The rightâ€“turn Flashing Yellow Arrow (FYA) signal phasing is a new signal practice in the United States. The Manual on Uniform Traffic Control Devices (MUTCD (2009) allocates a signal phasing section for the rightâ€“turn FYA. The rightâ€“turn FYA signal phasing requires fourâ€“section head FYA signal. It supports multiple phasesâ€™ indications that guide the motorist through permissive, protected, and/or permissive/protected phases. This dissertation investigated three permissive rightâ€“turn FYA signal phases in various traffic conditions and signal timing circumstances. The first permissive rightâ€“turn FYA signal phase is a Rightâ€“Turn on Impeding Through (RTOIT) taking place during the crossâ€“street through traffic movement. The second permissive rightâ€“turn FYA signal phase occurs during the opposing leftâ€“turn approach movement so called Rightâ€“Turn on Impeding Left (RTOIL). The third permissive rightâ€“turn phase is a rightâ€“turn on adjacent through green impeded only by the side street pedestrians called Rightâ€“Turn on Adjacent Through (RTOAT). The research aimed to develop warrants lead to efficient implementation of permissive rightâ€“turn FYA signal phases based on microsimulation analysis. Multinomial logit models were developed to establish a decision support system that predicts the efficiency attributes of the permissive rightâ€“turn FYA signal phases.

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The public is welcome to attend.