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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**

Industrial Vehicles & Machinery Products Division

11 Laurier St./11, rue Laurier

7B1, Place du Portage, Phase III

Gatineau

Québec

K1A 0S5

<b>Title - Sujet</b> Modular Sea Containers	
<b>Solicitation No. - N° de l'invitation</b> W6399-18KB28/A	<b>Amendment No. - N° modif.</b> 001
<b>Client Reference No. - N° de référence du client</b> W6399-18KB28	<b>Date</b> 2017-11-22
<b>GETS Reference No. - N° de référence de SEAG</b> PW-\$\$HS-643-73635	
<b>File No. - N° de dossier</b> hs643.W6399-18KB28	<b>CCC No./N° CCC - FMS No./N° VME</b>
<b>Solicitation Closes - L'invitation prend fin</b> at - à 02:00 PM on - le 2017-12-13	<b>Time Zone</b> Fuseau horaire Eastern Standard Time EST
<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> Chenier, Jeremy G.	<b>Buyer Id - Id de l'acheteur</b> hs643
<b>Telephone No. - N° de téléphone</b> (819) 420-0868 ( )	<b>FAX No. - N° de FAX</b> ( ) -
<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> (type or print) <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>

## AMENDMENT 001

This amendment is raised to extend the bid closing date, publish questions and answers, and modify Annex B - Operational Performance and Technical Specifications and Annex C – Technical Evaluation Plan.

### Bid Closing Date

**Delete:** 2017-12-06

**Insert:** 2017-12-13

### Questions and Answers

**1. In Annex B, Operation Performance & Technical Specifications for the Modular Sea Containers, Page 4 of 9, Section 3.2.2.1 (b): The internal floor area is listed as 13.3 square meters (143 square feet). Based on the external length (220 in) and external width (77.5 in) shown on the drawings, this number is not correct nor is it feasible. Please provide the correct required interior and exterior dimensions.**

In accordance with Annex B, Section 2.5, with the exception of the external dimensions related to ISO Series 1 freight containers, all other dimensions are stated as nominal. Any proposed design that aims to maximize the available interior space will be considered acceptable. In order to eliminate any confusion, all specified internal floor areas will be removed.

**2. For Variant II, two 45” cabinets positioned side-by-side will not fit into the internal dimensions of any known tricon design. The external total length is 96 inches, however the side doors and/or expandable walls take up space making the available internal space less than 90 inches. Should the bidder propose a cabinet design that would offer as much storage space as possible with the allowable space or will the RFP be amended to include corrected cabinet dimensions for this design?**

In accordance with Annex B, Section 2.6, the layouts should be considered as recommendations. Any proposed design that aims to maximize the available space will be considered acceptable.

**3. Would a delivery date August 2018 be acceptable to Canada or would that date exclude us from consideration?**

The requested delivery date mentioned in 3.1.4 is not a mandatory requirement. Bidders will not be excluded based on the delivery date.

**4. Can the due date of the proposal be extended by one week to allow answers to questions to be incorporated into our proposal response?**

The bid closing date is now 2017-12-13.

**5. Annex C, Section 3, Mandatory Requirements, item 1 states: “Expertise and Proven Design. The Bidder must be an established sea container manufacturer or distributor that has significant experience in customized ISO containers as follows: (a) Manufacturer Qualifications – The**

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W6399-18KB28/A  
Client Ref. No. - N° de réf. du client  
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Amd. No. - N° de la modif.  
001  
File No. - N° du dossier  
hs643 W6399-18KB28

Buyer ID - Id de l'acheteur  
hs643  
CCC No./N° CCC - FMS No./N° VME

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**manufacturer must have been in the business of developing, manufacturing and selling customized ISO containers for a minimum of five (5) years; and (b) Sales – The Bidder must have sold a minimum of twenty-five (25) similar expandable Tricon containers.” Please clarify whether the bidder should have the required criteria or the manufacturer.**

While the Bidder may be a distributor, this requirement applies to the manufacturer's experience. To this end, the Bidder must provide a written confirmation that the manufacturer has been in the business of developing, manufacturing and selling customized ISO containers for a minimum of five (5) years.

**6. The expandable tricon door requirements on page 4 of 9 in Annex B call out dual outward opening doors on each side of the tricon through which the pull-out sections extend. Would an alternate design, in lieu of the dual outward-opening doors, be acceptable?**

An alternate design in lieu of the dual doors would be acceptable. All other requirements remain unchanged.

**Annex B - Operational Performance and Technical Specifications**

**Delete:** in its entirety

**Insert:** Annex B attached

**Annex C – Technical Evaluation Plan**

**Delete:** in its entirety

**Insert:** Annex C attached

**ALL OTHER TERMS AND CONDITIONS REMAIN UNCHANGED**

NOTICE



This documentation has been reviewed by the technical authority and does not contain controlled goods. Disclosure notices and handling instructions originally received with the document shall continue to apply.

AVIS

Cette documentation a été révisée par l'autorité technique et ne contient pas de marchandises contrôlées. Les avis de divulgation et les instructions de manutention reçues originellement doivent continuer de s'appliquer.

## OPERATIONAL PERFORMANCE AND TECHNICAL SPECIFICATIONS FOR THE MODULAR SEA CONTAINERS

### 1.0 SCOPE

#### 1.1 General

This specification details the operational performance and technical requirements for commercial off-the-shelf Modular Sea Containers (MSCs).

### 2.0 APPLICABLE DOCUMENTS

#### 2.1 Applicability

The following documents form part of this specification to the extent specified and are supportive of this specification when referenced; any other documents are to be considered supplemental information only. In the event of a conflict between the documents and the contents of this specification, then the contents of this specification shall take precedence.

- ISO 668 - Series 1 Freight Containers - Classification, Dimensions and Ratings ([www.iso.org](http://www.iso.org))
- MIL-STD-810G - Department of Defense: Test Method Standard, Environmental Engineering Considerations and Laboratory Tests ([www.everyspec.com](http://www.everyspec.com))
- MIL-PRF-32349A - Department of Defense: Performance Specification for Container, Cargo Triple Containers (Tricon) (Without Cabinets, Drawers, or Shelves) ([www.everyspec.com](http://www.everyspec.com))
- ISO 1496-1 - Series 1 Freight Containers - Specification and Testing - Part 1 General Cargo Containers for General Purposes ([www.iso.org](http://www.iso.org))
- MIL-DTL-28689C - Department of Defense: Detail Specification for Containers, Shipping and Storage, Steel Wall ([www.everyspec.com](http://www.everyspec.com))
- ISO 1496-2 - Series 1 Freight Containers - Specification and Testing - Part 2 Thermal Containers ([www.iso.org](http://www.iso.org))
- ISO 1161 - Series 1 Freight Containers - Corner Fittings - Specification ([www.iso.org](http://www.iso.org))
- MIL-DTL-22992H Class L - Detail Specification: Connectors, Plugs and Receptacles, Electrical, Waterproof, Quick Disconnect, Heavy Duty Type, General Specification for ([www.everyspec.com](http://www.everyspec.com))
- ASTM G101-04 - Standard Guide for Estimating the Atmospheric Corrosion Resistance of Low-Alloy Steel ([www.astm.org](http://www.astm.org))
- ISO 6346 - Freight Containers - Coding, Identification and Marking ([www.iso.org](http://www.iso.org))
- DOD-P-15328D - Primer (Wash), Pre-treatment (Formula 117 For Metals) ([www.everyspec.com](http://www.everyspec.com))
- SSPC-SP-5 - White Metal Blast Cleaning ([www.everyspec.com](http://www.everyspec.com))
- TT-C-490 - US Federal Specification - Cleaning Methods for Ferrous Surfaces and Pre-Treatment for Organic Coatings ([www.everyspec.com](http://www.everyspec.com))
- MIL-DTL-53022E - Detail Specification: Primer, Epoxy Coating, Corrosion Inhibiting, Lead and Chromate Free ([www.everyspec.com](http://www.everyspec.com))
- MIL-DTL-53030C - Detail Specification: Primer Coating, Epoxy, Water Based, Lead and Chromate Free ([www.everyspec.com](http://www.everyspec.com))

- MIL-DTL-64159B - Detail Specification: Camouflage Coating, Water Dispersible Aliphatic Polyurethane, Chemical Agent Resistant (www.everyspec.com)
- FED-STD-595C – Federal Standard: Colours Used in Government Procurement (www.everyspec.com)
- MIL-DTL-53072D – Detail Specification: Chemical Agent Resistant Coating (CARC) Application Procedures and Quality Control Inspection (www.everyspec.com)

## 2.2 Definitions

Corrosion Resistant Material	Corrosion resistance is defined as the material's ability to resist deterioration caused by exposure to the environment through the formation of a natural oxide layer.
CORTEN	CORTEN is a group of steel alloys which were developed to eliminate the need for painting, and form a stable rust-like appearance if exposed to the weather for several years.
Intermodal	The use of several modes of transportation (e.g., road, rail, airlift, sealift, etc.) to accomplish a single move of cargo.
Spreader	A movable platform called a "spreader" that can be lowered down on top of a container and locks on to the container's four locking points (corner castings) using a "twistlock" mechanism.
Tricon	A closed-van general-purpose ISO freight container. Three Tricons coupled end-to-end, using captive connecting couplers, form an integral 610 cm (20 ft) module that is dimensionally equivalent to an ISO Type IC freight container.

## 2.3 Acronyms

CARC	Chemical Agent Resistant Coating
CSC	Convention for Safe Containers
DND	Department of National Defence
ISO	International Standards Organization
MSC	Modular Sea Container
NATO	North Atlantic Treaty Organization

## 2.4 Layout Sketches

Sketches of the MSC layouts are included in Appendix 1 for guidance only. The sketches are not to scale and compliance is based on the specific clauses in the Operational Performance and Technical Requirements and not on the sketches. The following sketches are included:

- (a) Figure 1: Variant I - Expandable Tricon ;
- (b) Figure 2: Variant II - Expandable MSC with Cabinet; and
- (c) Figure 3: Variant III - Tricon MSC with Warehouse Drawer System

## 2.5 Dimensions

Within this document, all dimensions that are related to the ISO Series 1 freight containers shall have external dimensions and permissible tolerances in accordance with ISO 668. All other dimensions are stated as nominal and shall be treated as approximate dimensions. Nominal dimensions reflect a method by which materials or products are generally identified for sale commercially, but which differ from the actual dimensions.

## 2.6 Cabinets

Cabinet and shelving unit layouts are provided as recommendations. Alternate layouts and designs will be considered by the Technical Authority where they are more practical and/or improve the usability of the spaces.

## 3.0 **REQUIREMENTS**

### 3.1 General Requirements

#### 3.1.1 General Description

The operational performance requirements in the following sections apply to all MSC variants.

#### 3.1.2 Climatic Conditions

The MSCs must:

- (a) Operate under the climatic conditions A1, A2, B1 to B3, and C1 to C2, as described in MIL-STD-810G;
- (b) Not be damaged by storage or transit in temperature conditions ranging from -40 °C to +71 °C in accordance with MIL-PRF-32349A; and
- (c) Not exhibit water leakage when subjected to the ISO 1496-1 "Weatherproofness" test (Test #13).

#### 3.1.3 Standards of Construction

The MSCs must:

- (a) Be built and tested to international standards for shipping via road, rail, sea or air in accordance with ISO 1496-1;
- (b) Be built and tested in accordance with the following:
  - i. MIL-PRF-32349A - Department of Defense: Performance Specification for Container, Cargo Triple Containers (Tricon);
  - ii. MIL-DTL-28689C - Department of Defense: Detail Specification for Containers, Shipping and Storage, Steel Wall (with and without cabinetry);
  - iii. When grouped in threes (Tricons) to form a Twenty Foot Equivalent Unit (TEU) and loaded to capacity:
    - a. Be tested to the requirements of ISO 1496-2 standard for nine (9) high stacking; and
    - b. The base structure must not deflect below the bottom of the lower corner fittings;
- (c) Be Convention for Safe Containers (CSC) approved by Lloyd's Register for use in twenty (20) foot module configurations as applicable; and
- (d) Designed and manufactured in a facility that has been approved by an internationally authorized classification society including, but not limited to, the following:
  - i. Bureau Veritas (France);
  - ii. American Bureau of Shipping (United States);
  - iii. Lloyd's Register of Shipping (United Kingdom); or
  - iv. Germanischer Lloyd (Germany).

### 3.2 Technical Requirements

The technical requirements in the following sections apply to all MSC variants except as noted otherwise.

#### 3.2.1 Appearance

The MSCs must:

- (a) Have an exterior with the matching appearance and construction of a standard ISO shipping container used worldwide for intermodal cargo, in accordance with ISO 1496-1, 1161 and 668, with the exception of electrical connections as outlined in this Annex; and
- (b) Have external dimensions and permissible tolerances in accordance with ISO 668 for Series 1 Tricon freight containers as follows:
  - i. Exterior Height - 244 cm (96 in);
  - ii. Exterior Width - 197 cm (77.5 in); and
  - iii. Exterior Length - 244 cm (96 in).

#### 3.2.2 Variants

There are three (3) MSC variants as detailed in the following sections.

##### 3.2.2.1 Variant I – Expandable Tricon MSC

The Expandable Tricon MSC must be as follows (see Figure 1):

- (a) General Description - A Tricon with interior finishing suitable for use as a workspace, with full-size pull-outs on either end that, when extended, increases the internal capacity of the unit;
- (b) Internal dimensions and capacities as follows:
  - i. Pull-Outs Extended:
    - a. External Length - 560 cm (220 in);
  - ii. Maximum Gross Weight - 4,536 kg (10,000 lbs);
  - iii. Tare Weight - 1,814 kg (4,000 lbs); and
  - iv. Payload Weight – 2,722 kg (6,000 lbs);
- (c) Doors as follows:
  - i. Full-width/full-height dual outward opening doors on each 197 cm (77.5 in) side of the Tricon through which the pull-out sections extend;
  - ii. Man doors on each outer end of the expansion sections, each with lockable hardware and door over-ride mechanisms inside and outside, that are 68.6 cm (27 in) wide (each); and
  - iii. One (1) man door, with lockable hardware and door over-ride mechanisms inside and outside, on the side of the Tricon container for use when the pull-out sections are extended that is 81 cm (32 in) wide; and
- (d) Include the following:
  - i. Fully insulated walls and ceiling (R7 minimum);
  - ii. Main power distribution panel as follows:
    - a. 120/208 VAC Mil Receptacle MS9055 in accordance with MIL-DTL-22992H;
    - b. Rigid power entry conduit from exterior to main power distribution panel; and
    - c. Grounding stud;
  - iii. 120/208 VAC Single Phase Environmental Control Unit;
  - iv. Internal LED lighting as follows:
    - a. Colours: white and red (blackout), that are either integrated in the same fixtures or provided separately;

- b. Independent white/red light switches by the man doors;
- v. No less than two (2) duplex 120 VAC receptacles with 20 Amp breakers; and
- vi. One (1) 23 m (75.5 ft) long power cable as follows:
  - a. 120/208 VAC Mil Plug MS90558 in accordance with MIL-DTL-22992H on one end; and
  - b. Other end tinned.

### 3.2.2.2 Variant II - Expandable Tricon MSC with Cabinet

The Expandable Tricon MSC with Cabinet must be as follows (see Figure 2):

- (a) General Description - A Tricon with interior finishing suitable for use as a workspace, with a storage cabinet and full-size pull-outs on either end that, when extended, increases the internal capacity of the unit;
- (b) Internal dimensions and capacities as follows:
  - i. Pull-Outs Extended:
    - a. External Length - 560 cm (220 in);
  - iii. Maximum Gross Weight - 4,536 kg (10,000 lbs);
  - iv. Tare Weight - 1,814 kg (4,000 lbs); and
  - v. Payload Weight – 2,722 kg (6,000 lbs);
- (c) Doors as follows:
  - i. Full-width/full-height dual outward opening doors on each 197 cm (77.5 in) side of the Tricon through which the pull-out sections extend;
  - ii. Two (2) man doors, one (1) on each outer end of the expansion sections, each with lockable hardware and door over-ride mechanisms inside and outside, that are:
    - a. Single door that is 68.6 cm (27 in) wide on one end; and
    - b. Double doors that have an opening of 162.6 cm (64 in) wide on the other end;
  - iii. One (1) man door, with lockable hardware and door over-ride mechanisms inside and outside, on the side of the Tricon container for use when the pull-out sections are extended that is 81 cm (32 in) wide;
- (d) Include a heavy-duty cabinet (such as Vidmar/Lista) in the Tricon section on the side opposite to the man door as follows:
  - i. Permanently installed;
  - ii. Two (2) side-by-side base cabinets with drawers as follows:
    - a. Each minimum 114 cm (45 in) wide and 72 cm (28.5 in) deep;
    - b. Drawers open into the Tricon section;
    - c. Minimum seven (7) drawers of varying height (largest on the bottom, smallest on top);
    - d. Each drawer to include:
      - 1. Minimum of 180 kg (400 lb) capacity;
      - 2. Full 100% extension opening;
      - 3. Customizable compartment configuration;
      - 4. Compartment bar code labeling;
      - 5. Full width ergonomic handles;
      - 6. Exterior label holders; and
      - 7. Lock-in/lock-out mechanism;
  - iii. Upper shelving unit as follows:
    - a. Two (2) shelving cabinets as follows:
      - 1. One (1) on each end of the lower cabinets;

2. Each minimum 57 cm (22.5 in) wide and 72 cm (28.5 in) deep;
  3. Minimum of three (3) adjustable shelves (each);
  4. Minimum of 180 kg (400 lb) capacity (each shelf); and
  5. Lockable doors(s);
  - b. Two (2) shelving cabinets as follows:
    1. Located side-by-side between the three-shelf units above;
    2. Positioned at the top of the three-shelf units to provide a workspace above the countertop;
    3. Each minimum 57 cm (22.5 in) wide and 72 cm (28.5 in) deep;
    4. Minimum of two (2) adjustable shelves (each);
    5. Minimum of 180 kg (400 lb) capacity (each shelf); and
    6. Lockable door(s);
  - c. A butcher-block countertop on the lower cabinets between the three-shelf units; and
- (e) Include the following:
- i. Fully insulated walls and ceiling (R7 minimum);
  - ii. Main power distribution panel as follows:
    - a. 120/208 VAC Mil Receptacle MS9055 in accordance with MIL-DTL-22992H;
    - b. Rigid power entry conduit from exterior to main power distribution panel; and
    - c. Grounding stud;
  - iii. 120/208 VAC Single Phase Environmental Control Unit;
  - iv. Internal LED lighting as follows:
    - a. Colours: white and red (blackout), that are either integrated in the same fixtures or provided separately; and
    - b. Independent white/red light switches by the man doors;
  - v. No less than two (2) duplex 120 VAC receptacles with 20 Amp breakers; and
  - vi. One (1) 23 m (75.5 ft) long power cable as follows:
    - a. 120/208 VAC Mil Plug MS90558 in accordance with MIL-DTL-22992H on one end; and
    - b. Other end tinned.

### 3.2.2.3 Variant III - Tricon MSC with Warehouse Drawer System

The Tricon MSC with Warehouse Drawer System must be as follows (see Figure 3):

- (a) General Description - A Tricon suitable for storage and transport of material with doors on opposing ends and two (2) storage cabinets facing each other against the opposite walls such that there is an isle down the center of the Tricon;
- (b) Internal dimensions and capacities as follows:
  - i. Interior Height - 218 cm (86 in);
  - ii. Interior Width - 177 cm (70 in);
  - iii. Interior Length - 235 cm (92.5 in);
  - iv. Maximum Gross Weight - 6,759 kg (14,900 lbs);
  - v. Tare Weight - 1,305 kg (2,877 lbs); and
  - vi. Payload Weight - 5,454 kg (12,024 lbs);
- (c) Doors as follows:
  - i. Full-width/full-height dual outward opening doors on each 146 cm (57 in) side;
  - ii. Door Opening Width - 199 cm (78 in); and
  - iii. Door Opening Height - 207 cm (81.5 in);

- (d) Include two (2) heavy-duty cabinets (such as Vidmar/Lista) in the Tricon section on opposite sides, each as follows:
  - i. Permanently installed;
  - ii. Two (2) side-by-side base cabinets with drawers as follows:
    - a. Widths as follows:
      - 1. One (1) minimum 152 cm (60 in); and
      - 2. One (1) minimum 57 cm (22.5 in);
    - b. Each minimum 72 cm (28.5 in) deep;
    - c. Drawers open into the Tricon section;
    - d. Each with minimum sixteen (16) drawers of varying height (largest on the bottom, smallest on top);
    - e. Each drawer to include:
      - 1. Minimum of 180 kg (400 lb) capacity;
      - 2. Full 100% extension opening;
      - 3. Customizable compartment configuration;
      - 4. Compartment bar code labeling;
      - 5. Full width ergonomic handles;
      - 6. Exterior label holders; and
      - 7. Lock-in/lock-out mechanism;
  - iii. Upper shelving unit as follows:
    - a. Two (2) side-by-side shelving cabinets as follows:
      - 1. Same width and depth as the base cabinets;
      - 2. One (1) on top of each of the base cabinets of equal width;
      - 3. Minimum of three (3) adjustable shelves (each);
      - 4. Shelves designed with spill containment for Petroleum, Oil and Lubricant storage;
      - 5. Minimum of 180 kg (400 lb) capacity (each shelf); and
      - 6. Lockable doors(s); and
- (e) Include the following:
  - i. Minimum of twelve (12) lashing points with a rated capacity of no less than 1,800 kg (3,960 lbs) each;
  - ii. Minimum of sixteen (16) adjustable tie-down straps;
  - iii. Main power distribution panel as follows:
    - a. 120/208 VAC Mil Receptacle MS9055 in accordance with MIL-DTL-22992H;
    - b. Rigid power entry conduit from exterior to main power distribution panel; and
    - c. Grounding stud;
  - iv. Internal LED lighting as follows:
    - a. Colours: white and red (blackout), that are either integrated in the same fixtures or provided separately; and
    - b. Independent white/red light switches by the doors; and
  - v. One (1) 23 m (75.5 ft) long power cable as follows:
    - a. 120/208 VAC Mil Plug MS90558 in accordance with MIL-DTL-22992H on one end; and
    - b. Other end tinned.

### 3.2.3 Physical Features

The MSCs must:

- (a) Be built from new material;

- (b) Be completely self-standing with no interior support poles or structures that limit internal mobility, except as detailed in this specification;
- (c) Have no part and/or component protruding beyond the exterior of the container walls;
- (d) Have exterior walls, roof and doors fabricated from corrosion resistant material (such as galvanized steel or CORTEN) as follows:
  - i. Resistant to impact;
  - ii. If steel is used, have an atmospheric corrosion resistance index greater than 6.7 in accordance with ASTM G101-04;
  - iii. If hollow core pop rivets are used to attach components or plates (e.g., CSC Safety Approval Plate), be caulked to ensure water tightness; and
  - iv. Have steel corner protection plates and header extension plates at each end of the roof to provide reinforcement and protection in the area of the corner fittings;
- (e) Have the bottom frame equipped with two (2) sets of forklift pockets, one (1) on each side, that:
  - i. Meet the dimensional requirements specified in Annex C of ISO 1496-1; and
  - ii. Pass completely through the base structure of the container so that lifting devices may be inserted from either side;
- (f) Have eight (8) corner fittings made from cast steel that are a minimum of 0.6 cm (0.25 in) above any other part of the container structure, with dimensions in accordance with ISO 1161 to permit handling by crane as follows:
  - i. Individually - Each MSC can be lifted when fully laden or empty as follows:
    - a. From the top corner fittings by spreader or slings; and
    - b. From the bottom corner fittings by slings;
  - ii. Unit (Tricon) - When three (3) containers are coupled together using eight (8) corner fitting connectors (such as SeaLock™) to form an ISO twenty (20) foot unit, the unit can be lifted when fully laden or empty as follows:
    - a. From the top corner fittings by spreader or slings; and
    - b. From the bottom corner fittings by slings;
- (g) Exterior doors as follows:
  - i. Lateral opening container access double doors with the maximum attainable opening dimensions consistent with the design material and in accordance with ISO 1496-1;
  - ii. Include Bloxwich locking gear and four (4) hinges with stainless steel pins, self-lubricating nylon bushings and bronze washers;
  - iii. Have handles at 76 cm (30 in) above ground level;
  - iv. Have hardware fixed with stainless steel nuts and bolts;
  - v. Have a minimum of four (4) welded hinges with non-removable hinges/pins riveted to the door; and
  - vi. Have a device to secure the doors in full open position;
- (h) Include three (3) corner fitting connectors in holders within each MSC; and
- (i) Include interior and exterior document holders to allow ready access and safe keeping of container load list and operations instructions.

#### 3.2.4 Identification and Marking

Each MSC must bear legible ISO markings conforming to ISO 6346 data and format requirements as follows:

- (a) Include the owner code, serial number and check digit;
- (b) All exterior ISO identification markings paint stenciled (no decals) on each container in a contrasting color; and
- (c) Include a consolidated CSC Safety Approval Plate, affixed to the outside of the rear right side door, conforming to CSC data and format requirements.

### 3.2.5 Paint

All MSCs are to be cleaned and painted with a Chemical Agent Resistant Coating (CARC) as follows:

- (a) Cleaning and Surface Preparation - Cleaning must be done immediately before surface preparation to ensure all surfaces are free of soil impurities or corrosion such as grease, oil, welding flux, scale or other foreign matter that may interfere with surface preparation, treatment or coating as follows:
  - i. Hot alkaline cleaning by immersion, spray or vapour process where appropriate;
  - ii. For metal parts surface preparation, perform a mechanical or abrasive cleaning to a white metal Steel Structure Painting Council SSPC-SP-5 surface finish imparting a profile of 13 microns;
  - iii. For non-metallic parts surface preparation, perform a scuffing of the surface with a 180 grit sand paper; and
  - iv. Ensure surfaces remain clean and dry until they are treated or painted;
- (b) Surface treatment as follows:
  - i. Metal components must receive organic pre-treatment coating in accordance with TT-C-490 type III (DOD-P-15328D); and
  - ii. A primer coating must be applied on all surfaces that meets the requirements of MIL-DTL-53022E (for Epoxy Coating) or MIL-DTL-53030C (for Water Reducible Epoxy Coating);
- (c) Topcoat - Exterior surfaces must be finished with a polyurethane topcoat meeting the requirements of MIL-DTL-64159B type II in a “desert tan” colour in accordance with FED-STD-595C colour #33446 of uniform shade;
- (d) Selection of Materials - Materials used must:
  - i. Be applied as per manufacturers’ instructions in order to meet MIL-DTL-53072D; and
  - ii. Be reported in electronic format to ensure compliance with Canadian Armed Forces configuration, health, and safety purposes; and
- (e) Other - In any instance where the CARC system specified herein interferes with the design features of specific components that are key to the operation of the equipment, it is the manufacturer's responsibility to identify and propose a suitable alternative coating system having high chemical agent resistance and corrosion protection properties.

### APPENDIX 1 LAYOUT SKETCH

Figure 1: Variant I - Expandable Tricon MSC

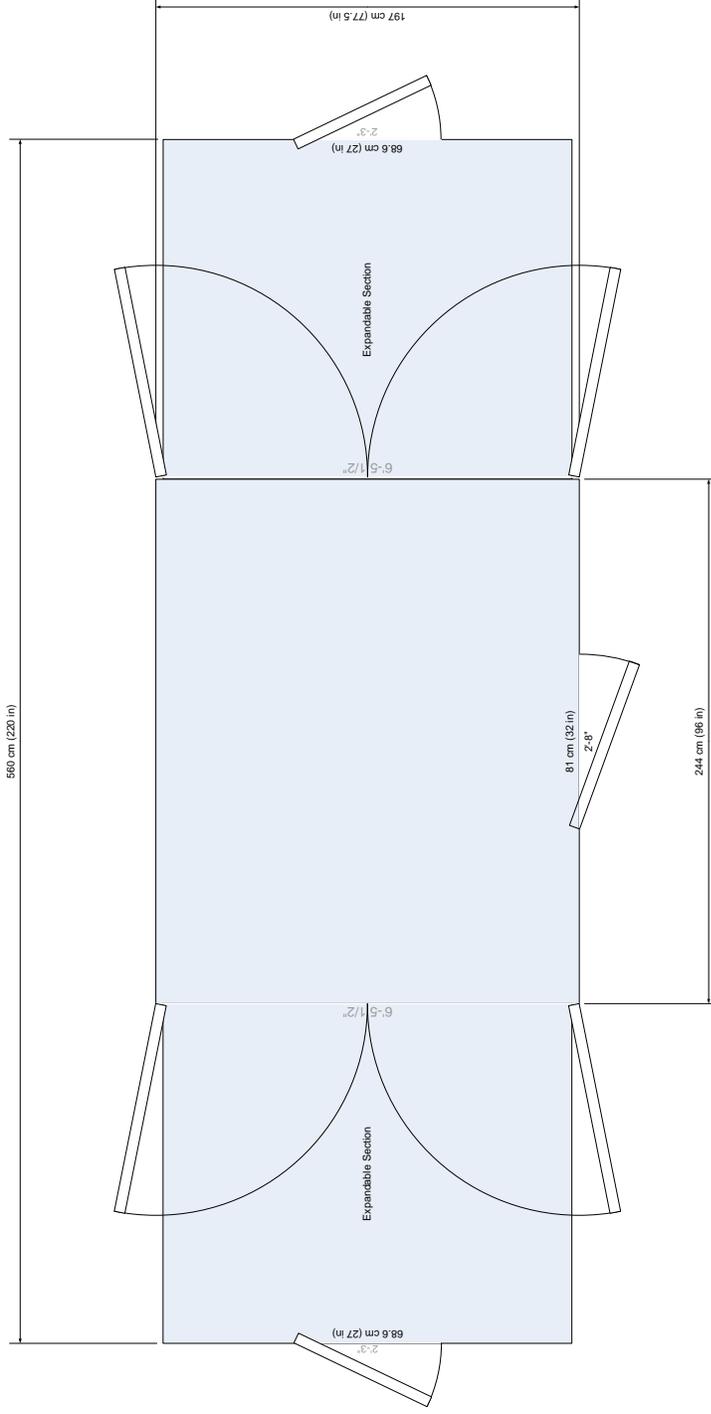


Figure 2: Variant II - Expandable MSC with Cabinet

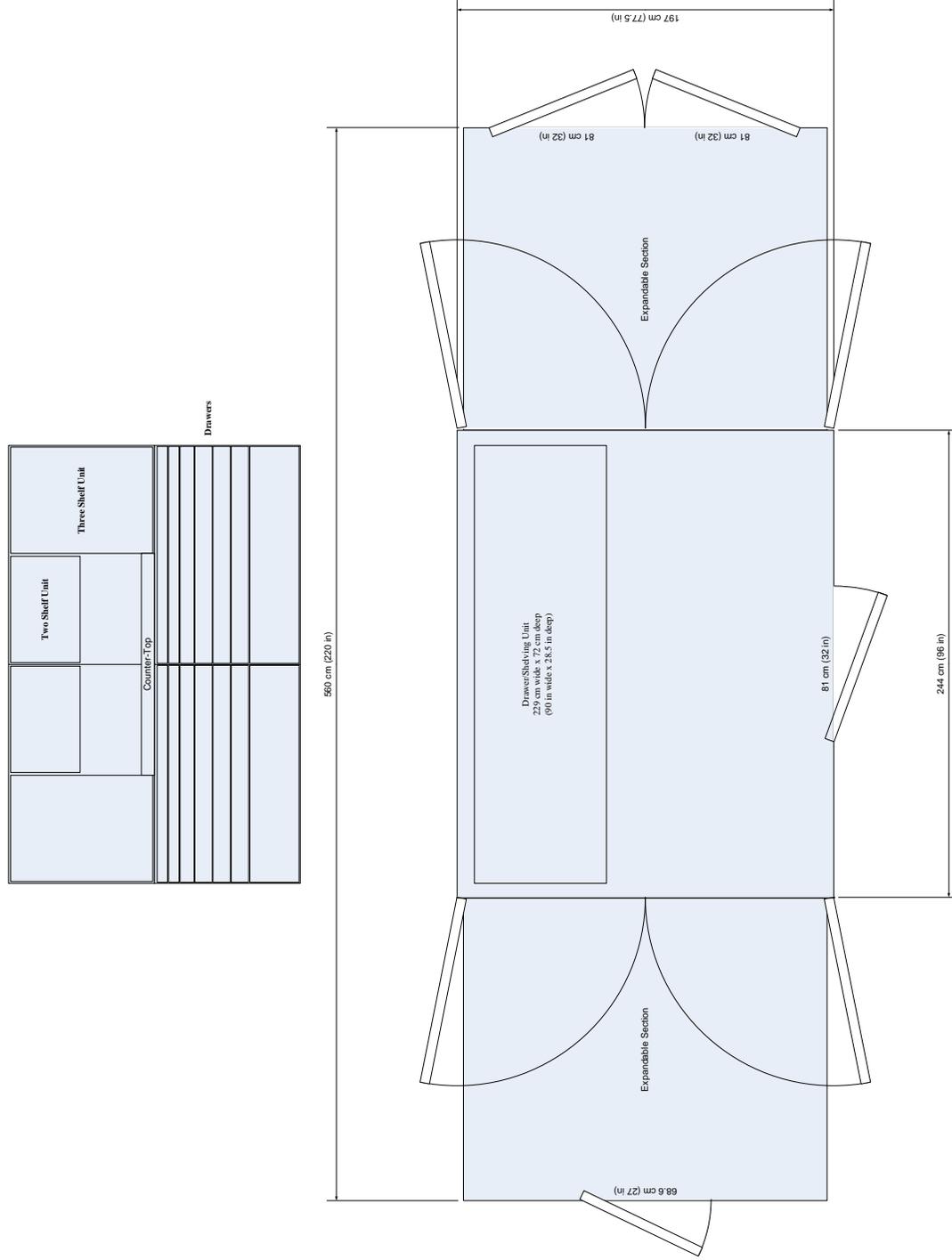
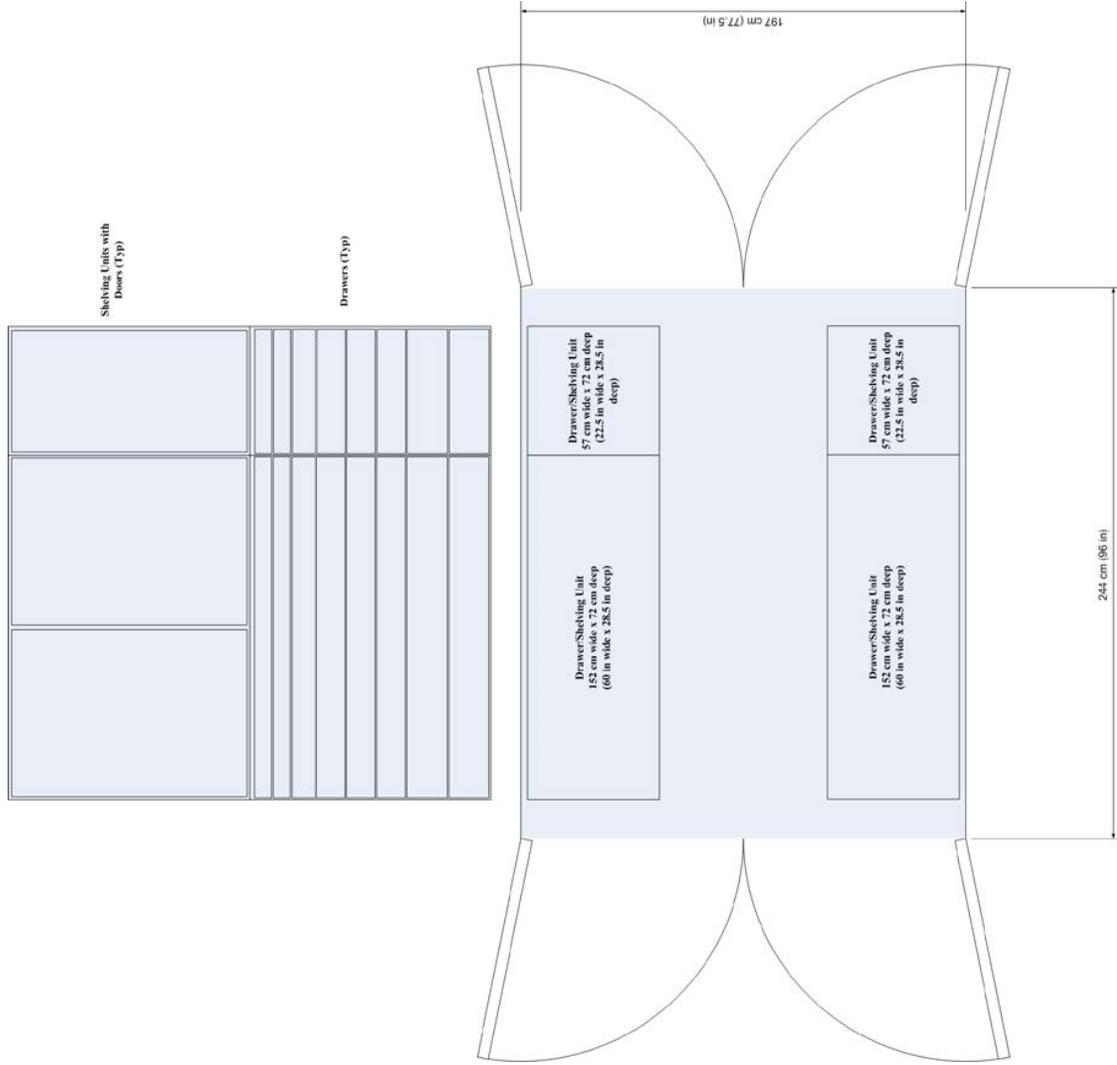


Figure 3: Variant III - Tricon MSC with Warehouse Drawer System



**TECHNICAL EVALUATION PLAN  
FOR THE  
MODULAR SEA CONTAINERS**

**1.0 GENERAL**

**1.1 Purpose**

This document outlines the proposal technical requirements for the Modular Sea Containers (MSC).

**2.0 PROPOSAL REQUIREMENTS**

**2.1 Instructions**

Bidders will be assessed in accordance with the criteria detailed in this document.

(a) Mandatory requirements are identified by the word “must”. All mandatory requirements must be met in order to meet compliance with the requirements; and

**2.2 Bid Documentation**

(a) Bidders are requested to provide a completed Technical Information Matrix (Table 1); and

(b) Bidder must provide the following documentation with their submissions:

- i. Proof of compliance as specified in Table 1. Canada reserves the right to verify the statements made in the Written Confirmation;
- ii. Technical data provided with the bid as proof of compliance may include any or all of the following:
  - a. A system brochure that details the components and operating characteristics of the system;
  - b. The system Operator’s Manual;
  - c. The system Maintenance Manual;
  - d. Drawing or schematic which clearly depicts the product’s dimensions and scale; and
  - e. Test reports and certifications; and
- iii. Where test results are requested, the Bidder must provide a laboratory analysis of the product offered showing complete test results, or a summary of the complete test results, that confirms that the material meets the standards specified.

**3.0 MANDATORY REQUIREMENTS**

Table 1: Technical Information Matrix

Item #	Requirement	Proof of Compliance	Bid Reference
1	<p><u>Expertise and Proven Design</u> The Bidder must be an established sea container manufacturer or distributor that has significant experience in customized ISO containers as follows:</p> <p>(a) Manufacturer Qualifications – The manufacturer must have been in the business of developing, manufacturing and selling customized ISO containers for a minimum of five (5) years; and</p> <p>(b) Sales – The Bidder must have sold a minimum of twenty-five (25) similar expandable Tricon containers.</p>	<p>The Bidder must provide:</p> <p>(1) Written Confirmation that the manufacturer has been in the business of developing, manufacturing and/or selling customized ISO containers for a minimum of five (5) years;</p> <p>AND</p> <p>(2) Contract numbers, award date, models and quantities delivered that confirm sales as specified. Cumulative sales over multiple contracts is acceptable. Where the Bidder is an authorized distributor, sales of the manufacturer are acceptable as proof of compliance.</p> <p>The Bidder must provide:</p>	
2	Refer to Annex B, 3.1.3 (d)	(1) A copy of the facility certification as specified.	
3	Refer to Annex B, 3.2.1	<p>The Bidder must provide:</p> <p>(1) Technical data, including that specified in Section 2.2(b)ii of this Annex and any other documentation that is required to confirm that the MSCs will have the appearance and dimensions as specified.</p> <p>The Bidder must provide:</p>	
4	Refer to Annex B, 3.2.2.1	(1) Drawings or schematics that clearly depict the MSC's internal dimensions, the locations and sizes of all doors, and the layout of fitted electrical equipment.	

5	Refer to Annex B, 3.2.2.2	<p>The Bidder must provide:</p> <p>(1) Drawings or schematics that clearly depict the MSC's internal dimensions, the locations and sizes of the heavy-duty cabinet and all doors, and the layout of the fitted electrical equipment;</p> <p>AND</p> <p>(2) Drawings, schematics or other technical data, including that specified in Section 2.2(b)ii of this Annex, that clearly depict the heavy-duty cabinet's shelving layout, and dimensions.</p>	
6	Refer to Annex B, 3.2.2.3	<p>The Bidder must provide:</p> <p>(1) Drawings or schematics that clearly depict the MSC's internal dimensions, the locations and sizes of the heavy-duty cabinets and all doors, and the layout of the fitted electrical equipment;</p> <p>AND</p> <p>(3) Drawings, schematics or other technical data, including that specified in Section 2.2(b)ii of this Annex, that clearly depict the heavy-duty cabinets' shelving layout, and dimensions.</p>	