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First ICC-ES Report to AC509 for 3D Concrete Walls Issued to Black Buffalo 3D Corporation

Evaluation report highlights the emergence of automated construction technology in the built environment

Brea, CA – At the forefront of conformity assessment for innovative and emerging technologies, ICC Evaluation Service (ICC-ES) is excited to announce the publication of the first evaluation report to Acceptance Criteria (AC) 509 for automated construction technology.

[ICC-ES AC509](#) for 3D Automated Construction Technology for 3D Concrete Walls includes provisions for single and multi-story construction. AC509 establishes guidelines for evaluation of the material and durability properties of proprietary 3D concrete and the structural performance and fire-resistance of 3D concrete walls.

[Black Buffalo](#) 3D Corporation was the first 3D construction company to receive a building code compliance report after fulfilling the material, durability, structural design, safety and quality control requirements of ICC-ES AC509 for 3D Automated Construction Technology for 3D Concrete Walls. The samples were printed with its NEXCON printer utilizing its proprietary ink developed in partnership with MAPEI North America, and sold as Planitop 3D.

“As new and innovative approaches to construction are explored, building code compliance continues to be a priority for the safety of our citizens,” said ICC-ES President Shahin Moinian, P.E. “An ICC-ES AC509 report gives code officials peace of mind while approving such a method of construction, knowing the product has met the rigorous requirements of ICC-ES.”

“Working with the ICC-ES team on the building code compliance report was an important step in advancing the 3D construction printing industry,” said Derek Chung, Founder and Interim CEO, Black Buffalo 3D. “We are proud of this

accomplishment and the work our team did alongside our partner MAPEI to develop a complete 3D construction solution.”



Black Buffalo 3D Concrete walls are structural walls - printed with NEXCON 3D automated construction technology and Planitop 3D - used as bearing walls, non-load bearing walls, and shear walls in multi-story structures. Black Buffalo 3D Concrete walls are an alternative to concrete walls as described in ACI Code 318, and as permitted by Section 104.11 of the IBC. More information can be obtained from [ESR-4623](#).

Large scale 3D construction printing has been gaining in popularity, and has the potential to help governments and businesses address a number of infrastructure needs including closing the gap on affordable housing deficits, speeding up disaster recovery efforts and providing more value to much-needed infrastructure improvements throughout the world.

ICC-ES is the only entity with the institutional knowledge accredited to review products against its Acceptance Criteria. Learn more about ICC-ES [Acceptance Criteria development](#). ICC-ES encourages manufacturers to comply with the most current codes to increase market acceptance.

For more information about updating your product's compliance to the current codes, contact ICC-ES at 800-423-6587 or es@icc-es.org.