

EWB-USA Professional Mentor Teams and Qualifications

This document is intended to guide chapters in their search for a qualified Professional Mentor Team for their program. Potential mentors may also find this document useful to self-assess their suitability for a program. Note that “Professional Mentor” is now the term that will replace “Professional Mentor/Technical Lead”. Mentors are required for both professional and university chapters.

Overview

EWB-USA Professional Mentors are experienced professionals who assist the chapter in meeting the cultural, public health, environmental, economical, construction, and technical aspects of the chapter's community development program. When selecting a Professional Mentor Team, the chapter should seek out professionals who may have the following attributes:

- Ability to transfer engineering knowledge to both team members and the community.
- Capacity to communicate across language and cultural barriers.
- Sensitivity and respect for local culture and history.
- Ability to work well with diverse groups and facilitate meetings.
- Understanding of the fundamentals of the EWB-USA model of community-driven development.
- Understanding of the EWB-USA project process such that they can guide, if necessary, the chapter through that process.
- Understanding of what makes technologies appropriate for use.
- Commitment to developing sustainable and culturally acceptable technologies.
- Ability to critically analyze all possible solutions by evaluating the intended and unintended consequences of the project on society, human health, and the environment.
- Openness to learning about sustainable practices from a local paradigm.
- Commitment to monitor the project and assess its impact on the community.
- Ability and willingness to experience the living conditions in the host community.
- Ability to provide remote mentoring if the student chapter is not a local chapter.
- Long-term commitment to the project and to the community to provide the foundation for the program to continue within this community year after year.

One member of the Professional Mentor Team will need to be designated as the Responsible Engineer in Charge (REIC). The REIC is responsible for oversight of the project planning and design, and leading the Professional Mentor Team and chapter members to assure compliance with EWB-USA requirements.

Mentor Team Qualifications

Specific Professional Mentor Team qualifications are evaluated with the 502 form and should include:

1. *On a project by project basis, design experience in the technology that the project is using.* We encourage chapters to have more than one individual with this experience on their project team in order to meet the technical demands of the project and ensure that at least one qualified mentor is available to travel on every EWB-USA trip.
2. *On a project by project basis, construction experience in the technology that the project is using and is relevant to the intended project.* For example, well construction experience does not qualify one to oversee bridge construction. An equivalent of two years of construction experience is required for the mentor team.

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3. *International development qualifications vary and must be relevant to the work EWB-USA does.* For instance, simply visiting abroad does not qualify one as an international development expert. Examples of international development experience could include: previous EWB-USA experience or completing international development-type work with a different organization (Peace Corps, mission, etc.). An equivalent of two full-time years of international development experience is required, with at least 3 months of in-country work.

As an example, a school design and construction project may have a Mentor Team which includes:

- a. an individual with international development and cultural experience
- b. an individual who has been involved with projects within this Program for the past three years
- c. individuals who have the specific design and construction experience necessary for a school building (this may not be the same individual if the Chapter had previously constructed a project type of a different technology)

Responsible Engineer in Charge (REIC) Qualifications

On a project by project basis, each project team will designate a Responsible Engineer in Charge (REIC) who will take the ultimate responsibility for the project. The REIC may travel on assessment, implementation, and monitoring trips, providing technical guidance on the designs, ensuring all reports are submitted to EWB-USA on time, and providing interim internal review and approval of final designs (with signature and date). The REIC may designate an alternative Professional Mentor to travel on their behalf.

The technical qualifications required of a Responsible Engineer in Charge (REIC) vary depending on the project level of the intended project. Project levels are based on the potential impact of failure and the following table specifies the qualifications for project levels. *Please note: not every person on the mentor team has to meet the qualifications listed in the table below.* The REIC, as well as the traveling mentor, if the REIC is not traveling, have to meet these qualifications, but other mentors are welcome to assist the chapter. This gives a place for younger professionals and non-engineers to join the project in a meaningful way.

PROJECT LEVEL	IMPACT OF FAILURE	REQUIRED RESPONSIBLE ENGINEER IN CHARGE QUALIFICATIONS	EXAMPLES
Level 1	Failure of the project may result in death, severe illness, injury, or significant damage of property.	Licensed Engineer with at least 7 years of direct experience (post bachelor's degree) in design and construction of infrastructure similar to that proposed in the project. Each mentor is subject to approval by EWB-USA Project Engineers.	Most construction projects including buildings and bridges and large-scale water projects.
Level 2	Failure of the project would not result in death, severe illness, or injury. However, some damage to property is possible.	Professional with at least 5 years of direct professional experience (post bachelor's degree) in design and construction of infrastructure similar to that proposed in the project. Each mentor is subject to approval by EWB-USA Project Engineers.	Water supply, water treatment, sanitation, and energy projects.

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<p>Level 3</p>	<p>Failure of project would not result in significant damage beyond limited economic loss.</p>	<p>Professional with 3 years of direct professional experience (post bachelor's degree) in design and construction of infrastructure similar to that proposed in the project. Each mentor is subject to approval by EWB-USA Project Engineers.</p>	<p>Agriculture, improved stoves, computer systems, and other similar projects.</p>
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In addition to meeting the listed qualifications, a travelling Professional Mentor must be a member of EWB-USA and part of an EWB-USA Chapter. They must attend the Professional Mentor webinar. The Responsible Engineer in Charge should submit a *404 - Mentor Statement of Intent* and resume to the project team so that these documents are included with the team's trip submittals to EWB-USA Headquarters.

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