Hi All

So I decided to type up a lot of the information we have discussed. Feel free to add, take away, format, etc. Also welcome our new member Shray Bansal<[sbansal34@gatech.edu](mailto:sbansal34@gatech.edu)>, and add him to your email list.

**Official Project Description**: To complete this project you must develop a simulation of a section (from 10th to 14th street) of Peachtree Street at around 4pm. This analysis will be focused on capturing the distribution of vehicle travel times during the rush-hour period as they traverse this stretch of Peachtree St. You will be provided with some data and statistics extracted from the physical system to use as both initial conditions for your simulator and for validating your results.

**Our Model**: thus far\*\*

Simplifications: We will create a model of Peachtree st from 10th 14th, below are the entities, activities, events, and data structures.

1.) Entities: cars, lights,

2.) Activities:

- cars (move, turn, stop, )

- lights (red, green)

3.) Events: Arrival, Departure,

4.) Data structures:

- Queue (Northbound, southbound)

- Intersection ( 3 intersection; 11th, 12th, 13th) Others mentioned there were 5 intersections

- Parking Lots

Car {

Unique ID

Destination

Time stamp: arrival, departure, stop

Entry (Peatree, 11th, 23, 23, 14th)

}

1.)Infinite or finite queue?

2.) Fully defined model?

3.) Official Write up stuff

Data to Required:

1.) Arrival statistics

2.) How long do the light stay red/green

3.) How many cars can the street hold b/w 10th and 14th, minus intersections

4.) The time it takes to traverse the intersection

-left

-right

-straight

5.) Departure process statistics

6.) How many parallel lanes on street

7.) Number of parking lots?

**Taken from other people in class**

\*\*pedestrian

\*\*Five intersection

\*\*Bursts of cars I think this is super important

\*\*blocking intersection

\*\*speed limit

\*\*follow speed limits

\*\*model truck, have some special properties

talk about assumptions: no passing, no pedestrians,

Conceptual Resolution

Time Resolution: (I minute, 5 minute) Dr. Fujimoto recommended seconds

Model different lengths of cars? - model cars and trucks, different

Model parking lots as one way street with finite number of cars?

Left turning lanes? Spill back phenomena

Things to do:

1. We need to state our simplification and reasons
2. What were are going to include in our model
3. Come up with a fully drawn conceptual model of the geography and our model
4. Any others?