INSERT TITLE HERE

Team 4552

November 15, 2013

Contents

1 Problem Restatement

2 Assumptions and Justifications

1. The travel times given are calculated from an optimal route from the center of the first zone to the center of the second. This excludes the possibility of reaching a zone faster via an indirect route than the direct, given one.

2. The travel times given for travel from any zone to itself is the average of all of the travel times of the different routes within that zone.

3. The ratio between the time it takes inside a zone to travel toward a second zone to the time it takes inside a zone away from a second zone is equal to the ratio between the travel time from the first zone to the second zone to the travel time from the second zone to the first zone. (Add a fraction, add a diagram)

4. Ambulances can only be placed in the very center of a zone. Because we do not know the spatial position of the zones relative to each other, we cannot allow the ambulances to be closer to one zone or another.

5. Overlap of ambuance coverage in a zone will be treated as even coverage over the entire zone. Because ambulances are unlikely to overlap in coverage, we will be ignoring this case.

6. The populations of each zone are evenly distributed over the entire zone. This is because many residential areas have relatively constant distribution.