September 14, 2019

Robin Pierce
Development Director
Village of Essex Junction
2 Lincoln Street
Essex Junction, Vermont  05452

RE:  Environmental Noise Monitoring – Jason Derulo Concert

Dear Mr. Pierce;

Vermont Air Testing Services (VATS) was retained by the Village of Essex Junction to perform perimeter environmental noise monitoring at the Champlain Valley Exposition (CVE) for selected outdoor events held at the facility throughout the 2019 summer concert season. Noise monitoring was performed using Quest Technologies Sound Pro DL Type II integrating/logging sound level meters (SLM) setup to collect broadband noise level readings. Two SLMs used for the monitoring were configured to log average sound pressure levels every 5 seconds in the broadband or A-weighted scale. The meters’ microphones were fitted with a windscreen to minimize wind disturbance. Each SLM meter was calibrated at a 114 decibel (dB) tone prior to and the calibration was checked following the noise monitoring.

Two SLMs were deployed for the Jason Derulo Concert held at the CVE Grandstand on September 1, 2019. One SLM was placed on the east side boundary along the fenceline approximately 75 feet south of the Green Gate entrance. The monitoring location was noted as the East Meter location. The second SLM, identified as the West Meter, was placed along the western property boundary. Both collected noise data from the beginning of the show beginning at approximately 7:00 pm to the show’s conclusion.

The Jason Derulo Concert consisted of two different acts performing on the Grandstand stage with the first act starting at 7:00 pm and finishing at approximately 7:45 pm. The main act came on stage at approximately 8:00 pm and concluded around 9:30 pm. The weather during the event was mostly cloudy skies with winds out of the south at 7 mph and temperatures ranging from low 70’s and dropping to the mid 60’s by the conclusion of the show.

Noise monitoring began at approximately 7:00 pm on September 1\textsuperscript{st} and concluded at approximately 9:45 pm that evening. The noise monitoring data is presented for both meters in the attached charts and a summary of the monitoring data is provided below.
The table below presents the SLM property line hourly average noise data, the maximum noise levels and the time duration of noise levels above maximum allowable noise level in minutes.

<table>
<thead>
<tr>
<th>Time</th>
<th>Area Average (dBA)</th>
<th>Maximum Noise Level (dBA)</th>
<th>Sustained Noise Level &gt; 83 dBA, (minutes)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Hour 1</td>
<td>71.2</td>
<td>79.2</td>
<td>0.0</td>
</tr>
<tr>
<td>Hour 2</td>
<td>71.3</td>
<td>76.8</td>
<td>0.0</td>
</tr>
<tr>
<td>Hour 3</td>
<td>72.5</td>
<td>77.4</td>
<td>0.0</td>
</tr>
</tbody>
</table>

The data presented above indicates the hourly average noise limit of 78 dBA was not exceeded along the east property boundary during the nearly 3-hour monitoring period at the CVE Grandstand on September 1, 2019. The maximum noise level above 83 dBA was not exceeded along the east property boundary without exception during the concert event. The maximum noise limit is defined as a sustained maximum five-minute average of 83 dBA in the established noise criteria limits.

The West noise monitoring data presented below indicates the monitoring conducted along Weston Way during the concert event;

<table>
<thead>
<tr>
<th>Time</th>
<th>Area Average (dBA)</th>
<th>Maximum Noise Level (dBA)</th>
<th>Sustained Noise Level &gt; 83 dBA, (minutes)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Hour 1</td>
<td>63.7</td>
<td>82.3</td>
<td>0.0</td>
</tr>
<tr>
<td>Hour 2</td>
<td>67.6</td>
<td>82.9</td>
<td>0.0</td>
</tr>
<tr>
<td>Hour 3</td>
<td>67.7</td>
<td>77.7</td>
<td>0.0</td>
</tr>
</tbody>
</table>

The West monitoring intervals was conducted on the western property-line berm adjacent to Weston Way. The data listed above indicates the average area noise levels were all below the 78 dBA average limit during each monitoring segment along the property boundaries. The maximum noise levels were also maintained below the 83 dBA limit without exception.

The noise level data is presented in attached charts for the SLMs used during the Jason Derulo Concert event held on September 1, 2019. The noise levels measured throughout the event did not exceed the established noise level criteria without exception. The established noise level criteria used for monitoring outdoor events held at the Champlain Valley Exposition are defined in the Noise Indemnification Agreement between the Champlain Valley Exposition and the Village of Essex Junction.

Best regards,

Principal
Champlain Valley Exposition
Jason Derulo Concert - East Boundary Noise Monitoring
September 1, 2019

<table>
<thead>
<tr>
<th>Time</th>
<th>Hour 1</th>
<th>Hour 2</th>
<th>Hour 3</th>
</tr>
</thead>
<tbody>
<tr>
<td>Hourly Avg</td>
<td>71.2</td>
<td>71.3</td>
<td>72.5</td>
</tr>
<tr>
<td>Max Levels</td>
<td>79.2</td>
<td>76.8</td>
<td>77.4</td>
</tr>
<tr>
<td>Exceeding Limit (min)</td>
<td>0.0</td>
<td>0.0</td>
<td>0.0</td>
</tr>
</tbody>
</table>
Champlain Valley Exposition
Jason Derulo Concert - West Boundary Monitoring
September 1, 2019

Hourly Avg
Hour 1: 63.7
Hour 2: 67.6
Hour 3: 67.7

Max Levels
Hour 1: 82.3
Hour 2: 82.9
Hour 3: 77.7

> 83 dBA (sustained time > 83 dB, in minutes)
Hour 1: 0.0
Hour 2: 0.0
Hour 3: 0.0