

Vienna, Austria on June 14, 2023

STRUCINSPECT: Above Standard Below Ground — Award for Tunnel Inspection on Los Angeles Metro

At this year's ACEC Engineering Excellence Awards ceremony, Atlas Technical Consultants was recognized for their inspection work on the Los Angeles Metro. ACEC represents nearly 6,000 firms in the US, employing more than 600,000 engineers, architects, land surveyors, highly trained specialists, and licensed professionals. In just a tenth of the time normally required, they were able to inspect important sections of the 163 km long underground rail network. That is all due to the latest technology from the Austrian joint venture STRUCINSPECT.



STRUCINSPECT at this year's ACEC Engineering Excellence Awards ceremony in Washington D.C.

From left to right: David Larson, Business Development Manager US, STRUCINSPECT; Philipp Smole, VP Corporate Incubator, PALFINGER AG; Ernst Forstner, Technical Director, STRUCINSPECT; Bahjat Dagher, PE – Regional Southern California HUB Leader, Atlas Technical Consultants; Lidiya Burashnikova, Engineer, Atlas Technical Consultants;

Albrecht Karlusch, Managing Director, STRUCINSPECT; Patrick Lowry, PE – Division Manager, Atlas Technical Consultants. © STRUCINSPECT

Underground rail tunnels are essential for future-focused and sustainable mobility. At the same time, they are highly complex structures requiring a lengthy and intricate inspection process. Especially when — as is the case with the Los Angeles Metro — earthquakes are an everyday event. By using artificial intelligence and structured data management, Atlas Technical Consultants can inspect the Los Angeles tunnel and rail network twice as fast as before. The American Council of Engineering Companies (ACEC) recognized this success at the Engineering Excellence Awards (EEA) in Washington D.C. on June 13, 2023. STRUCINSPECT technologies are at the center of the showcase project. "Thanks to STRUCINSPECT's artificial intelligence and Infrastructure Lifecycle Hub, we have been able to streamline our inspection processes, achieving shorter inspection times while increasing data quality," says Bahjat Dagher, PE - Regional Southern California HUB Leader, Atlas Technical Consultants. "STRUCINSPECT's artificial intelligence and ability to customize and integrate their approach and technology into our existing process and procedures produces results that exceeded all of our expectations," adds Patrick Lowry, PE – Division Manager, Atlas Technical Consultants.

STRUCINSPECT in the LA Metro: Modern data collection and processing

Tunnel inspections rely on being able to identify, assess and process damage and defects at an early stage as quickly as possible, because long tunnel closures need to be avoided at all costs for the sake of the passengers. "What used to be a complex project in civil engineering is now time-efficient and even safer thanks to the very latest technologies," says STRUCINSPECT Managing Director Albrecht Karlusch. "In Los Angeles, together with Atlas Technical Consultants, we succeeded in implementing a real showcase project in the area of tunnel inspection, in which we were able to deliver an impressive level of site-specific solutions, structured data management and precision." In the Californian metropolis, three factors led to success: radial cameras, artificial intelligence and orthomosaic mapping. Using a push car equipped with radial cameras, it was possible to inspect up to three miles of tunnel per night below the city, allowing work to be carried out six times faster. Artificial intelligence also made it possible not only to record damage and defects, but also to assess their development over time. As a result, the engineers working on the project have a better basis for decision-making on maintenance measures. STRUCINSPECT also provided the technology for orthomosaic mapping, which enabled a distortion-free and true-to-scale depiction of defects. Compared to conventional inspection methods, this system records and assesses the condition of each section of the structure even more precisely. The data is processed in the STRUCINSPECT Infrastructure Lifecycle Hub, which provides a central interface for documenting and collating data.

The winning project clearly shows that highly complex processes such as tunnel maintenance can be made safer, more efficient, and more sustainable for both the project team and customers by applying digital technology solutions.

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PRESS RELEASE

About PALFINGER Structural Inspection GmbH:

STRUCINSPECT is a joint venture founded in 2019 between PALFINGER, VCE and ANGST Group. By providing digital services and establishing the world's first hub for digital structure management, the **Infrastructure Lifecycle Hub** STRUCINSPECT maintains infrastructure assets around the world safely and sustainably while saving resources. The Infrastructure Lifecycle Hub is the online collaboration platform that forms the core of the company. The platform combines technologies and functions in the area of holistic digital structure management. The solution is primarily geared for established infrastructure operators and test engineers with an openness to future-focused and digital solutions. The functions provided are currently being used for bridge, tunnel and dam asset classes.

About Atlas Technical Consultants

Headquartered in Austin, Texas, Atlas is a leading provider of Infrastructure and Environmental Solutions. We partner with our clients to improve performance and extend the lifecycle of built and natural infrastructure assets stressed by climate, health, and economic impacts. With 3,500+ employees nationwide, Atlas brings deep technical expertise to public- and private-sector clients, integrating services across four primary disciplines: Environmental (ENV); Testing, Inspection and Certification (TIC); Engineering & Design (E&D); and Program Management/Construction Management, and Quality Management (PCQM). To learn more about Atlas innovations for transportation, commercial, water, government, education, and industrial markets, visit <https://www.oneatlas.com>.

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Texts and their accompanying images are available in the "Press" section of www.strucinspect.com.