

DETENTION EQUIPMENT

11

DEMA 111900-09  
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GUIDE SPECIFICATIONS  
FOR BASIC  
DETENTION EQUIPMENT  
REQUIREMENTS

DEMA 111900-09  
December, 2009

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DETENTION EQUIPMENT



Detention Equipment Manufacturers Association



A Division of

NATIONAL ASSOCIATION OF  
ARCHITECTURAL METAL MANUFACTURERS

This standard was developed by representative members of the Detention Equipment Manufacturers Association (DEMA) a Division of the National Association of Architectural Metal Manufacturers (NAAMM) to provide their opinion and guidance on the specification and use of detention equipment. This standard contains advisory information only and is published as a public service by NAAMM and its DEMA Division.

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**National Association of Architectural Metal Manufacturers**

800 Roosevelt Road, Bldg. C, Suite 312

Glen Ellyn, Illinois 60137

Tel: 1-630-942-6591

Fax: 1-630-790-3095

E-mail: [info@naamm.org](mailto:info@naamm.org)

Website: [www.naamm.org](http://www.naamm.org)

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# FORWARD

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These specifications have been prepared in accordance with the CSI recommended format with Part 1 - General, Part 2 - Product and Part 3 - Execution. Guide specifications are intended to be used as the basis for developing job specifications and must be edited to fit specific job requirements. Inapplicable provisions should be deleted, appropriate selections should be made where there are choices, and provisions applicable to the job should be added where necessary. Optional items or requirements are shown in brackets. **Notes and instructions to Specifiers are given in italics directly following or at the start of the paragraphs to which they apply. Notes that contain permissive language are not considered part of the standard.** Dates given with ASTM and other standards were current at the time this specification was published. When a more recent standard is available, the Specifier should verify its applicability to this Guide prior to its inclusion.

Materials and fabrication methods are specified in detail in Part 2. The materials and fabrication methods called for in these specifications, while providing a sound guide, are not meant to restrict the use of other materials and methods; if it can be demonstrated through the specific testing procedures that the construction can equal or exceed the performance levels specified. In order to ensure that a manufacturer's product meets the desired performance levels, the construction specifications must always include the testing and performance requirements and the quality requirements.

# CSI BROADSCOPE SECTION 11 19 00 BASIC DETENTION EQUIPMENT REQUIREMENTS

## PART 1 - GENERAL

### 1.01. SCOPE OF WORK

#### A. Sections 11 19 00 through 11 19 90:

- Section 11 19 10 Detention Hollow Metal
- Section 11 19 20 Detention Hardware
- Section 11 19 30 Detention Glass and Glazing
- Section 11 19 40 Detention Furnishings & Accessories
- Section 11 19 45 Detention Bar Grating and Woven Mesh
- Section 11 19 50 Detention Windows
- Section 11 19 60 Detention Wall Systems
- Section 11 19 70 Detention Ceiling
- Section 11 19 80 Detention Cells
- Section 11 19 90 Detention Electronics

B. All materials and labor specified under 1.01 Scope of Work, Paragraph A, of the Specifications shall be furnished by a single qualified DSC who shall assume responsibility for the detailing, coordinating, supplying, erecting (where applicable), performance and warranty of this work, in accordance with this specification section.

C. Related work specified in other sections impacting Division 11 as listed above.

### 1.02. DEFINITIONS

- A. DSC Detention System Contractor
- B. ESS Electronics System Subcontractor

### 1.03. SUBMITTALS:

A. The DSC shall provide complete and detailed submittal package of all products in their scope of work for approval in compliance with Division 1 requirements.

### 1.04. QUALITY ASSURANCE:

A. Qualifications of Detention System Contractor: Any DSC firm who intends to submit a bid on this Section of the Specifications, shall submit the following qualification data to the Architect in writing fourteen (14) days prior to bid date and, if approved, acknowledgment shall be by Addendum prior to bid date. Verbal approval will not satisfy this requirement. All DSCs except those pre-approved, shall submit all information exactly as herein requested or will not be allowed to submit a bid. Grounds for disqualification shall exist if it is proven that the information submitted is inaccurate or, in the opinion of the Architect, does not satisfy the qualification requirements. Any approved DSC that is not approved as an ESS shall use an approved ESS to furnish and install an approved detention electronics systems as specified in the Detention Electronics specification section (s) in the contract documents.

1. Evidence that the DSC firm has a minimum of ten (10) years experience in successfully completing projects of equal scope and magnitude with products as herein specified. This evidence shall consist of a list of ten (10) projects that have been complete and operational for a minimum of five (5) years.
  - a. For each facility, list: name and location of installation, date of occupancy by Owner, Owner's representative to contact and telephone number, Construction Manager or General Contractor, and Architect.

2. Provide independently audited financial statement for the previous year.
3. Submit a letter from the Surety Company (that has a minimum AM best "A15 rating") stating that a 100% Payment and Performance bond can be supplied if selected as the successful Detention System Contactor (DSC).
4. Provide statement indicating DSC has not filed for bankruptcy protection within the past ten (10) years.
5. Submit to the Owner a letter from the lock manufacturer stating that this firm is a factory-trained, fully authorized installer of their complete line of product.
6. Submit letter to the owner stating that the DSC will perform at least 85% of their own work.
7. Any firm intending to submit a proposal for this work must examine the existing conditions and equipment.
8. Any supplier accepted under this provision shall be added by addendum prior to bid. Bids received from others not named herein or as accepted by addendum will be considered unresponsive and will not be accepted.
9. Approval of a DSC does not relieve that DSC from furnishing all materials from the manufacturers as herein specified.

#### **1.05. DELIVERY, STORAGE AND HANDLING:**

- A. Responsibility of the General Contractor:
  1. Receive, unload and store all material which is "furnish only" (provided) by the DSC and installed by others.
  2. Provide temporary access openings where required to permit the placing of the detention equipment in the areas of the building. Where it is to be installed, provide use of hoist, cranes, elevators and lifts and/or cranes on regular time with qualified operators.
  3. Protect all materials during storage on the job and after installation, including all protection required while working and/or cleaning adjacent materials.
  4. Provide an adequate, secure, dry, lockable storage area or room in each building and floor (if high-rise) for all materials specified in this Section.
- B. The DSC shall be responsible for receiving, unloading, protection and distribution of all products furnished and installed by the DSC.

#### **1.06. WARRANTY:**

- A. The DSC warrants materials furnished and installed under this Section to be free from defects in materials and workmanship for a period for one (1) year after notification of substantial completion.
  1. Material which has been misused, abused or neglected by the Owner; defects for damage caused by work or failure of work by others; ordinary wear and tear; or normal equipment adjustment which are within the Owner's operation and maintenance responsibility will not be covered by the warranty.
- B. Modifications made without written authorization from the DSC, repairs, or tampering, shall constitute termination of this warranty.
- C. The DSC shall be fully reimbursed including travel expenses for service calls during the warranty period which prove to be other than work covered by the DSCs warranty.
- D. The DSC will provide qualified employees to perform any warranty work.

### **PART 2 - PRODUCTS (See Individual Sections)**

- 2.01. The DSC shall utilize only approved manufacturers, component fabricators and suppliers. Any other manufacturers, component fabricators or suppliers must be approved by addenda prior to bid date. Verbal approval will not be considered.**

**2.02. The DSC shall be responsible for the integration, interfacing and coordination of all products and systems with other related parties as hereinafter defined and specified.**

### **PART 3 - EXECUTION (See Individual Sections)**

#### **3.01. PREPARATION**

- A. Examine the areas and conditions under which installation is to occur and document conditions detrimental to the proper and timely completion of the work. Installation should not proceed until unsatisfactory conditions have been corrected.
- B. Prior to installation, conduct a project site inspection for purpose of reviewing products and installation methods selected, procedures to be followed in performing the work and coordination.
- C. Protect adjacent surfaces from damage while installing products.
- D. Ascertain location and arrangement of anchorage required to accommodate work; coordinate with other trades where necessary to make provisions for installation.
- E. Furnish drawings, diagrams, templates, instructions and directions for installation of all products and coordinate delivery of such products.
- F. Coordinate distribution of all items to locations for installation, complying with applicable product handling requirements.
- G. Coordinate with other trades for proper location of rough-in services and service connections as specified elsewhere.

#### **3.02. INSTALLATION**

- A. Products must be installed in alignment, free from warp, twist or distortion, plumb, level and true. Comply with approved shop drawings, manufacturer's instructions and recommendations for handling and installation. Where printed instructions are not available or do not apply to project conditions, consult manufacturer's technical representative for specific recommendations. Defective products shall not be installed.
- B. Perform cutting, drilling and fitting required for installation of detention equipment.
- C. Provide penetrations for installation or other work in detention equipment; comply with templates or detail drawings furnished by other trades. Penetrations cut in the field must be marked by the trade requiring the penetration and cut by the DSC.
- D. Comply with AWS Code for procedures of manual shielded metal-arc welding. Weld per product manufactures recommendations. Where surfaces are to be exposed to view, grind and sand welds smooth; finish holes, defects, other imperfections so surfaces will be smooth when painted.
- E. Field welding or other field attachment of metal assemblies to embedded anchorages shall be accomplished by DSC. Where adjustable anchors are required, furnish anchors to frame installers for setting. Concrete unit masonry provider shall grout frames set into concrete block, including intermediate mullions or tubular elements.

#### **3.03. ADJUSTMENT, REPAIRING**

- A. Before final connections to electrical power are made, test all electrically operating or sensing items and adjust as required to provide proper functions. Test electrically controlled doors utilizing the control consoles under normal operating procedures.
- B. Adjust and lubricate moving parts to operate smoothly and quietly, without binding per manufactures recommendations.
- C. Work shall be free from scratches, dents, permanent discolorations and other defects. Remove and replace damaged parts. Prepare welds and other connections for touch-up painting. Touch-up of welds, bolted connections, and all abraded/damaged areas in "shop applied" metal primer paint shall be the responsibility of the installing contractor.

#### **3.04. PROTECTION, CLEANING**

- A. Comply with Division 1 - GENERAL REQUIREMENTS.

- B. During installation, protect adjacent surfaces and detention equipment from damage. Work shall be free from scratches, dents, permanent discolorations and other defects; remove and replace damaged parts.
- C. During installation, maintain storage, work area, and installation locations, in neat, orderly, broom-clean condition.
- D. Remove all non-permanent labels, non-permanent protective coatings and identifying mark from items installed by the DSC.
- E. DSC shall advise General Contractor of required procedures for protection of all detention work. The General Contractor is responsible for all protection of materials after their installation.
- F. All final cleaning shall be the responsibility of the General Contractor.

**3.05. DEMONSTRATION, OPERATING INSTRUCTIONS AND TRAINING**

- A. The DSC will provide operating/maintenance manuals, training materials and instructions. Coordinate with Owner to review materials and operation, to assure Owner instruction and information requirements will be met.
- B. On-Site Training: The DSC shall provide representative to Owner who is knowledgeable in operation of detention equipment, for an on-site instruction and training period involving Owner's designated personnel.
- C. On-site instruction and training period will not exceed two (2) consecutive eight (8) hour days

**END OF SECTION**





## **GUIDE SPECIFICATIONS BY DETENTION EQUIPMENT MANUFACTURERS ASSOCIATION (DEMA)**

**NAAMM / DEMA 11 19 00 – Basic Detention Equipment Requirements**

**NAAMM / DEMA 11 19 10 (HMMA 863) - Detention Hollow Metal**

**NAAMM / DEMA 11 19 20 - Detention Hardware**

**NAAMM / DEMA 11 19 30 - Detention Glass and Glazing**

**NAAMM / DEMA 11 19 40 - Detention Furnishing and Accessories**

**NAAMM / DEMA 11 19 45 - Detention Bar Grating – Wire Mesh**

**NAAMM / DEMA 11 19 46 - Detention Bar Grating – Expanded Metal**

**NAAMM / DEMA 11 19 50 - Detention Fixed Exterior Windows**

**NAAMM / DEMA 11 19 60 - Detention Wall Systems**

**NAAMM / DEMA 11 19 70 - Detention Ceiling**

**NAAMM / DEMA 11 19 80 - Detention Cells**

**NAAMM / DEMA 11 19 90 - Detention Electronics**