

Case study



wallace
design
collective

Wallace Design Collective streamlines quality inspections with XpertEye

About Wallace Design Collective

Established in 1981, Wallace Design Collective is a consulting firm that provides a range of services throughout the USA, including structural and civil engineering, landscape architecture, roof consulting, disaster response and surveying.

Within their structural forensics division, Wallace Design Collective deploys engineers and technicians to job sites across the country to perform quality assurance inspections on specified repairs.

Challenges

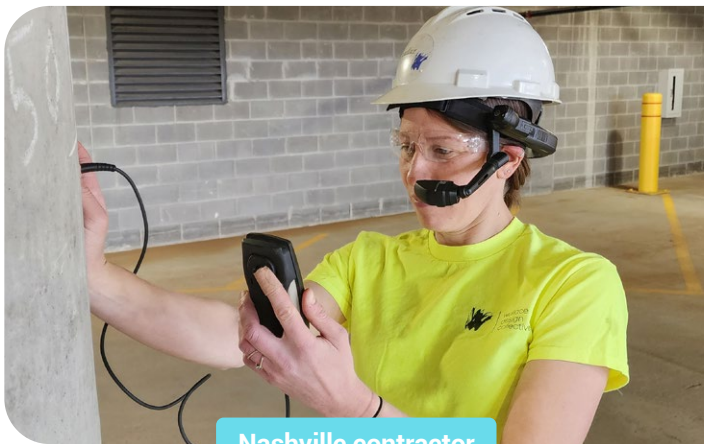
Managing structural maintenance projects at nearly 2,000 sites for a national client presents notable challenges. Traditional quality inspections proved inefficient, involving extensive travel, and causing delays in addressing issues.

- **Inspection follow-up scheduling** is very disruptive and often requires last-minute travel.
- **Return visits:** By the time Wallace Design Collective performs a final quality inspection, the contractor has often already left the site, which necessitates return visits and impacts project timelines.
- **Diverted funds:** Costs associated with inspector travel and contractor remobilization divert funds that could otherwise be allocated toward additional projects or quality measures.
- **Inefficient communication:** Lack of real-time tools for discussing completed work or offering insights during repairs and inspections hinders fast issue resolution.

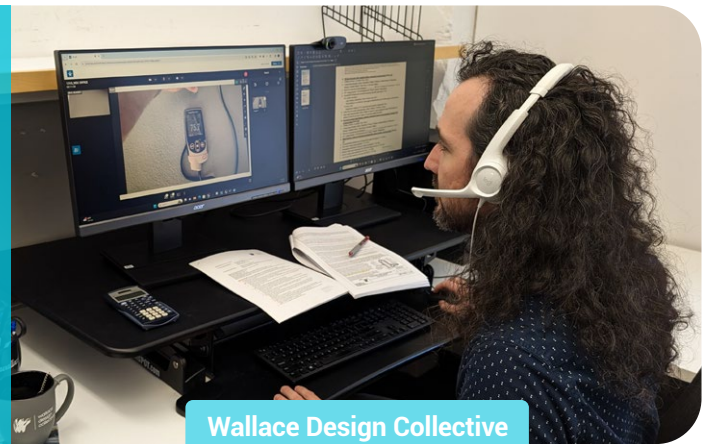
Solution

Seeking a solution with extensive controls from the office side, including abilities to take photos, zoom, show pointers, and insert drawings/callouts into the shared video environment, Wallace Design Collective adopted XpertEye remote assistance to improve the efficiency of inspections and communication with contractors.

Example: In Tulsa, OK, an engineer inspects a Nashville site remotely through XpertEye. The Wallace Design Collective engineer initiates a call with the Nashville contractor who is equipped with smart glasses. The engineer and inspector can walk the completed project together in real time, discuss repair methods, and identify any final punch list items— all without the physical presence of the Wallace Design Collective engineer.



Nashville contractor



Wallace Design Collective
engineer

Results

- **Time savings**
XpertEye's virtual inspections save 6-8 hours of travel time per site.
- **Immediate issue resolution**
Real-time communication with contractors through XpertEye streamlines collaboration, eliminating delays associated with email communication and facilitating quicker decision-making and project closeout.
- **Reduced return visits:** Faster virtual inspections lead to significant savings on contractor remobilization costs.
- **Faster payment approvals:** Inspecting right after repairs helps engineers quickly address problems while avoiding return visits and speeding up payment approvals by 1-4 weeks.
- **Environmental impact:** XpertEye remote support contributes to a reduction in carbon emissions by reducing the need for site visits and contractor remobilizations, aligning with sustainability goals, and promoting greener initiatives.



During final inspections, being able to converse with the contractor in real time about repairs and how they were completed has been valuable, as opposed to delayed back and forth via emails with photos. Additionally, at one site, the contractor was running into unexpected damage in the concrete slab during repairs. Instead of relying on email exchanges for sending photos, we could instantly view the site, engage in conversation, and provide direction using RealWear smart glasses and the XE aR+ application."



Dan Mazzei (PE, SE, CWI, RRO)

Structural Engineer, Roof Consultant and Co-Owner
Wallace Design Collective



Next steps

Since the implementation in August 2023, 19 virtual inspections have been conducted, with plans to extend to 400 sites in 2024 gradually involving all contractors in the repair program.

The plan involves expanding the use of XpertEye to include pre-construction walk-throughs and interim inspections, adding quality assurance measures at no extra cost to the client. This expansion aims to enhance the overall efficiency and effectiveness of the structural inspection process for this large-scale maintenance repair program.

In conclusion, Wallace Design Collective's adoption of XpertEye has resulted in considerable time and cost savings, improved communication, and a streamlined inspection process, highlighting the platform's effectiveness in the field of structural engineering.

