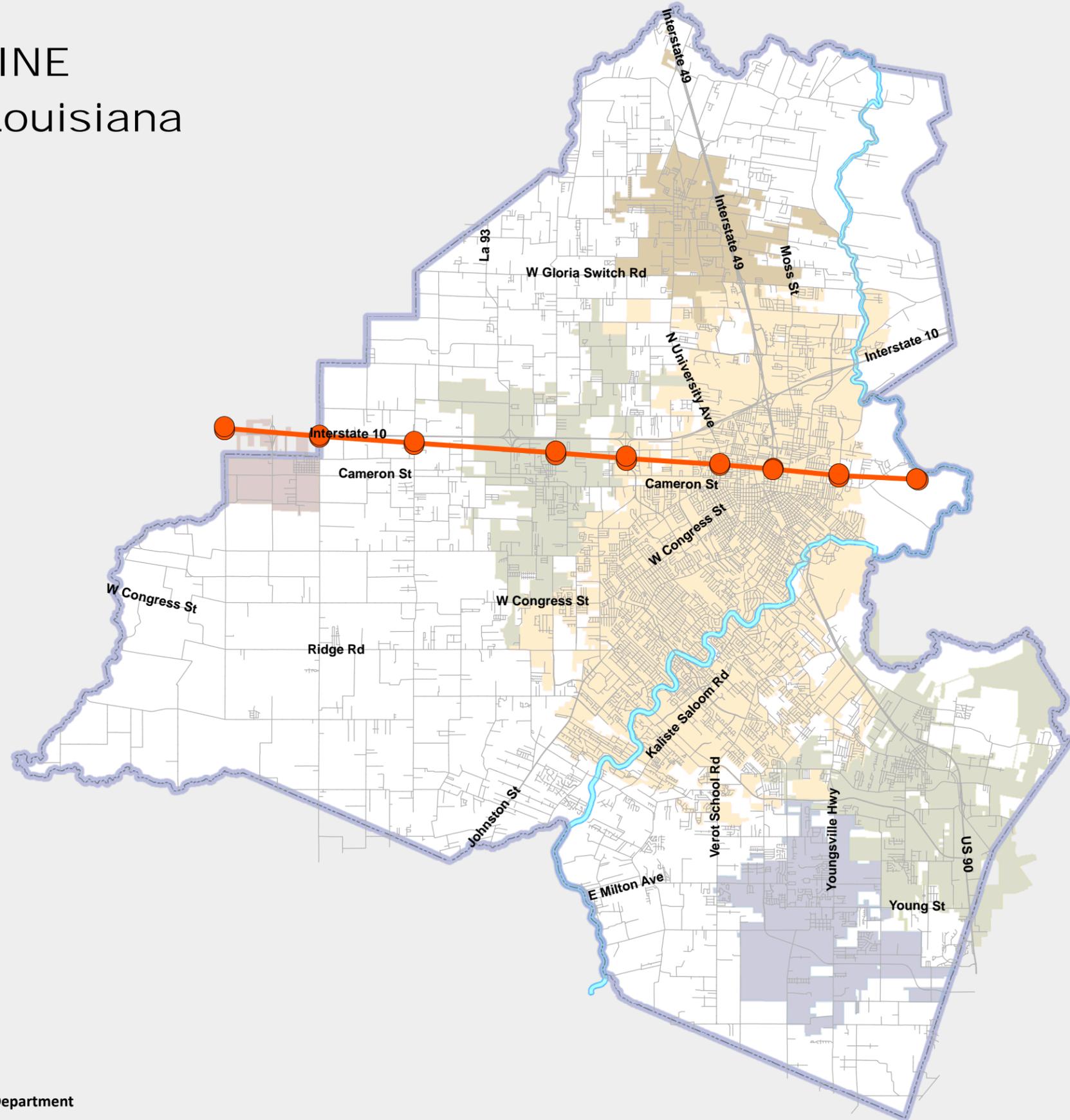


HIGH WIND LINE

Lafayette Parish, Louisiana



Date: February 10, 2013
Source: Planning, Zoning & Development Department
Cartographer: Charles Mayard

2012 International Building Code Wind Speeds

The methodology for determining Design Pressures have changed when using the 2012 International Building Code (IBC) wind speed maps. The following maps are to be used; Figures 1609A, 1609B, and 1609C. These maps are based on Risk Categories in Table 1604.5.

Risk categories, previously known as importance factors, have already been considered as part of the equation in determining Design Pressures on structures which is the reason for three different maps that indicate three distinct wind speeds. The net result of the design pressure however should be similar to what was discerned by using the previous method. For example: using the 2009 IBC at a point in Lafayette at what was 107 mph and is now in the 2012 IBC at that same point recognized as having a wind speed of 130 mph, the design pressure for exposure B would be -11% and exposure C +6%.

Lafayette Parish has a horizontal wind speed line splitting the parish near Interstate 10 (see map below and the red line). The risk category of the structure to be designed will determine the speed at which the red line represents. For example; for Risk Category I structures that red line would represent 120 mph (V_{ult}), Category II structures that red line would represent 130 mph (V_{ult}), and Category III & IV structures that red line would represent 140 mph (V_{ult}). The 2012 IBC equations are derived from the ASCE 7-10 manual.

The wind speed line was determined by using the following website,
<http://windspeed.atcouncil.org/>
<http://maps.lsuagcenter.com/floodmaps/?FIPS=22055>

Among other factors to be considered is the Exposure Category (IBC section 1609.4)

Communication towers (i.e. cellular phone towers) which are relied upon in emergency situations should be considered to have an exposure factor of C.