## **DIVISION 31 - EARTHWORK**

## 31 00 00 EARTH WORK

## 31 23 00 - EXCAVATION AND BACKFILL

- 1. Require all existing utilities to be located prior to any excavation.
- 2. Require all exposed existing utilities and all sections of new underground utility installations to be inspected by Owner's Representative before backfilling begins.
- 3. Require all items removed to accommodate construction equipment or to facilitate excavation to be restored.
- 4. Follow SUDAS Standards for topsoil.
- 5. Require all suitable site topsoil impacted by excavation to be salvaged and stockpiled. Excess topsoil is the property of the Owner and shall be relocated to Owner's directed campus stockpile location by Constructor. Utilize BMP's to ensure soil viability and to minimize soil erosion.
- 6. Require all excess excavation subsoils to be removed from campus, unless coordinated with Owner.
- 7. Include exact construction line and grade for utilities where new construction crosses or parallels existing utilities or utility services.
- 8. Require adequate barricades and protection around excavation and work areas, in accordance with applicable standards.
- 9. Require protection of existing utilities which pass through work areas.
- 10. Require protection of existing structures, fences, sidewalks, light bases, paving, and curbs.
- 11. Require protection of existing trees and tree root systems. Refer to Section 02 91 10 Tree and Plant Protection.
- 12. Require Constructor to refill, compact and level off and refinish any settlement of backfill that occurs within the bond and warranty period.
- 13. Owner reserves the right to have testing of fill material compaction.

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- 14. All organics to be removed from topsoil prior to its reuse on campus projects or its relocation to the campus stockpile location.
- 15. See Division 0 Project Requirements for over compaction of soil

## A. COMPACTION

1. In the absence of a geotechnical report the following guidelines are proposed compaction percents. All percentages are standard proctor (ASTMD 698-91).

Landscaped areas	85%
Seeded/sod areas	85%
Walkways	95%
Roads	95%
Foundations	98%
Utilities	95%
Slabs on grade	95%