

**EXCAVATION AND BACKFILL****Standard Specification 2565.3 and 2451**

A basic understanding of specifications is needed to properly replace the disturbed soil and restore the condition of the excavated area. The size of the disturbed area should be kept to the minimum required to do the job. All areas disturbed during the project must be restored to the satisfaction of the Engineer.





Trenching must be located at a distance from the edge of the pavement, back of curbing, or edge of surfaced shoulders as indicated in the contract documents, or as directed by the Engineer. The distance must be such that no damage, or undermining, is done to the pavement or curb. The trench must be of uniform alignment for accurate referencing of the underground installation.



If trenching or excavation operations require the removal of concrete pavement or sidewalk, it must be first cut with a concrete saw and then removed. Removal must be to the nearest existing joint or as directed by the Engineer.

The contractor must have the proper operating compaction equipment on the site before any of the excavation is begun. A motorized or hydraulic tamper is usually used in this type of work. The foot of the tamper must fit within the trench or excavation.

Excavations around foundations, handholes or conduits must be backfilled with the same material as the adjacent soils and compacted to approximately the same density. Spec. 2451.3D requires that backfill material be uniformly distributed in approximately 8 inch (200 millimeter) thickness, or less, and thoroughly compacted as required.



Once the excavation for a structure or conduit is finished, the structure must be installed as soon as practical. When placing conduit or direct buried cable, backfilling and proper compaction must be done as soon as possible to prevent water contamination of the roadbed, shoulder, or slopes.



Precast concrete bases, for street lighting, must be compacted in 8 inch lifts to ensure thorough compaction around the base.

The following are examples of pre-cast light bases that were not adequately compacted when initially installed. It is imperative that all pre-cast light bases are compacted as specified in the Contract documents.



Excavated material must be placed where it will not cause damage or obstruction to vehicles, pedestrians or interfere with surface drainage. Holes resulting from excavation must be covered and protected as soon as practical.

The Contractor and inspector must not allow unprotected hazards to exist for motorists or pedestrians during the construction of the project.

