**SPECIFICATION FOR MODEL CR-25M MANUAL CABLE BEAM BARRIER**

## PART I - GENERAL

**1.1 WORK INCLUDED IN THIS SECTION**

1. Furnish labor, materials, inspections, supervision, etc., necessary for the complete installation and operation of vehicle barrier(s) as shown on the plans and specified herein. Work includes furnishing all items and accessories required or necessary for the correct operation of the vehicle barrier(s) as shown on plans and/or specified herein.

**1.2** **QUALITY ASSURANCE**

1. The Company shall specialize in manufacturing of the type barriers specified, with a minimum five (5) years experience.
2. The installer shall have a minimum three (3) years installation experience of similar equipment.

**1.3** **SUBMITTALS**

1. Submittals shall contain sufficient plans, elevations, sections, and schematics to clearly describe the apparatus. All conduit runs, controls and similar drawings shall be included.
2. Submittals shall include (but not necessarily limited to) the following:
3. All high and low voltage conduit runs.
4. Mounting dimensions and locations.
5. Details of electronic equipment, electrical equipment or any other apparatus deemed necessary by the Owner or Owners representative.
6. Installer shall provide two (2) copies of submittal packages.

**1.4** **INSPECTIONS**

Procure all the necessary and usual inspections and certificates for all work to be installed. Deliver same to the Owner/Owners representative before final acceptance.

**PART II – PRODUCTS**

**2.1 ELECTROMECHANICAL CABLE BEAM BARRIER GATE**

1. **Application**
2. Barrier shall contain a cable reinforced crash beam hinged at one end, raised and lowered by means of an electric motor and transmission. When in the down, locked position the cable crash beam shall present an obstacle to approaching vehicles from either direction. Upon vehicle impact, the force shall first be absorbed by the beam assembly and then transmitted to the concrete foundations of the unit.
3. **Features**
4. Height of the barrier shall be 30.5 inches (775 mm) as measured from the roadway surface to the center line of the barrier arm.
5. The standard clear opening shall be 144 inches (3.66m) as measured inside to inside of the buttress supports. *(The Barrier can be specified with a clear opening from 120 inches (3.0m) to 300 inches (7.62m))*
6. The hinge side assembly will be constructed of 3/8” steel plate with internal self-aligning ball ends on a single stainless steel axle allowing the aluminum beam movement in an arc up to 90 degrees. The hinge post assembly shall be designed to accept manual operation of the arm.
7. The receiver stanchion will be constructed of 3/8” steel plate, which is designed to direct the landing of the arm and securely contain the arm during impact.
8. The receiver and hinge shall bolt directly to a concrete pad. No above grade concrete shall be acceptable.
9. The barrier buttress supports shall be hot dipped galvanized for superior corrosion protection.
10. Barrier arm shall be fabricated from aluminum tubing and shall be furnished with red and white architectural grade reflective striping.
11. The cable shall be restrained in the arm by the use of a cast anchor post, which will act to secure the cable during impact.
12. **Functional Specifications**
13. Unit shall consist of a pivot and receiver housing, aluminum arm assembly with cable absorption system and a hand bar to raise / lower the arm.
	1. A manual, pad-lockable latch shall be included to lock the crash beam securely in the raised or lowered position.

**2.4 PERFORMANCE**

* 1. **Testing**
1. Barrier design shall have successfully passed actual full scale crash tests conducted by a qualified independent agency. Any test data other than a full scale crash test (engineered data, computer models) are not acceptable and shall not be recognized.
	1. **Evaluation**
2. The barrier shall have been certified by the United States Navy to have a performance evaluation per Specification OR098-09-88.
	1. **Stopping Capacity**
3. The barrier system shall be designed to impede a vehicle approaching from either direction.
	1. The barrier shall be capable of stopping a vehicle weighing 10,000 pounds traveling at 18 mph.
		1. The barrier shall be engineered to stop:

10,000 pound vehicle traveling at 31 mph

5,000 pound vehicle traveling at 44 mph

2,000 pound vehicle traveling at 69 mph

**2.5 QUALITY ASSURANCE**

* 1. **Factory Testing**
1. Upon completion, the barrier gate will be fully tested for proper operation by manufacturer prior to shipment. A nameplate with manufacturer's name, model number, and serial number shall be located within unit.
2. All critical dimensions shall be checked for accuracy against customer approved shop drawings.

**2.6 PROCUREMENT SOURCE**

The manual cable beam barrier system shall be model CR-25M as manufactured by **B&B ARMR (800-367-0387), 5900 South Lake Forest Drive, Suite 230, McKinney, TX 75070.**

**PART III - EXECUTION**

**3.1 INSTALLATION**

1. Installation shall be performed according to the manufacturer’s instructions. Verify all component locations with contract drawings and shop drawings.
2. Any disagreement between the Plans, Specifications, and Ordinances, must be called to same before signing of the shop drawings. After the shop drawings have been signed, the Contractor is responsible for having all work meet requirements of the governing ordinances.