

A Drive-Through Campus



East Ave. & Tower Rd. is one of the busiest intersections on Cornell campus, with a fair amount of vehicular and pedestrian traffic. Your team is contracted to study the likely consequences of installing a traffic light at that (currently, a 3-way-stop) intersection.

- Find a good way to “synchronize” the new traffic light with the three existing ones (at the Thurston Ave Bridge, at Garden Ave. & Tower Rd., and at Central Ave. & Campus Rd.)
- Suggest several different possible modes / synchronization programs based on the time of the day. (E.g., note that on weekdays the pedestrian traffic spikes in between classes.)
- Will some of the motorists (or pedestrians) switch to alternative routes once this traffic light is installed?
- Will the resulting vehicular traffic flow become more efficient than it is at present?
- How much of a delay would this plan add for an average pedestrian at this intersection?
- Assuming that the majority of pedestrians will follow the rules, are the sidewalks near that intersection wide enough for the crowd waiting to cross the road?

A note from the CMCM judges:

Given the time constraints, it is likely that you will have to focus on a subset of the above questions. Please make sure that your summary explicitly states which of these issues you chose to address.