

M. Gates Browne is a licensed Professional Civil/Structural Engineer in the states of California, Arizona, Texas, Oklahoma (inactive), Iowa, and Ohio. Gates has passed the NCEES 16-hour Structural Engineering Exam (Vertical & Lateral). He is currently employed with Simply Structural located in Tempe, Arizona. During his career he has been involved in the design of residential, commercial, infrastructure, industrial, entertainment, and storm shelter structures.

While at a previous employer (Select Structural Engineering) Gates mastered lateral design of multi-story wood structures, creating awareness of the need for continuous load path with his colleagues, and providing training to other engineers at SSE on the design and detailing of wood structures to meet lateral demands. Gates was the technical manager of SSE's Cedar Rapids office and responsible for re-writing the General Structural Notes to conform with the 2012 IBC and ASCE 7-10.

Gates and his wife, Angie, currently reside in Chandler, Arizona with their two children, Walter (11) and Roger (8). Gates was awarded a Bachelor of Science in Civil Engineering from Arizona State University; additionally, he has taken several graduate level structural engineering courses from North Carolina State University.

Gates has previously been employed by Duke Energy as a member of their Indiana Substation Engineering team. At Duke Energy he was involved in the design and construction of new electrical substations and expansions to existing facilities. Prior to working at Duke Energy Gates spent three years performing Structural Design for Vertex Consulting Structural Engineers located in Scottsdale, Arizona. His employment at Vertex allowed him to become familiar with consulting structural engineering and the construction processes for residential, commercial and industrial projects.

Gates has a working knowledge of the currently adopted structural codes, including: 2012 IBC, ACI 318-11 (concrete), ACI 530-11 (masonry), AISC Steel Manual (14th) & AISC 360-10, AISI cold-formed steel specifications; additionally, he has in-depth experience with ASCE 7-10 wind provisions, and advanced understanding of the 2012 NDS & 2008 SDPWS (wood). Gates has fluency in both the ASD and LRFD methods of design for strength, stability, and serviceability; with a personal preference for LRFD.

Gates' areas of interest include: Structural Engineering (commercial, multi-story, industrial), Amusement Park/Ride Design, Construction Technology, and National Defense.



M. Gates Browne, PE, SE

Structural Engineer

1819 W. Palomino Dr
Chandler, Arizona 85224

(480) 276-8992 – Cellular

mgbrowne@enworb.net
<http://www.enworb.net/profile>

Work Experience

Simply Structural | September 2014 – Present
Tempe, Arizona

Structural Engineer

Structural Engineering: Design of residential, commercial, and industrial structures utilizing wood, steel, concrete, masonry, and cold-formed steel.

Select Structural Engineering | June 2012 – September 2014
Cedar Rapids, Iowa

Structural Engineer

Structural Engineering: Design of residential, commercial, industrial, and agricultural structures utilizing wood, steel, concrete, masonry, cold-formed steel, and precast concrete.

Plan Review: Comment on and review other's (non-licensed engineers): plans, details, calculations, and notes. Engineer of record, management, and training responsibilities.

Work closely with drafting staff to create plans and details in both AutoCAD and Revit.

Responsible for complete re-write of General Structural Notes for conformance with the 2012 IBC/ASCE 7-10.

IAP Worldwide Services | November 2013 – December 2013
Al Dhafra AB, Abu Dhabi, UAE

Structural Engineer

Structural Engineering: Design, review and construction administration of air base facilities, buildings, and infrastructure.

Duke Energy | Oct. 2009 – May 2012
Plainfield, Indiana

Civil Engineer

Civil and Structural Design: Electrical substation physical layout and design. Coordinate substation requirements and equipment selection with electrical engineers. Performed updates to structural standards to conform with contemporary code requirements.

Procurement and Construction: Attend site meetings to discuss construction requirement as well as assess existing site conditions. Create and approve work orders for required project materials.

Vertex Consulting Structural Engineers, LLC | Oct. 2006 – Sept. 2009
Scottsdale, Arizona

Structural Designer

Licensures & Certifications

California | **Structural Engineer [pending]**
California | **Professional Civil Engineer (C 79436)**
Arizona | **Professional Structural Engineer (59588)**
Texas | **Professional Engineer (118061)**
Iowa | **Professional Civil Engineer (21741)**
Ohio | **Professional Civil Engineer (78782)**
Oklahoma | **Professional Civil Engineer (27307) [inactive]**
NCEES Structural Engineering Exam | **Passed**
CalEMA | **Safety Assessment Program Evaluator Training**

Education

Arizona State University - Civil Engineering | Aug. 2004 - May 2009

Bachelor of Science in Civil Engineering | Emphasis Construction Engineering

Qualifications

Structural Engineering: Communicate with architect from initial concept of project and create structural drawings, calculations, and details to meet architectural, functional, and structural demands. Proficient in engineering software: Enercalc V6, Risa-3D, RISA Connection, Staad.Foundation, RAMAdvance, Lpile, Vendor Software (PROFIS, SteelSmart, Forte, etc) AutoCAD, REVIT, Inventor 2011, Excel.

Construction: Perform special structural inspections, create plans/ calculations and follow through building department review, check shop drawings for conformance with design specifications and intent.

Administrative/Management: Compose detailed project proposals for bidding and contract purposes; including, selection of price and timeline estimates. Provide support to engineering staff for technical needs and questions. Act as mentor and supply training to team of structural designers.

Substation Design: Understanding of electrical code: setbacks, spacing, and clearances for high voltage equipment up to 345kV. Experienced in selecting electrical bus, switches and other associated equipment.

Company Life: Have worked in variety of environments: small business, industrial and large corporation; often performing several roles within an organization.

Technical Literacy: Extensive computer skills including engineering and business applications, graphic and video editing software, server administration, network configuration, and desktop management.

Volunteer & Extracurricular Activities

ImagiNations 2009 Design Competition - Walt Disney Imagineering June 2008 – April 2009

Led a four-person team, from ASU, in creating a design submission for the annual Disney ImagiNations contest. This project included floor plans, elevations, architectural design, and 3-D modeling. Project submission qualified for the semi-final judging round.

Proselyting Service Missionary - Tempe, Arizona | Feb. 2001 – Dec. 2002

Served as a full-time proselyting missionary for The Church of Jesus Christ of Latter-day Saints. Appointed as a supervisor over several other volunteer missionaries.

Professional Associations

Member | **Structural Engineers Association of Arizona**

Projects of Note

VA Hospital | **Phoenix, Arizona (2015)**

Preliminary design of steel moment framed six story hospital. Full design of basement and first floor with accommodations for future structure above.

Quick Quack Car Wash | **Sacramento, California (2016)**

Design of retail car wash center utilizing special reinforced masonry shear walls.

Kingston Commons | **Cedar Rapids, Iowa (2013)**

Six story condominiums constructed with bolted steel moment frames.

Parc 17 Warehouse | **Phoenix, Arizona (2015)**

Two warehouse buildings constructed with tall-slender concrete tilt-panels and steel braced frames. Panel design performed for both in-plane and out-of-plane loading in RISA 3D.

808 on 5th | **Coralville, Iowa (2014)**

Four story wood-framed residential structure on a two story precast concrete podium. An intricate lateral design was created using interior shear walls collected at the precast concrete podium.

Coventry Gardens Mall | **Cedar Rapids, Iowa (2014)**

Extensive renovation of a 100 year old three story wood structure. Former retail space was converted into condominiums. The renovation consisted of reinforcing the existing floor systems with cold-formed steel and removing two existing three story brick walls and replacing with a concrete form masonry unit system.