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Secret Tips That Will Change Everything You Think You Know About On-Sites



*"The quality of a survey is best judged not by its size, scope, or prominence, but by how much attention is given to [preventing, measuring, and] dealing with the many important problems that can arise."
(Ferber et al. 1980)*

Innovation

Innovative Training of Technicians: Dedicating the time and resources to training vastly improves data quality and substantially reduces error.

- Independent Training:** Three self-training tasks—a store visit, a thorough review of the on-site protocols, and a mock site visit.

Store Visit Bulb Type Collection Form

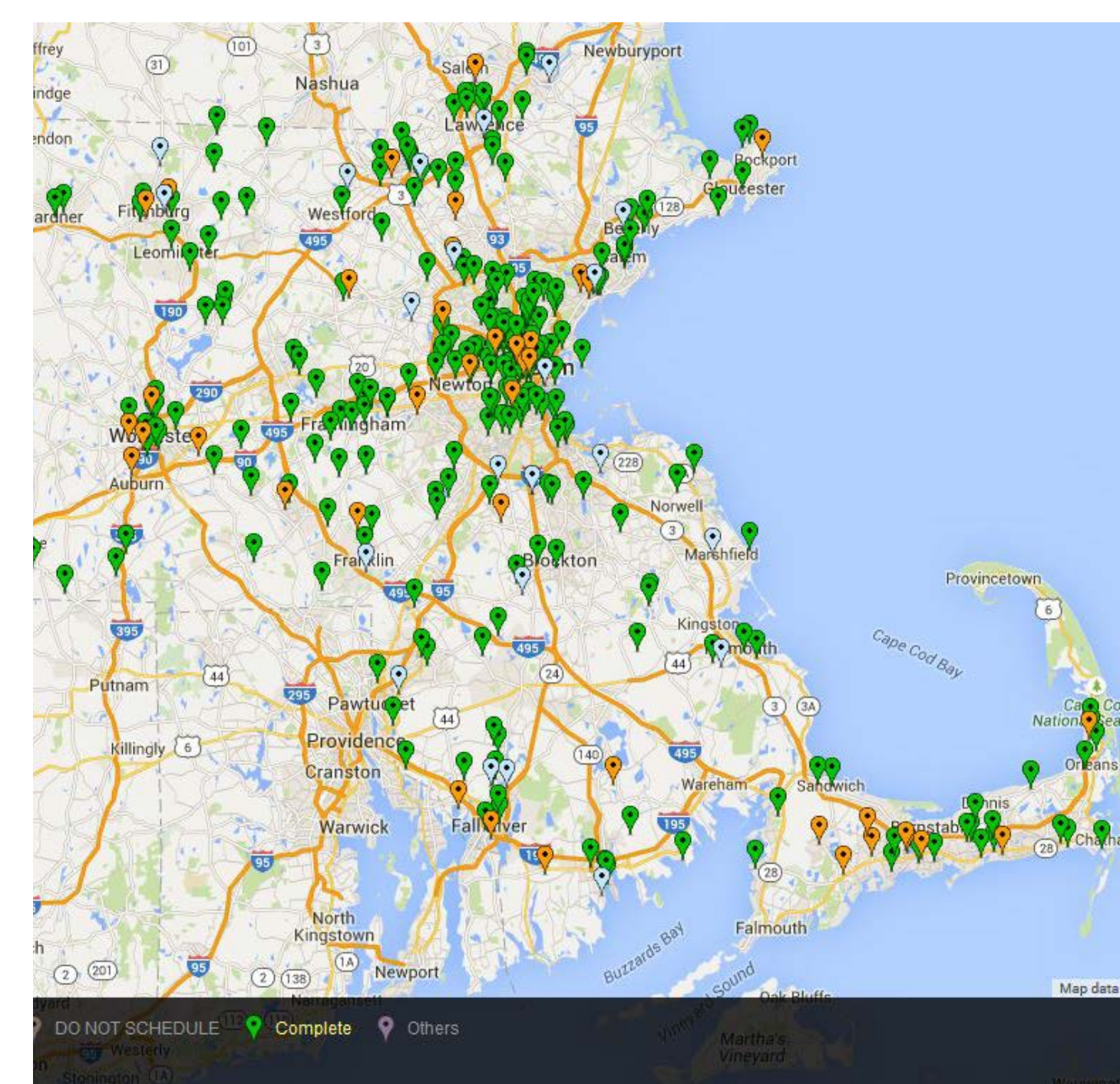
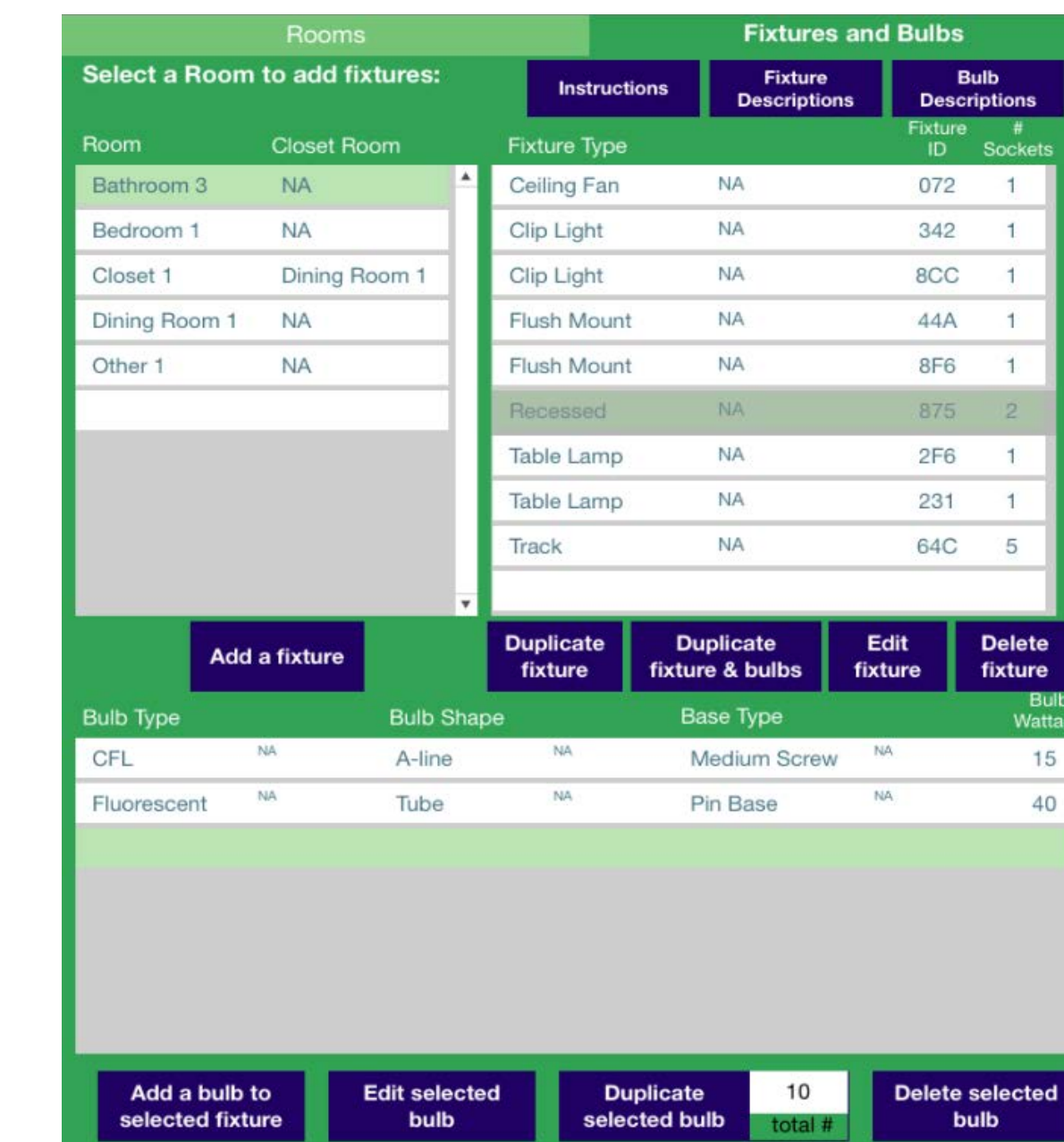
Bulb Type	Identifying Features
Incandescent	Clear or coated glass with a metal base; bulbs have an exposed filament that's heated to the point of glowing.
CFL	Visible spiral; plastic cap near base of bulb; most common shape is twist/spiral, but also A-line and globe.
Fluorescent	Bulbs are filled with mercury vapor that emits UV light when electricity is applied, then coating inside bulb turns UV rays into visible light; most common shapes are tube or capsule.
LED	Light emitting diode, common shapes are A-line and Spot/Reflector; typically more durable than other bulb types.
Halogen	More efficient type of incandescent with a filament sealed into a small casing filled with a small amount of halogen gas, allowing the filament to be at a higher temperature.
Other: Xenon	Usually pin based with an exposed filament; often found in under cabinet fixtures.
Other: Metal Halide	Consist of a small fused quartz or ceramic arc tube which contains the gases and the arc, enclosed inside a larger glass bulb which has a coating to filter out the ultraviolet light produced. Looks similar to a halogen bulb.
Base Type	
Medium Screw Base (Standard)	Light bulb screws in to socket; most common base type found on most bulb types except fluorescent.

- In-Person Training:** Classroom and real-world training in which each technician leads a full on-site visit accompanied by a trainer.

Standardization

Standardization and Simplification of Data Collection: Develop a series of standardized data collection tools and reference materials to guide technicians through their on-sites and minimize data collection errors.

- Electronic Data Capture Forms:** Customized data collection software that enables the on-sites to be completed on a tablet computer.
- Comprehensive Project-Specific Handbook:** A single-source reference guide for all protocols, definitions, and data collection instructions used for the on-site project.
- Site Schematics:** A sketch of the site helps technicians orient themselves, aids in QA/QC, and greatly enhances panel studies.



- Detailed On-site Protocols:** Designed to guide technicians through the on-site, starting as soon as they encounter the customer and directing them through the entire process of the on-site.
- Careful and Systematic Scheduling:** Using mapping software, scheduling on-sites that are geographically proximate in order to provide technicians with sufficient time to complete high-quality data collection.
- For Panel Studies—Leave a Mark:** Identifying a bulb, HVAC system, appliance, or household electronic device with a small mark or a sticker allows data to be compared over time.

Quality Control

Real-Time Quality Control: Quality control measures allow for early identification of errors or inconsistencies and for any necessary adjustments to be made to the protocols or technician staffing.

- Daily Data Checks:** Techs sync data every night and every morning; NMR checks data promptly and follows up with clarification questions.
- Revisits:** Revisit sites from each tech in the first two weeks after training. This allows for immediate correction and retraining for anything that may not meet standards.
- Quality Checks:** Call 20% of homes to ensure that their experience was smooth and the tech was polite and professional.

Communication

Communication and Consideration with On-site Technicians: Clear communication and flexibility with technicians, along with opportunities for feedback, create a work environment in which technicians can thrive and collect high-quality data; a happy technician leads to a better data set.

- Access for Techs:** Have a supervisor available to the tech at all times to answer calls, texts, or emails regarding data, site, or scheduling questions.
- Flexible Scheduling:** Allow for techs to block off some days or times that they are not available or would prefer not to work. Flexible scheduling helps to avoid burnout. The schedule is updated in real time—when they sync, their schedule is updated automatically.
- Use Local Resources:** Using local technicians makes overnights only occasionally necessary. Additionally, local techs are familiar with the area.
- Take Advantage of Feedback:** Solicit feedback during the project and adjust as needed. Send out an evaluation survey at the end asking techs for feedback on their experiences and any input for next time around.

