

Efficient Signal Phasing for Serving Bicycle Movements

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Background

- There has been a strong advocacy for walking and biking.
- Dedicated bicycle paths and signals are rare in the U.S.
- How to accommodate bicycles with dedicated bicycle path and signal phasing has not been well addressed.

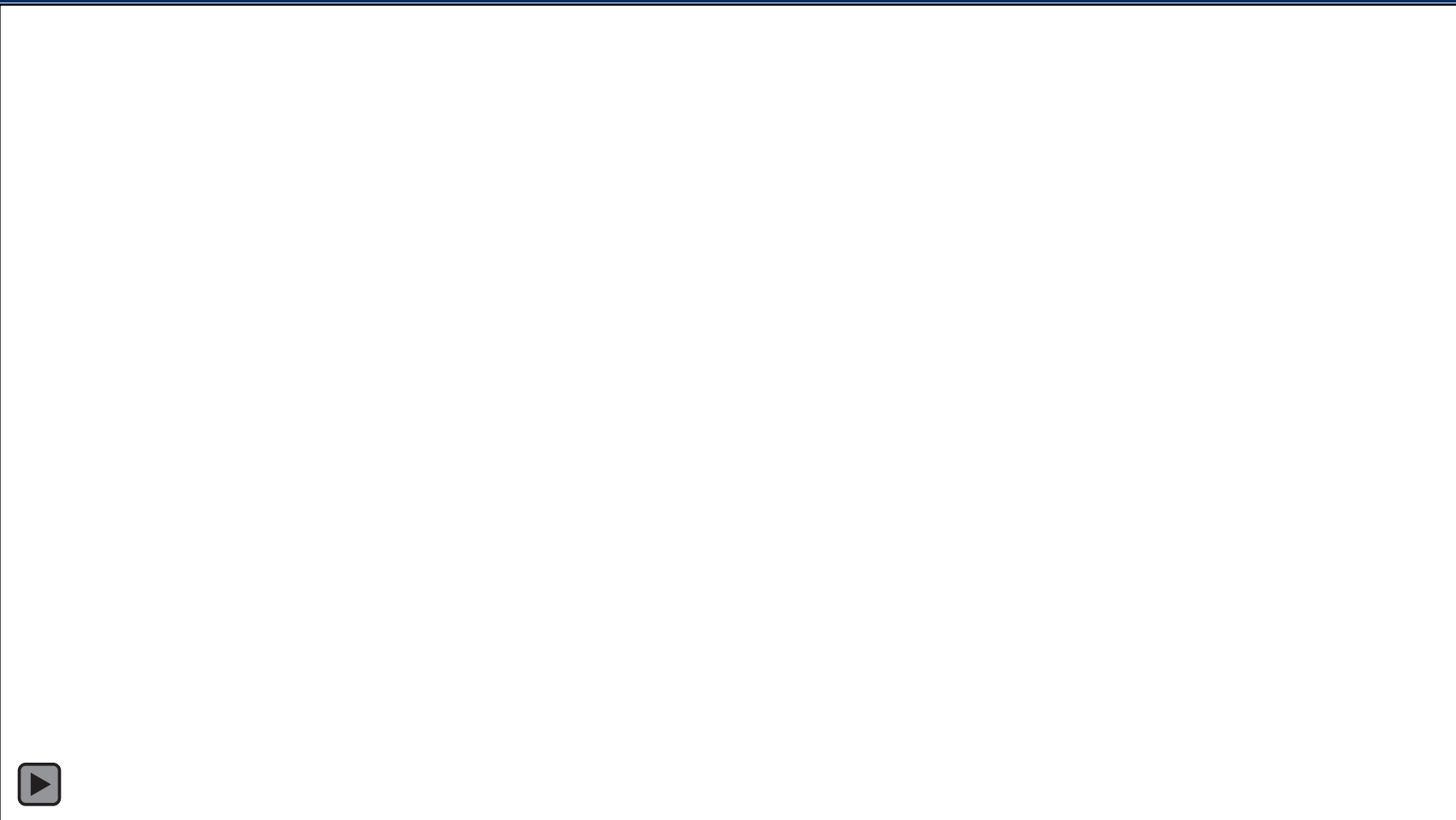
Objective

Develop and test signal phasing strategies for accommodating bicycle signal phase(s).

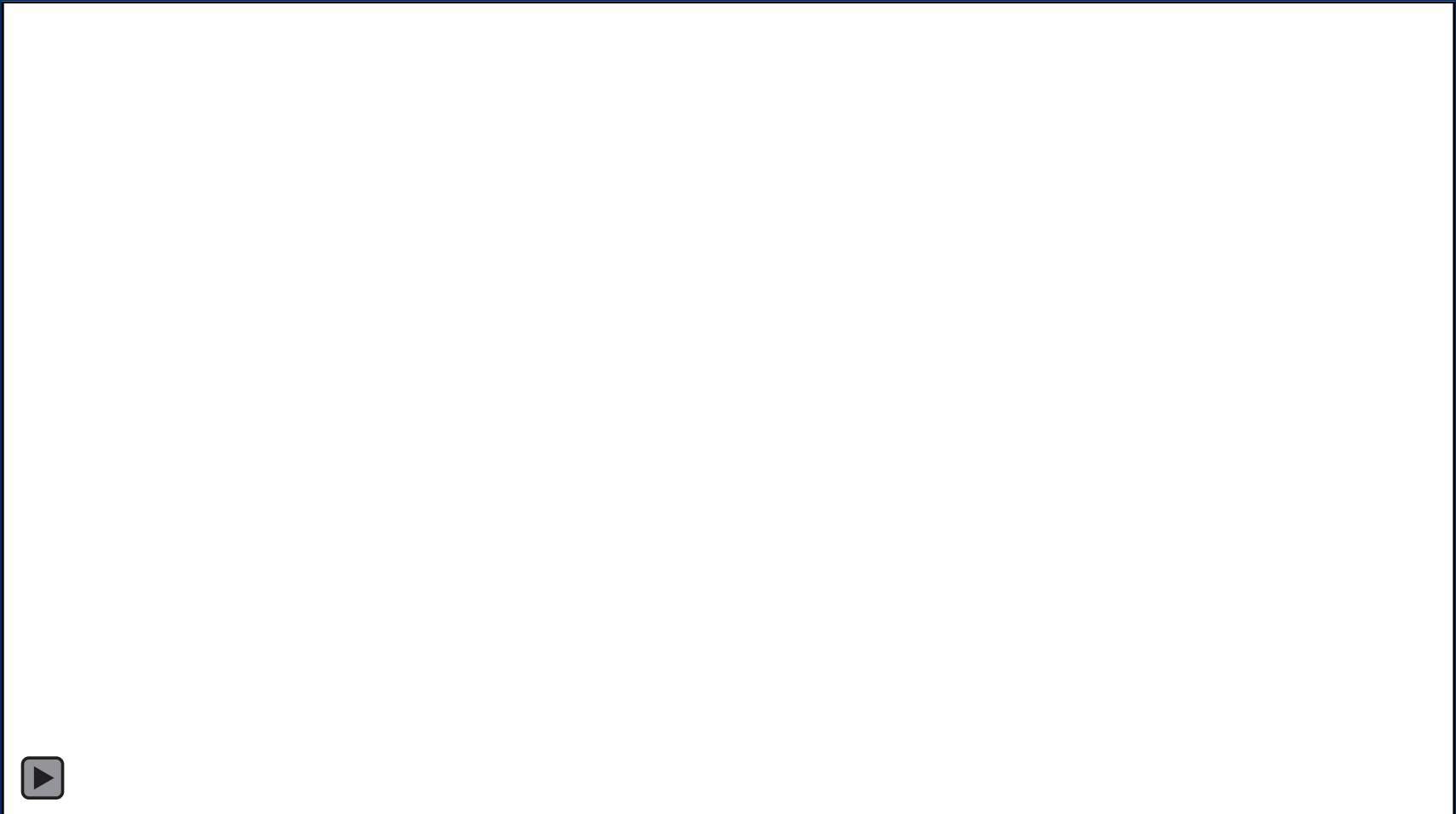
A Real Case



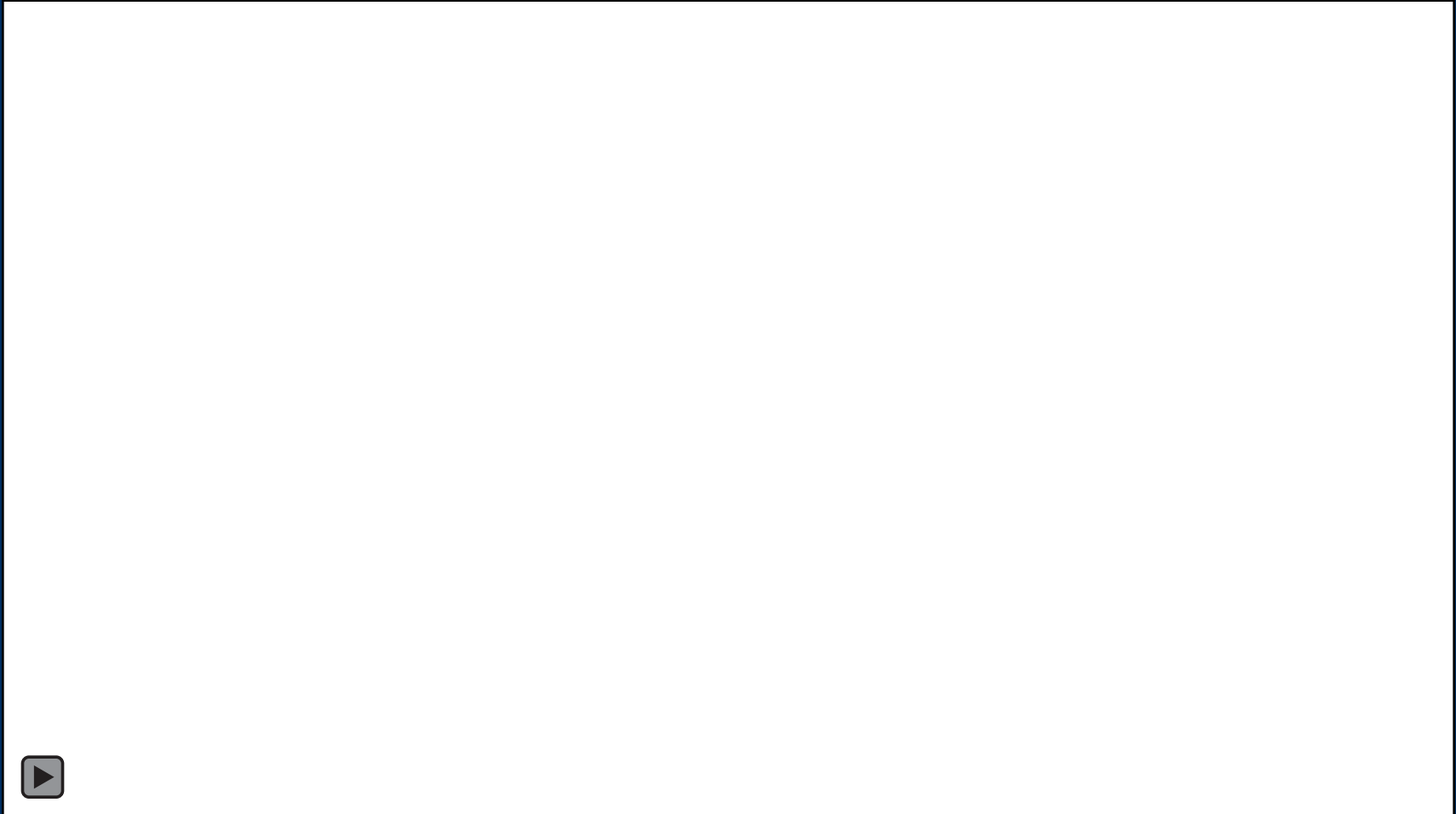
Design #1 (Existing – Tied with Adjacent Through)



Design #2 – Tied with Pedestrian



Design #3 – Separate Bicycle and Pedestrian Timing



Recommendations

- Design #1 – fixed with adjacent through phase
 - High bicycle volumes
- Design #2 – actuated but tied with ped
 - Low to moderate pedestrian or bike volume
 - Narrow intersections
- Design #3 – actuated and separate bike and ped
 - Low to moderate pedestrian or bike volume
 - Wide intersections

Questions?

