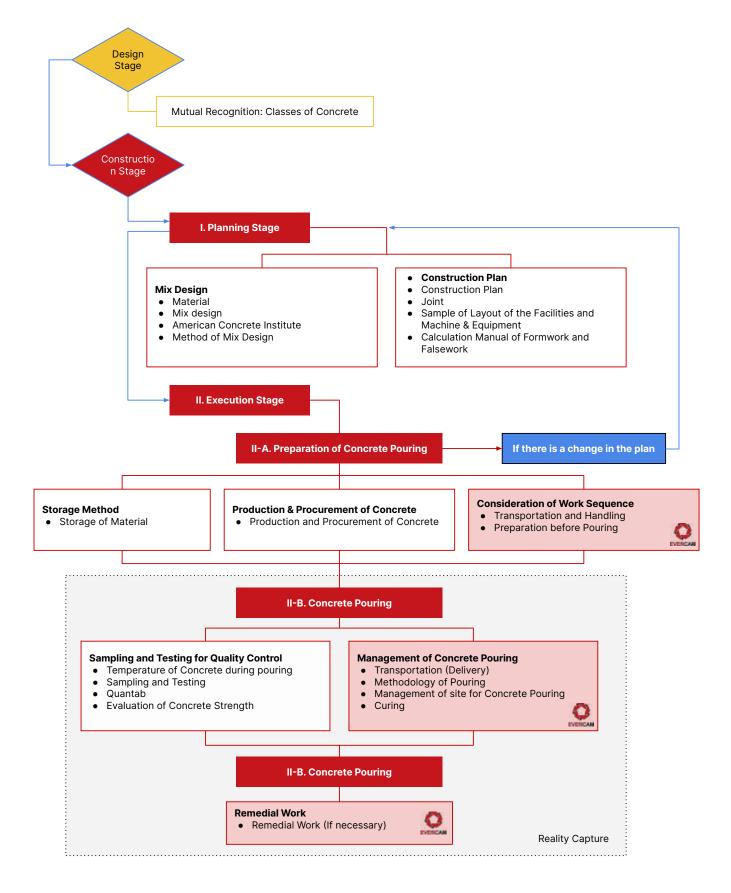
# CaseStudy

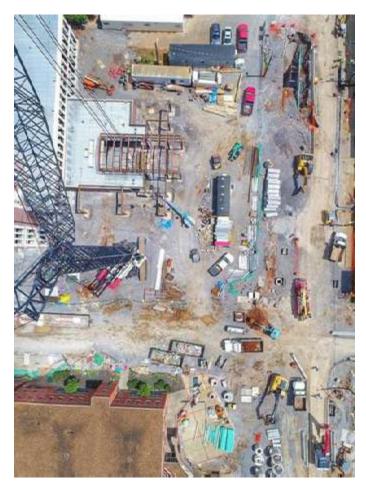
Resolving a Concrete Pour Dispute through Reality Capture





# **Flowchart of Quality Control for Concrete Structure**





# The Integration of Reality Capture in Concrete Pour Workflows

### **Construction Stage**

During the construction stage, the deployment of reality capture cameras is strategic and multifaceted.

#### Planning Phase (Construction Stage - Part 1)

By granting shared camera access to team members, clients, and stakeholders, alignment is achieved as these cameras monitor the arrangement of facilities, machinery, and equipment. Live-streaming this footage keeps stakeholders informed of planning progress and facilitates any necessary adjustments. Material movements are tracked, providing data for project controls and concrete delivery.

<u>Drones provide a bird's-eye view of the</u>
<u>construction site</u>, offering a perspective that
ground-based cameras cannot achieve. This
aerial vantage point allows project managers and
engineers to assess the site layout, positioning of
equipment, and any potential obstacles before the
concrete pour begins.



## **Execution Phase (Construction Stage - Part 2)**

Throughout the execution phase, the 24/7 live view provides real-time tracking of weather conditions, which is critical for determining concrete pour times on site. While pouring concrete, Construction Cameras document procedures for quality control, including pouring, vibration, and setting of the concrete. This data is promptly disseminated among all stakeholders.

### **Post-Pouring Phase**

After the concrete is poured and in the curing stage, cameras continue to document its condition. The real-time weather data feature enables prompt adjustments to ensure optimal curing conditions. This documentation proves vital for quality control and any subsequent remedial work. The live-streaming option serves as an effective tool for stakeholder engagement, offering real-time updates on project completion status. The X-ray feature serves as a reference point to assess the initial condition of the site, the positioning of formwork, and the placement of reinforcement should there be any dispute later on in the project.

# **Centralised Surveillance** and Beyond

The ability to seamlessly switch between multiple live views from a unified dashboard is a boon for firms concurrently managing multiple projects. This feature is seamlessly integrated into the workflow, enabling project managers to effortlessly toggle between various project sites for real-time progress updates.

# **Concrete Pour Disputes** vs Reality Capture

# Case Study 1

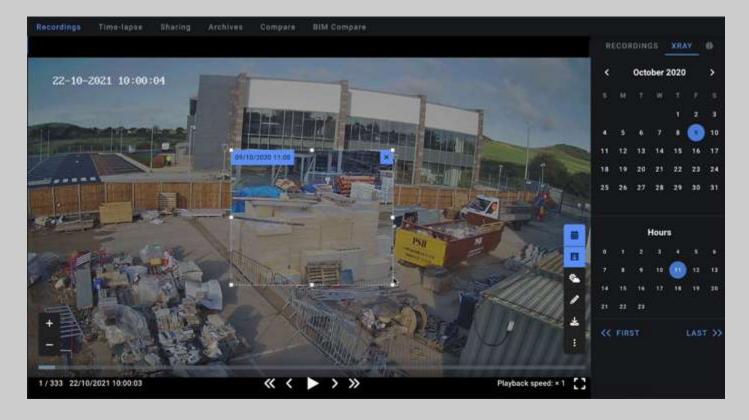
A development project in Dublin, valued at €51 million upon completion, serves as an example of architectural excellence and the intricate legal matters that can arise. A dispute emerged between the property development company and its concrete supplier regarding alleged issues with the quality of ready-mix concrete, resulting in a claim for damages totaling €9 million. This case underscores the pivotal role of technology in resolving high-value conflicts.

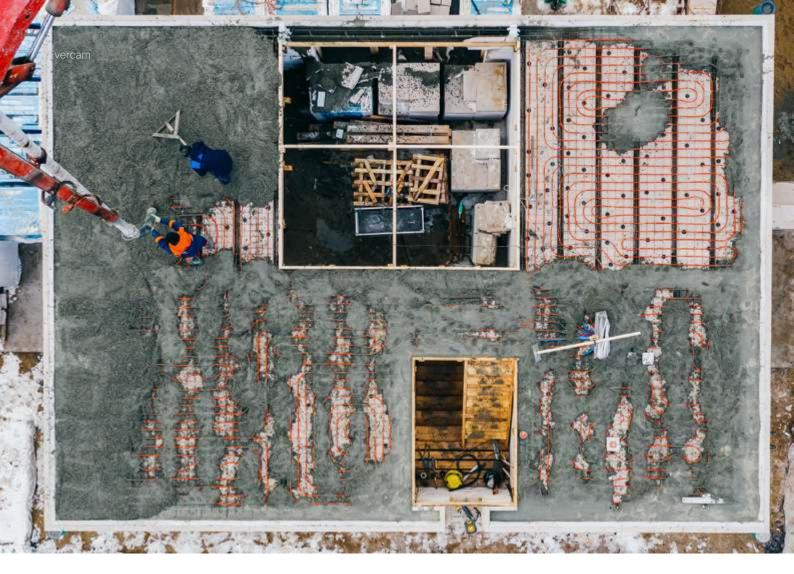
The Dispute: The central issue revolved around allegations of "under-strength" concrete, raising structural concerns for the development's basement walls and ground floor. The party involved contended that the delivered concrete did not meet the specified and approved standards, leading to significant financial losses. Conversely, the respondent vehemently denied any negligence and suggested that any defects might have arisen after delivery.

Reality Capture's Intervention: Reality capture technology facilitated the creation of time-lapse video recordings that offered a comprehensive overview of the construction processes.

This technology enabled the retracing of the concrete's journey post-delivery, potentially revealing any delays or external factors that could have contributed to defects. The respondent's utilisation of technology to support their case and identify potential sources of defects underscored the crucial role of reality capture technology in presenting objective evidence.

**Resolution:** This case underscores how reality capture technology goes beyond construction documentation, becoming a cornerstone of dispute resolution. By providing an irrefutable visual narrative, reality capture offers transparency that traditional documentation might lack. While the final outcome of the case remains uncertain, its implications for resolving disputes within the construction industry are unmistakable.





# Case Study 2

Another building project encountered a significant dispute during the construction phase. The contracted construction company found itself in a challenging situation when the client hesitated to approve the concrete pour on the 5th floor due to quality-related uncertainties. This case highlights how the utilisation of Evercam's reality capture platform played a critical role in dispelling doubts and preventing a potential financial setback.

**The Dispute:** The challenge lay in the client's hesitancy, fueled by suspicions of design changes and subpar quality. The potential financial implications loomed large, with a €7 million commercial setback on the line.

Reality Capture's Intervention: The construction company strategically utilised Evercam's reality capture platform to transform the situation. By providing a real-time, step-by-step validation of the concrete pour process, the construction company demonstrated their adherence to industry best practices. The ability to revisit each moment of the pour, along with features like the X-Ray tool for quick verifications, delivered a clear narrative of quality and compliance.

**Resolution:** The dispute dissolved in the face of undeniable evidence. The client's concerns were alleviated, trust was restored, and the 5th-floor concrete pour received the green light. This case exemplifies how reality capture technology transcends documentation, serving as a conflict prevention tool and a testament to adherence to specifications.

# Conclusion

The construction industry's shift toward embracing reality capture technology is an evolution that benefits all stakeholders. From developers seeking transparency to contractors protecting their integrity, these tools offer a tangible way to bridge gaps in communication, validate claims, and foster cooperation. As technology continues to shape the future of construction, reality capture stands as a beacon of visualisation and transparency in an industry where disputes are inevitable but their resolutions can be transformed.

Whether you want to tell us about your project or find out more about our company, get in touch today and a member of our team will get back to you shortly.

### info@evercam.io



@evercam



evercam



### **Ireland**

6-7 Granby Row, Dublin 1, D01 FW20, Ireland. +353 1919 4500

### UK

344-354 Grays Inn Rd, London WC1X 8BP +44 800 047 2900

#### U.S.A

9639 Hillcroft St #2022 Houston, TX 77096 +1 979 315 1010

# **Singapore**

10 Anson Rd, #22-02 International Plaza Singapore 079903 +65 9699 0677

#### Australia

G 651 Doncaster Rd. Doncaster Vic 3108 +61 390 212 855