

TreeCulture Research Park - Current Research

Vineland's TreeCulture Research Park is designed to house multiple different research experiments at a given time. The inaugural experiment, installed into the first 36 tree compartments, focuses on Low Impact Development.

Low Impact Development (LID) refers to systems and practices that use or replicate natural processes to support the infiltration, evapotranspiration or use of storm water.

Compartments are currently being used to replicate landscape conditions and simulate recommended soil restoration practices to support the infiltration and storage of storm water in soil. Four LID soil treatments have been installed into the existing 36 tree compartments and planted with a single tree. Tree species used in the current LID research include:

- Freeman maple 'Autumn Blaze' (*Acer freemanii* 'Jeffersred')
- Tulip tree (*Liriodendron tulipifera* 'Arnold')



In order to replicate the process of landscape soil restoration, materials were installed into the compartments in four predefined layers:



Research will support the development of evidence-based tools and resources to improve soil management in urban landscapes, specifically by:

- Optimizing storm water infiltration and storage
- Maximizing tree establishment and growth

