Appendix 2

Wind Speed and Turbulence Data
Appendix 2 contains graphical representations of the wind speed data used and results from the evaluation of Project wind effects on recreation; including:

- plots of r-values for the four scenarios and three distinct wind directions evaluated;
- turbulence index values for the four scenarios and three distinct wind directions evaluated;
- the percent change in wind speed when all three wind directions are averaged for all four scenarios evaluated; and
- wind speed and direction for SFO April 1 through November 1.

Figures are provided for the following four scenarios as evaluated in the wind study:

1) existing conditions;

2) development of the 300 Airport Boulevard Project;

3) development of the 300 Airport Boulevard Project and 350 Airport Boulevard Project (cumulative); and

4) the Existing Zoning Alternative.

All data included in Appendix 2 were gathered and assembled at the time that the wind study for the Project was conducted.
Northwest Wind - R Values

Existing Conditions
No Project Alternative

Point Grid (250ft Intervals)
- No Data
- Data

Source: City of Burlingame, 2012
West-Northwest Wind - R Values

Existing Conditions

No Project Alternative

Source: City of Burlingame, 2012
W Wind - R Values

Existing

Point Grid (250ft Intervals)

No Data

Less than 0.45

0.49 - 0.56

0.45 - 0.49

Greater than 0.63

Source: City of Burlingame, 2012
Northwest Wind - R Values

300 Airport Boulevard Project

Source: City of Burlingame, 2012
WNW Wind - R Values

Source: City of Burlingame, 2012
0.54 0.58 0.58 0.58 0.58 0.58 0.60
0.54 0.59 0.60 0.62 0.60 0.63 0.63
0.56 0.58 0.59 0.56 0.59 0.61 0.62
0.49 0.55 0.55 0.56 0.60 0.59 0.63
0.65 0.66 0.64 0.64 0.66 0.66 0.65
0.57 0.55 0.60 0.60 0.61 0.64 0.63
0.58 0.56 0.57 0.58 0.58 0.59 0.59

W Wind - R Values

Project

Point Grid (250ft Intervals)

No Data

Data

Source: City of Burlingame, 2012
Source: City of Burlingame, 2012
WNW Wind - R Values
Cumulative
Point Grid (250ft Intervals)
No Data
Less than 0.45
0.45 - 0.49
0.49 - 0.56
Greater than 0.63

Source: City of Burlingame, 2012
W Wind - R Values
Cumulative

Point Grid (250ft Intervals)

- No Data
- Less than 0.45
- 0.49 - 0.56
- 0.56 - 0.63
- Greater than 0.63

Source: City of Burlingame, 2012
Point Grid (250ft Intervals)

- No Data
- Less than 0.45
- 0.45 - 0.49
- 0.49 - 0.56
- Greater than 0.63

Source: City of Burlingame, 2012
WNW Wind - R Values

Point Grid (250ft Intervals)

- No Data
- Data

Source: City of Burlingame, 2012
West Wind - R Values

No Data
Less than 0.45
0.45 - 0.49
0.49 - 0.56
0.56 - 0.63
Greater than 0.63

Source: City of Burlingame, 2012
Source: City of Burlingame, 2012
Source: City of Burlingame, 2012
West Wind - Turbulence Index (%)

Existing Conditions

No Project Alternative

Source: City of Burlingame, 2012
Point Grid (250ft Intervals)

- No Data
- 12 - 16
- 16 - 20
- 24 - 28
- 28 - 34
- 20 - 24

Source: City of Burlingame, 2012
West-Northwest Wind - Turbulence Index (%)
300 Airport Boulevard Project

Source: City of Burlingame, 2012
Source: City of Burlingame, 2012
NW Wind - TI (%)

Cumulative

Point Grid (250ft Intervals)

No Data

Source: City of Burlingame, 2012

Northwest Wind - Turbulence Index (%)
Cumulative with 300 Airport Boulevard and 350 Airport Boulevard Project
West-Northwest Wind - Turbulence Index (%)
Cumulative with 300 Airport Boulevard and 350 Airport Boulevard Project

Source: City of Burlingame, 2012
West Wind - Turbulence Index (%)
Cumulative with 300 Airport Boulevard and 350 Airport Boulevard Project

Source: City of Burlingame, 2012
Northwest Wind - Turbulence Index (%)

Existing Zoning Alternative

Source: City of Burlingame, 2012
West-Northwest Wind - Turbulence Index (%)

Existing Zoning Alternative

Source: City of Burlingame, 2012
West Wind - Turbulence Index (%)

Existing Zoning Alternative

Source: City of Burlingame, 2012
Source: City of Burlingame, 2012

Existing Setting

300 Airport Boulevard Project
PERCENTAGE CHANGE IN WIND SPEED

- Wind Speed Decrease of 10% or more
- Wind Speed Decrease less than 10%

Source: City of Burlingame, 2012

Average Change in Wind Speed for the Northwest, West-Northwest, and West Directions

300 Airport Boulevard
Average Change in Wind Speed for the Northwest, West-Northwest, and West Directions Cumulative with Future Development of 300 Airport Boulevard and 350 Airport Boulevard
Wind Speed and Direction for SFO
April 1 through Nov 1 -- 0600 to 1900 hours
23,935 hours total (with 541 hours Calm)

Maximum value: 294 hours at 16 knots and 300 degrees
Largest value for a wind direction of 270 degrees: 144 hours at 15 knots.

Source: City of Burlingame, 2012