



**RETURN BIDS TO:  
RETOURNER LES SOUMISSIONS À:**

**Bid Receiving - PWGSC / Réception des  
soumissions - TPSGC**  
**11 Laurier St./11, rue Laurier**  
**Place du Portage, Phase III**  
**Core 0B2 / Noyau 0B2**  
**Gatineau, Québec K1A 0S5**  
**Bid Fax: (819) 997-9776**

**REQUEST FOR PROPOSAL  
DEMANDE DE PROPOSITION**

**Proposal To: Public Works and Government  
Services Canada**

We hereby offer to sell to Her Majesty the Queen in right of Canada, in accordance with the terms and conditions set out herein, referred to herein or attached hereto, the goods, services, and construction listed herein and on any attached sheets at the price(s) set out therefor.

**Proposition aux: Travaux Publics et Services  
Gouvernementaux Canada**

Nous offrons par la présente de vendre à Sa Majesté la Reine du chef du Canada, aux conditions énoncées ou incluses par référence dans la présente et aux annexes ci-jointes, les biens, services et construction énumérés ici sur toute feuille ci-annexée, au(x) prix indiqué(s).

**Comments - Commentaires**

**Vendor/Firm Name and Address**

**Raison sociale et adresse du  
fournisseur/de l'entrepreneur**

**Issuing Office - Bureau de distribution**

Furniture Division/Division des ameublements  
11 Laurier St. / 11, rue Laurier  
6B1, Place du Portage  
Gatineau  
Québec  
K1A 0S5

|   |  |
|---|--|
| <b>Title - Sujet</b><br>Mobile Shelving   |  |
| <b>Solicitation No. - N° de l'invitation</b><br>W6399-16HE09/A  | <b>Date</b><br>2016-04-13  |
| <b>Client Reference No. - N° de référence du client</b><br>W6399-16HE09   |  |
| <b>GETS Reference No. - N° de référence de SEAG</b><br>PW-\$\$PQ-979-70798  |  |
| <b>File No. - N° de dossier</b><br>pq979.W6399-16HE09   | <b>CCC No./N° CCC - FMS No./N° VME</b>   |
| <b>Solicitation Closes - L'invitation prend fin</b><br><b>at - à 02:00 PM</b><br><b>on - le 2016-05-24</b>  | <b>Time Zone</b><br><b>Fuseau horaire</b><br>Eastern Daylight Saving<br>Time EDT |
| <b>F.O.B. - F.A.B.</b> Specified Herein - Précisé dans les présentes<br><b>Plant-Usine:</b> <input type="checkbox"/> <b>Destination:</b> <input type="checkbox"/> <b>Other-Autre:</b> <input checked="" type="checkbox"/>         |  |
| <b>Address Enquiries to: - Adresser toutes questions à:</b><br>Marton, Andrew   | <b>Buyer Id - Id de l'acheteur</b><br>pq979                                      |
| <b>Telephone No. - N° de téléphone</b><br>(613) 220-4845 ( )  | <b>FAX No. - N° de FAX</b><br>( ) -  |
| <b>Destination - of Goods, Services, and Construction:</b><br><b>Destination - des biens, services et construction:</b><br>Department of National Defence<br>CSOR<br>Unit Z-106, 46 Centurion Road<br>CFB Petawawa, ON<br>K8H 2X3 |  |

**Instructions: See Herein**

**Instructions: Voir aux présentes**

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

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## **PART 1 – GENERAL INFORMATION**

### **1.1 Security Requirements**

There is a security requirement associated with this requirement. See Part 6, Security Requirement for information.

### **1.2 Requirement**

The Department of National Defence has a requirement for the supply, delivery and installation of mobile shelving units in accordance with the Statement of Requirement specified at Annex A.

### **1.3 Debriefings**

Bidders may request a debriefing on the results of the bid solicitation process. Bidders should make the request to the Contracting Authority within 15 working days from receipt of the results of the bid solicitation process. The debriefing may be in writing, by telephone or in person.

### **1.4 Trade Agreements**

The requirement is subject to the provisions of the North American Free Trade Agreement (NAFTA) and the Agreement on Internal Trade (AIT).

## **PART 2 - BIDDER INSTRUCTIONS**

### **2.1 Standard Instructions, Clauses and Conditions**

All instructions, clauses and conditions identified in the bid solicitation by number, date and title are set out in the *Standard Acquisition Clauses and Conditions Manual* (<https://buyandsell.gc.ca/policy-and-guidelines/standard-acquisition-clauses-and-conditions-manual>) issued by Public Works and Government Services Canada.

Bidders who submit a bid agree to be bound by the instructions, clauses and conditions of the bid solicitation and accept the clauses and conditions of the resulting contract.

The 2003 (2016-04-04) Standard Instructions - Goods or Services - Competitive Requirements, are incorporated by reference into and form part of the bid solicitation.

### **2.2 Submission of Bids**

Bids must be submitted only to Public Works and Government Services Canada (PWGSC) Bid Receiving Unit by the date, time and place indicated on page 1 of the bid solicitation.

### **2.3 Enquiries - Bid Solicitation**

All enquiries must be submitted in writing to the Contracting Authority no later than seven (7) calendar days before the bid closing date. Enquiries received after that time may not be answered.

Bidders should reference as accurately as possible the numbered item of the bid solicitation to which the enquiry relates. Care should be taken by Bidders to explain each question in sufficient detail in order to enable Canada to provide an accurate answer. Technical enquiries that are of a proprietary nature must

be clearly marked "proprietary" at each relevant item. Items identified as "proprietary" will be treated as such except where Canada determines that the enquiry is not of a proprietary nature. Canada may edit the question(s) or may request that the Bidder do so, so that the proprietary nature of the question(s) is eliminated, and the enquiry can be answered to all Bidders. Enquiries not submitted in a form that can be distributed to all Bidders may not be answered by Canada.

## 2.4 Applicable Laws

Any resulting contract must be interpreted and governed, and the relations between the parties determined, by the laws in force in Ontario.

Bidders may, at their discretion, substitute the applicable laws of a Canadian province or territory of their choice without affecting the validity of their bid, by deleting the name of the Canadian province or territory specified and inserting the name of the Canadian province or territory of their choice. If no change is made, it acknowledges that the applicable laws specified are acceptable to the Bidders.

## PART 3 - BID PREPARATION INSTRUCTIONS

### 3.1 Bid Preparation Instructions

Canada requests that Bidders provide their bid in separately bound sections as follows:

Section I: Technical Bid two (2) hard copies

Section II: Financial Bid one (1) hard copy

Section III: Certifications one (1) hard copy

Prices must appear in the financial bid only. No prices must be indicated in any other section of the bid.

Canada requests that Bidders follow the format instructions described below in the preparation of their bid:

- (a) use 8.5 x 11 inch (216 mm x 279 mm) paper;
- (b) use a numbering system that corresponds to the bid solicitation.

In April 2006, Canada issued a policy directing federal departments and agencies to take the necessary steps to incorporate environmental considerations into the procurement process Policy on Green Procurement (<http://www.tpsgc-pwgsc.gc.ca/ecologisation-greening/achats-procurement/politique-policy-eng.html>). To assist Canada in reaching its objectives, Bidders should:

- 1) use 8.5 x 11 inch (216 mm x 279 mm) paper containing fibre certified as originating from a sustainably-managed forest and containing minimum 30% recycled content; and
- 2) use an environmentally-preferable format including black and white printing instead of colour printing, printing double sided/duplex, using staples or clips instead of cerlox, duotangs or binders.

### Section I: Technical Bid

In their technical bid, Bidders should explain and demonstrate how they propose to meet the requirements and how they will carry out the Work.

**Section II: Financial Bid**

Bidders must submit their financial bid at Annex C in accordance with the Basis of Payment. The total amount of Applicable Taxes must be shown separately.

**3.1.1 Exchange Rate Fluctuation**

C3011T (2013-11-06), Exchange Rate Fluctuation

**Section III: Certifications**

Bidders must submit the certifications required under Part 5.

**PART 4 - EVALUATION PROCEDURES AND BASIS OF SELECTION****4.1 Evaluation Procedures**

- (a) Bids will be assessed in accordance with the entire requirement of the bid solicitation including the technical and financial evaluation criteria.
- (b) An evaluation team composed of representatives of Canada will evaluate the bids.

**4.1.1 Technical Evaluation**

| <b>Mandatory Technical Evaluation Criteria (MTEC)</b> |   |
|---|---|
| <b>MTEC 1</b>   | <p>The Bidder must submit descriptive information demonstrating that the products offered meet all of the technical specifications detailed in the Statement of Requirement at Annex A. As a minimum, the descriptive information must address:</p> <ul style="list-style-type: none"> <li>i. Name of Manufacturer</li> <li>ii. Series Name (s)</li> <li>iii. Model Number (s)</li> <li>iv. Product Descriptions</li> <li>v. Product Dimensions</li> <li>vi. Product Features</li> </ul> <p>Descriptive information can be in the form of a price list, a commercial catalogue or other, as long as the descriptive information addresses the technical specifications.</p> <p><i>Any pricing contained in the descriptive information within the technical bid will not be considered.</i></p> |
| <b>MTEC 2</b>   | <p>The Bidder must submit drawings that include a plan, an elevation and isometric view, and if possible 3D view of the products offered with all dimensions and pertinent information as detailed in the Statement of Requirement at Annex A.</p>  |

#### **4.1.2 Financial Evaluation**

The price of the bid will be evaluated in Canadian dollars, Applicable Taxes excluded, DDP Incoterms® 2010, Canadian customs duties and excise taxes included.

#### **4.2 Basis of Selection**

A bid must comply with the requirements of the bid solicitation and meet all mandatory technical evaluation criteria to be declared responsive. The responsive bid with the lowest evaluated price will be recommended for award of a contract.

### **PART 5 – CERTIFICATIONS AND ADDITIONAL INFORMATION**

Bidders must provide the required certifications and additional information to be awarded a contract.

The certifications provided by Bidders to Canada are subject to verification by Canada at all times. Canada will declare a bid non-responsive, or will declare a contractor in default if any certification made by the Bidder is found to be untrue whether made knowingly or unknowingly, during the bid evaluation period or during the contract period.

The Contracting Authority will have the right to ask for additional information to verify the Bidder's certifications. Failure to comply and to cooperate with any request or requirement imposed by the Contracting Authority will render the bid non-responsive or constitute a default under the Contract.

#### **5.1 Certifications Required with the Bid**

Bidders must submit the following duly completed certifications as part of their bid.

##### **5.1.1 Integrity Provisions - Declaration of Convicted Offences**

In accordance with the *Ineligibility and Suspension Policy* (<http://www.tpsgc-pwgsc.gc.ca/ci-if/politique-policy-eng.html>), the Bidder must provide with its bid the required documentation, as applicable, to be given further consideration in the procurement process.

#### **5.2 Certifications Precedent to Contract Award and Additional Information**

The certifications and additional information listed below should be submitted with the bid, but may be submitted afterwards. If any of these required certifications or additional information is not completed and submitted as requested, the Contracting Authority will inform the Bidder of a time frame within which to provide the information. Failure to provide the certifications or the additional information listed below within the time frame provided will render the bid non-responsive.

##### **5.2.1 Integrity Provisions – Required Documentation**

In accordance with the *Ineligibility and Suspension Policy* (<http://www.tpsgc-pwgsc.gc.ca/ci-if/politique-policy-eng.html>), the Bidder must provide the required documentation, as applicable, to be given further consideration in the procurement process.

##### **5.2.2 Federal Contractors Program for Employment Equity - Bid Certification**

By submitting a bid, the Bidder certifies that the Bidder, and any of the Bidder's members if the Bidder is a Joint Venture, is not named on the Federal Contractors Program (FCP) for

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employment equity "FCP Limited Eligibility to Bid" list ([http://www.labour.gc.ca/eng/standards\\_equity/eq/emp/fcp/list/inelig.shtml](http://www.labour.gc.ca/eng/standards_equity/eq/emp/fcp/list/inelig.shtml)) available from Employment and Social Development Canada (ESDC) - Labour's website.

Canada will have the right to declare a bid non-responsive if the Bidder, or any member of the Bidder if the Bidder is a Joint Venture, appears on the "FCP Limited Eligibility to Bid" list at the time of contract award.

### 5.2.3 Product Conformance

The Bidder certifies that all the products proposed conform, and will continue to conform throughout the duration of the Contract, to all specifications of Annex A.

\_\_\_\_\_  
Supplier's Signature

\_\_\_\_\_  
Date

## PART 6 - RESULTING CONTRACT CLAUSES

The following clauses and conditions apply to and form part of any contract resulting from the bid solicitation.

### 6.1 Security Requirements

Contractor personnel may not enter nor perform work on sites where PROTECTED or CLASSIFIED information or assets are kept, without an escort provided by the department or agency for which the work is being performed.

### 6.2 Requirement

The Department of National Defence has a requirement for the supply, delivery and installation of mobile shelving units in accordance with the Statement of Requirement specified at Annex A.

### 6.3 Standard Clauses and Conditions

All clauses and conditions identified in the Contract by number, date and title are set out in the Standard Acquisition Clauses and Conditions Manual (<https://buyandsell.gc.ca/policy-and-guidelines/standard-acquisition-clauses-and-conditions-manual>) issued by Public Works and Government Services Canada.

#### 6.3.1 General Conditions

2010A (2016-04-04), General Conditions - Goods (Medium Complexity), apply to and form part of the Contract.

Section 09, Warranty of general conditions 2010A is amended as follows:

**DELETE:** The warranty period will be twelve (12) months.

**INSERT:** The warranty period will be ten (10) years, with the exception of user adjustable components, which must have a warranty of five (5) years.

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## **DELETE: Subsection 2**

### **INSERT:**

2. The Contractor must pay the transportation cost associated with returning the Work or any part of the Work to the Contractor's plant for replacement, repair or making good. The Contractor must also pay the transportation cost associated with forwarding the replacement or returning the Work or part of the Work when rectified to the delivery point specified in the Contract or to another location as directed by Canada. If, in the opinion of Canada, it is not expedient to remove the Work from its location, the Contractor must carry out any necessary repair or making good of the Work at that location. In such cases, the Contractor will be responsible for all Costs (including travel and living expenses) incurred in so doing, Canada will not reimburse these Costs.

All other provisions of the warranty section remain in effect.

### **6.4 Delivery Date**

The completion of all Work is requested for July 11, 2016, but is required no later than July 15, 2016.

### **6.5 Authorities**

#### **6.5.1 Contracting Authority**

The Contracting Authority for the Contract is:

Name: Andrew Marton  
Title: Supply Team Leader  
Public Works and Government Services Canada  
Acquisitions Branch  
Telephone: 613-220-4845  
E-mail address: [andrew.marton@tpsgc-pwgsc.gc.ca](mailto:andrew.marton@tpsgc-pwgsc.gc.ca)

The Contracting Authority is responsible for the management of the Contract and any changes to the Contract must be authorized in writing by the Contracting Authority. The Contractor must not perform work in excess of or outside the scope of the Contract based on verbal or written requests or instructions from anybody other than the Contracting Authority.

#### **6.5.2 Project Authority**

The Project Authority for the Contract is: *(to be entered at contract award)*

Name: \_\_\_\_\_  
Title: \_\_\_\_\_  
Organization: \_\_\_\_\_  
Address: \_\_\_\_\_

Telephone: \_\_\_\_ \_\_\_\_ \_\_\_\_  
E-mail address: \_\_\_\_\_

The Project Authority is the representative of the department or agency for whom the Work is being carried out under the Contract and is responsible for all matters concerning the technical content of the Work under the Contract. Technical matters may be discussed with the Project Authority, however the Project Authority has no authority to authorize changes to the scope of the Work. Changes to the scope of the Work can only be made through a contract amendment issued by the Contracting Authority.



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### **6.5.3 Contractor's Representative** *(to be entered at contract award)*

Name: \_\_\_\_\_

Title: \_\_\_\_\_

Telephone: \_\_\_\_\_

Facsimile: \_\_\_\_\_

E-mail address: \_\_\_\_\_

## **6.6 Payment**

### **6.6.1 Basis of Payment**

In consideration of the Contractor satisfactorily completing all of its obligations under the Contract, the Contractor will be paid firm lot prices, as specified in Annex B for a total cost of \$ \_\_\_\_\_ *(to be entered at contract award)*. Customs duties are included, and Applicable Taxes are extra.

Canada will not pay the Contractor for any design changes, modifications or interpretations of the Work, unless they have been approved, in writing, by the Contracting Authority before their incorporation into the Work.

### **6.6.2 Single Payment**

SACC Clause H1000C (2008-05-12), Single Payment

## **6.7 Shipping Instructions**

Goods must be delivered DDP (Delivered Duty Paid) Incoterms® 2010:

Department of National Defence  
CSOR  
Unit Z-106, 46 Centurion Road  
CFB Petawawa, ON  
K8H 2X3

Attention: *(to be entered at contract award)* Tel: *(to be entered at contract award)*

## **6.8 Invoicing Instructions**

1. The Contractor must submit invoices in accordance with the section entitled "Invoice Submission" of the general conditions. Invoices cannot be submitted until all work identified in the invoice is completed.
2. Invoices must be distributed as follows:
  - a. The original and one (1) copy must be forwarded by mail to:

W6399  
Department of National Defence Headquarters  
Canadian Special Operations Forces Command (CANSOFCOM)

COS FD  
101 Colonel By Drive  
Ottawa, ON K1A 0K2  
Attention: (to be entered at contract award)

- b. One (1) copy must be forwarded to the Contracting Authority identified under the section entitled "Authorities" of the Contract.

## **6.9 Certifications**

### **6.9.1 Compliance**

The continuous compliance with the certifications provided by the Contractor in its bid and the ongoing cooperation in providing additional information are conditions of the Contract. Certifications are subject to verification by Canada during the entire period of the Contract. If the Contractor does not comply with any certification, fails to provide the additional information, or if it is determined that any certification made by the Contractor in its bid is untrue, whether made knowingly or unknowingly, Canada has the right, pursuant to the default provision of the Contract, to terminate the Contract for default.

### **6.9.2 Product Conformance Certification**

The Contractor warrants that the Product Conformance Certification submitted by the Contractor is accurate and complete, and that the products provided under this Contract are in accordance with Annex A - Requirement. The Contractor must keep proper records and documentation relating to the product conformance and the testing requirements in Annex A. The Contractor must not, without obtaining the prior written consent of the Contracting Authority, dispose of any such records or documentation until the expiration of the Contract or the expiry date of the Warranty, whichever is later. All such records and documentation must at all times during the retention period be open to audit, inspection and examination by the representatives of Canada, who may make copies and take extracts.

Nothing in this clause must be interpreted as limiting the rights and remedies which Canada may otherwise have pursuant to this contract.

In addition, the Contractor must provide representatives of Canada access to all locations where any part of the Work is being performed at any time during working hours. Representatives of Canada may make examinations and such tests of the Work as they may think fit. The Contractor must provide all assistance and facilities, test pieces, samples and documentation that the representatives of Canada may reasonably require for the carrying out of the inspection, which may also include the submission of test reporting documentation as listed in Annex A. The Contractor must forward such test pieces and samples to such person or location as the representatives of Canada specifies.

## **6.10 Applicable Laws**

The Contract must be interpreted and governed, and the relations between the parties determined, by the laws in force in \_\_\_\_\_.

## **6.11 Priority of Documents**

If there is a discrepancy between the wording of any documents that appear on the list, the wording of the document that first appears on the list has priority over the wording of any document that subsequently appears on the list.

- (a) the Articles of Agreement;

- (b) the general conditions 2010A (2016-04-04), General Conditions – Goods (Medium Complexity);
- (c) Annex A, Statement of Requirement;
- (d) Annex B, Floor Plans;
- (e) Annex C, Basis of Payment;
- (f) the Contractor's bid dated \_\_\_\_\_ (*insert date of bid*)

## 6.12 SACC Manual Clauses

|        |              |                             |
|--------|--------------|-----------------------------|
| A9068C | (2010-01-11) | Government Site Regulations |
| B7500C | (2006-06-16) | Excess Goods                |
| G1005C | (2008-05-12) | Insurance                   |

## 6.13 Installation Services

Installation services must be provided for the products contracted. The minimum level of service required is detailed below. The Contractor must:

1. Receive, unload, store and transport all products/pieces to the staging and/or installation site;
2. Unpack all pieces and inspect products for shipping damage;
3. Install all products in accordance with the manufacturer's specifications;
4. Ensure all other products function properly and make minor adjustment/repairs;
5. Touch up all minor nicks and scratches on the product that may have occurred during installation;
6. Clean the products once installed;
7. Clean up the installation site. The site must present a neat, orderly and workmanlike appearance at all times. This must be accomplished by the removal of scrap material, debris and the like from the site, as frequently as is necessary, using a dumpster arranged for by the Contractor, and
8. Upon completion of the installation and at the convenience of the Project Authority, the Contractor (or his authorized representative) must walk through the installation site with the Project Authority (or an authorized representative of the Project Authority) to verify the operational condition of all products in accordance with the Deficiency Procedures.

## 6.14 Deficiency Procedures

The Contractor must adhere to the following deficiency procedures:

1. The Contractor must notify the Project Authority when the installation is completed;
2. The Project Authority must arrange for the inspection with the Contractor;
3. The inspection must take place no later than three business days after installation is completed;
4. If the contract is for a phased installation, the walk-through inspection must take place no later than three business days after the completion of each phase;

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5. The Project Authority, in consultation with the Contractor, must prepare the deficiency list documenting all problems in every installation area;
6. The deficiency list must be forwarded by the Project Authority to the Contractor;
7. Within three business days of receipt of this deficiency list, the Contractor must complete all minor deficiencies and make all adjustments not requiring new parts;
8. For all deficiencies other than those identified in point 7, the Contractor must submit the plan of action with delivery dates or completion dates within fourteen calendar days from receipt of the deficiency list from the Project Authority and;
9. The Contractor must notify the Project Authority when all deficiencies have been completed. If the Project Authority is satisfied with the deficiency corrections, the Project Authority must provide the Contractor a final sign-off that the deficiencies have been satisfied.

## **ANNEX A**

### **STATEMENT OF REQUIREMENT**

#### **1. SCOPE**

- 1.1 For the supply, delivery and installation of one (1) Mobile, Double Faced High Density Mobile File Shelving system for the Department of National Defence (DND).

- 1.2 The system will be installed in BLDG Z-123 at 46 Centurion Road, Petawawa, Ontario.

Mechanical Assist

|                                   |                          |
|-----------------------------------|--------------------------|
| 5 double faced moveable carriages | 48"D x 10'L x 6 openings |
| 1 single faced fixed platforms    | 32"D x 6'L x 6 openings  |

- 1.3 The Contractor shall furnish all labor, material and equipment necessary or required to fully complete the installation of System in accordance with Annex A – Statement of Requirement, Appendixes 1 – Mobile Shelving – Fire Protection Design Requirements and Annex B – Floor Plans.
- 1.4 The Contractor shall be responsible for all field measurements and verifications.
- 1.5 The requirement does not purport to address all the safety aspects associated with its use. The Contractor has the responsibility to consult with the appropriate authorities and to establish appropriate health and safety practices in conjunction with any existing applicable regulatory requirements prior to its use.

#### **2. SITE PREPARATION**

The following shall be the responsibility of the Project Authority in preparation for the work to be completed by the Contractor.

- 2.1 Ensure the area where the units are to be installed is completely clear of all material including carpet tile and adhesive residue.
- 2.2 Ensure adequate space is available to store the system components during installation.
- 2.3 Ensure the existing floors are structurally sound as to provide adequate support to ensure a high degree of system performance.
- 2.4 Ensure an escort is available during the hours the Contractor is to be performing the work. Escorts are required at all times.

#### **3. APPLICABLE PUBLICATIONS:**

- 3.1 American Society for Testing and Materials (ASTM).  
D 3359 Standard Test Method for Measuring Adhesion by Tape Test.  
D 3363 Standard Test method for Film Hardness by Pencil Test.

D 4060 Standard Test Method for Abrasion Resistance of Organic Coating by the Taber Abraser. ANSI MH28.1-1997 - For the Design, Testing, Utilization and Application of Industrial Grade Steel Shelving Specifications.

3.3 National Building Code of Canada

3.4 Reference to the above publications or test methods described is to the latest issue, unless otherwise specified.

#### **4.0 TERMINOLOGY**

4.1 Four Post Style – A shelf that is supported at each of its four corners.

4.2 Kilopascal (kPa) – Kilopascal is a unit of pressure. 1 kPa is approximately the pressure exerted by a 10-g mass resting on a 1-cm<sup>2</sup> area. 101.3 kPa = 1atm. There are 1,000 pascals in 1 kilopascal.

4.3 Bay – A unit of shelving, single or double faced, consisting of horizontal shelves between uprights or upright frames.

4.4 Mechanical Assist Mobile Shelving System – A mechanical system featuring a drive mechanism manually operated by a handle on the end panel. Gear ratios in the drive mechanism provide the correct balance between weight of the unit, the moving ability and the speed of the movement.

#### **5. GENERAL**

5.1 The Contractor must coordinate with the Project Authority prior to any changes made to the floor.

5.2 Workmanship – Framing part(s) shall be straight, square and plumb. All parts shall be aligned and securely fastened. Any connections requiring welding or bolting shall be finished and non-abrasive. Any exposed surfaces of the installation with which personnel may come in contact shall be smooth and non-abrasive.

5.3 Steel carriages and shelves shall be painted in powder coat paint in the manufacture standard colors and meet the requirements of 18. Preferred color is beige or tan.

5.4 A minimum of three (3) standard sample finishes shall be available.

5.5 The movable and stationary carriages shall be compatible and consistent in overall height, overall length, shelving design, construction & configuration.

5.6 The carriages, shelves and related components must be constructed, tested and furnished to support and operate within the specified weight loads.

5.7 The system alignment maximum variation must be  $\pm 12.7\text{mm}$  ( $\pm 0.5\text{ in.}$ ), measured between the edges of the end panels within each range in all modules in all aisle positions.

5.8 Rails, tracks, wheels and all drive components must exhibit no abnormal friction, abrasion, binding or wear on or between the contact surfaces.

5.9 Under normal environmental and use conditions, components must not rust or exhibit any other type of corrosion.

- 5.10 The stopping distance for any range must be 50.8 mm (2in.) maximum under any operating or loading conditions.
- 5.11 The overall height of the unit, from the floor, must not exceed minimum clearance distance for sprinkler head {shall be maintained as per NFPA13, 20.6 Compact Storage of Commodities} NFPA requirements referenced by the National Building Code regulations. The ceiling height from floor is 2387.60mm (94 in). Proposed height of top of shelving to be 1828.80mm (72.00 in.) to allow for 431.80mm (17 in.) clearance below sprinkler head.
- 5.12 Delivery of product to site must be during business hours during the week (08:00 to16:00).
- 5.13 The Contractor must install during normal business hours starting between 08:00 hrs to 1600 hrs on weekdays.

## **6. TRACKS & RAILS**

- 6.1 The tracks must be constructed of steel, rail bar stock positioned in a "T" metal alloy track. Rails are machined on all sides.
- 6.2 Leveling screws must be provided to facilitate proper leveling of track and to ensure smooth operation of the system. Each track joint must be supported by two leveler channels to prevent deflection or separation of the track.
- 6.3 Track is securely installed to ensure stability and portability.
- 6.4 Track sections are designed with tongue and groove overlap connections between each rail joint. This design provides horizontal and vertical continuity for a smooth rail surface providing ease of carriage operation.
- 6.5 Rail sections must extend under and be attached to all stationary ranges in a manner so as to equally disburse the load range weight to the rail and to the grout in a manner of equal or greater surface disbursement as a movable range.
- 6.6 Rails must be located and positioned properly and leveled. Shimming of the rails for leveling and/or support is not acceptable. Levelling screws must be provided to facilitate proper levelling of the track and to ensure smooth operation of the system.
- 6.7 Rails must be in level with and not project above or below the walking surface.
- 6.8 When used the grout must be non-corrosive, non-metallic and non-shrink and must produce a permanent foundation for the system. Specification for the grout after curing is a minimum strength 7,000 p.s.i. Grout must be worked under the rail, any voids completely filled and trimmed up the sides, flush with the rails.
- 6.9 The engineered space between the rail and aluminum housing must be filled with a black neoprene material to provide a flush floor appearance and prevent debris from collecting thus affecting carriage movement.
- 6.10 Rails must be designed and manufactured to carry a minimum load of 453.59Kgs (1000pounds) per linear foot of carriages.
- 6.11 Rails must not exhibit movement or deflection during operation of mobile ranges.

- 6.12 Rails must be designed to attach on top of existing floor sand to allow for adjustment so rails can be leveled over uneven floors.
- 6.13 All tracks and rail lengths must extend under all stationary ranges.
- 6.14 All rail connection joints must provide horizontal and vertical continuity between rail sections.
- 6.15 Rail skirts must be utilized wherever rail ends are exposed.
- 6.16 Tracks must be located and positioned properly, leveled and grouted as needed.

## **7. RAISED FLOOR**

- 7.1 Standard elevated deck constructed of 18.1mm (3/4 in.) thick exterior grade plywood.
- 7.2 Decking must support a minimum of 113.40 kgs (250 lbs.) per square foot.
- 7.3 Decking must be installed flush and tight to the track leaving no gaps or spaces.
- 7.4 Decking must be installed in a manner that will prevent warping, deformation and movement during normal system use and operation.
- 7.5 Finished flooring must be leveled and flushed with the top of the rails.
- 7.6 Open gaps and/or spaces between the decking and tracks are not permitted.

## **8. RAMP**

- 8.1 The ramp must not extend past the end of the carriages into the main access aisles.
- 8.2 Ramps must be constructed of 18.1mm (3/4 in.) thick exterior grade plywood and require a minimum of 1 foot of ramp for each inch of rise.
- 8.3 Stainless steel threshold must be attached, providing smooth entry from existing floor to system floor, where appropriate.
- 8.4 Ramp must be continuous under all units on the access side(s).
- 8.5 Ramp must be installed in a manner that will prevent warping, deformation and movement during normal operation and loading.

## **9. CARRIAGE**

- 9.1 Carriages must be of welded steel construction, designed and manufactured to support 453.59Kgs (1000pounds).per linear carriage foot without distortion. All carriages must be painted and finished with powder coat paint in textured finishes in a neutral tone. All aluminum components must be anodized, painted or otherwise treated to prevent oxidization.
- 9.2 Fixed carriages must be of the same construction and height as movable carriages and must be anchored to the rails, in such a manner, as to provide for a complete, homogeneous system. The



drive shaft mechanism must run the full length of the carriages in order to prevent torquing and racking, to maintain a consistent aisle width.

- 9.3 Carriage splices must be of a bolted (type) design to maintain proper unit alignment.
- 9.4 Carriage cross members must be welded C-shaped steel channels.
- 9.5 Carriage construction allows shelving to be securely anchored to the carriages. Shelving must not be recessed in carriages.
- 9.6 Carriage straightness must have no more than a 6.35mm (¼ in.) maximum deviation from a true straight line.
- 9.7 There must be no permanent set or slippage in joint (s) when exposed to forces encountered in normal operation circumstance.
- 9.8 Carriage construction must be designed to allow the shelving uprights to be secured to the carriage frame.
- 9.9 All carriage components must be capable of carrying a minimum static and moving carriage load of 1000 pounds per linear foot (1385kg per lineal meter) of carriage.
- 9.10 The carriages must consist of at a minimum, welded 12 gauge steel construction, designed and manufactured to support weight without distortion. Galvanized structural components and / or riveted carriages are unacceptable.
- 9.11 Each carriage must have a minimum of (2) wheels per rail.
- 9.12 All mobile carriages must be fitted with full length solid stress proof steel drive shafts connecting all wheels on the drive side of the carriage with couplings.
- 9.13 The drive shaft and wheel assemblies must exhibit no play or looseness over the entire length of the assembly.

## **10. WHEELS**

- 10.1 Wheels shall be constructed of solid minimum 1045 cold rolled steel (CRS) for smooth operation. Minimum load capacity per wheel 3,200 pounds (1,452kg). Wheels shall be precision ground, balanced. All bearings shall be permanently shielded and lubricated.
- 10.2 All wheels shall be a minimum of 127mm (5 in.) diameter (outside dimension). Wheels shall be dual-flanged and sloped to insure efficient guidance and provide maximum safety by preventing the carriages from derailing. Single center flanged wheels are not acceptable, nor are roller bearings for guidance system.
- 10.3 All wheels must be precision ground, balanced and constructed from solid steel for a smooth operation.
- 10.4 Each movable carriage must have a minimum of four guide wheels per rail (i.e. a minimum of four wheels per movable carriage). Guide wheels must be machined with flanges on both sides of the wheel.
- 10.5 Drive shaft and wheel assemblies must exhibit no play or looseness over the entire length of that

assembly.

## **11. SAFETY&SECURITY**

- 11.1 Each file bay must have a safety locking mechanism or lockable key pins to prevent accidental opening of multiple bays.
- 11.2 Each file bay must be individually lockable using a common key. Eight or more keys must be provided with each independent unit.
- 11.3 Two set of Master keys must be provided.
- 11.4 The system must use colour coded visual indicators to provide verification that the carriages are in a locked or unlocked mode.
- 11.5 The stopping distance for any range must be 50.8mm (2 in.) maximum under any operating or loading conditions.

## **12. END PANELS**

- 12.1 All end panels must be full height and depth of the shelving ends.
- 12.2 All end panels must be in steel unless otherwise noted as Exception.
- 12.3 Steel end panels must be finished with powder coated paint finish from manufacturer's standard line.

## **13. FOUR POST SHELVING**

- 13.1 All shelving sections must be available as a four-post design consisting of three basic parts; uprights, shelves and shelf supports. Parts must be assembled without nuts, bolts, studs or clips and without the need for tools of any kind.
- 13.2 As a minimum, shelves must accommodate legal type files. See Annex B – Floor Plans for location shelf widths.
- 13.3 Shelves must be slotted on at least 76 mm (3in.) centers to received dividers. Slots must coincide with the inside edge of the posts so that a file divider can be used to provide a flush condition with the post at the shelf end.
- 13.4 The front and back flange of the shelf must be flushed with the face of the post.
- 13.5 Shelves must be adjustable on at least 38mm (1.5 in.) Centers.
- 13.6 The shelving is to have a clean appearance without holes on exposed surfaces except where the shelves, backstops and centre stops are slotted or punched for file dividers, and the shelf centre is punched for centre stops.
- 13.7 There must be no holes on the face of the uprights.
- 13.8 Backstop –The face of the backstop must be slotted on the same centers as the shelf to receive

and retain file dividers.

- 13.9 Backstops must be fastened at the centre of the double entry shelves and shall be slotted in the same centers as the shelf to receive and retain dividers.
- 13.10 There are no holes on the face of the post. The front and back post are joined by welding spacers to maintain the required distance apart.
- 13.11 File Dividers - 3 per shelf must be provided on single entry and 6 per shelf on double entry (i.e. 3 dividers per shelf per side).
- 13.12 Face Panels – All exposed ends shall be finished in steel.
- 13.13 Card holders (2 card holders per end panel) and all necessary hardware for a complete installation must be provided. Magnetic card holders are not acceptable.

#### **14. CONTROLS – Mechanical Assist Systems**

- 14.1 Mechanical assist systems are moved mechanically by means of a chain and sprocket reduction drive system which is operated by hand. The driving system shall provide uniform movement along the total length of the carriage even with unbalanced loads on the carriage. Each movable carriage shall be provided with a continuous drive shaft driving all drive wheels.
- 14.2 The system shall be a positive drive to ensure that there is no play in the drive handle and the carriage will stop without drifting. All components of the system shall be compatible for smooth non-jerking, even movement along the total length of the carriage.
- 14.3 All bearings used in the drive mechanism shall be permanently shielded and lubricated.
- 14.4 The mechanical assist handle shall be a three-spoke design, diameter transferring power through a chain drive to the drive wheels. Operating handles shall be positioned on drive end of carriages. Each mechanical drive shall come with a chain tensioning adjuster.
- 14.5 All chains and sprockets shall be concealed for safety, yet easily accessible for maintenance.
- 14.6 The gearing mechanism shall be covered by an easily removable panel to provide access for adjustments to the chain tension.
- 14.7 Each mechanical assist handle shall have a Locking-Flip-Down latch (for single access). When flipped down the locking latch will lock the carriage and when engaged the locking latch will have the word "LOCKED" clearly visible in red. Both carriages on each end of the aisle shall be secured.
- 14.8 One pound of effort on the handle shall move a minimum of (1814.4 kg) 4,000 lbs per 0.30 linear meters of carriage.

#### **15. SECURITY CONTROLS AND CROWN REGULATIONS**

- 15.1 Top of screen must consist of flat black off set assembly that is mounted on top of the shelves.
- 15.2 The top screen must be made of minimum 14 gauge steel plate (minimum 6.4mm) thickness. The flat top of the screen must be mounted on one side of the aisle, off set on the opposite side, with offset overlapping the flat half when aisle is closed.

- 15.3 The end panel assembly must be attached on a hinge that covers the side openings between the shelving.
- 15.4 Top screen must be painted and leave no exposed unfinished edges. Side astragals must be at minimum 14 gauge steel plates.
- 15.5 The end panel assembly must be made of aluminum.
- 15.6 The end panel assembly must have a dual spring-loaded hinge with a pry – preventing back plate.
- 15.7 Hasp installed across the aisle on the end panel.
- 15.8 The system must comply with all applicable codes and standards related to Fire Protection and life safety code regulations for storage, as detailed in Annex A - Appendix 1 – Mobile Shelving – Fire Protection Design Requirements.
- 15.9 Crown regulations include 50.8mm (2in.) bumpers on each side of each carriage (moving or fixed) providing a 102mm (4in.) gap between each carriage.
- 15.10 All shelving must be secured to the carriages with fasteners.
- 15.11 Seismic Performance – All mobile storage units shall be capable of withstanding the effects of earthquake motions as determined according to the latest version of the National Building Code of Canada. Anti-tip mechanisms are recommended on mobile single carriages but are not required on static or double carriages.

## **16. INSTALLATION**

- 16.1 All systems must be checked at the factory, prior to shipment, to ensure high quality and an uninterrupted field installation.
- 16.2 All necessary parts and fasteners must be provided in shipment to ensure a proper and safe installation.
- 16.3 All mobile systems must be installed by factory trained technicians.
- 16.4 The Contractor is responsible to confirm exact location of the system, confirm necessary rough-ins are complete and in the correct locations and confirm that all component parts are available prior to assembly of product.
- 16.5 The contractor must assemble units in accordance with manufacturer's written instructions.
- 16.6 Install and level tracks when appropriate directly to a properly prepared floor.
- 16.7 Install carriages, end panels and shelving as shown on the drawings, complete and ready for owner use.
- 16.8 Framing parts must be straight, square and plumb. All parts must be aligned and securely fastened. Exposed surfaces which may come into human contact must be smooth & non-abrasive.
- 16.9 Install the carpet tile that was removed in the site preparation. Install carpet tile as per the manufacture's installation instructions.

## **17. FINISHES**

### **17.1 Metal Finishes**

17.1.1 Adhesion – the adhesion rating of the finish shall not be less than 4B when tested in accordance with ASTM D3359 Method B.

17.1.2 Abrasion Resistance – the loss of the finish shall not exceed 0.0020g per 500 cycles, using at least a CS-10 wheel tested in accordance with ASTM D4060.

17.1.3 Film Hardness – the finish shall meet the requirements of ASTM D3363, hardness H.

17.2 All fabricated metal components and assemblies, end panels, accessible ends, faced ends on visible carriage ends and rail skirts must use the manufacturer's standard powder coat paint finish.

17.3 All aluminum components must be anodized, painted or otherwise treated to prevent oxidation.

## **18. PRODUCT INFORMATION**

18.1 Product information shall be provided in bilingual format upon completion of installation.

18.2 Product information shall include operational instructions, safety procedures and basic preventative maintenance procedures.

## **APPENDIX 1**

### **MOBILE SHELVING – FIRE PROTECTION DESIGN REQUIREMENTS**

#### **1. General**

##### **1.1 Purpose**

The purpose of this document is to prescribe the fire protection requirements for mobile shelving when used for records storage in Government of Canada property.

##### **1.2 Scope**

These requirements apply to new and existing mobile shelving with a height of 2.5 m or less.

##### **1.3 Definitions**

###### **Mobile Shelving Carriage**

means one or more sets of shelves fastened together to form a single movable section.

**Mobile Shelving Unit**

means a group of mobile shelving carriages connected by tracks, rails or other similar means.

**Mobile Shelving System**

means a system of records storage (also known as compact shelving, track files, compaction files, high density file storage or movable files) in which sections or rows of shelves are manually or electrically moved on tracks to provide access aisles. Mobile shelving is usually a type of open-shelf file equipment.

**2. General Requirements for Sprinklered and Unsprinklered Buildings**

2.1 Mobile shelving units shall be separated from each other by either

- a. fixed aisles with a minimum width of 1,100 mm, or
- b. steel firestops in each unit.

2.2 The steel firestops described in 2.1 and 4.4 shall be of similar material as the mobile shelving.

2.3 If the building is equipped with a fire alarm system, smoke detectors connected to the fire alarm system shall be provided above the mobile shelving system.

2.4 Mobile shelving unit shall be:

- a. provided with a fixed clearance of not less than 100 mm between the mobile shelving carriages, or;

2.5 Seismic restraints, if necessary, shall be provided for mobile shelving systems and installed to prevent over-turning and excessive horizontal movement by the expected movement induced by the building during an earthquake.

**3. Mobile Shelving located in Sprinklered Buildings**

3.1 Except as permitted in 4.2, the portion of the sprinkler system protecting the mobile shelving system shall be hydraulically designed as an Ordinary Hazard Group 2 occupancy classification.

3.2 Where the records storage utilizing a mobile shelving system is subsidiary to a floor area protected by a Light Hazard Occupancy sprinkler system, the sprinkler system may be deemed acceptable where the aggregate area of the mobile shelving system is not more than 70 m<sup>2</sup>

- a. on one floor, or
- b. in a 1 h fire compartment.

3.3 The sprinkler occupancy classification described in 4.1 for the protection of the mobile shelving system shall be extended to

- a. the entire fire compartment, or
- b. at least 4.6 m beyond the area associated with the mobile shelving.

3.4 In existing installations, as an alternative to the requirement of the 100 mm clearance between mobile shelving carriages protected by an Ordinary Hazard Group 2 occupancy classification sprinkler system, steel firestops conforming to 2.2 may be provided to divide the mobile shelving units into areas not greater than 70 m<sup>2</sup>.

- 3.5 Except as required in 4.7, a minimum of 460 mm clearance shall be maintained between the sprinkler deflectors and the top of the mobile shelving, and between the smoke detectors and the top of the mobile shelving.
- 3.6 If security measures are required to prevent unauthorized access through the 100 mm clearance between mobile shelving carriages, a metal screen or lath may be provided to cover the space. Each opening of the metal screen or lath shall be at least 6.4 mm in the least dimension and the amount of openings of the metal screen or lath shall constitute a minimum of 70 % of the area of the material.
- 3.7 If security screen is utilized at or near the top of the mobile shelving units, a minimum of 610 mm clearance shall be maintained between the sprinkler deflectors and the top of the mobile shelving.

## Appendix

A-1.1 These requirements are based solely on the fire loading of paper records; they do not address the overall fire protection design requirements for archival records centres. These requirements do not address other factors such as the importance of records, or the storage of other combustible materials on such shelving; the protection requirements of these records are prescribed in other fire protection standards such as the Standard for Record Storage. Small amount of other incidental materials, up to a maximum of 5 % in volume and distributed sparingly, such as vinyl covered binders and books or other similar materials are acceptable to be stored in mobile shelving without affecting the effectiveness of the sprinkler system.

It is necessary that the structural adequacy of the floor and the building be evaluated before the design and installation of a mobile shelving system.

A-1.2 For existing mobile shelving system installations, a risk analysis should be carried out and judgment should be exercised to determine the extent of the application of these requirements (See 4.4).

A-1.3 Mobile shelving systems can be operated manually and may consist of one or more mobile shelving units moved on tracks, rails or other similar means.

A-2.1 Stationary end carriages of a mobile shelving unit bounded on the outside by continuous metal panels will form effective firestops as described in 4.4.

A-2.4 Spacers or bumpers installed to provide the required spacing should be provided at levels not to introduce tripping hazard. Note the spacing is measured between the edges of the facing shelves or the facing edges of the records stored, whichever is less.

A-2.5 Seismic restraint is usually applied at or near the top of the mobile shelving systems to prevent over-turning, and at or near the base of the units to prevent excessive horizontal movement.

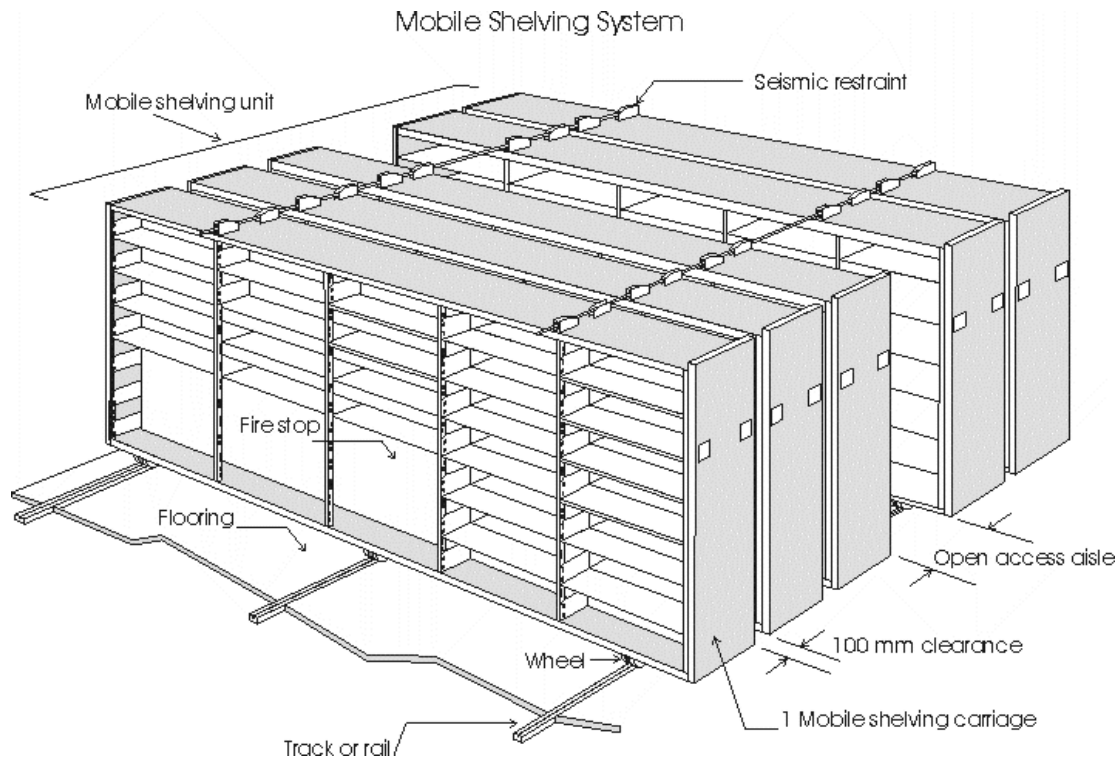
A-4 For record storage centres or warehouses, a higher sprinkler design density may be required to protect the commodity and the facility.

A-4.1 Where practicable, quick-response sprinklers are recommended in a sprinkler system protecting mobile shelving. However, quick-response sprinklers should not normally be installed in the same fire compartment with standard response sprinklers.

The sprinkler system may be hydraulically designed with a density of 8.1 mm/min, using a sprinkler design area of 140 m<sup>2</sup> and a maximum area of coverage of 12 m<sup>2</sup> per sprinkler as one of the design parameters for meeting the requirements for the Ordinary Hazard Group 2 occupancy classification sprinkler system.

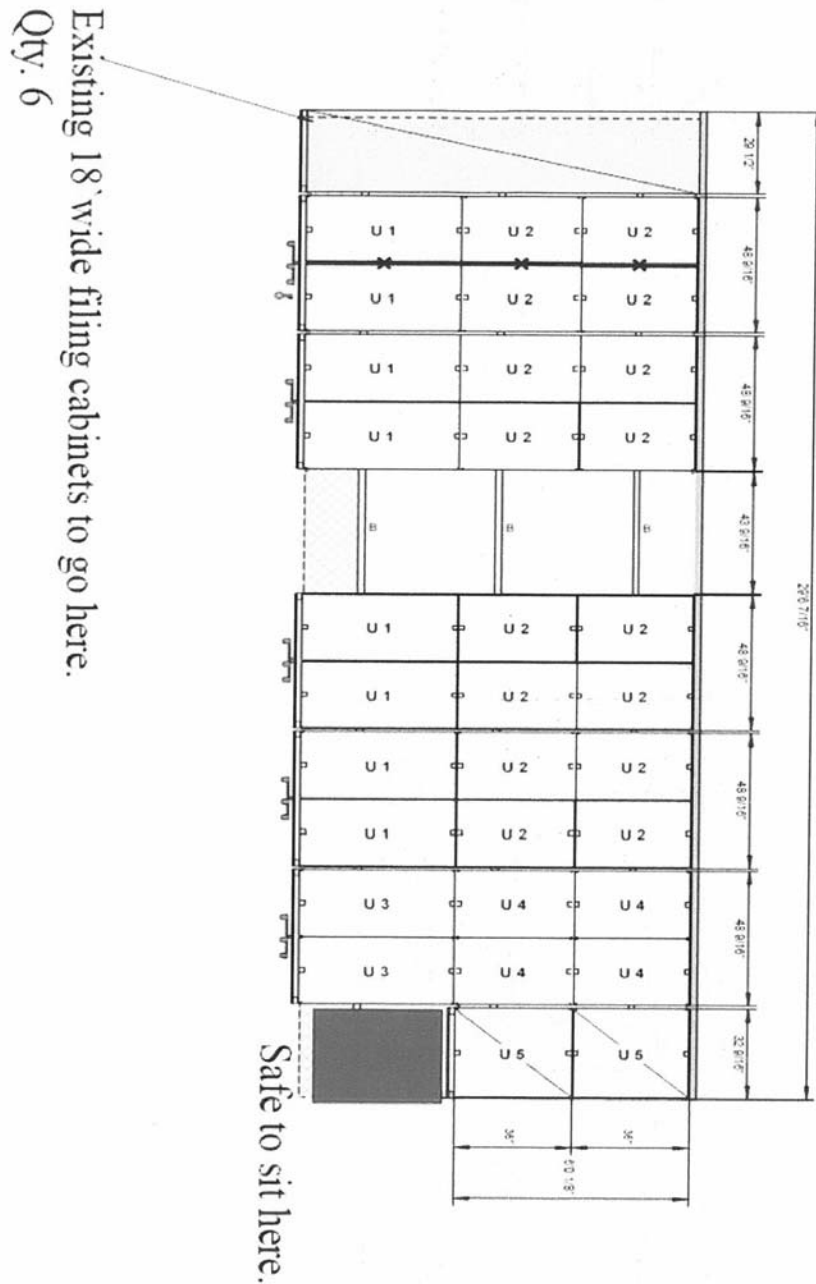
A-4.4 Firestops are the least effective alternatives, but may be the most practical to apply to existing installations.

**Figure**



The figure illustrates a Mobile Shelving System. The system is made up of mobile shelving carriages in which sections or rows of shelves are manually or electrically moved on tracks to provide access aisles. The illustration points out the shelving unit, shelving carriage, track or rail, wheels, fire stop, seismic restraint and the open access aisle.





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W6399-16HE09/A

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

W6399-16HE09

N° de la modif - Amd. No.

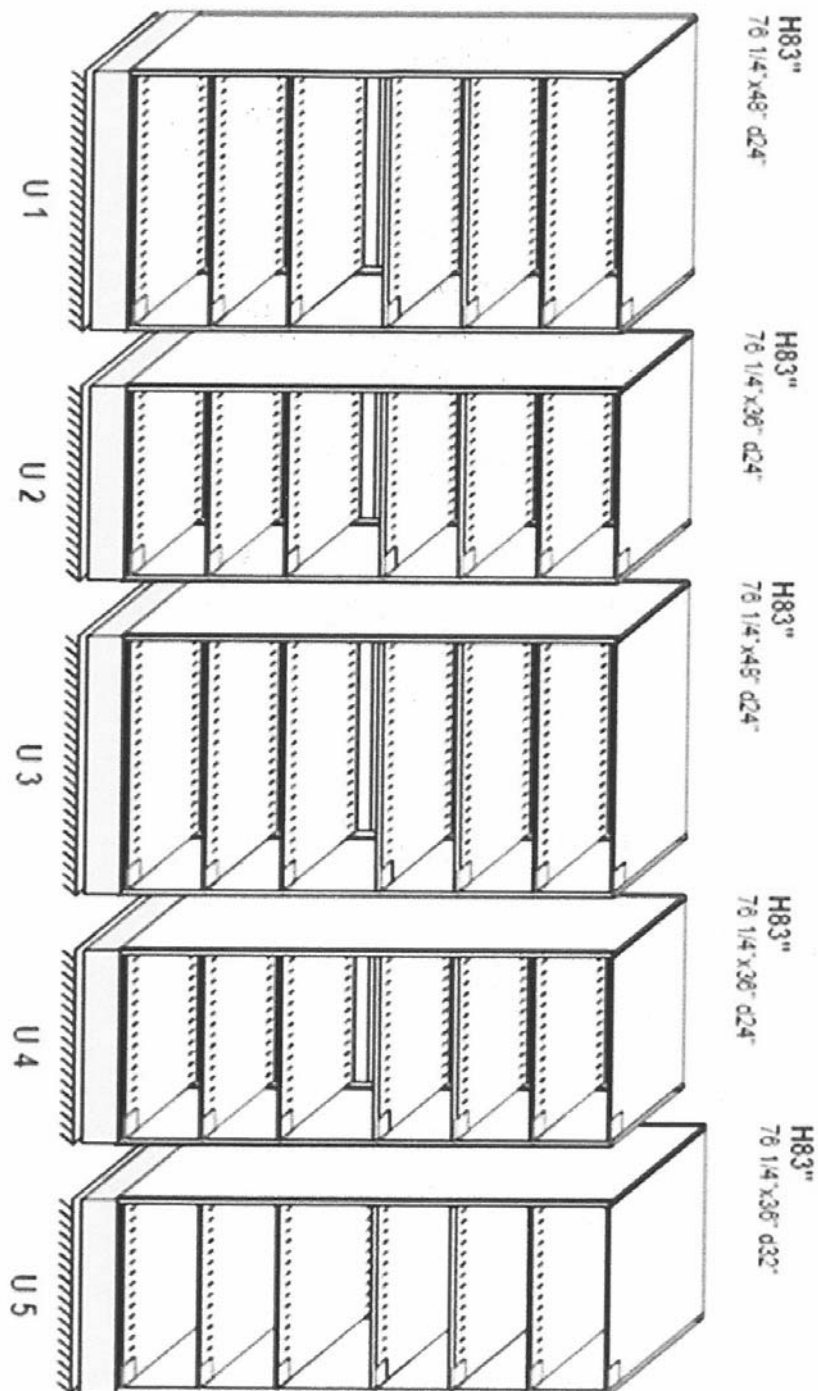
File No. - N° du dossier

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Id de l'acheteur - Buyer ID

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## ANNEX C

### BASIS OF PAYMENT

Manufacturer/System Proposed: \_\_\_\_\_

| Item   | Description  | Firm Lot Price |
|--|--|----------------|
| 1  | High Density Mobile Shelving System – as per Statement of Requirement at Annex A and the Contractor's drawing, <i>including</i> delivery<br><br>Including all components necessary to complete the installation. | \$             |
| 2  | Installation   | \$             |
| Total Evaluated Price (Sum of Firm Lot Prices) |  | \$             |
| Applicable Taxes                               |  | \$             |