



# Cantilevering Shakespeare Over the Subway

**Jared M. Green, PE,**

Principal  
Langan

**Pat Arnett, PE**

Principal  
Silman

## Abstract:

The construction of the Theater For a New Audience at the Polonsky Shakespeare Center presented several structural and geotechnical engineering challenges. The design team was charged with creating a black box performance space with top notch acoustic and vibration properties – not a simple task since the site sits among some of the busiest streets in downtown Brooklyn and the New York City subway runs under the two streets fronting the parcel. Langan and Silman worked together with the project team to develop an isolated “double mat” foundation system that cantilevers over the subway. Additionally, the lobby of the theater and its massive glass panel façade cantilevers out from the main body of the acoustically separated performance hall. Jared Green from Langan and Pat Arnett from Silman will discuss the engineering solutions that went into this unique design.



## Bios:



Jared Green is a professional geotechnical engineer with more than 17 years of experience ranging from initial subsurface investigations and schematic designs to construction phase oversight for complex projects throughout the New York Metropolitan Area, Upstate New York, New Jersey, Eastern Pennsylvania and

Delaware. He leads multidisciplinary projects that include geotechnical instrumentation monitoring; analysis, design and construction inspection of foundation systems and retaining structures; evaluation of earth and rock slope stability; and preparation of geotechnical engineering reports. He is highly skilled at developing creative design solutions for performing excavation alongside historic structures and sensitive below-grade transit tunnels.

Green is active within the Deep Foundations Institute, the American Council of Engineering Companies of New York and Pennsylvania, the American Society of Civil Engineers, the Salvatori Center, the AIA Philadelphia Historic Preservation Committee and is the host of the Engineering Management Institute's Geotechnical Podcast.



Pat Arnett joined Silman in 1999 and has been a Principal of the firm since 2017. As a studio leader, he has actively designed and managed a diverse range of adaptive reuse, renovation, and new construction projects. He frequently works with cultural institutions, universities, public agencies, developers, non profits, and he collaborates with artists

on designs for temporary and permanent installations.

Since 2011, Pat has been a studio consultant for the Rice School of Architecture, and he has been an adjunct professor at Columbia University since 2013. He is currently a professional mentor for the Engineers without Borders Manhattan College chapter and was formerly the mentor for Princeton University. As a mentor for the organization, he has worked with students on projects located in Ghana, Morocco, Cameroon, and Puerto Rico.

Some of Pat's notable projects include the Flight 93 National Memorial, the Siebel Center for Design at the University of Illinois Urbana-Champaign, the newly renovated New York Public Library Mid-Manhattan Library, and the adaptive reuse of the historic Empire Stores in Brooklyn, NY.

Monday, April 26<sup>th</sup>, 2021 4:00 – 5:00 p.m. (CDT)

Join us: <https://go.cee.illinois.edu/Seminar-by-Green-and-Arnett>