



**TRAFFIC SIGNAL DIAGNOSTICS & MAINTENANCE (TE-24)**

**COURSE OUTLINE**

7:30 – 8:00 **Check-in and Registration**

8:00 – 8:15 **Introductions**

8:15 – 9:15 **Signal Design Basics**

- 1) Major Elements of Plans
- 2) Plans Standard Symbols & Equipment
- 3) Phase Diagram Accuracy and Notes

9:15 – 10:30 **Design from Maintenance Perspective**

- 1) Checklist Approach
- 2) How to avoid Conflicts and Change Orders
- 3) Submittals Review

10:30 – 10:45 **Break**

10:45 – 11:30 **Inside the Traffic Signal Cabinet**

- 1) Cabinet Types and Sizes
- 2) Essential Components and how it works together

11:30 – 12:00 **Traffic Signal Detection**

- 1) Types of Detection
- 2) Calibration Techniques
- 3) Installation and Maintenance

12:00 – 1:00 **Lunch**

1:00 – 2:15 **Wiring of Traffic Signals**

- 1) Basics and Essential Tips
- 2) How to Specify Neatness
- 3) Box Size and Specifications



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**COURSE OUTLINE (CON'T)**

**2:15 – 3:00 Service Box Considerations**

- 1) Types and Placements
- 2) Streetlights Connections
- 3) Battery Backup and Generators

**3:00 – 3:10 Break**

**3:10 – 3:45 Troubleshooting and Malfunctions**

- 1) Arrival Safety
- 2) Diagnosing the MMU
- 3) Industry Tools
- 4) Labeling

**3:45 – 4:45 Signal Turn-on and Acceptance**

- 1) Safety Checklist
- 2) Vehicle Phases
- 3) Pedestrian Phases

**4:45 – 5:00 Evaluation and Dismissal**

**What this class is not:**

- ✓ You will not learn how to coordinate signals, but only to understand coordination concepts.
- ✓ We will not teach you how to use Synchro.
- ✓ You will not learn how to program controllers and equipment – only partial instruction on timing sheets and detector settings, etc.
- ✓ You will not learn how to design signals, only how to review and define specifications.
- ✓ Tech Transfer has specific two---day courses for the above topics beyond this course.