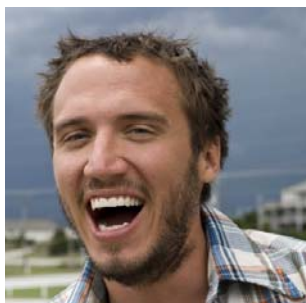


Marshall Hilton, PE, MArch, LEED AP BD+C, HBDP



Profession

Mechanical Engineer

Qualifications

PE CA Mechanical Engineer

LEED Accredited Professional in
Buildings Design + Construction

ASHRAE Certified High
Performance Buildings Designer

Education

Kansas University, Lawrence:

BS Architectural Engineering 5/07

Masters Architecture 5/08

Permaculture Design Course 3/09

Professional Associations

Associate Member, ASHRAE

Committees

CA State Code Advisory

Committee 2008-2011

Speaking Engagements

ASHRAE High Performance
Buildings Conference 3/12

Awards

Neukloster Academy 9/07

ASA: ISDC Commendation 5/07

AIA KS: Student Citation 9/06

AIA KC: Award of Merit 9/06

Barr-Kumar Award 9/04

BSA: Eagle Scout 5/02

Shop Skills

Tig Welding

Arc/Stick Welding

Mig Welding

Engine Lathe

Mill

Oxy/Acetelene Cutting

Marshall Hilton is a mechanical engineer with over four years of professional experience. He is also an active member of various communities involving mechanics and social justice.

He is skilled in HVAC design, power systems design, building energy optimization and analysis, as well as green building code and rating system consulting.

Marshall's time outside of work is spent contributing to one of the several community projects he is involved with ranging from a community bike shop to men's emotional development.

Marshall Hilton is a mechanical engineer with a diverse hands-on background and the soft skills required to manage a complicated project with a diverse team of collaborators.

Experience:

Arup, San Francisco

Aug. 2008 – Present

Mechanical/ Energy Engineer

Projects:

Genentech Utility Strategy Master Planning, South San Francisco, CA

Marshall is the mechanical engineer and primary support to the project manager for a utility design project involving networking the mechanical and electrical systems of 50 existing Genentech buildings in South San Francisco. His engineering roles included calculations to determine the feasibility and benefit of a variety of utility strategies including renewables, central plant cooling, and combined heat and power. His management roles involve maintaining contact with the client while coordinating deliverables and presentations. The unique value he adds to the project is utilizing his technical background and strong communication skills verbally and graphically to explain complex ideas and illustrate technical choices to a non-technical crowd.

University of California San Francisco Mission Bay Hospital, Outpatient Building and Energy Center

The UCSF hospital is a new 645,000ft², 289-bed acute care hospital, 193,000ft² outpatient building, and 36,000ft² Energy Center seeking LEED Gold. Marshall supported the mechanical engineering, electrical engineering and energy analysis for this project. As mechanical engineer, his roles included: thermal load modeling,

Blacksmithing

Social Memberships/Activities

Bike Kitchen, Staff Mechanic

CACITA, Apprentice

Cosmic Beauty School,
Construction Project Manager

Man Kind Project

Crucible Arts School, Volunteer
metal worker, HVAC consultant

Cell Space Art Collective, Metal

SF Education Fund, Volunteer

Hayes Valley Farm, Volunteer

Big Brother, Big Sisters, Former
Big Brother

Software Skills

AutoCAD

Revit

Trace 700

eQuest

SketchUp

IES<VE>

Energy Pro

AGI

Visual

Window

3d Max

Microsoft Office

Adobe Creative Suite

Miscellaneous Skills

Collective Decision Making

Non-violent Communication

Graphic representation of
complicated ideas

Natural Building

heating hot water, chilled water and steam system design and coordination of all three buildings from the design development phase into construction. As electrical engineer, Marshall was responsible for circuiting of the hospital and the Energy Center, and the lighting design of the Energy Center. He was Arup's liaison with the equipment contractor for electrical coordination for medical equipment in the Hospital and Outpatient Building. Marshall was also responsible for LEED Energy Modeling of all three buildings.

Grand Valley State University Library, Grand Rapids, MI

Marshall was an electrical designer for a new 145,000ft² library for Grand Valley State during a special design development stage to increase the energy efficiency performance of the building to achieve a LEED Platinum rating. His responsibilities included power design, conduit routing, and coordination.

University of California, Berkeley Bechtel Center Retro-Commissioning, Berkeley, CA

Marshall was the project engineer for a retro-commission of a library and auditorium building on the University of California Berkeley Campus. He assessed the existing condition of the building's energy systems and produced a report identifying potential for significant energy savings with a simple payback in under a year.

Green Building Code Consulting

Marshall was the project manager of an internal investigation comparing several different green building codes, standards and rating systems. The work has been presented to the ASHRAE Golden Gate Chapter and the California Building Standards Commission. A collaborating student at Stanford University is using the project output as a thesis. Marshall acts as a green code consultant in various capacities at Arup.

San Francisco Bike Kitchen, SF, CA

Dec 2009 – Present

Advanced Bike Mechanics Instructor

Volunteers as a mechanic in a community bicycle project where the patrons do the wrenching and the mechanics give instruction. Teaches basic and advance bike mechanics to patrons to a class of 10 pupils.

The Crucible: School of Fire Arts, Oakland, CA

June 2011 – Present

HVAC Consultant, Shop Volunteer

Consults on ventilation issues. Assists in basic shop duties including fabrication, painting and general house keeping. Receives classes in exchange for efforts

C.A.C.I.T.A., Oaxaca, Mexico

Centro Autonomo para la Creacion Intercultural de Tecnologias Apropriadas

March 2011

Bicycle Machine Design/Build Apprentice

Apprenticed with a bicycle machine builder working on pedal powered water pumps, translating construction manuals to English and building and repairing bicycles. Bicycled to Oaxaca city from San Francisco.

Cosmic Beauty School, Lawrence, KS

November 2010 – Present

Construction Project Manager

Manages the funding, design, and construction process of building renovations of an urban intentional community.