

Internship: Lead a water conservation and energy efficiency project at the State Capitol Complex

Host: Minnesota Department of Administration – Facilities Management Division

The Minnesota Technical Assistance Program (MnTAP) is seeking a junior or senior college student to lead a project focused on irrigation & domestic water conservation and building energy efficiency at the State Capitol Complex in St. Paul, MN. The Facilities Management Division (FMD) is responsible for maintenance and operation of the State Capitol, as well as 22 state-owned buildings. The intern will work with MnTAP and the department's FMD staff to identify opportunities to conserve irrigation water use on Capitol Complex grounds, reduce domestic water usage within buildings, and evaluate opportunities to save energy on lighting and compressed air usage.

JOB DUTIES:

As part of this project, you will be asked to complete the following tasks:

1. Observe, characterize, and assess irrigation practices to identify opportunities for irrigation water conservation.
2. Identify facilities in which domestic fixtures are not yet optimized for low water use, and apply building type-specific models of domestic water use to evaluate water conservation opportunity.
3. Update past lighting studies to reflect improved fixture replacement costs and identify facilities with inefficient lighting types, and evaluate energy savings opportunities for implementation of occupancy controls.
4. Conduct air compressor draw-down studies to contrast the volume and cost of compressed air leaks following pneumatic-to-digital controls retrofits.
5. Evaluate compressor load cycling and develop recommendations for right-sized equipment replacement.
6. Estimate reduction or diversion potential and costs associated with implementation of a recommended reduction opportunity, then prioritize suggested changes using simple payback methods to financially justify the alternative processes or equipment.
7. As appropriate, initiate approved changes and system upgrades and estimate the performance of upgraded systems.
8. Summarize findings in a detailed report, including recommended procedures and vendor proposals along with an economic analysis and justification of changes.
9. Present findings to FMD staff and at MnTAP-hosted public presentation events.

As an intern, you will work at the Capitol Complex and report to MnTAP. The position is full time, 40 hours per week, for three months to start after the conclusion of spring semester or quarter. Pay is \$14/hour, with a lump sum stipend of \$1,000 upon completion of the project deliverables: a final report and presentations. Cumulatively, this equates to \$16.00/hour when averaged over the project. Candidates must pass a background test.

QUALIFICATIONS:

- Cumulative GPA of at least 3.0
- Good oral & written communication skills
- A technical academic background
- Troubleshooting skills
- Self-motivated
- Excel and other software skills
- Appropriate majors: *Engineering, environmental or physical sciences and others as applicable*

TO APPLY:

Apply online at:

www.mntap.umn.edu/intern/student_apply.htm

Remember to submit your application form, cover letter, resume, and unofficial transcript.

Applications can be addressed to:

Nathan Landwehr, Intern Program Administrator
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Minneapolis, MN 55455 • landwehr@umn.edu

MNTAP IS THE HIRING BODY: DO NOT CONTACT THE AGENCY