

The purpose of this Addendum No. 1 below hereto is to provide answers to questions raised and to confirm certain additions/changes/information all of which form part of the ACAN. All other terms and conditions of the subject ACAN remain unchanged and in effect

PROJECT DETAILS:

This service contract is linked to ongoing research and development being conducted at the Communication Research Centre (CRC) into 5G communications, spectrum monitoring, and dynamic spectrum management. This requires the use of highly detailed LIDAR scans to produce computer-aided design (CAD) models that are used to both simulate radiowave propagation at frequencies between 25 GHz and 30 GHz and to visualize the results of radiowave propagation in an immersive 3D environment. For visualization purposes, CRC uses the latest versions of Cesium and Unity 3D tools, while the latest version of Remcom Wireless InSite, a ray-tracing software tool, is used for simulation purposes.

CRITERIA FOR ASSESSMENT OF STATEMENT OF CAPABILITIES:

Any interested supplier must demonstrate by way of a statement of capabilities that it meets the following requirements. Proof of experience must include project descriptions, model details, and Wireless InSite simulation parameter settings including number of layers.

- Previous experience in performing ground-based 3D laser scanning using LIDAR technologies.
- Previous experience in converting LIDAR-scanned data into layered 3D outdoor CAD models compatible with formats used by Remcom Wireless InSite
- Previous experience working on projects that involved successfully importing layered 3D outdoor CAD models into Remcom Wireless InSite, enabling the smooth running of radiowave propagation simulations at one or multiple frequencies between 25 GHz and 30 GHz.
- Ability to perform ground-based 3D laser scanning in the National Capital Region (Ottawa, Ontario)
- Ability to deliver a 3D outdoor CAD model suitable for radiowave ray-tracing simulations, meeting the following requirements:
 - o Model must be provided in all the following formats: .fbx, .obj, .dae, and .skp.
 - o The first three formats must be importable within the latest version of Remcom Wireless InSite simulation tool.
 - o Model must include all structures present in the environment, including but not limited to all building facades, air-conditioning facilities, fences, metal pipes, antenna towers, windows and window frames, trees separated in trunks and foliage, street signs, doors and door frames, asphalt road, ground terrain, utility poles, and public furniture.
 - o Model must include material properties such as dielectric characteristics for frequencies between 25 GHz and 30 GHz.
 - o Within the computer file, the various constituents of the model must be defined on different layers in order to allow removing complexity, if necessary.
- Ability to deliver a 3D CAD model suitable for visualization purposes, meeting the following requirements:
 - o Model must be provided in all the following formats: .dae, .fbx, .obj, .glTF, and .3ds.
 - o All formats must be importable to the latest versions of Cesium and Unity 3D tools.

- Model must include high quality texturing similar to what is shown in picture (a) below to create an enhanced 3D environment visualization experience when displaying spectrum information.
- Ability to merge the above simulation and visualization models with previously procured models that meet the above formats. The new models must be compatible with existing models. This includes:
 - The absence of gaps between the existing model and the model to be procured.
 - The absence of overlaps.
 - The same texture patterns as the previous model.

Suppliers who consider themselves fully qualified and available to meet the specified requirements may submit a statement of capabilities in writing to the Contracting Authority identified in this Notice on or before the closing date of this Notice. The statement of capabilities must clearly demonstrate how the supplier meets the advertised requirements.

If a potential supplier submits a statement of capabilities during the posting period that meets the requirements set out in this ACAN, the government will proceed to a full tendering process on either the government's electronic tendering system or through traditional means in order to award the contract. If no other supplier submits on or before the closing date a statement of capabilities meeting the requirements set out in this ACAN, a contract will be awarded to the pre-selected supplier.

CLARIFICATIONS:

Visualization model quality:

The Lidar-based visualization model must include textures that are similar to what is shown in picture (a) below.

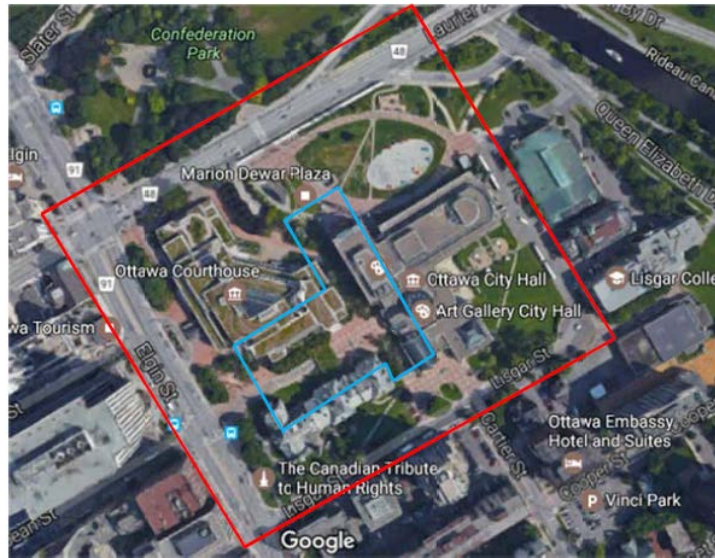


(a) Texture Quality for Visualization Model

Location:

CRC requires 3D simulation and visualization CAD models of the locations shown in pictures (b) and (c). The models must cover all areas enclosed in the red lines with the exception of the areas enclosed in blue, which have already been procured.

CRC can provide the simulation and visualization models of the area enclosed in blue to the winning bidder. The contractor must merge these with the extended area enclosed in red when delivering the required models.



(b) City Hall Expanded Area



(c) CRC Expanded Area

CLOSING DATE AND TIME FOR WRITTEN SUPPLIER RESPONSES CHALLENGING THIS REQUIREMENT IS 14:00 HRS, EASTERN TIME, June 20, 2017.

You are hereby notified that the government intends to solicit a bid and negotiate with the firm identified above.

If you wish to submit a written response showing that you are capable of meeting this requirement, it must be done not later than the closing date and time. As it is intended to proceed in a timely manner,

responses received after the closing date will not be considered. The Crown reserves the right not to open this procurement to competition.

Responses received on or before the closing date will be considered solely for the purpose of deciding whether or not to conduct a competitive procurement. Information provided will be used by the Crown for technical evaluation purposes only and is not to be construed as a competitive solicitation. Your written response must provide sufficient evidence (e.g. specifications, technical data, drawings, or any other proof) that clearly demonstrates that your product or service is capable of fulfilling this requirement.

Suppliers that have submitted a response will be notified in writing of ISED's decision to continue with the non-competitive procurement or to compete the requirement.

Should you have any questions concerning this requirement, contact the contracting officer identified above. The ISED file number, the contracting officer's name and the closing date of the ACAN must appear on the outside of the envelope in block letters or, in the case of a facsimile transmission, on the covering page.