

## **CEE517 Assignment 1 Wind Speeds and Atmospheric Turbulence**

**Due on Monday April 4, 2011**

1. Given a basic wind speed (three second, open, measured at 33 feet (10 m) above ground) of 80 mph, find and plot the hourly profile for the terrain conditions provided in Table 2.3.3 in the text.

Find and plot the corresponding intensity of turbulence profiles for (1).

Comment (briefly) on the results.

2. Convert a basic wind speed of 100 mph to a ten-minute value at 50 feet above ground in suburban terrain. Use the lower ASCE7-05 terrain values. Show all calculations.