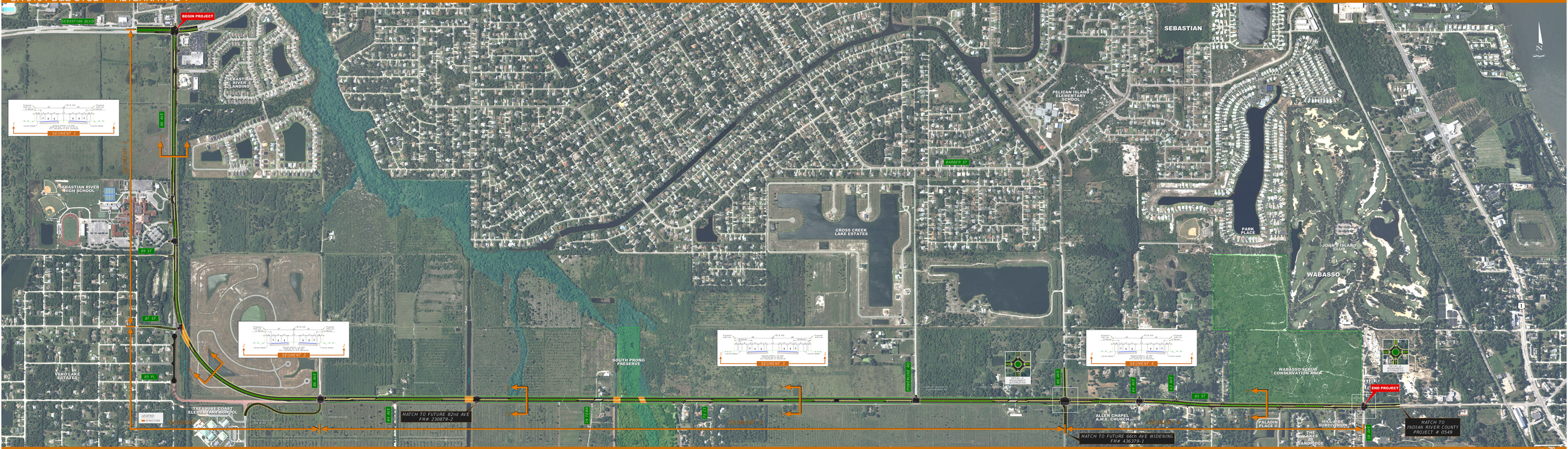CR 510 PD&E STUDY - ALTERNATIVE 1