Vicki Arbitrio is an Associate Partner at Gilsanz Murray Steficek. In her 35 year career as a structural engineer she has worked on a wide range of projects, both new construction and renovation. Among the new construction projects, Ms. Arbitrio has worked on residential towers, hospitals, office buildings, industrial facilities, and specialty projects such as art installations and forensic reports. She has been involved in renovating buildings, libraries and schools. In her role as an Associate Partner, Ms. Arbitrio has directed many of GMS's operational efforts including the streamlining of human resources, hiring of new staff, overseeing marketing and business development, and creating standards for office communications.

Ms. Arbitrio contributes to the structural engineering industry through involvement in professional societies both locally and nationally. In 2016-2017 she served as the President of the Applied Technology Council, a nonprofit corporation committed to advancing engineering applications for hazard mitigation, whose projects address compelling problems in earthquake engineering, as well as wind and coastal engineering. In 2019, she was named the Structural Engineers Association of New York (SEAONY) Honorary Member.

After Hurricane Sandy, Ms. Arbitrio was a member of the American Society of Civil Engineers, Structural Engineering Institute's (ASCE/SEI) team to study the effects and consequences of flooding on the urban environment of New York City. The team made recommendations for changes to ASCE/SEI 24, Flood Resistant Design and Construction standard which is referenced in the New York City Building Code and in the International Building Code (IBC). She was also a member of the GMS team contracted by the New York City Department of Buildings to perform structural assessments alongside DOB electrical and mechanical inspectors for all buildings within Zone A. This effort continued through December of 2012.

As the Secretary of SEAONY, Ms. Arbitrio helped mobilize the structural engineering community to respond at the WTC site after 9/11 – coordinating over 400 NYC-based structural engineers who volunteered. She organized engineering teams to assist the Contractors working for the NYC Department of Design and Construction, establishing protocols and procedures which were adopted by the DDC team once they were set up onsite. She also informed the structural engineering community who were waiting to assist, about what was going on and how they could help. The national community realized that more consistent procedures were required. As a result, Ms. Arbitrio worked with other engineers and emergency responders to write the first edition of the Structural Engineers Emergency Response Plan Manual, published by the National Council of Structural Engineers Associations (NCSEA) in 2003.

When Hurricane Katrina struck the southern coast of the United States, Ms. Arbitrio was the President of NCSEA and again, she helped mobilize engineers to assist. However, the large number of lawsuits following 9/11 limited the response due to liability concerns. She helped draft and has strongly advocated for Emergency Responder legislation in New York and across the country. In 2006, Ms. Arbitrio participated with other SEAoNY members on committee for the NYC DOB to create a pamphlet explaining the concepts and dangers associated with underpinning of existing buildings, tailored to homeowners and their contractors. In 2019, Ms. Arbitrio was named an Honorary Member of SEAoNY.

Ms. Arbitrio was the 2018-2020 Chair of the American Council of Engineering Companies New York Metro Region (ACEC-NY), a coalition of more than 270 consulting engineering firms. ACEC New York promotes the business interests of member firms through networking, advocacy, education and

business services. She is also a member of the ACEC-Public Policy committee reviewing bills proposed by City Council or the NYS legislature as they may affect the local engineering community and the public welfare.

Outside her engineering work, Ms. Arbitrio has volunteered at her child's school, as a member of the School Leadership Team providing parent input about the curriculum to the school administration and organizing workshops to improve the skills of the parent community in order to support their children's education. She is a Pacesetter fundraiser for the American Cancer Society Making Strides Against Breast Cancer program since 2003. Ms. Arbitrio and her family have lived in NYC since 1994.

EDUCATION TUFTS UNIVERSITY Medford, Massachusetts

Bachelor of Science in Civil Engineering May 1983

LICENSES Registered Professional Engineer in New York State

Certification through the Structural Engineering Certification Board

PROFESSIONAL Chair 2018-2020 and Public Policy Committee, American Council of Engineering

ASSOCIATIONS Companies New York Metro Region (ACEC-NY)

Honorary Member for 2019 Structural Engineers Association of New York (SEAONY);

Secretary 1999-2001, Diversity Committee

Board of Directors, Structural Engineering Certification Board (SECB)

Fellow, Structural Engineering Institute of ASCE Member, American Society of Civil Engineers

Member, Architectural League

Member, Art, Culture and Education Committee, New York Building Congress Board Member of the Applied Technology Council 2011-2018; President 2016-2017 Board Member 2001-2007, National Council of Structural Engineers Associations

(NCSEA); President 2005-2006

ASSOCIATE PARTNER

EXPERIENCE GILSANZ MURRAY STEFICEK September 2000 to Present

ASCE Funded Study: Hurricane Sandy – October 29, 2012. An Urban Flooding Study

Surveyed flood damage to urban (primarily high rise) buildings in downtown Manhattan following Hurricane Sandy. Interviewed building managers regarding events and floor areas affected. Assisted team leader Bill Coulbourne with recommendations to be included in commentary of ASCE 24.

New York City Department of Buildings, Emergency Services for Sandy

Surveyed buildings in Downtown Manhattan, Brighton Beach, and the Rockaways. Posted buildings with placards in compliance with ATC 45 guidelines and New York City Building Department instructions. Filed damage reports for each property.

Tavern on the Green, New York, NY

GMS provided structural engineering services for the evaluation of the existing structure for new loads resulting from new mezzanines and mechanical equipment,

modifications to the existing framed floors for new openings. In the exterior courtyard we designed footings and ballast for the proposed new awning and tent structures, and the repair/reinforcing of the existing floors due to deterioration and changes in loads.

Nine Townhouses, Brooklyn, NY

Structural engineering services for Nine Townhouses, approximately 3,000 SF each and four to five stories high creating an assembly of individual modern houses, no one exactly the same as another, but each purposely placed to form a rhythmic grouping along the length of the street. This second phase adds to the original 14 townhouses that are similar, yet different, down the block on State Street.

PS 1 - Contemporary Art Center, Visitors Center, Queens, NY

A new single story, architectural concrete entry building for PS1, constructed within the existing courtyard walls. As a separate project we are providing engineering to allow for full HVAC upgrade in the south galleries.

Stapleton Branch Library, 132 Canal Street, Staten Island, NY

Renovation and expansion of the current, 4,500 sf library, with a 6,500 sf addition. The new layout will include reading room areas for adults, young adults and children, a new story hour area adjacent to the children's reading room, a computer training area, and a new community room. New staff facilities include a new workroom, head librarian office, children's librarian office, and a staff lounge.

AOL at 770 Broadway, New York, NY

Interior fit-out of three full floors in the landmarked Wanamaker building. Project included reinforcing of the 5th floor structure to reduce framing depth and gain ceiling height for a new broadcast studio on the 4th floor.

Libra House, New York, NY

Renovation of a six-story townhouse to accommodate Corporate Offices. The front half of the ground floor was lowered to provide ADA compliant access from the street and the middle of the three front columns was removed between the first and second floors in order to center the entry.

PS 59 at Manhattan Eye Ear and Throat Hospital, East 63rd Street, New York, NY

Renovation of a former Nurse's Dormitory on 63rd Street for use as an elementary school. Project included new elevator, new stairs, new, higher roof for mechanical equipment and play area with increased ceiling height below. The 6th floor required reinforcing for use as a gym. Certified as an NYC School Construction Authority Green Building.

Ossining Public Library, Ossining, NY

A new 45,000 sf library is steel framed with composite concrete slabs and brick and 6" block cavity wall. The library was required to demolish the existing building and

properly phase the construction for continuous operation. The library is registered with the US Green Building Council as LEED™ certified.

The Institute for the Study of the Ancient World, 15 East 84th Street, New York, NY

Renovation of a 100-year-old, 27,000 sf, six-story townhouse to house the new Institute, and include space for exhibitions, a substantial library, and lectures. Special features included the lowering of the entry level to accommodate ADA standards and dismantling 3 floors in order to build 4 levels of high density files for the library. This project was featured in Metals in Construction magazine.

AOL Time Warner Headquarters, New York, NY

Extensive interior fit-out for 16 floors of office and studio space including structural reinforcement for information technology infrastructure, high density filing systems, new mechanical equipment and mezzanines, screening theater, eight new stairs including two monumental stairs, and a new elevator.

State Street Townhouses, Brooklyn, NY

Structural engineering services for 14 Town Houses, approximately 3,000 SF each and four to five stories high creating an assembly of individual modern houses, no one exactly the same as another, but each purposely placed to form a rhythmic grouping along the length of the street. The second phase of this project proposes 9 additional houses that are similar, yet different.

Longchamp Stair, 128-132 Spring Street, New York, NY

Vibration study and structural optimization for a 55-ton steel stair Longchamp's new flagship store in SOHO. This stair synchronizes architecture and structure to form an elegant, fluid path up to the second floor. This project was featured in Metals in Construction and STRUCTURE magazine.

Cooper Hewitt, National Design Museum, New York, NY

Structural consulting for various exhibits and installations including:

Design of the other 90%

May 4, 2007 – September 23, 2007.

Triennial Wall Flowers (Ken Smith Landscape Architect)

December 8, 2006 – July 29, 2007

Vanderbilt Hall, Grand Central Station, New York, NY

Structural consulting for various exhibits and installations including:

Johnny Walker Blue – Engraving Kiosk Google Maps Launch Scotland Village Pavilion, Tartan Week Popular Science: Best of What's New Showcase World Vision Set- African Village Bank of America Exhibit

Solomon R. Guggenheim Museum, New York, NY

Structural consulting for various exhibits and installations including:

Anish Kapoor – Memory

October 21, 2009-March 28, 2010

Zaha Hadid

June 3 - October 25, 2006

Marina Abramovic Platform

Fall 2005

The Eye of the Storm: Works in situ by Daniel Buren

March 25 – June 8, 2005

The Aztec Empire

October 15, 2004 - February 13, 2005

Rirkrit Tiravanija's Untitled 2002 (Schindler House)

October 8 – October 11, 2004

Moving Pictures (Fabric Helix)

June 28, 2002 – January 12, 2003

Brazil: Body and Soul

October 19, 2001 – May 29, 2002

Frank Gehry, Architect

May 18, 2001 – September 4, 2001

Cremaster 3 – Matthew Barney Film Assorted Film Staging

September 17, 2000 – September 25, 2000

Solomon R. Guggenheim Museum, New York, NY

Structural consulting for various parts of the structure, including the terrace structure.

Yves Saint Laurent Party, Solomon R. Guggenheim Museum, New York, NY

Provided structural engineering services related to the installation of riderless mechanical bulls on elevated platforms. The party was held on Thursday, December 15, 2005.

Sicis at 470 Broome Street, New York, NY

Renovation of the cellar, ground and second levels for retail use. Project included replacing existing timber on the first floor with new steel and concrete slab in order to showcase the Italian glass mosaic tiles. Also included 2 stairs with glass treads.

World Trade Center 7, New York, NY

Development of structural models and collapse hypothesis' for NIST.

Louis Vuitton, Americana Manhasset, Manhasset, NY

The renovation of a 7,718 SF retail space with new custom designed curtainwall.

Rodino Federal Office Building, Newark, NJ

Façade investigation, report and renovation to an office building.

Pace University Judicial Institute & Parking Garage, White Plains, NY

This three level building will house training facilities for New York State Court Justices including classrooms, conference rooms, a library and dining facility.

IS 115X, Bronx, NY

For School Construction Authority: condition survey and repair design for locker room ceiling, which supports rooftop playgrounds, and design of a new underground pit for pool equipment.

Katharine Gibbs School, 50 West 40th Street, New York, NY

Renovation and modernization of a former plumbing showroom and warehouse. Eight stories of classrooms and offices, new elevator, additional floor, full mechanical upgrade.

Trinity Elementary School, New Rochelle, NY

Three-story, 35,000 SF addition to an occupied school, including new classrooms and storage space.

Isaac E. Young Middle School, New Rochelle, NY

Three-story, 31,000 SF addition to an occupied school, including new classrooms and storage space. Also provide consulting services for the sculpture, stair and glass floors.

Zwirner Gallery, 521 West 19th Street, New York, NY

Renovation and conversion of an existing warehouse space into an art gallery.

Zwirner Townhouse, New York, NY

Renovation of a townhouse in Manhattan.

Issey Miyake Store, 119 Hudson Street, New York, NY

13,000 sf retail and showroom space in a former warehouse built of timber and cast iron.

Daily News Printing Plant, Jersey City, NJ

Addition of new printing presses to the existing press lines. Also added loading docks, satellite dishes and re-configured the "control tower" for the delivery truck docks 60 bays.

Woolworth Building, 233 Broadway, New York, NY

Conversion of the upper portion of the existing landmark structure to residential apartments including new elevators, complete mechanical and electrical upgrades, addition of parking and a health club in the basement levels. Also, refurbished the lower levels for restaurants and retail space as well as the intermediate levels for office tenants.

Maimonides Medical Center, Brooklyn, NY

New building as part of the on-going master plan at the hospital to upgrade services provided to the community.

Center for Jewish History Art Installation, New York, NY

Structural reinforcement for the installation of a large painting by Diane Samuels.

WEISKOPF & PICKWORTH, LLP ASSOCIATE

September 1983 to August 2000

LVMH Tower, New York, NY

23-story, 103,000 sf office building with retail floors for Louis Vuitton brands. Structural design, detailing, shop drawings, construction administration, and tenant fit-out.

The Ronald Reagan Building & International Trade Center, Washington, DC

3.2 million sf complex including offices, a public retail concourse, connections to the Metro and parking for 2,500 cars. Structural design, detailing, shop drawings, construction administration, tenant fit-out and review for Trade Center special events and sculpture installations.

U.S. Holocaust Memorial Museum, Washington, DC

250,000 sf structure where eight five-story towers surround a three-story sky lit atrium, and a semi-detached hexagonal Hall of Remembrance. Modeling, analysis and preliminary design for skylight, general building design.

Abbey Aldrich Rockefeller Folk Art Center, Colonial Williamsburg, VA

28,000 sf museum. Review steel shop drawings for complex pitched roof and less complex flat floors.

712 Fifth Avenue, New York, NY

53-story concrete office tower with two restored landmarks at its base. Wind frame modeling, analysis and design using in-house software.

POSITIONS IN YALE UNIVERSITY – School of Architecture UNIVERSITIES

New Haven, CT

Structural Lecturer, Systems Integration

Spring 2016, Spring 2019

PRATT INSTITUTE

Brooklyn, NY

Professor of Structures in Architecture Department

September 2011-January 2013

AWARDS AND

Juror for the FIGMENT 2020 City of Dreams Pavilion Design Competition to be built **CIVIC ACTIVITIES** on Roosevelt Island in Summer 2020.

> Juror for the FIGMENT third annual 2012-2013 City of Dreams Pavilion Design Competition built on Governor's Island in Spring 2013.

PRESENTATIONS, SEAONY Honorary Member Acceptance speech, CFA, New York, NY, September 2019.

PUBLICATIONS AND PAPERS

"Women in Structural Engineering Sees the Future of Structural Engineering" by Sarah Vaughan-Cook, Vicki Arbitrio, Patti Harburg-Petrich, Erleen Hatfield, Kelli Roberts, Angie Sommer presented at Structures Congress in Fort Worth, TX, April 2018.

"Hurricane Sandy – October 29, 2012. An Urban Flooding Study", Coulbourne, W. L.; Cohen, J.; Arbitrio, V.; McMillan, W.; Frank, S.; Mandrick, J.; Gallego, A., ASCE, New York, NY, October 12, 2015.

A Brief History of ATC by Vicki Arbitrio, STRUCTURE Magazine, April 2015

<u>10 Years Later: Most Settled, but What Will Happen Next Time?</u> by Victoria Arbitrio, STRUCTURE Magazine, September 2011

<u>"Green" Design Strategies Have Direct Impact on Structural Design</u> by Victoria Arbitrio, Green Building News, February 2012

<u>Longchamp Stair Optimization and Vibration Study</u> by Victoria Arbitrio, STRUCTURE Magazine, February 2009

<u>Stepping Back in Time</u> by Victoria Arbitrio, PE, SECB, Randall Goya and Julie Hausch-Fen, Modern Steel Construction, October 2008

<u>Institute for the Study of the Ancient World New Steel Structure Redefines an Old Townhouse</u>, Metals in Construction, Fall 2007

Think Globally, Act Locally, by Vicki Arbitrio, STRUCTURE Magazine, September 2006

<u>Shares Well with Others... SEA Activities Matrix</u> by Vicki Arbitrio, STRUCTURE Magazine, May 2006

Perpetual Student? by Vicki Arbitrio, STRUCTURE Magazine, November 2005

300 Madison Avenue: Practical Defensive Design Meets Post 9/11 Challenge, STRUCTURE Magazine, April 2005

"Collaboration in the Disciplines", Architecture Week 2004: Design-In Marathon, Center for Architecture, New York, NY, October 5, 2004

"Structural Case Study: Frank Lloyd Wright's Guggenheim Museum", AIA New York State Convention, Ithaca, NY, August 27, 2004

<u>Lead, Follow or Get Out of the Way: Advocating for Structural Engineers</u> by Vicki Arbitrio, STRUCTURE Magazine, March 2004

An Expert Within the Industry Asks "Are You Prepared For An Emergency?" by Vicki Arbitrio, New York Real Estate Journal, January 31, 2004

"SEERPlan Manual Structural Engineers Emergency Response Plan", SEER Committee, National Council of Structural Engineers Associations, 2003 Presentation at Columbia University, New York, NY December 8, 2003

"The Structural Engineer's Role in Disaster Preparedness, Response and Recovery", SEARI Providence RI, and BASE Boston, MA, November 2002

"FEMA – ASCE World Trade Center Building Performance Study", AIA New York State Convention, Buffalo, NY, October 11, 2002

<u>Update from New York</u> by Vicki Arbitrio, STRUCTURE Magazine, July/August 2002

World Trade Center Building Performance Study: Data Collection, Preliminary Observations, and Recommendations – Federal Insurance and Mitigation Administration of the Federal Emergency Management Agency – Book 403, May 2002

"Organizing the Structural Engineering Efforts at the World Trade Center", ACI Annual Conference, Detroit, MI, April 23, 2002

"Preliminary Response at Ground Zero", National Council of Structural Engineers Associations Annual Conference, Manchester, NH, October 2001

Federal Triangle Finale by Victoria Arbitrio, Civil Engineering Magazine, May 1998