



Number: E-26-002

Date: 05/08/26

ENGINEERING DIRECTIVE

Carrie Lavalley, P.E. (signature on original)

CHIEF ENGINEER

MassDOT Requirements for Performing Subsurface Utility Engineering Investigations

The purpose of this Engineering Directive is to inform Subsurface Utility Engineering (SUE) consultants and design consultants of MassDOT expectations and requirements with respect to SUE Scope and Deliverables. This includes Scoped Utilities and Limits of SUE.

All SUE work must be performed by companies prequalified by the MassDOT Architects and Engineers Review Board in the Subsurface Utility Engineering category (U). This prequalification rating ensures that companies have the relevant personnel, equipment and work experience to adequately perform these services in accordance with all MassDOT, state and federal requirements.

SUE information collected for each project shall be depicted in accordance with the following SUE deliverables formatting:

- **Scoped Utilities**

These will typically include electric, telecommunications, water, gas, and traffic control facilities. Street lighting may also be included. For some projects, drain and sewer utilities may be included where visual inspection alone cannot determine network connectivity, configuration or sizing. All scope requests should be confirmed with the District Utilities and Constructability Engineer (DUCE).

- **Limits of SUE (LOS)**

The LOS may or may not coincide with the project/survey limits, depending on the proposed work to be performed. The final LOS should be confirmed by the DUCE.

- **SUE Deliverables Formatting**

SUE submittals shall be drafted in conformance with the most current versions of the MassDOT Guidelines for SUE Deliverables, the ASCE Standard Guideline 38-22 (American Society of Civil Engineers: Standard Guideline for Investigating and Documenting Existing

Utilities), and the MassDOT CAD Standards. All Final SUE submittals must be sealed and signed by a Professional Engineer or Professional Land Surveyor registered in the Commonwealth of Massachusetts.

Where MassDOT determines that a Quality Level B (QL-B) or Quality Level A (QL-A) Utility Investigation shall be performed, the qualified SUE consultant shall provide the following general scope of SUE services:

- Review and confirm existing project documentation including utility records and/or existing utility compilation. Apply for roadway permitting as needed, including development of site-specific traffic management plans where required.
- Employ various field geophysical investigation methods to determine the approximate location of the scoped utilities which will subsequently be shown, following further processing and review, on the subsurface utility engineering drawings as QL-B.
- Where the utility line segment cannot, either wholly or partially, be shown at QL-B, the SUE provider may show the remaining utility segment at a lower quality level such as QL-C (where sufficient anchor points are available) or QL-D (existence has been determined only via record information).
- Where QL-A utility test pitting is required, utilize minimally-intrusive excavation methods to determine the exact utility depth and location at the specified data points. Information obtained will subsequently be shown on the subsurface utility engineering drawings as QL-A.

All consultants should review and be familiar with the most current version of ASCE Standard Guideline 38-22, which provides extensive information on SUE and SUE-related topics from definitions to means and methods.