

MBO Inc.

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MBO Inc. Firm Profile

Unlock Your Building's Full Potential

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Our Firm



About

MBO Inc. was launched in 2005 to meet the growing demand for continual commissioning, retro commissioning, field troubleshooting, air and water testing and balancing, controls reprogramming, and field maintenance operator training. Owners, Developers, Architects, and Facility Managers utilize MBO's Mechanical Engineers, LEED Project Managers, ACG Certified Commissioning Authorities, and NEBB Certified Technicians to deliver optimum workspace comfort and to minimize utility expenditures.

Mission

To exceed client expectations by utilizing our expertise to ensure the design intent of the building's energy related systems is met through functional testing and verification.



Vision

To be the most progressive commissioning and balancing firm in San Diego, relentless in pursuing optimum systems performance, client's satisfaction, and contributing to the world's vision for emission reduction.

Values

We believe in integrity, teamwork, continuous education, high-ethical standards, and investment in the latest technologies.

Services

-  Title 24 & CALGreen Commissioning
-  LEED Commissioning
-  Retro-Commissioning
-  Title 24 Mechanical Acceptance
-  Testing, Adjusting, and Balancing
-  Indoor Air Quality Testing
-  Engineering & Energy Studies

Why Choose Us

Experienced



We are highly experienced in commissioning projects ranging from laboratories, hospitals, and high security military facilities, to offices commercial spaces, and schools.

Organized



We thoroughly understand the building process, which allows us to provide insight on how to achieve maximum congruence between design and construction.

Successful



We have worked with owners, designers, and contractors to successfully commission over 500 projects, making MBO Inc. San Diego's preferred commissioning firm.

Cost Effective



We understand how to identify and solve deficiencies in the design and construction processes before they become costly issues. This insight saves both time and money.

MBO - Mechanical Building Optimization

MBO Inc. has established itself as the “go-to” commissioning firm in Southern California by completing over 500 projects. We work directly with owners and designers to ensure the project has maximum congruence between design intent and finished functionality. We oversee the design through the start-up and installation of systems while also providing future support to ensure these systems continue to operate at peak efficiency.

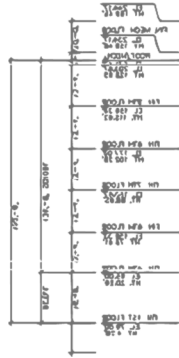
The foundation of our firm comes from our team of dynamic and high-spirited HVAC Engineers, Commissioning Authorities, and TAB Technicians. We take pride in our performance and the desire of our clients to work with us over and over again. Our ability to get the job done correctly instills confidence in those we work with. Team MBO has established a strong reputation as a respected and formidable organization.

Team MBO is accustomed to meeting and exceeding code requirements while ensuring that the project is delivered on time and per design. MBO does not simply provide “Process Commissioning”, which is merely providing general and limited observations. Instead, we add value to the overall project by providing “Technical Commissioning”, which is a very thorough, hands-on approach. We are a team of highly-skilled, certified Commissioning Agents that seek opportunities to improve the overall outcome of every project.

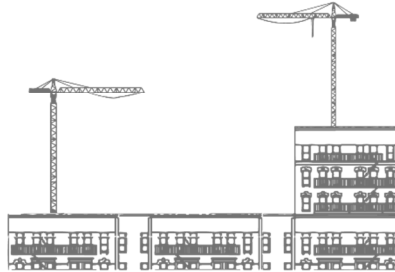
MBO Inc. is dedicated to exceeding both the owner's expectations and code requirements. We aim above and beyond the expectations to achieve both a highly efficient, cost-effective building and a very satisfied client.

Our Approach

Design Phase



Construction Phase



Occupancy Phase



Our Three Step Approach

Commissioning is the systematic and documented process of ensuring building systems perform and interact according to the design intent and the owner's operational needs. MBO Inc. achieves this by beginning commissioning in the design phase, documenting the design intent, and continuing through construction, acceptance, and the warranty period with hands-on verification of commissioned systems.

Design Phase Commissioning:

Design phase commissioning is intended to provide the owner with support in the creation and review of documents that will guide the entire construction process. When included early, the commissioning authority can provide vital support that will contribute to the overall success of the project. The commissioning authority will provide comprehensive design reviews to identify deficiencies that may significantly impact the quality of the design.

Construction Phase Commissioning:

Construction phase commissioning is intended to provide the owner with support and oversight during the construction process. The commissioning authority will periodically schedule site visits and commissioning progress meetings to help identify installation deficiencies that may significantly impact the quality and schedule of the project.

Occupancy Phase Commissioning:

Occupancy phase commissioning is intended to provide the owner with continued support through their initial occupancy of the building. In this phase, the commissioning authority will verify and document the continued training of the building's operations staff. This is also the phase in the project where the commissioning authority will return for LEED's required 10 month review.



Douglas R. Isaaks | Principal

Professional Engineer

Doug Isaaks received his BS in Mechanical Engineering in 1994 and helped start MBO in 2005. He has been involved in the construction industry since 1984. Doug takes on a project –no matter the size- with a determination to produce the best cost-effective product. Doug has exemplified leadership qualities through motivating the staff to exceed our client's expectations. Doug has managed recent projects that have been awarded LEED Platinum: High Tech High, Chula Vista and the Conference Center at the San Diego County Operations campus, which is recognized as one of the largest public works project in the history of San Diego, California. Doug will execute his responsibility as Principal and design reviewer for the project by ensuring that the mechanical design is properly and adequately reviewed.

Experience:

30 years HVAC industry
20 years Facility Engineering

Education, Certifications & Training

B.S. Mechanical Engineering, San Diego State University (1994)
Professional Engineer's License (1994)

Professional Affiliations

National Society of Professional Engineers (NSPE)
San Diego State Alumni
Member of the City of San Diego Board of Appeals and Advisors

Facility Design Experience

SDSU Engineering & Interdisciplinary Complex, San Diego CA
Lilly Expansion - Alexandria, San Diego CA
Phenomenex Labs, Torrance CA
Oncosec Tenant Improvement, San Diego CA
Organovo Manufacturing, San Diego CA
Polaris Tenant Improvement, San Diego CA
La Jolla Institute for Allergy & Immunology, San Diego CA
BioLegend, San Diego CA
Optimer, San Diego CA
Illumina, San Diego CA
Diversa, San Diego CA
Alexandria Biogen IDEC, San Diego CA
San Diego State University Bioscience Center, San Diego CA
Salk Institute for Biological Studies, San Diego CA
San Diego County Operations Center, San Diego CA

Dawayne Trobaugh | Director of Operations

NEBB Commissioning Authority, NEBB Certified Professional

Dawayne is a NEBB Professional with certifications in Building Systems Commissioning and Air and Hydronic Environmental Systems Balancing. His experience as a NEBB Certified Professional has provided a thorough understanding of HVAC systems which has prepared him to be an effective Commissioning Authority. As a Commissioning Authority, Mr. Trobaugh has concentrated his efforts on obtaining the knowledge and the practical experience of testing, troubleshooting, analyzing, and optimizing the operation of building mechanical systems of all types and sizes. Dawayne's experience and understanding of the Commissioning process serve him well to organize and lead commissioning teams as a Commissioning Authority.

Experience:

18 years HVAC industry
9 years Commissioning
3 years Facility Engineering



Education, Certifications & Training

- NEBB Air & Hydronic TAB Certified Professional (2012)
- NEBB BSC HVAC Certified Professional (2011)
- NEBB BSC Plumbing Certified Professional (2011)
- NEBB Qualified Test & Balance Technician (2008)
- Air Conditioning and Refrigeration Certification (2006)
- Carrier's Certificated Technical Development Program – (2005)

Commissioning Authority Experience

- Department of Veterans Affairs, Sepulveda, CA (RCx - Cx)
- The Bishop's School – Manchester Library, La Jolla, CA (CALGreen Cx)
- Repair Bldg 210567 3rd AA BN CP, Camp Pendleton (Cx)
- Adelanto ICE Processing Center – Adelanto, CA (CALGreen Cx)
- Hobie Cat TI, Oceanside, CA (LEED/Cx)
- Margaret L. Sellers P&DC USPS – FSS Expansion, San Diego, CA (Cx)
- P-092 Infantry Training Building, Camp Pendleton, CA (LEED/Cx)
- P-104 Communication Electric Building, Camp Pendleton, CA (LEED/Cx)
- Century Regional Detention Facility, Lynwood, CA (RCx)
- Health Services Administration and Central Health Care Facilities,
- Los Angeles, CA (RCx)
- Veterans Administration Residential Care Facility, Chula Vista, CA (RCx)

Office Experience



Sempra Energy Tower

San Diego, CA (2016)

The Sempra Energy Tower is a 16-story, high rise office building with four stories of underground parking and three stories of above grade, naturally ventilated parking. The office area is used solely by a single tenant with the first three floors being used for corporate amenity space and the main lobby.

340,000 square foot high-rise office
LEED Silver Certification



Sony R&D Headquarters

San Diego, CA (2012)

The Sony R&D Headquarters project is an 11-story, high-rise research and development facility. Included with the tower is an adjacent 6-level parking garage which can accommodate up to 1,440 cars. The tower houses 2,500 employees.

450,000 square foot high-rise office
LEED Gold Certification



Petco Headquarters

San Diego, CA (2015)

The Petco Headquarters project is a multi-level high functioning office building located in Rancho Bernardo, CA. The first floor features a large atrium that opens to a mechanical platform. This area overlooks the open basement area that houses offices and cubicles.

303,000 square foot multi-level office
LEED Silver Certification



Viasat Building 11

San Diego, CA (2016)

Building 11 is a new, 3 story office building in the city of Carlsbad with approximately 65,700 sq.ft. There are several types of areas within the building such as interior & perimeter offices, Lobbies, break areas, core restrooms, and conference rooms.

65,700 square foot multi-level office

Hotel Experience



Saggio Hills Hotel

Sonoma, CA (2016)

The Saggio Hills Hotel project is a new 116,309 sf hotel located in Sonoma, California. The hotel has approximately 120 guestrooms. The hotel consists of the following spaces: guest rooms, hotel support offices, housekeeping, reception area, retail, restaurant, and food service areas.

116,300 square foot hotel & resort



Viejas South Tower

San Diego CA (2015)

This projects involved the construction of three new BEQ Facilities with corresponding Common Buildings and a new Dining Facility. This facility is a one story reinforced concrete masonry unit (CMU) building with metal standing seam metal roofing, for use as a dining facility, complete with fixtures.

144,410 square foot hotel & resort



Ayres Hotel

Paso Robles, CA (2016)

The Ayres Hotel located in Paso Robles is a self-contained destination resort combining full accommodations which include a two story Tuscan style hotel. The project's philosophy is one of health and sustainability.

134,000 square foot hotel
Sustainable Design



Hilton Garden Inn

Irvine, CA (2015)

The Hilton Garden Inn is a new, five story hotel in Irvine, California. The building is equipped with various meeting rooms, guest sleeping rooms, and lobby areas. Conveniently situated just off of the freeway.

65,000 square foot hotel
LEED Certified

Government Experience



San Diego County Operations Center

San Diego, CA (2011)

The San Diego County Operations Facility is a multi-building project. Each building is four stories tall and each facility's main function is office and administration. The architectural style embodies a modern, civic look.

**Over 1,000,000 square feet of multi-level offices
LEED Silver, Gold, and Platinum Certifications**



Department of Motor Vehicles

San Marcos, CA (2015)

The DMV – San Marcos project consisted of the new construction of a 30,000 square foot building designed specifically to house the DMV. This building was commissioned to LEED Enhanced standards to earn a LEED certification.

**30,000 square foot facility
LEED Certification**



P-114 Quality of Life Package

29 Palms, CA (2012)

This design-build effort included construction of a six-story, 248,00 square-foot, steel office tower, an annexed maintenance facility, a visitor screening facility, as well as a six-story, 480-space moment frame concrete parking structure.

**248,000 square foot high security facility
LEED Gold Certification**



GSA CIS

San Diego, CA (2016)

The GSA CIS project included the tenant improvement of four floors in a high rise building in San Diego, California. This project was designed specifically to house the General Service Administration's Citizenship and Immigration Services department.

**52,800 square foot facility
LEED Silver Certification**

Military Experience



Area 41

Camp Pendleton, CA

The Area 41 project, located at Camp Pendleton in San Diego, consisted of three large project packages. The P-1016 complex involved the new construction of battalion headquarters and community facilities. The P-1012 complex involved the new construction of an operations facility.

Over 325,000 square feet of military facilities
LEED Certification



P-545 North & South Hangars

Yuma, AZ

The hangars are two stories with designated spaces for aircraft maintenance and office areas for personnel & other essential operations (break rooms, conference rooms & mission planning rooms, secured areas, private offices, workshops, locker rooms and shower and laundry facilities).



P-114 Quality of Life Package

29 Palms, CA

This projects involved the construction of three new BEQ Facilities with corresponding Common Buildings and a new Dining Facility. This facility is a one story reinforced concrete masonry unit (CMU) building with metal standing seam metal roofing, for use as a dining facility, complete with fixtures.

Over 320,000 square feet of military facilities
LEED Certification



Buildings 109, 22, 645, and 662

Yuma, AZ

Building 109 is an approximately 32,450 square feet; two-story hangar building.

Building 220 is approximately 38,292 square feet hangar and serves as the aircraft shop.

Building 645 is a three-story, 28,672 square feet Transition Center building.

Building 662 is approximately 24,720 square feet and serves as a Marine BEQ.