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**SOLICITATION AMENDMENT  
MODIFICATION DE L'INVITATION**

The referenced document is hereby revised; unless otherwise indicated, all other terms and conditions of the Solicitation remain the same.

Ce document est par la présente révisé; sauf indication contraire, les modalités de l'invitation demeurent les mêmes.

**Comments - Commentaires**

**Vendor/Firm Name and Address**  
Raison sociale et adresse du  
fournisseur/de l'entrepreneur

**Issuing Office - Bureau de distribution**  
TPSGC - PWGSC  
601 - 1550 Avenue d'Estimauville  
Québec  
Québec  
G1J 0C7

<b>Title - Sujet</b> Telecommunication Tower - Mingan	
<b>Solicitation No. - N° de l'invitation</b> EE517-162439/A	<b>Amendment No. - N° modif.</b> 002
<b>Client Reference No. - N° de référence du client</b> EE517-162439	<b>Date</b> 2016-03-18
<b>GETS Reference No. - N° de référence de SEAG</b> PW-\$QCW-026-16700	
<b>File No. - N° de dossier</b> QCW-5-38307 (026)	<b>CCC No./N° CCC - FMS No./N° VME</b>
<b>Solicitation Closes - L'invitation prend fin</b> <b>at - à 02:00 PM</b> <b>on - le 2016-04-18</b>	
<b>F.O.B. - F.A.B.</b> <b>Plant-Usine:</b> <input type="checkbox"/> <b>Destination:</b> <input checked="" type="checkbox"/> <b>Other-Autre:</b> <input type="checkbox"/>	
<b>Address Enquiries to: - Adresser toutes questions à:</b> Perron, Jonathan	<b>Buyer Id - Id de l'acheteur</b> qcw026
<b>Telephone No. - N° de téléphone</b> (418) 649-2838 ( )	<b>FAX No. - N° de FAX</b> (418) 648-2209
<b>Destination - of Goods, Services, and Construction:</b> <b>Destination - des biens, services et construction:</b>	

**Instructions: See Herein**

**Instructions: Voir aux présentes**

<b>Delivery Required - Livraison exigée</b>	<b>Delivery Offered - Livraison proposée</b>
<b>Vendor/Firm Name and Address</b> Raison sociale et adresse du fournisseur/de l'entrepreneur	
<b>Telephone No. - N° de téléphone</b> <b>Facsimile No. - N° de télécopieur</b>	
<b>Name and title of person authorized to sign on behalf of Vendor/Firm</b> <b>(type or print)</b> <b>Nom et titre de la personne autorisée à signer au nom du fournisseur/</b> <b>de l'entrepreneur (taper ou écrire en caractères d'imprimerie)</b>	
<b>Signature</b>	<b>Date</b>

N° de l'invitation - Solicitation No.  
EE517-162439/A

N° de la modif - Amd. No.  
002

Id de l'acheteur - Buyer ID  
qcw026

N° de réf. du client - Client Ref. No.  
EE517-162439

File No. - N° du dossier  
QCW-5-38307

N° CCC / CCC No./ N° VME - FMS

## Amendment 002

**Titre / Title:** Telecommunication Tower - Mingan

No. EE517-162439/A

**Included in the present amendment:**

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### Questions and Answers (7-11)

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**Question #7:** Section 13 30 10 2.02.1 Design Wind: Please define the site specific wind pressure profile complete with associated return period to use for this tower design.

**Answer #7:** According to CSA S37: "the reference velocity pressure (q) shall be the 30-year return period mean hourly wind pressure at 10m above ground level, as appropriate for the site, but not less than 300 Pa". Refer to NBC 2010 for the site specific hourly wind pressure.

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**Question #8:** Section 13 30 10 2.02.2 ICE: S37-13 requires an ice thickness to be specified and this ice thickness is increased over the height of the tower according to formula in S37-13. The wind for the iced case is also specified in S37-13. We do not understand the meaning of 2.02.2.1 and 2.02.2.2. Can we have a conference call to have a question and answer such that we understand what is intended. 2.02.2.1 on its own would indicate that the ice to use for the design of the tower is 40mm (base ice and increased with height as per S37-13). 2.02.2.2 is in conflict, as we read it, with the prior clause.

**Answer #8:** The minimum ice thickness to use for the design of the tower is 40mm as specified in the article 2.02.2.1 of the section 13 30 10 and in S37-13.  
Replace article 2.02.2.2 of the section 13 30 10 with S37-13 requirements for combined Ice and Wind Loads.

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**Question #9:** Section 13 30 10 2.02.6 SERVICEABILITY: Please confirm that the criteria (Serviceability factor, wind pressure profiles with and without ice etc ) are not to be used for the design of this tower. Please confirm that we have interpreted this clause correctly: angular rotation of the tower at the tower top (there is an antenna at the tower top) and all antenna elevations shall be limited to +/- 0.7 degrees using a constant wind velocity (top to bottom of tower) of 31 meters per second (no ice).

**Answer #9:** As mentioned in article 2.01.1 of section 13 30 10, the more conservative specification between the CSA standard and the specification shall be followed.

Your interpretation of article 2.02.6 of section 13 30 10 in regards of the loads to use for serviceability is correct. However, the 0.7 degrees rotation applies only to the uppermost antenna attachment point of the tower.

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**Question #10:** Section 13 30 10 2.04 CALCULATIONS AND MODELING: Please confirm that GUYMAST (current updates included) is acceptable as the guyed tower analysis software.

**Answer #10:** There is no restriction on the use of a guyed tower analysis software, as long as the structural calculation is prepared and stamped by a structural engineer licensed in Quebec.

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**Question #11:** Section 13 30 10 3.01 GENERAL: We will design at tower with an overall height of between 50 and 60 meters as required here. Please confirm that the design of the tower is limited to the antenna systems noted in 2.02.4.1 (we will include the weights of three antennas per antenna elevation as specified in this clause. This will have no significant impact on the tower design however given that the effective projected area of the antenna and mount remains at one per elevation and it's the EPA and not the weight that causes the tower structural system to increase in size).

**Answer #11:** The design of the tower is limited to the antenna systems noted in 2.02.4.1 (a total of 6 antennas), including all the loads (ice, wind) applied on those antennas.

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