

TECHNICAL SPECIFICATIONS for Model: SG-7050
SECTION 34 71 13.19
ACTIVE VEHICLE BARRIERS

PART 1 – GENERAL

1.1 SUMMARY

A. Section Includes:

1. Vehicle Anti-Ram Sliding Crash Gate
2. []

1.2 RELATED SECTIONS

- A. Section 03 30 00 – Cast-in-Place Concrete
- B. Section 09 90 00 – Painting & Coatings
- C. Section 28 13 00 – Security Systems
- D. []

1.3 REFERENCES

A. ASTM International (ASTM):

1. ASTM A123 - Standard Specification for Zinc (Hot-Dip Galvanized) Coatings on Iron and Steel Products
2. ASTM D7803- Standard Practice for Preparation of Zinc (Hot-Dip Galvanized) Coated Iron and Steel Product and Hardware Surfaces for Powder Coating
3. ASTM B117 - Practice for Operating Salt-Spray (Fog) Apparatus.
4. ASTM D523 - Test Method for Specular Gloss.
5. ASTM D714 - Test Method for Evaluating Degree of Blistering in Paint.
6. ASTM G155 - Standard Practice for Operating Xenon Arc Light Apparatus for Exposure of Non-Metallic Materials
7. ASTM D1654 - Test Method for Evaluation of Painted or Coated Specimens Subjected to Corrosive Environments.
8. ASTM D2244 - Test Method for Calculation of Color Differences from Instrumentally Measured Color Coordinates.
9. ASTM D2794 - Test Method for Resistance of Organic Coatings to the Effects of Rapid Deformation (Impact).
10. ASTM D3359 - Test Method for Measuring Adhesion by Tape Test.
11. ASTM F2656 - Standard Test Method for Vehicle Crash Testing of Perimeter Barriers

B. AWS

1. AWS D1.1/D1.1M - Structural Welding Code - Steel (2010)

1.4 SUBMITTALS

- A. Product Data:
 - 1. Comply with Section [01 33 00 – Submittal Procedures.] [_____].
 - 2. Product Data: Provide for each type of barrier, component, finish, and accessory specified.
 - 3. Maintenance Data: Submit manufacturer's field touch-up, cleaning, and maintenance instructions.
 - 4. Warranty Documentation: Submit sample of manufacturer's warranty.

1.5 QUALITY ASSURANCE

- A. COMPLY WITH SECTION [01 43 00 – QUALITY ASSURANCE.] [_____].
- B. Manufacturer Qualifications: Company specializing in manufacturing products specified in this section with a minimum five years documented experience.
- C. Installer Qualifications:
 - 1. Engage an experienced installer who has minimum five years documented experience with projects of similar scope and complexity.
 - 2. Installer is an authorized representative of the vehicle barrier manufacturer for both installation and maintenance of the type of units required for this project.
- D. Source Limitations: Provide each type of product from a single manufacturing source to ensure uniformity.
- E. The contractor shall provide laborers and supervisors who are thoroughly familiar with the type of construction involved and materials and techniques specified.

1.6 DELIVERY, STORAGE AND HANDLING

- A. Comply with Section [01 66 00 – Product Storage and Handling Requirements.] [_____].
- B. The Sloan Crash-Rated Sliding Gate M50/P2 shall be packaged to protect the materials from damage during shipment.
- C. While Sloan Security Group does not assume responsibility for injury to persons or property during loading, unloading, transporting or installation, verbal guidance and additional written instructions are available upon request.
- D. Sloan Security Group does not assume responsibility for insuring that the rigging and lifting gear is properly sized and attached when lifting heavy components. Equipment used shall be capable of handling product in an overhang position.
 - 1. For palletized materials, a 5,000lb (2,250 kg) capacity forklift shall be used. No palletized product shall exceed 3,500lb (1,600 kg).
 - 2. For non-palletized materials, a 10,000lb (4,500 Kg) minimum load capacity telehandler with proper rated rigging shall be used to ensure proper handling of products during storage or installation.
- E. Ignoring these recommendations may cause damage to material coatings or compromise the structural integrity of the product.

- F. Sloan Sliding Gate, M50/P2 is coated to protect materials from the effects of exposure to all outdoor elements; however, when site storage is required Sloan Security Group recommends the following guidelines:
 - 1. Short term storage (0-12 months): Store in such a manner to ensure proper ventilation and drainage. The storage location shall protect against damage, vandalism, and theft.
 - 2. Long term storage (more than 12 months): In addition to the recommendations for short term storage, the Sloan Sliding Gate M50/P2 shall also be covered to prevent exposure to the elements prior to installation. The purpose of this recommendation is to preserve the aesthetic appearance of the coating finish. Long term exposure to the elements naturally degrades coating appearances; therefore, proper storage is essential for ensuring preservation of the material.
- G. Upon delivery of Sloan Sliding Gate M50/P2 control systems, the crate or pallets containing any electrical components shall be marked as such and stored in a covered location that ensures proper ventilation and drainage. The storage location shall protect against damage, vandalism and theft. Control cabinets may not be rated for outdoor exposure; therefore, higher storage measures should be taken.
- H. Upon receipt at the job site, all materials shall be checked to ensure that no damage occurred during shipping or handling. Materials shall be stored in such a manner to ensure proper ventilation and drainage, and to protect against damage, weather, vandalism, and theft.

1.7 WARRANTY

- A. Sloan's active vehicle barrier products carry a standard warranty against defects in material and workmanship on fabricated components for three years when installed by a Sloan authorized installer. Warranty begins at the ship date of product.

PART 2 – PRODUCTS

2.1 MANUFACTURERS

- A. Acceptable Manufacturer: Sloan Security Group, Phone: (888) 382-8370, Website: www.sloansg.com, Email: info@sloansg.com
- B. Substitutions: Not Permitted.

2.2 VEHICLE BARRIERS

- A. Basis of Design: Sloan Sliding Gate, M50/P2 System, Model: SG-7050, as manufactured by Sloan Security Group
 - 1. This system shall be tested and certified to meet ASTM F2656, Impact Condition Designation M50, Penetration Rating P2, with the capability of stopping a 15,000lb vehicle traveling at speeds up to 50mph and less than 3 meters of dynamic penetration.
 - 2. The manufacturer shall supply a total active vehicle barrier system of the Sloan Sliding Gate M50/P2 design. The system shall include all components (i.e., frames, supports, posts, and hardware) required. The barrier shall comply with Sloan's System Drawings.
 - 3. The main blocking member of the Sloan Sliding Gate M50/P2 shall be 6-inches wide at a height of 35 inches from the roadway and shall be welded to the gate frame(s).
- B. Optional control devices (choose one or more of the following): card reader, key switch, radio control, pushbuttons, free egress vehicle detectors, vehicle obstruction loop detectors, reset loop, keypads, seven-day timers or various emergency vehicle open devices as dictated by local code.

- C. Optional alert devices: Flashing lights or rotating beacon. Configurable audible beacon included as standard.
- D. Options and Accessories:
 - 1. Access Control Devices:
 - a. Card readers, keypads, key switches
 - b. Proximity or smart card readers
 - c. Intercom systems with call stations
 - d. RFID or automatic license plate recognition (ALPR)
 - 2. Safety Devices:
 - a. Safety photo eyes
 - b. Vehicle presence detection loops
 - c. Infrared or microwave motion sensors
 - d. Emergency stop switches
 - 3. Alert / Warning Systems:
 - a. LED traffic lights (red/green)
 - b. Audible alarms (buzzers, sirens, voice annunciators)
 - c. Flashing beacon lights
 - 4. Integration Accessories:
 - a. Remote operator control panels
 - b. SCADA or security system integration modules
 - c. Battery backup / UPS
 - d. Networked monitoring (IP-based control panels)
 - 5. Environmental Accessories:
 - a. Heater kits for hydraulic fluid (cold climates)
 - b. Dust/weatherproof enclosures for electronics
 - c. Corrosion-resistant coatings for marine/salt environments
 - 6. Surveillance & Security Add-ons:
 - a. CCTV cameras with mounting brackets
 - b. Video intercom integration
 - c. Fence tie-in for full perimeter barrier

2.3 MATERIAL

- A. Sloan will provide material certifications with each order upon request.

2.4 FABRICATION

- A. Fabrication of the members shall be in accordance with manufacturer's instructions, the plan details, and this specification.
- B. Shop drawings can be provided for site specific locations of each barrier upon request.
- C. The Sloan Sliding Gate's coating system shall protect against the effects of long-term corrosion. The standard coating is Hot Dip Galvanized to ASTM A123. Powder-coated finish is also available upon request.
- D. All Sloan products are coated to the customer specification.

PART 3 – EXECUTION

3.1 SITE EXAMINATION

- A. The purchaser shall indicate the location of all products with suitable means.
- B. The purchaser shall indicate all underground utility locations, USC&G benchmarks, property monuments, and other underground structures that interfere with installation.
- C. Before installing the Sloan Sliding Gate M50/P2, all necessary site clearing and grading shall be performed by the purchaser. An adequate clearance on both sides of the vehicle barrier line is required.
- D. Soil strength shall be equivalent to soil strength recorded during the ASTM F2656-07 certification test of the footer size and depth must be adjusted accordingly based on professional engineering analysis.

3.2 PREPARATION

- A. Examine and verify foundation suitability for product installation.
- B. Clean surfaces thoroughly prior to installation
- C. Prepare surfaces using the methods recommended by the manufacturer for achieving the best results for substrate under the project conditions.

3.3 INSTALLATION

- A. The active vehicle barrier shall be installed per Sloan's System Drawing. Construct concrete foundations to the dimensions specified by the plans. Excavate a properly sized area for barrier foundations and install reinforcing steel in accordance with the plans. Place the concrete, install the barrier, and plumb. Refer to contract or submittal plans for more installation details.
- B. Sloan's vehicle barriers are warranted against defects in material and workmanship on structural components for one year from ship date, when installed by a Sloan authorized installer.
- C. Engage an experienced installer who has minimum five years documented experience with projects of similar scope and complexity.
- D. Suggested Installer: Sloan Security Group Phone: (888) 382-8370, Website: www.sloansg.com, Email: info@sloansg.com

3.4 CLEANING

- A. Clean active vehicle barriers in accordance with the manufacturer's recommendations to remove dust, dirt, adhesives, and other foreign materials.
- B. Touch-up, repair or replace damaged products before Substantial Completion.
- C. The contractor shall clean the jobsite thoroughly to ensure it is left neat and free of any debris caused by the installation of the active vehicle barrier system.

3.5 CONTINUED SERVICE AND DOCUMENTATION

- A. General maintenance of the Sloan Slide Gate M50/P2 System shall consist of removing foreign materials from frame or sub-grade frame as debris may cause damage to the barrier and may cause safety concerns. Refer to the owner's manual for more details on the system maintenance.
- B. Sloan will supply an operator manual that contains recommended maintenance intervals, procedures, and replacement parts lists.
- C. Maintenance instructions shall include routine maintenance procedures, possible breakdowns, and repairs, and troubleshooting guide. The instructions shall include piping layout, equipment layout and simplified wiring, and control diagrams of the systems as installed.
- D. Suggested Maintenance Contractor: Sloan Security Group, Phone: (888) 382-8370, Website: www.sloangsg.com, email: info@sloangsg.com

NOTE: Sloan Security Group reserves the right to change these specifications at any time. Call (888) 382-8370 to ensure that you have the latest edition.

CAUTION: Barriers manufactured by Sloan Security Group are intended for use in controlling vehicular traffic and are not intended to be used by pedestrians or to control pedestrian traffic. **Always install a separate pedestrian entry.**