Good Neighbourly Relations Committee

Major reinforcement work on the metal structure of the Jacques Cartier Bridge

January 31, 2017
Agenda

+ Work overview
+ Mitigation measures
+ Upcoming work
+ Discussion period
+ Next meeting
Work overview

Major reinforcement work on the metal structure of the Jacques Cartier Bridge
Reinforcement of the metal structure of the Jacques Cartier Bridge

The largest steel contract in the bridge's history

- Replacement of braces
- Reinforcement of:
  - Steel towers
  - Verticals
  - Diagonals
  - Vertical gusset plates
  - Main bottom chords
  - Jacking struts

Another nearby worksite is currently installing lighting fixtures on the Jacques-Cartier Bridge (Illumination project).
III Work locations
Replacement of braces
Reinforcement of a vertical gusset plate
Replacement of a bottom chord
Preparatory work is always done during the day.

Structural elements are replaced during the evening, night and weekend as traffic lanes must be closed above the work areas.
A number of partial and complete bridge closures

- Partial closures during the evening and night (8:00 p.m. to 5:00 a.m.)
- Complete closures at night (12:00 a.m. to 4:00 a.m.)
- Partial lane closures on local network for mobilization and delivery activities
Mitigation measures

Major reinforcement work on the metal structure of the Jacques Cartier Bridge
Sound level testing

- Report from a specialized firm
  - Noise mitigation measures campaign before the work
  - Findings: Regular ambient noise is quite loud
    - Average between 58.4 dB and 64.6 dB over a 24-hr period
### Noise surveys

#### Results: René-Lévesque Station

<table>
<thead>
<tr>
<th></th>
<th>Authorized limits</th>
<th>Recordings outside of work</th>
<th>Recordings during work</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Day</strong> (7 am to 7 pm)</td>
<td>75</td>
<td>75.2</td>
<td>82</td>
</tr>
<tr>
<td><strong>Evening</strong> (7 to 11 pm)</td>
<td>69</td>
<td>71.3</td>
<td>72.5</td>
</tr>
<tr>
<td><strong>Night</strong> (11 pm to 7 am)</td>
<td>67</td>
<td>69.9</td>
<td>70</td>
</tr>
</tbody>
</table>

#### Results: Falardeau Station

<table>
<thead>
<tr>
<th></th>
<th>Authorized limits</th>
<th>Recordings outside of work</th>
<th>Recordings during work</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Day</strong> (7 am to 7 pm)</td>
<td>75</td>
<td>Below the threshold</td>
<td>84.8</td>
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<tr>
<td><strong>Evening</strong> (7 to 11 pm)</td>
<td>69</td>
<td>Below the threshold</td>
<td>Below the threshold</td>
</tr>
<tr>
<td><strong>Night</strong> (11 pm to 7 am)</td>
<td>68</td>
<td>68.3</td>
<td>71</td>
</tr>
</tbody>
</table>
Noise management program

- Work done mainly during the day, between 7:00 a.m. and 7:00 p.m.
- Traffic restrictions in residential sectors
- Installation of acoustic barriers and sound absorption panels
- Installation of soundproofed shelters around sensitive areas
- Adjustment of Contractor’s Work Methods
- Equipment with noise reducers
- Installation of two sound level meters near the work areas
- Continuous noise surveys and monitoring of threshold overruns
Acoustic barriers
Soundproofed shelters
Mitigation measures

- Tools with noise reduction devices
- Sound level meters
Upcoming work phases

30% of work completed

Main work area (winter 2017)
Discussion period
Communication with waterfront residents

- Notices to residents
- Work advisories available online and via e-mail alerts
- Media contacts
- Good Neighbourly Relations Committee
- Twitter account dedicated to the Jacques Cartier Bridge @pontJCBridge
- www.JacquesCartierChamplain.ca

Questions, complaints or comments

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- communications@pjcci.ca
Participez à la conversation
JacquesCartierChamplain.ca
Twitter | LinkedIn | Facebook | YouTube