

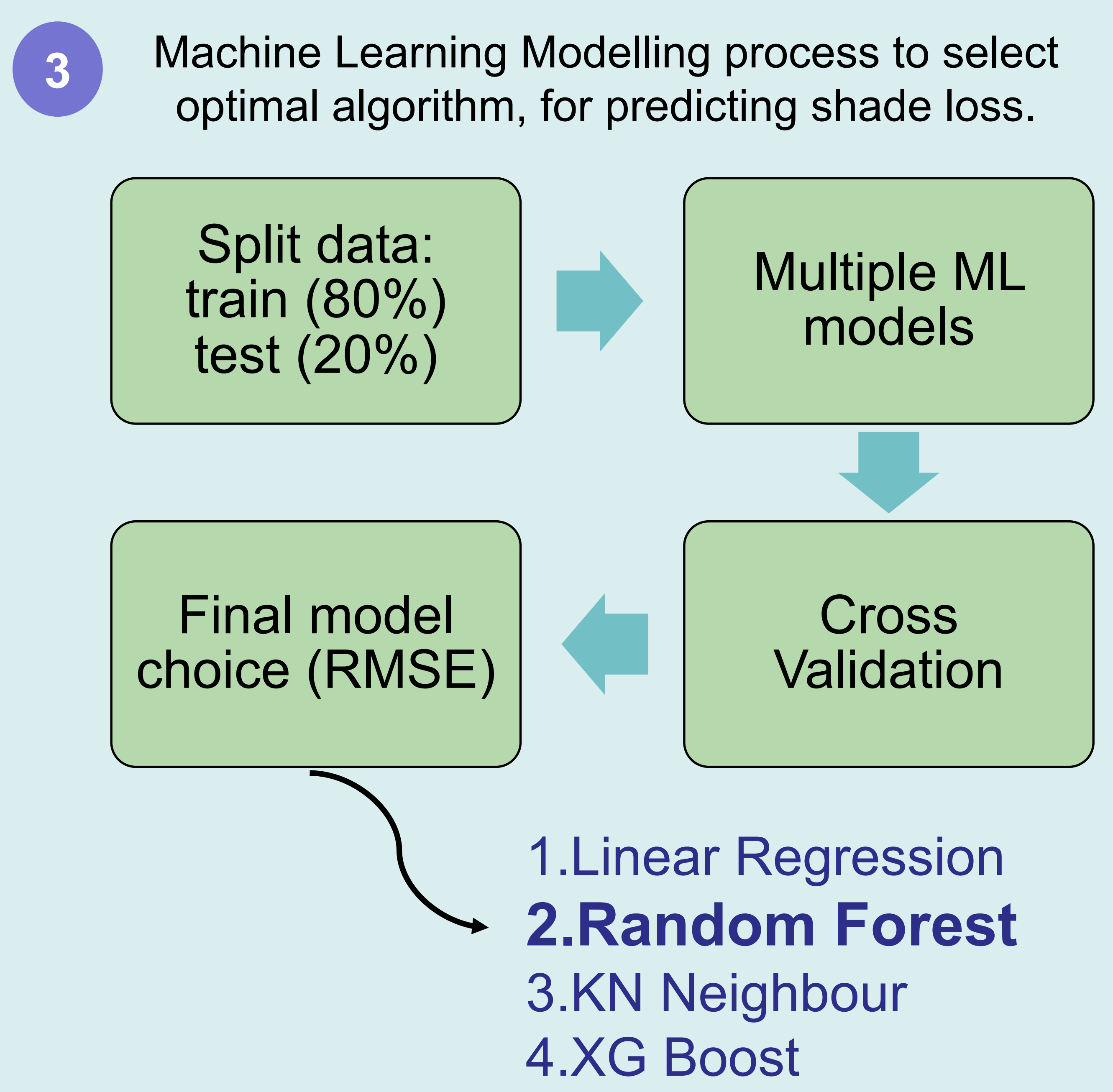
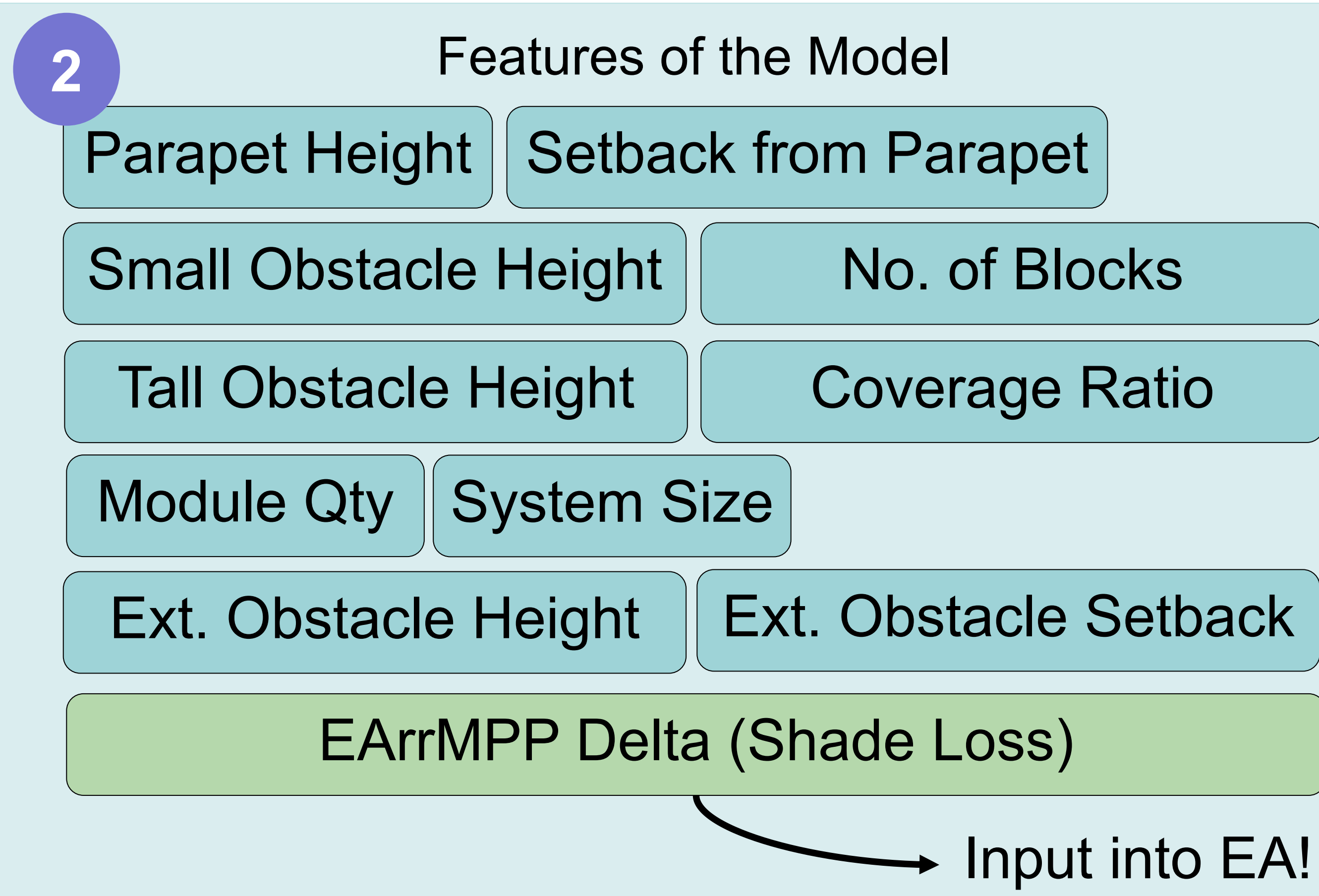
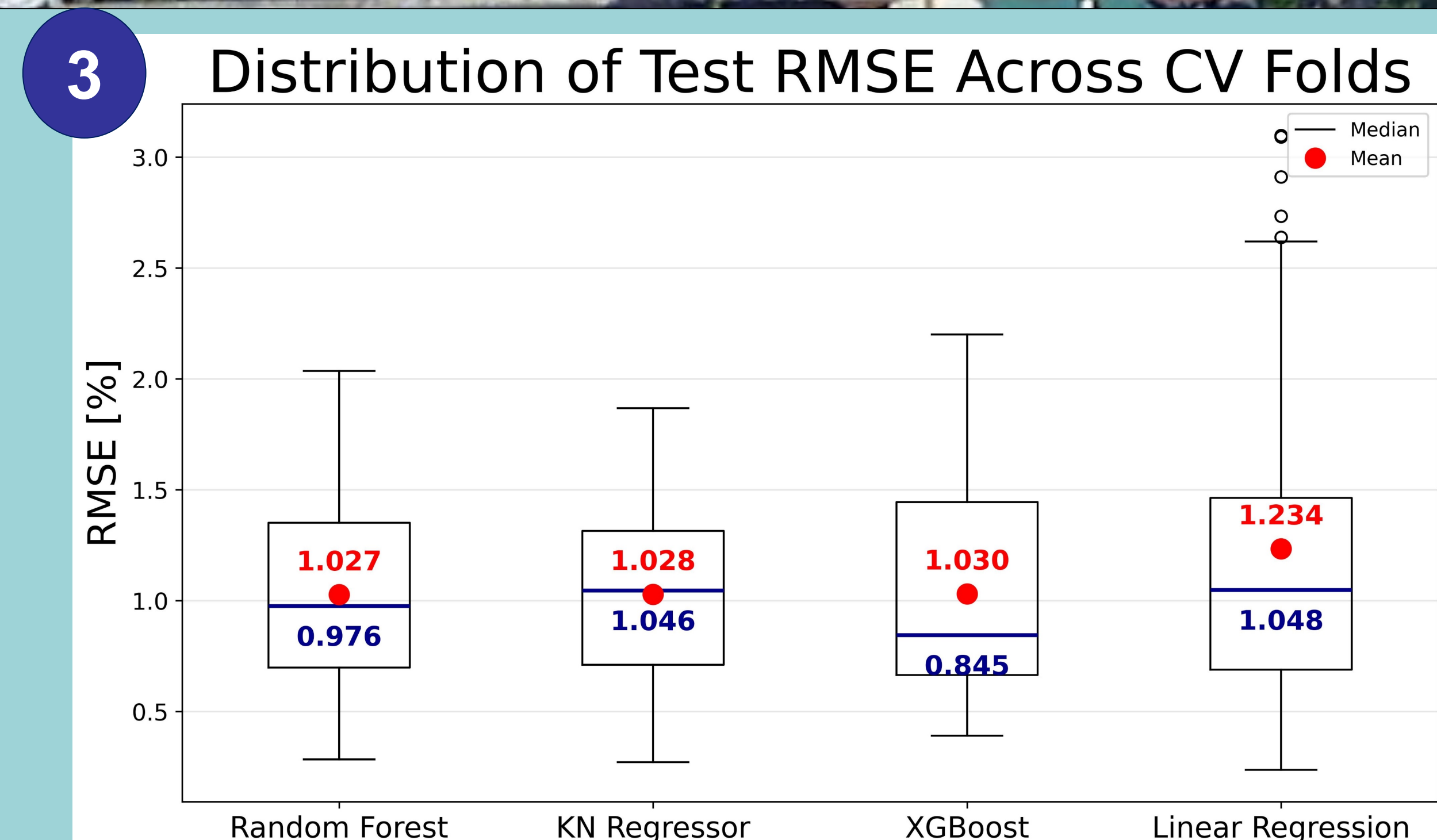
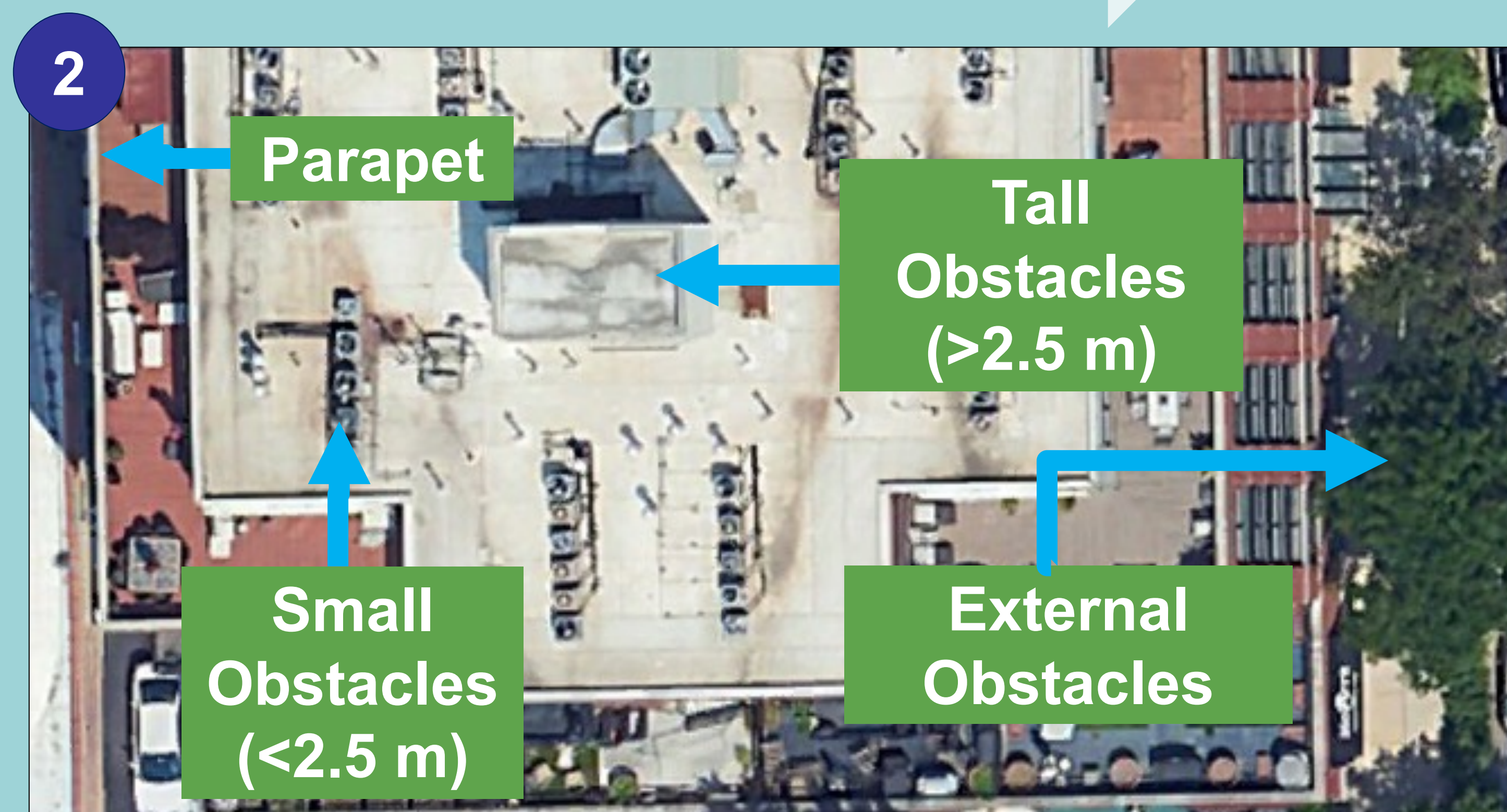
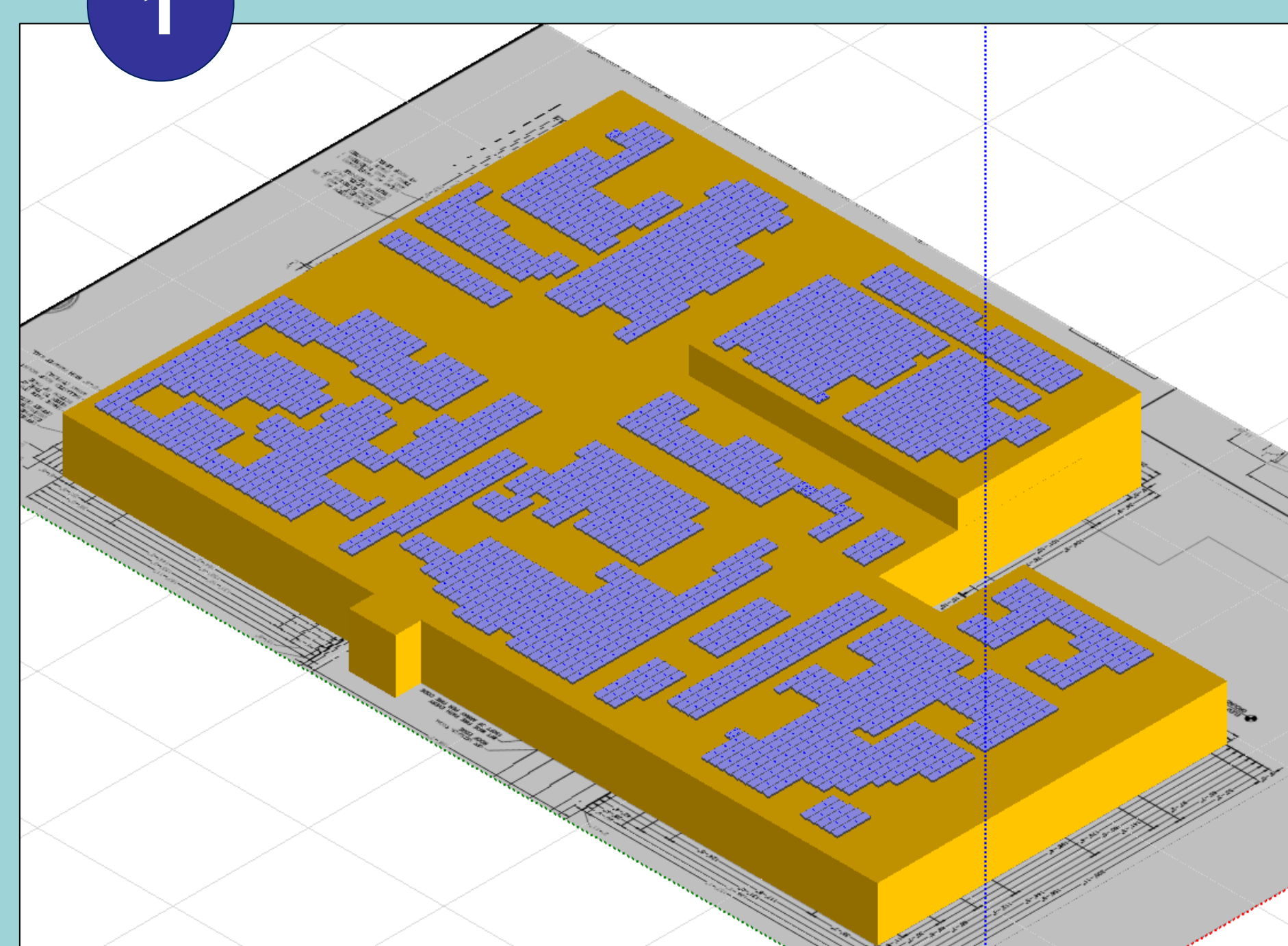
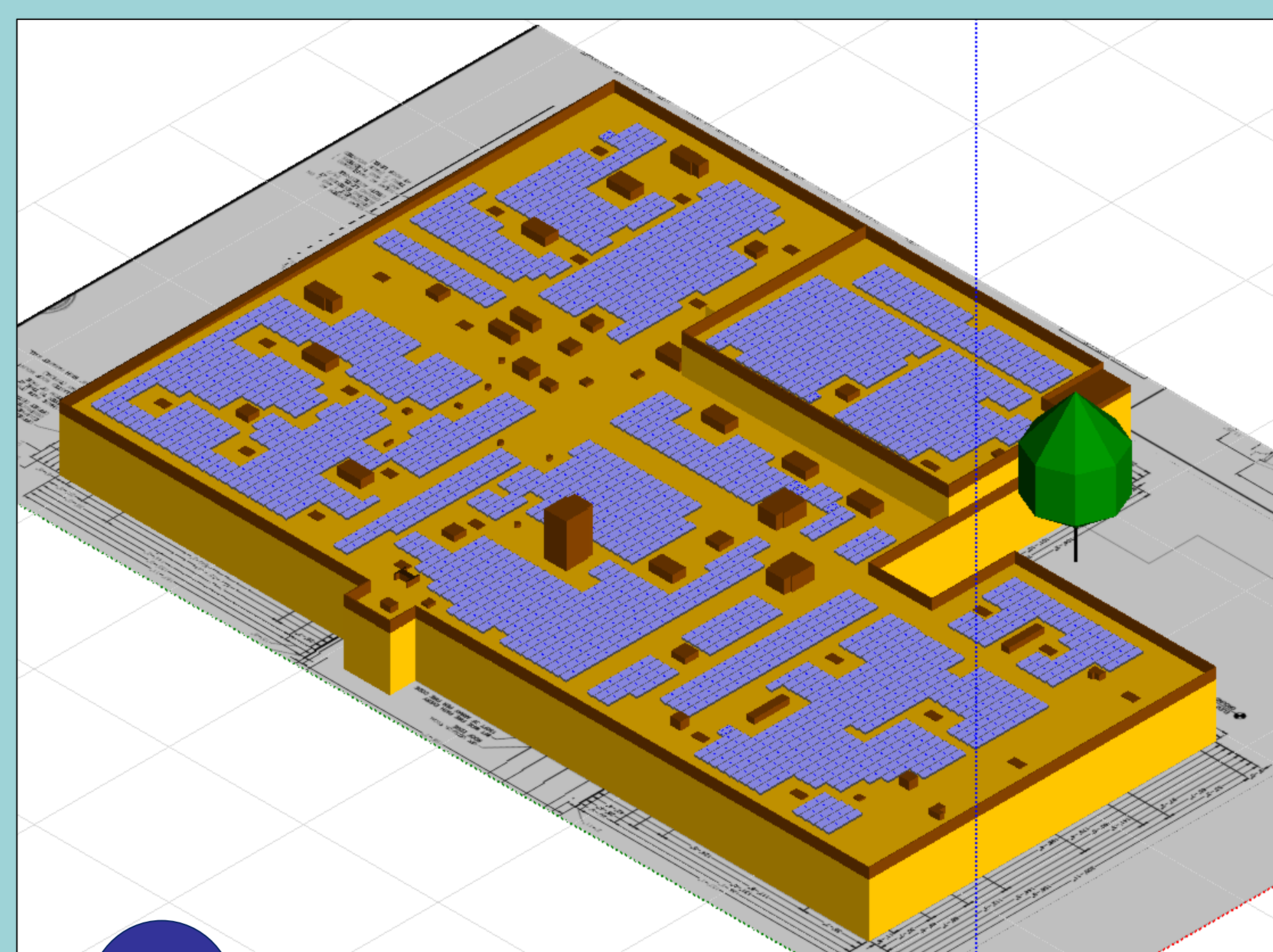
Faster prediction of shade losses from rooftop obstacles without 3D Models

Radhika G. Lampuse, Andrea Quattrone, Mark A. Mikofski

Rooftop solar projects are installed on buildings with several nearby obstacles (HVAC units, parapet walls, other buildings and trees). Such nearby obstacles **cast shadows on solar panels and reduce energy production**. Detailed 3D models, although more time-consuming, accurately account for shade losses.

However, rooftop projects may choose to **prioritize speed over technical accuracy**, by using preliminary estimates that simplify shade losses.

This project creates a **faster, data-driven method** to predict energy losses due to shading. This approach aims to support quicker, high-level energy estimates with reliable insight without creating detailed 3D Shade Scenes.



Questions? Comments? Scan the QR code to email me and let's talk!

Radhika Lampuse
 Team Lead
 Solar Energy Assessment

DNV Energy USA Inc.
radhika.lampuse@dnv.com
 Mobile +1 (412) 598-8752

