

The Genuine. The Original.



SECTION 08 36 00

SECTIONAL OVERHEAD DOORS

**** NOTE TO SPECIFIER ** Overhead Door Corporation; Commercial Sectional Overhead Door products.**

This section is based on the products of Overhead Door Corporation, which is located at:
2501 S. State Hwy. 121
Suite 200
Lewisville, TX 75067
Toll Free: (800) 275-3290
Phone: (469) 549-7100
Fax: (972) -906-1499
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E-mail: arcat@overheaddoor.com

Overhead Door Corporation pioneered the upward-acting door industry, inventing the first upward-acting door in 1921 and the first electric door opener in 1926. Today, we continue to be the industry leader through the strength of our product innovation, superior craftsmanship and outstanding customer support, underscoring a legacy of quality, expertise and integrity. That's why design and construction professionals specify Overhead Door Corporation products more often than any other brand.

This specification includes Overhead Door Corporation Commercial Sectional Overhead Door products including Insulated Sectional Overhead Doors, Steel Sectional Overhead Doors, Glazed Aluminum Sectional Overhead Doors, and Knockout Sectional Overhead Doors. Contact Overhead Door for support in selecting doors to meet your criteria.

PART 1 GENERAL

1.1 SECTION INCLUDES

**** NOTE TO SPECIFIER ** Delete items below not required for project.**

- A. Insulated Sectional Overhead Doors.
- B. Steel Sectional Overhead Doors.
- C. Glazed Aluminum Sectional Overhead Doors.
- D. Electric Operators and Controls.
- E. Operating Hardware, tracks, and support.

1.2 RELATED SECTIONS

**** NOTE TO SPECIFIER ** Delete any sections below not relevant to this project; add others as required.**

- A. Section 03300 - Cast-In-Place Concrete.
- B. Section 04810 – Concrete Unit Masonry.
- C. Section 05500 - Metal Fabrications.
- D. Section 06114 – Wood Framing.
- E. Section 07900 - Joint Sealants.
- F. Section 08710 - Door Hardware.
- G. Section 09900 - Paints and Coatings.
- H. Section 11150 - Parking Control Equipment.
- I. Section 16130 - Raceway and Boxes.
- J. Section 16150 - Common Work Results for Electrical.

1.3 REFERENCES

**** NOTE TO SPECIFIER ** Delete references from the list below that are not actually required by the text of the edited section.**

- A. ANSI/DASMA 102 - American National Standard Specifications for Sectional Overhead Type Doors.

1.4 DESIGN / PERFORMANCE REQUIREMENTS

**** NOTE TO SPECIFIER ** Edit the following paragraph for power operators as required. Delete if not required.**

- A. Wiring Connections: Requirements for electrical characteristics.
 - 1. 115 volts, single phase, 60 Hz.
 - 2. 230 volts, single phase, 60 Hz.
 - 3. 230 volts, three phase, 60 Hz.
 - 4. 460 volts, three phase, 60 Hz.
- B. Single-Source Responsibility: Provide doors, tracks, motors, and accessories from one manufacturer for each type of door. Provide secondary components from source acceptable to manufacturer of primary components.

1.5 SUBMITTALS

- A. Submit under provisions of Section 01300.
- B. Product Data: Manufacturer's data sheets on each product to be used, including:
 - 1. Preparation instructions and recommendations.
 - 2. Storage and handling requirements and recommendations.
 - 3. Installation methods.
- C. Shop Drawings: Indicate plans and elevations including opening dimensions and required tolerances, connection details, anchorage spacing, hardware locations, and installation details.
- D. Manufacturer's Certificates: Certify products meet or exceed specified requirements.

E. Operation and Maintenance Data.

1.6 QUALITY ASSURANCE

- A. Manufacturer Qualifications: Company specializing in manufacturing products specified in this section with minimum five years documented experience.
- B. Installer Qualifications: Authorized representative of the manufacturer with minimum five years documented experience.
- C. Products Requiring Electrical Connection: Listed and classified by Underwriters Laboratories, Inc. acceptable to authority having jurisdiction as suitable for purpose specified.

1.7 DELIVERY, STORAGE, AND HANDLING

- A. Store products in manufacturer's unopened labeled packaging until ready for installation.
- B. Protect materials from exposure to moisture until ready for installation.
- C. Store materials in a dry, ventilated weathertight location.

1.8 PROJECT CONDITIONS

- A. Pre-Installation Conference: Convene a pre-installation conference just prior to commencement of field operations, to establish procedures to maintain optimum working conditions and to coordinate this work with related and adjacent work.

1.9 WARRANTY

**** NOTE TO SPECIFIER ** Warranty for Series 418, 422, 421, 423, 426, 427, 432, 416, 429, 424, 430, 511 and 521 commercial sectional doors is 1 Year and covered under General Conditions of Contract.**

**** NOTE TO SPECIFIER ** Include the following warranty paragraph for Thermacore® Series 850, 591, 592, 593, 594, 596, or 599 commercial sectional doors and model RSX®, RMX®, or RHX® commercial door operators provided together as a System.. Delete if not applicable.**

- A. Warranty: Manufacturer's limited door and operators System warranty for 10 year against delamination of polyurethane foam from steel face and all other components for 3 years or 20,000 cycles, whichever comes first.

**** NOTE TO SPECIFIER ** Include the following warranty paragraph for Thermacore® Series 598 commercial sectional doors and model RSX®, RMX®, or RHX® commercial door operators provided together as a System.. Delete if not applicable.**

- B. Warranty: Manufacturer's limited door and operators System warranty for 8 year against delamination of polyurethane foam from steel face and all other components for 3 years or 20,000 cycles, whichever comes first.

**** NOTE TO SPECIFIER ** Include the following warranty paragraph for 470 Series Insulated Steel Doors. Delete if not applicable.**

- C. Warranty: Manufacturer's limited door and operators System warranty for 10 years against delamination of polystyrene foam from steel face.

PART 2 PRODUCTS

2.1 MANUFACTURERS

- A. Acceptable Manufacturer: Overhead Door Corporation, 2501 S. State Hwy. 121, Suite 200, Lewisville, TX 75067. ASD. Tel. Toll Free: (800) 275-3290. Phone: (469) 549-7100. Fax: (972) 906-1499. Web Site: www.overheaddoor.com. E-mail: arcat@overheaddoor.com.

**** NOTE TO SPECIFIER ** Delete one of the following two paragraphs; coordinate with requirements of Division 1 section on product options and substitutions.**

- B. Substitutions: Not permitted.
- C. Requests for substitutions will be considered in accordance with provisions of Section 01600.

2.2 INSULATED SECTIONAL OVERHEAD DOORS

**** NOTE TO SPECIFIER ** Overhead Door Corporation Model 850 Thermacore® XP Insulated Steel Doors are available up to a maximum width of 40 feet 2 inches and a maximum height of 24 feet 1 inch. Edit as required to suit project requirements.**

- A. Insulated Steel Sectional Overhead Doors: Thermacore AP Model 850 Insulated Steel Doors by Overhead Door Corporation. Units shall have the following characteristics:
1. Door Assembly: Metal/foam/metal sandwich panel construction, with 1-3/4 inch wide PVC thermal break and patents pending weather-tight Dual Barrier tongue-in-groove meeting joints.
 - a. Panel Thickness: 3 inches (76.2 mm).
 - b. Exterior Surface: Microgroove, textured.
 - c. Exterior Steel: .015 inch (.38 mm), hot-dipped galvanized.
 - d. End Stiles: 18 gauge single end stiles provided on doors up to and including 16 feet 2 inches wide; 16 gauge double end stiles provided on doors greater than 16 feet 2 inches wide up to and including 26 feet 2 inches; 14 gauge double end stiles provided on doors greater than 26 feet 2 inches wide. Provide with thermal break to prevent heat/cold transfer.
 - e. Spring Counterbalance: Sized to weight of the door, with a helically wound, oil tempered torsion spring mounted on a steel shaft; cable drum of diecast aluminum with high strength galvanized aircraft cable. Sized with a minimum 7 to 1 safety factor.

**** NOTE TO SPECIFIER ** Select one of the following paragraphs and delete the ones not required. 10,000 cycles are standard.**

- 1) Standard cycle spring: 10,000 cycles.
- 2) High cycle spring: 50,000 cycles.
- 3) High cycle spring: 100,000 cycles.
- f. Insulation: CFC-free and HCFC-free polyurethane, fully encapsulated.
- g. Thermal Values: Calculated R-value of 26; U-value of 0.038.
- h. Installed U-factor: 0.14 Btu/hr/SF degrees F.
- i. Air Infiltration: .09 cfm at 15 mph.
- j. Sound Transmission Rating: STC 22

**** NOTE TO SPECIFIER ** Select the following paragraph if required and delete if not required.**

- k. High-Usage Package: Provide with optional high-usage package.
- l. Partial Glazing of Steel Panels:
 - 1) Standard with black frame:

- (a) 1/2 inch (12.5 mm) Insulated.
 - (b) 1/2 inch Tempered Insulated.
 - (c) 5/8 inch (15.87 mm) Triple-Wall Polycarbonate (clear, bronze, white).
- 2) Color matched frame: white, brown, almond, taupe.
 - (a) 1/2 inch (12.7 mm) Tempered Insulated
 - (b) 1/2 inch (12.7 mm) Insulated.

2. Finish and Color:

**** NOTE TO SPECIFIER ** Select one of the following exterior finish and color paragraphs and delete the ones not required.**

- a. Two coat baked-on polyester:
 - 1) Interior color, white.

**** NOTE TO SPECIFIER ** Select one of the following exterior color paragraphs and delete the ones not required.**

- 2) Exterior color, white.
- 3) Exterior color, brown.
- 4) Exterior color, almond
- 5) Exterior color, taupe

**** NOTE TO SPECIFIER ** Edit the following paragraphs using the applicable building code to determine the actual loading required. Coordinate with the manufacturer for the selection of doors to meet the required criteria.**

3. Wind Load Design: Design as calculated in accordance with applicable code as follows:

- a. Design pressure of _____ lb/sq ft (_____ kPa).

4. Hardware: Galvanized steel hinges and fixtures. Ball bearing rollers with hardened steel races.

5. Lock:

**** NOTE TO SPECIFIER ** Select one of the following paragraphs and delete the ones not required. Interior mounted slide lock is standard.**

- a. Interior mounted slide lock.
- b. Interior mounted slide lock with interlock switch for automatic operator.
- c. Keyed lock.
- d. Keyed lock with interlock switch for automatic operator.

6. Weatherstripping:

**** NOTE TO SPECIFIER ** Select the seals required from the following paragraphs and delete those not required. Bottom seal and head seals are standard, jamb seal and EPDM bottom seal are optional.**

- a. PVC retainer with dual durometer PVC bulb seal.
- b. Factory installed Flexible Header seal.
- c. Optional EPDM bulb seal. Recommended for extreme weather conditions.
- d. Optional Exclusive Advanced Performance Jamb seals recommended for extreme weather conditions.

7. Track: Provide track as recommended by manufacturer to suit loading required and clearances available.

**** NOTE TO SPECIFIER ** Edit the following track size and type paragraphs as required and delete the ones not required.**

- a. Size:
 - 1) 2 inch (51 mm).
 - 2) 3 inch (76 mm).
- b. Type:
 - 1) Standard lift.
 - 2) Vertical lift.
 - 3) High lift.
 - 4) Low headroom.
 - 5) Follow roof slope.

**** NOTE TO SPECIFIER ** Select one of the following Operation paragraphs and delete the ones not required. Manual pull rope is standard.**

8. Manual Operation: Pull rope.
9. Manual Operation: Chain hoist.
10. Electric Motor Operation: Provide UL listed electric operator, size and type as recommended by manufacturer to move door in either direction at not less than 2/3 foot nor more than 1 foot per second. Operator shall meet UL325/2010 requirements for continuous monitoring of safety devices.
 - a. Entrapment Protection: Required for momentary contact, includes radio control operation.

**** NOTE TO SPECIFIER ** Select one of the following protection paragraphs and delete those not required.**

- 1) Pneumatic sensing edge up to 18 feet (5.5 m) wide. Constant contact only complying with UL 325/2010.
 - 2) Electric sensing edge monitored to meet UL 325/2010.
 - 3) Photoelectric sensors monitored to meet UL 325/2010.
- b. Operator Controls:

**** NOTE TO SPECIFIER ** Select one of the following control paragraphs and delete those not required.**

- 1) Push-button operated control stations with open, close, and stop buttons.
- 2) Key operated control stations with open, close, and stop buttons.
- 3) Push-button and key operated control stations with open, close, and stop buttons.

**** NOTE TO SPECIFIER ** Select one of the following mounting paragraphs and delete the one not required.**

- 4) Flush mounting.
- 5) Surface mounting.

**** NOTE TO SPECIFIER ** Select one of the following mounting location paragraphs and delete those not required.**

- 6) Interior location.
- 7) Exterior location.
- 8) Both interior and exterior location.

**** NOTE TO SPECIFIER ** Select special operation features from the following paragraphs and delete those not required. Delete entirely if not required.**

- c. Special Operation:
 - 1) Pull switch.
 - 2) Vehicle detector operation.
 - 3) Radio control operation.
 - 4) Card reader control.
 - 5) Photocell operation.
 - 6) Door timer operation.
 - 7) Commercial light package.
 - 8) Explosion and dust ignition proof control wiring.

**** NOTE TO SPECIFIER ** Overhead Door Corporation 592 Series Thermacore® Insulated Steel Doors are available up to a maximum width of 40 feet 2 inches and a maximum height of 32 feet 1 inch. Edit as required to suit project requirements.**

- B. Insulated Steel Sectional Overhead Doors: 592 Series Thermacore Insulated Steel Doors by Overhead Door Corporation. Units shall have the following characteristics:
 1. Door Assembly: Metal/foam/metal sandwich panel construction, with PVC thermal break and weather-tight ship-lap design meeting joints.
 - a. Panel Thickness: 2 inches (51 mm).
 - b. Exterior Surface: Ribbed, textured.
 - c. Exterior Steel: .015 inch (.38 mm), hot-dipped galvanized.
 - d. End Stiles: 16 gauge with thermal break.

- e. Spring Counterbalance: Sized to weight of the door, with a helically wound, oil tempered torsion spring mounted on a steel shaft; cable drum of diecast aluminum with high strength galvanized aircraft cable. Sized with a minimum 7 to 1 safety factor.

**** NOTE TO SPECIFIER ** Select one of the following paragraphs and delete the ones not required. 10,000 cycles are standard.**

- 1) Standard cycle spring: 10,000 cycles.
- 2) High cycle spring: 25,000 cycles.
- 3) High cycle spring: 50,000 cycles.
- 4) High cycle spring: 75,000 cycles.
- 5) High cycle spring: 100,000 cycles.
- f. Insulation: CFC-free and HCFC-free polyurethane, fully encapsulated.
- g. Thermal Values: R-value of 17.50; U-value of 0.057.
- h. Air Infiltration: 0.08 cfm at 15 mph; 0.08 cfm at 25 mph.

**** NOTE TO SPECIFIER ** The following paragraph is optional. Delete if not required.**

- i. Pass-Door:
 - 1) Provide with optional pass door.

**** NOTE TO SPECIFIER ** The following paragraph is optional. Delete if not required.**

- j. High-Usage Package: Provide with optional high-usage package.

**** NOTE TO SPECIFIER ** Select partial glazing or full glazing from the following glazing paragraphs and edit to select glazing required. Delete those not required or delete entirely if glazing is not required. Partial glazing with two or more sections glazed with 1/4 inch glass or 1/2 inch insulated glass require engineering review by the manufacturer. Full view sash sections are available in widths up to 24 feet 2 inches with 1/8, 1/4 or 1/2 inch insulated glass, up to 30 feet 2 inches with 1/8 inch double strength glass or 1/4 inch acrylic or Lean glazing only. Contact the manufacturer if additional requirements are required.**

- k. Partial Glazing of Steel Panels:
 - 1) 1/8 inch (3 mm) Acrylic glazing.
 - 2) 1/4 inch (6 mm) Acrylic glazing.
 - 3) 1/8 inch (3 mm) Clear Lexan glazing.
 - 4) 1/4 inch (6 mm) Clear Lexan glazing.
 - 5) 1/2 inch (12.5 mm) Clear Lexan Insulated glazing.
 - 6) 1/8 inch (3 mm) Tempered glass.
 - 7) 1/4 inch (6 mm) Tempered glass.
 - 8) 1/2 inch (12.5 mm) Tempered Insulating glass.
 - 9) 1/4 inch (6 mm) Wire glass.
 - 10) 1/8 inch (3 mm) Double Strength glass.
 - 11) 1/2 inch (12.5 mm) Double Strength Insulating glass.
 - 12) 1/8 inch (3 mm) Low E glazing.
 - 13) 1/4 inch (6 mm) Low E glazing.
 - 14) 1/2 inch (12.5 mm) Low E Insulated glazing.
 - 15) 1/8 inch (3 mm) Solar Bronze glazing.
 - 16) 1/4 inch (6 mm) Solar Bronze glazing.
 - 17) 1/2 inch (12.5 mm) Solar Bronze Insulated glazing.
 - 18) 1/8 inch (3 mm) Obscure glazing.
 - 19) 1/4 inch (6 mm) Obscure glazing.
 - 20) 1/2 inch (12.5 mm) Obscure Insulated glazing.
 - 21) 1/4 inch (6 mm) Twin-Wall Polycarbonate (clear, bronze, white).
 - 22) 3/8 inch (9.5 mm) Twin-Wall Polycarbonate (clear, bronze, white).
 - 23) 5/8 inch (15.87 mm) Triple-Wall Polycarbonate (clear, bronze, white).
- l. Full Glazed Aluminum Sash Panels:
 - 1) 1/8 inch (3 mm) Acrylic glazing.
 - 2) 1/4 inch (6 mm) Acrylic glazing.

- 3) 1/8 inch (3 mm) Clear Lexan glazing.
- 4) 1/4 inch (6 mm) Clear Lexan glazing.
- 5) 1/2 inch (12.5 mm) Clear Lexan Insulated glazing.
- 6) 1/8 inch (3 mm) Tempered glass.
- 7) 1/4 inch (6 mm) Tempered glass.
- 8) 1/2 inch (12.5 mm) Tempered Insulating Glass.
- 9) 1/4 inch (6 mm) Wire glass.
- 10) 1/8 inch (3 mm) Double Strength glass.
- 11) 1/2 inch (12.5 mm) Double Strength Insulating Glass.
- 12) 1/8 inch (3 mm) Low E glazing.
- 13) 1/4 inch (6 mm) Low E glazing.
- 14) 1/2 inch (12.5 mm) Low E Insulated glazing.
- 15) 1/8 inch (3 mm) Solar Bronze glazing.
- 16) 1/4 inch (6 mm) Solar Bronze glazing.
- 17) 1/2 inch (12.5 mm) Solar Bronze Insulated glazing.
- 18) 1/8 inch (3 mm) Obscure glazing.
- 19) 1/4 inch (6 mm) Obscure glazing.
- 20) 1/2 inch (12.5 mm) Obscure Insulated glazing.
- 21) 1/4 inch (6 mm) Twin-Wall Polycarbonate (clear, bronze, white).
- 22) 3/8 inch (9.5 mm) Twin-Wall Polycarbonate (clear, bronze, white).
- 23) 5/8 inch (15.87 mm) Triple-Wall Polycarbonate (clear, bronze, white).

2. Finish and Color:

**** NOTE TO SPECIFIER ** Select one of the following exterior finish and color paragraphs and delete the ones not required. Note that the Trinar finish is only available on Series 591, 592, 593 and 594 doors.**

- a. Two coat baked-on polyester:
 - 1) Interior color, white.

**** NOTE TO SPECIFIER ** Select one of the following exterior color paragraphs and delete the ones not required.**

- 2) Exterior color, white.
- 3) Exterior color, brown.
- 4) Exterior color, tan.
- 5) Exterior color, gray.

- b. Baked-on Trinar polyvinylidene fluoride high performance coating:

**** NOTE TO SPECIFIER ** Select one of the following exterior color paragraphs and delete the ones not required.**

- 1) Exterior color, white.
- 2) Exterior color, brown.
- 3) Exterior color, beige.

**** NOTE TO SPECIFIER ** Edit the following paragraphs using the applicable building code to determine the actual loading required. Coordinate with the manufacturer for the selection of doors to meet the required criteria.**

3. Wind Load Design: Design as calculated in accordance with applicable code as follows:

- a. Design pressure of _____ lb/sq ft (_____ kPa).

4. Hardware: Galvanized steel hinges and fixtures. Ball bearing rollers with hardened steel races.

5. Lock:

**** NOTE TO SPECIFIER ** Select one of the following paragraphs and delete the ones not required. Interior mounted slide lock is standard.**

- a. Interior mounted slide lock.
- b. Interior mounted slide lock with interlock switch for automatic operator.
- c. Keyed lock.
- d. Keyed lock with interlock switch for automatic operator.

**** NOTE TO SPECIFIER ** Select the following paragraph for use with knock-out lower door sections only and delete the ones above.**

- e. Locking mechanism designed to maintain security for exterior while permitting break out when impacted from the inside.
- 6. Weatherstripping:

**** NOTE TO SPECIFIER ** Select the seals required from the following paragraphs and delete those not required. Bottom seal is standard, jamb seals and head seals are optional.**

- a. EPDM bulb-type strip at bottom section.
- b. Flexible Jamb seals.
- c. Flexible Header seal.
- 7. Track: Provide track as recommended by manufacturer to suit loading required and clearances available.

**** NOTE TO SPECIFIER ** Edit the following track size and type paragraphs as required and delete the ones not required.**

- a. Size:
 - 1) 2 inch (51 mm).
 - 2) 3 inch (76 mm).
- b. Type:
 - 1) Standard lift.
 - 2) Vertical lift.
 - 3) High lift.
 - 4) Low headroom.
 - 5) Follow roof slope.

**** NOTE TO SPECIFIER ** Select one of the following Operation paragraphs and delete the ones not required. Manual pull rope is standard.**

- 8. Manual Operation: Pull rope.
- 9. Manual Operation: Chain hoist.
- 10. Electric Motor Operation: Provide UL listed electric operator, size and type as recommended by manufacturer to move door in either direction at not less than 2/3 foot nor more than 1 foot per second. Operator shall meet UL325/2010 requirements for continuous monitoring of safety devices.
 - a. Entrapment Protection: Required for momentary contact, includes radio control operation.

**** NOTE TO SPECIFIER ** Select one of the following protection paragraphs and delete those not required.**

- 1) Pneumatic sensing edge up to 18 feet (5.5 m) wide. Constant contact only complying with UL 325/2010.
- 2) Electric sensing edge monitored to meet UL 325/2010.
- 3) Photoelectric sensors monitored to meet UL 325/2010.
- b. Operator Controls:

**** NOTE TO SPECIFIER ** Select one of the following control paragraphs and delete those not required.**

- 1) Push-button operated control stations with open, close, and stop buttons.
- 2) Key operated control stations with open, close, and stop buttons.
- 3) Push-button and key operated control stations with open, close, and stop buttons.

**** NOTE TO SPECIFIER ** Select one of the following mounting paragraphs and delete the one not required.**

- 4) Flush mounting.
- 5) Surface mounting.

**** NOTE TO SPECIFIER ** Select one of the following mounting location paragraphs and delete those not required.**

- 6) Interior location.
- 7) Exterior location.
- 8) Both interior and exterior location.

**** NOTE TO SPECIFIER ** Select special operation features from the following paragraphs and delete those not required. Delete entirely if not required.**

- c. Special Operation:
 - 1) Pull switch.
 - 2) Vehicle detector operation.
 - 3) Radio control operation.
 - 4) Card reader control.
 - 5) Photocell operation.
 - 6) Door timer operation.
 - 7) Commercial light package.
 - 8) Explosion and dust ignition proof control wiring.

- C. Insulated Steel Sectional Overhead Doors: 599 Series Thermacore Insulated Steel Doors by Overhead Door Corporation. Units shall have the following characteristics:
 - 1. Door Assembly: Metal/foam/metal sandwich panel construction, with PVC thermal break and weather-tight ship-lap design meeting joints.
 - a. Panel Thickness: 2 inches (51 mm).
 - b. Exterior Surface: Flush, textured.
 - c. Exterior Steel: .015 inch (.38 mm), hot-dipped galvanized.
 - d. End Stiles: 16 gauge with thermal break.
 - e. Spring Counterbalance: Sized to weight of the door, with a helically wound, oil tempered torsion spring mounted on a steel shaft; cable drum of diecast aluminum with high strength galvanized aircraft cable. Sized with a minimum 7 to 1 safety factor.

**** NOTE TO SPECIFIER ** Select one of the following paragraphs and delete the ones not required. 10,000 cycles are standard.**

- 1) Standard cycle spring: 10,000 cycles.
- 2) High cycle spring: 25,000 cycles.
- 3) High cycle spring: 50,000 cycles.
- 4) High cycle spring: 75,000 cycles.
- 5) High cycle spring: 100,000 cycles.
- f. Insulation: CFC-free and HCFC-free polyurethane, fully encapsulated.
- g. Thermal Values: R-value of 17.50; U-value of 0.057.
- h. Air Infiltration: 0.08 cfm at 15 mph; 0.08 cfm at 25 mph.
- i. Pass-Door: Provide with optional pass door.

**** NOTE TO SPECIFIER ** The following paragraph is optional. Delete if not required.**

**** NOTE TO SPECIFIER ** The following paragraph is optional. Delete if not required.**

**** NOTE TO SPECIFIER ** Select partial glazing or full glazing from the following glazing paragraphs and edit to select glazing required. Delete those not required or delete entirely if glazing is not required. Partial glazing with two or more sections glazed with 1/4 inch glass or 1/2 inch insulated glass require engineering review by the manufacturer. Full view sash sections are available in widths up to 24 feet 2 inches with 1/8, 1/4 or 1/2 inch insulated glass, up to 30 feet 2 inches with 1/8 inch double strength glass or 1/4 inch acrylic or Lean glazing only. Contact the manufacturer if additional requirements are required.**

- k. Partial Glazing of Steel Panels:
 - 1) 1/8 inch (3 mm) Acrylic glazing.
 - 2) 1/4 inch (6 mm) Acrylic glazing.
 - 3) 1/8 inch (3 mm) Clear Lexan glazing.
 - 4) 1/4 inch (6 mm) Clear Lexan glazing.
 - 5) 1/2 inch (12.5 mm) Clear Lexan Insulated glazing.
 - 6) 1/8 inch (3 mm) Tempered glass.
 - 7) 1/4 inch (6 mm) Tempered glass.
 - 8) 1/2 inch (12.5 mm) Tempered Insulating Glass.
 - 9) 1/4 inch (6 mm) Wire glass.

- 10) 1/8 inch (3 mm) Double Strength glass.
- 11) 1/2 inch (12.5 mm) Double Strength Insulating Glass.
- 12) 1/8 inch (3 mm) Low E glazing.
- 13) 1/4 inch (6 mm) Low E glazing.
- 14) 1/2 inch (12.5 mm) Low E Insulated glazing.
- 15) 1/8 inch (3 mm) Solar Bronze glazing.
- 16) 1/4 inch (6 mm) Solar Bronze glazing.
- 17) 1/2 inch (12.5 mm) Solar Bronze Insulated glazing.
- 18) 1/8 inch (3 mm) Obscure glazing.
- 19) 1/4 inch (6 mm) Obscure glazing.
- 20) 1/2 inch (12.5 mm) Obscure Insulated glazing.
- 21) 1/4 inch (6 mm) Twin-Wall Polycarbonate (clear, bronze, white).
- 22) 3/8 inch (9.5 mm) Twin-Wall Polycarbonate (clear, bronze, white).
- 23) 5/8 inch (15.87 mm) Triple-Wall Polycarbonate (clear, bronze, white).

I. Full Glazed Aluminum Sash Panels:

- 1) 1/8 inch (3 mm) Acrylic glazing.
- 2) 1/4 inch (6 mm) Acrylic glazing.
- 3) 1/8 inch (3 mm) Clear Lexan glazing.
- 4) 1/4 inch (6 mm) Clear Lexan glazing.
- 5) 1/2 inch (12.5 mm) Clear Lexan Insulated glazing.
- 6) 1/8 inch (3 mm) Tempered glass.
- 7) 1/4 inch (6 mm) Tempered glass.
- 8) 1/2 inch (12.5 mm) Tempered Insulating Glass.
- 9) 1/4 inch (6 mm) Wire glass.
- 10) 1/8 inch (3 mm) Double Strength glass.
- 11) 1/2 inch (12.5 mm) Double Strength Insulating Glass.
- 12) 1/8 inch (3 mm) Low E glazing.
- 13) 1/4 inch (6 mm) Low E glazing.
- 14) 1/2 inch (12.5 mm) Low E Insulated glazing.
- 15) 1/8 inch (3 mm) Solar Bronze glazing.
- 16) 1/4 inch (6 mm) Solar Bronze glazing.
- 17) 1/2 inch (12.5 mm) Solar Bronze Insulated glazing.
- 18) 1/8 inch (3 mm) Obscure glazing.
- 19) 1/4 inch (6 mm) Obscure glazing.
- 20) 1/2 inch (12.5 mm) Obscure Insulated glazing.
- 21) 1/4 inch (6 mm) Twin-Wall Polycarbonate (clear, bronze, white).
- 22) 3/8 inch (9.5 mm) Twin-Wall Polycarbonate (clear, bronze, white).
- 23) 5/8 inch (15.87 mm) Triple-Wall Polycarbonate (clear, bronze, white).

2. Finish and Color: Two coat baked-on polyester.

- a. Interior color, white.
- b. Exterior color, white.

**** NOTE TO SPECIFIER ** Edit the following paragraphs using the applicable building code to determine the actual loading required. Coordinate with the manufacturer for the selection of doors to meet the required criteria.**

3. Wind Load Design: Design as calculated in accordance with applicable code as follows:
 - a. Design pressure of _____ lb/sq ft (_____ kPa).
4. Hardware: Galvanized steel hinges and fixtures. Ball bearing rollers with hardened steel races.
5. Lock:

**** NOTE TO SPECIFIER ** Select one of the following paragraphs and delete the ones not required. Interior mounted slide lock is standard.**

- a. Interior mounted slide lock.
- b. Interior mounted slide lock with interlock switch for automatic operator.
- c. Keyed lock.
- d. Keyed lock with interlock switch for automatic operator.

**** NOTE TO SPECIFIER ** Select the following paragraph for use with knock-out lower door sections only and delete the ones above.**

- e. Locking mechanism designed to maintain security for exterior while permitting break out when impacted from the inside.

6. Weatherstripping:

**** NOTE TO SPECIFIER ** Select the seals required from the following paragraphs and delete those not required. Bottom seal is standard, jamb seals and head seals are optional.**

- a. EPDM bulb-type strip at bottom section.
- b. Flexible Jamb seals.
- c. Flexible Header seal.

7. Track: Provide track as recommended by manufacturer to suit loading required and clearances available.

**** NOTE TO SPECIFIER ** Edit the following track size and type paragraphs as required and delete the ones not required.**

- a. Size:
 - 1) 2 inch (51 mm).
 - 2) 3 inch (76 mm).
- b. Type:
 - 1) Standard lift.
 - 2) Vertical lift.
 - 3) High lift.
 - 4) Low headroom.
 - 5) Follow roof slope.

**** NOTE TO SPECIFIER ** Select one of the following Operation paragraphs and delete the ones not required. Manual pull rope is standard.**

- 8. Manual Operation: Pull rope.
- 9. Manual Operation: Chain hoist.
- 10. Electric Motor Operation: Provide UL listed electric operator, size and type as recommended by manufacturer to move door in either direction at not less than 2/3 foot nor more than 1 foot per second. Operator shall meet UL325/2010 requirements for continuous monitoring of safety devices.
 - a. Entrapment Protection: Required for momentary contact, includes radio control operation.

**** NOTE TO SPECIFIER ** Select one of the following protection paragraphs and delete those not required.**

- 1) Pneumatic sensing edge up to 18 feet (5.5 m) wide. Constant contact only complying with UL 325/2010.
- 2) Electric sensing edge monitored to meet UL 325/2010.
- 3) Photoelectric sensors monitored to meet UL 325/2010.

b. Operator Controls:

**** NOTE TO SPECIFIER ** Select one of the following control paragraphs and delete those not required.**

- 1) Push-button operated control stations with open, close, and stop buttons.
- 2) Key operated control stations with open, close, and stop buttons.
- 3) Push-button and key operated control stations with open, close, and stop buttons.

**** NOTE TO SPECIFIER ** Select one of the following mounting paragraphs and delete the one not required.**

- 4) Flush mounting.
- 5) Surface mounting.

**** NOTE TO SPECIFIER ** Select one of the following mounting location paragraphs and delete those not required.**

- 6) Interior location.
- 7) Exterior location.
- 8) Both interior and exterior location.

**** NOTE TO SPECIFIER ** Select special operation features from the following paragraphs and delete those not required. Delete entirely if not required.**

- c. Special Operation:
 - 1) Pull switch.
 - 2) Vehicle detector operation.
 - 3) Radio control operation.
 - 4) Card reader control.
 - 5) Photocell operation.
 - 6) Door timer operation.
 - 7) Commercial light package.
 - 8) Explosion and dust ignition proof control wiring.

**** NOTE TO SPECIFIER ** Overhead Door Corporation 591 Series Thermacore® Insulated Steel Doors are available up to a maximum width of 35 feet 2 inches and a maximum height of 24 feet 1 inch. Edit as required to suit project requirements.**

- D. Insulated Steel Sectional Overhead Doors: 591 Series Thermacore Insulated Steel Doors by Overhead Door Corporation. Units shall have the following characteristics:
 1. Door Assembly: Metal/foam/metal sandwich panel construction, with PVC thermal break and weather-tight ship-lap design meeting joints.
 - a. Panel Thickness: 1-5/8 inches (41 mm).
 - b. Exterior Surface: Ribbed, textured.
 - c. Exterior Steel: .015 inch (.38 mm), hot-dipped galvanized.
 - d. End Stiles: 16 gauge.
 - e. Spring Counterbalance: Sized to weight of the door, with a helically wound, oil tempered torsion spring mounted on a steel shaft; cable drum of diecast aluminum with high strength galvanized aircraft cable. Sized with a minimum 7 to 1 safety factor.

**** NOTE TO SPECIFIER ** Select one of the following paragraphs and delete the ones not required. 10,000 cycles are standard.**

- 1) Standard cycle spring: 10,000 cycles.
- 2) High cycle spring: 25,000 cycles.
- 3) High cycle spring: 50,000 cycles.
- 4) High cycle spring: 75,000 cycles.
- 5) High cycle spring: 100,000 cycles.
- f. Insulation: CFC-free and HCFC-free polyurethane, fully encapsulated.
- g. Thermal Values: R-value of 14.86; U-value of 0.067.
- h. Air Infiltration: 0.08 cfm at 15 mph; 0.08 cfm at 25 mph.

**** NOTE TO SPECIFIER ** The following paragraph is optional. Delete if not required.**

- i. Pass-Door: Provide with optional pass door.

**** NOTE TO SPECIFIER ** The following paragraph is optional. Delete if not required.**

- j. High-Usage Package: Provide with optional high-usage package.

**** NOTE TO SPECIFIER ** Select partial glazing or full glazing from the following glazing paragraphs and edit to select glazing required. Delete those not required or delete entirely if glazing is not required. Partial glazing with two or more sections glazed with 1/4 inch glass or 1/2 inch insulated glass require engineering review by the manufacturer. Full view sash sections are available in widths up to 24 feet 2 inches with 1/8, 1/4 or 1/2 inch insulated glass, up to 30 feet 2 inches with 1/8 inch double strength glass or 1/4 inch acrylic or Lean glazing only. Contact the manufacturer if additional requirements are required.**

- k. Partial Glazing of Steel Panels:
 - 1) 1/8 inch (3 mm) Acrylic glazing.

- 2) 1/4 inch (6 mm) Acrylic glazing.
 - 3) 1/8 inch (3 mm) Clear Lexan glazing.
 - 4) 1/4 inch (6 mm) Clear Lexan glazing.
 - 5) 1/2 inch (12.5 mm) Clear Lexan Insulated glazing.
 - 6) 1/8 inch (3 mm) Tempered glass.
 - 7) 1/4 inch (6 mm) Tempered glass.
 - 8) 1/2 inch (12.5 mm) Tempered Insulating Glass.
 - 9) 1/4 inch (6 mm) Wire glass.
 - 10) 1/8 inch (3 mm) Double Strength glass.
 - 11) 1/2 inch (12.5 mm) Double Strength Insulating Glass.
 - 12) 1/8 inch (3 mm) Low E glazing.
 - 13) 1/4 inch (6 mm) Low E glazing.
 - 14) 1/2 inch (12.5 mm) Low E Insulated glazing.
 - 15) 1/8 inch (3 mm) Solar Bronze glazing.
 - 16) 1/4 inch (6 mm) Solar Bronze glazing.
 - 17) 1/2 inch (12.5 mm) Solar Bronze Insulated glazing.
 - 18) 1/8 inch (3 mm) Obscure glazing.
 - 19) 1/4 inch (6 mm) Obscure glazing.
 - 20) 1/2 inch (12.5 mm) Obscure Insulated glazing.
 - 21) 1/4 inch (6 mm) Twin-Wall Polycarbonate (clear, bronze, white).
 - 22) 3/8 inch (9.5 mm) Twin-Wall Polycarbonate (clear, bronze, white).
 - 23) 5/8 inch (15.87 mm) Triple-Wall Polycarbonate (clear, bronze, white).
- i. Full Glazed Aluminum Sash Panels:
- 1) 1/8 inch (3 mm) Acrylic glazing.
 - 2) 1/4 inch (6 mm) Acrylic glazing.
 - 3) 1/8 inch (3 mm) Clear Lexan glazing.
 - 4) 1/4 inch (6 mm) Clear Lexan glazing.
 - 5) 1/2 inch (12.5 mm) Clear Lexan Insulated glazing.
 - 6) 1/8 inch (3 mm) Tempered glass.
 - 7) 1/4 inch (6 mm) Tempered glass.
 - 8) 1/2 inch (12.5 mm) Tempered Insulating Glass.
 - 9) 1/4 inch (6 mm) Wire glass.
 - 10) 1/8 inch (3 mm) Double Strength glass.
 - 11) 1/2 inch (12.5 mm) Double Strength Insulating Glass.
 - 12) 1/8 inch (3 mm) Low E glazing.
 - 13) 1/4 inch (6 mm) Low E glazing.
 - 14) 1/2 inch (12.5 mm) Low E Insulated glazing.
 - 15) 1/8 inch (3 mm) Solar Bronze glazing.
 - 16) 1/4 inch (6 mm) Solar Bronze glazing.
 - 17) 1/2 inch (12.5 mm) Solar Bronze Insulated glazing.
 - 18) 1/8 inch (3 mm) Obscure glazing.
 - 19) 1/4 inch (6 mm) Obscure glazing.
 - 20) 1/2 inch (12.5 mm) Obscure Insulated glazing.
 - 21) 1/4 inch (6 mm) Twin-Wall Polycarbonate (clear, bronze, white).
 - 22) 3/8 inch (9.5 mm) Twin-Wall Polycarbonate (clear, bronze, white).
 - 23) 5/8 inch (15.87 mm) Triple-Wall Polycarbonate (clear, bronze, white).

2. Finish and Color:

**** NOTE TO SPECIFIER ** Select one of the following exterior finish and color paragraphs and delete the ones not required.**

- a. Two coat baked-on polyester:
 - 1) Interior color, white.

**** NOTE TO SPECIFIER ** Select one of the following exterior color paragraphs and delete the ones not required.**

- 2) Exterior color, white.
- 3) Exterior color, brown.
- 4) Exterior color, tan.
- 5) Exterior color, gray.

b. Baked-on Trinar polyvinylidene fluoride high performance coating:

**** NOTE TO SPECIFIER ** Select one of the following exterior color paragraphs and delete the ones not required.**

- 1) Exterior color, white.
- 2) Exterior color, brown.
- 3) Exterior color, beige.

**** NOTE TO SPECIFIER ** Edit the following paragraphs using the applicable building code to determine the actual loading required. Coordinate with the manufacturer for the selection of doors to meet the required criteria.**

3. Wind Load Design: Design as calculated in accordance with applicable code as follows:
 - a. Design pressure of _____ lb/sq ft (_____ kPa).
4. Hardware: Galvanized steel hinges and fixtures. Ball bearing rollers with hardened steel races.
5. Lock:

**** NOTE TO SPECIFIER ** Select one of the following paragraphs and delete the ones not required. Interior mounted slide lock is standard.**

- a. Interior mounted slide lock.
- b. Interior mounted slide lock with interlock switch for automatic operator.
- c. Keyed lock.
- d. Keyed lock with interlock switch for automatic operator.

**** NOTE TO SPECIFIER ** Select the following paragraph for use with knock-out lower door sections only and delete the ones above.**

- e. Locking mechanism designed to maintain security for exterior while permitting break out when impacted from the inside.

6. Weatherstripping:

**** NOTE TO SPECIFIER ** Select the seals required from the following paragraphs and delete those not required. Bottom seal is standard, jamb seals and head seals are optional.**

- a. EPDM bulb-type strip at bottom section.
 - b. Flexible Jamb seals.
 - c. Flexible Header seal.
7. Track: Provide track as recommended by manufacturer to suit loading required and clearances available.

**** NOTE TO SPECIFIER ** Edit the following track size and type paragraphs as required and delete the ones not required.**

- a. Size:
 - 1) 2 inch (51 mm).
 - 2) 3 inch (76 mm).
- b. Type:
 - 1) Standard lift.
 - 2) Vertical lift.
 - 3) High lift.
 - 4) Low headroom.
 - 5) Follow roof slope.

**** NOTE TO SPECIFIER ** Select one of the following Operation paragraphs and delete the ones not required. Manual pull rope is standard.**

8. Manual Operation: Pull rope.
9. Manual Operation: Chain hoist.
10. Electric Motor Operation: Provide UL listed electric operator, size and type as recommended by manufacturer to move door in either direction at not less

than 2/3 foot nor more than 1 foot per second. Operator shall meet UL325/2010 requirements for continuous monitoring of safety devices.

- a. Entrapment Protection: Required for momentary contact, includes radio control operation.

**** NOTE TO SPECIFIER ** Select one of the following protection paragraphs and delete those not required.**

- 1) Pneumatic sensing edge up to 18 feet (5.5 m) wide. Constant contact only complying with UL 325/2010.
- 2) Electric sensing edge monitored to meet UL 325/2010.
- 3) Photoelectric sensors monitored to meet UL 325/2010.

- b. Operator Controls:

**** NOTE TO SPECIFIER ** Select one of the following control paragraphs and delete those not required.**

- 1) Push-button operated control stations with open, close, and stop buttons.
- 2) Key operated control stations with open, close, and stop buttons.
- 3) Push-button and key operated control stations with open, close, and stop buttons.

**** NOTE TO SPECIFIER ** Select one of the following mounting paragraphs and delete the one not required.**

- 4) Flush mounting.
- 5) Surface mounting.

**** NOTE TO SPECIFIER ** Select one of the following mounting location paragraphs and delete those not required.**

- 6) Interior location.
- 7) Exterior location.
- 8) Both interior and exterior location.

**** NOTE TO SPECIFIER ** Select special operation features from the following paragraphs and delete those not required. Delete entirely if not required.**

- c. Special Operation:

- 1) Pull switch.
- 2) Vehicle detector operation.
- 3) Radio control operation.
- 4) Card reader control.
- 5) Photocell operation.
- 6) Door timer operation.
- 7) Commercial light package.
- 8) Explosion and dust ignition proof control wiring.

**** NOTE TO SPECIFIER ** Overhead Door Corporation 596 Series Thermacore® Insulated Steel Doors are available up to a maximum width of 36 feet 2 inches and a maximum height of 24 feet 1 inch. Edit as required to suit project requirements.**

- E. Insulated Steel Sectional Overhead Doors: 596 Series Thermacore Insulated Steel Doors by Overhead Door Corporation. Units shall have the following characteristics:

1. Door Assembly: Metal/foam/metal sandwich panel construction, with PVC thermal break and weather-tight ship-lap design meeting joints.
 - a. Panel Thickness: 2 inches (51 mm).
 - b. Exterior Surface: Flush, textured.
 - c. Exterior Steel: 20 gauge, galvanized.
 - d. End Stiles: 16 gauge with thermal break.
 - e. Spring Counterbalance: Sized to weight of the door, with a helically wound, oil tempered torsion spring mounted on a steel shaft; cable drum of diecast aluminum with high strength galvanized aircraft cable. Sized with a minimum 7 to 1 safety factor.

**** NOTE TO SPECIFIER ** Select one of the following paragraphs and delete the ones not required. 10,000 cycles are standard.**

- 1) Standard cycle spring: 10,000 cycles.
 - 2) High cycle spring: 25,000 cycles.
 - 3) High cycle spring: 50,000 cycles.
 - 4) High cycle spring: 75,000 cycles.
 - 5) High cycle spring: 100,000 cycles.
 - f. Insulation: CFC-free and HCFC-free polyurethane, fully encapsulated.
 - g. Thermal Values: R-value of 17.40; U-value of 0.057.
 - h. Air Infiltration: 0.08 cfm at 15 mph; 0.08 cfm at 25 mph.
 - i. Sound Transmission: Class 26.
- ** NOTE TO SPECIFIER ** The following paragraph is optional. Delete if not required.**
- j. Pass-Door: Provide with optional pass door.
- ** NOTE TO SPECIFIER ** The following paragraph is optional. Delete if not required.**
- k. High-Usage Package: Provide with optional high-usage package.
- ** NOTE TO SPECIFIER ** Select partial glazing or full glazing from the following glazing paragraphs and edit to select glazing required. Delete those not required or delete entirely if glazing is not required. Partial glazing with two or more sections glazed with 1/4 inch glass or 1/2 inch insulated glass require engineering review by the manufacturer. Full view sash sections are available in widths up to 24 feet 2 inches with 1/8, 1/4 or 1/2 inch insulated glass, up to 30 feet 2 inches with 1/8 inch double strength glass or 1/4 inch acrylic or Lean glazing only. Contact the manufacturer if additional requirements are required.**
- l. Partial Glazing of Steel Panels:
 - 1) 1/8 inch (3 mm) Acrylic glazing.
 - 2) 1/4 inch (6 mm) Acrylic glazing.
 - 3) 1/8 inch (3 mm) Clear Lexan glazing.
 - 4) 1/4 inch (6 mm) Clear Lexan glazing.
 - 5) 1/2 inch (12.5 mm) Clear Lexan Insulated glazing.
 - 6) 1/8 inch (3 mm) Tempered glass.
 - 7) 1/4 inch (6 mm) Tempered glass.
 - 8) 1/2 inch (12.5 mm) Tempered Insulating Glass.
 - 9) 1/4 inch (6 mm) Wire glass.
 - 10) 1/8 inch (3 mm) Double Strength glass.
 - 11) 1/2 inch (12.5 mm) Double Strength Insulating Glass.
 - 12) 1/8 inch (3 mm) Low E glazing.
 - 13) 1/4 inch (6 mm) Low E glazing.
 - 14) 1/2 inch (12.5 mm) Low E Insulated glazing.
 - 15) 1/8 inch (3 mm) Solar Bronze glazing.
 - 16) 1/4 inch (6 mm) Solar Bronze glazing.
 - 17) 1/2 inch (12.5 mm) Solar Bronze Insulated glazing.
 - 18) 1/8 inch (3 mm) Obscure glazing.
 - 19) 1/4 inch (6 mm) Obscure glazing.
 - 20) 1/2 inch (12.5 mm) Obscure Insulated glazing.
 - 21) 1/4 inch (6 mm) Twin-Wall Polycarbonate (clear, bronze, white).
 - 22) 3/8 inch (9.5 mm) Twin-Wall Polycarbonate (clear, bronze, white).
 - 23) 5/8 inch (15.87 mm) Triple-Wall Polycarbonate (clear, bronze, white).
 - m. Full Glazed Aluminum Sash Panels:
 - 1) 1/8 inch (3 mm) Acrylic glazing.
 - 2) 1/4 inch (6 mm) Acrylic glazing.
 - 3) 1/8 inch (3 mm) Clear Lexan glazing.
 - 4) 1/4 inch (6 mm) Clear Lexan glazing.
 - 5) 1/2 inch (12.5 mm) Clear Lexan Insulated glazing.
 - 6) 1/8 inch (3 mm) Tempered glass.
 - 7) 1/4 inch (6 mm) Tempered glass.
 - 8) 1/2 inch (12.5 mm) Tempered Insulating Glass.

- 9) 1/4 inch (6 mm) Wire glass.
- 10) 1/8 inch (3 mm) Double Strength glass.
- 11) 1/2 inch (12.5 mm) Double Strength Insulating Glass.
- 12) 1/8 inch (3 mm) Low E glazing.
- 13) 1/4 inch (6 mm) Low E glazing.
- 14) 1/2 inch (12.5 mm) Low E Insulated glazing.
- 15) 1/8 inch (3 mm) Solar Bronze glazing.
- 16) 1/4 inch (6 mm) Solar Bronze glazing.
- 17) 1/2 inch (12.5 mm) Solar Bronze Insulated glazing.
- 18) 1/8 inch (3 mm) Obscure glazing.
- 19) 1/4 inch (6 mm) Obscure glazing.
- 20) 1/2 inch (12.5 mm) Obscure Insulated glazing.
- 21) 1/4 inch (6 mm) Twin-Wall Polycarbonate (clear, bronze, white).
- 22) 3/8 inch (9.5 mm) Twin-Wall Polycarbonate (clear, bronze, white).
- 23) 5/8 inch (15.87 mm) Triple-Wall Polycarbonate (clear, bronze, white).

2. Finish and Color:

**** NOTE TO SPECIFIER ** Select one of the following exterior finish and color paragraphs and delete the ones not required.**

- a. Two coat baked-on polyester:
 - 1) Interior color, white.

**** NOTE TO SPECIFIER ** Select one of the following exterior color paragraphs and delete the ones not required.**

- 2) Exterior color, white.
- 3) Exterior color, brown.
- 4) Exterior color, tan.
- 5) Exterior color, gray.

**** NOTE TO SPECIFIER ** Edit the following paragraphs using the applicable building code to determine the actual loading required. Coordinate with the manufacturer for the selection of doors to meet the required criteria.**

3. Wind Load Design: Design as calculated in accordance with applicable code as follows:
 - a. Design pressure of _____ lb/sq ft (_____ kPa).
4. Hardware: Galvanized steel hinges and fixtures. Ball bearing rollers with hardened steel races.
5. Lock:

**** NOTE TO SPECIFIER ** Select one of the following paragraphs and delete the ones not required. Interior mounted slide lock is standard.**

- a. Interior mounted slide lock.
- b. Interior mounted slide lock with interlock switch for automatic operator.
- c. Keyed lock.
- d. Keyed lock with interlock switch for automatic operator.

**** NOTE TO SPECIFIER ** Select the following paragraph for use with knock-out lower door sections only and delete the ones above.**

- e. Locking mechanism designed to maintain security for exterior while permitting break out when impacted from the inside.

6. Weatherstripping:

**** NOTE TO SPECIFIER ** Select the seals required from the following paragraphs and delete those not required. Bottom seal is standard, jamb seals and head seals are optional.**

- a. EPDM bulb-type strip at bottom section.
- b. Flexible Jamb seals.
- c. Flexible Header seal.

7. Track: Provide track as recommended by manufacturer to suit loading required and clearances available.

**** NOTE TO SPECIFIER ** Edit the following track size and type paragraphs as required and delete the ones not required.**

- a. Size:
 - 1) 2 inch (51 mm).
 - 2) 3 inch (76 mm).
- b. Type:
 - 1) Standard lift.
 - 2) Vertical lift.
 - 3) High lift.
 - 4) Low headroom.
 - 5) Follow roof slope.

**** NOTE TO SPECIFIER ** Select one of the following Operation paragraphs and delete the ones not required. Manual pull rope is standard.**

- 8. Manual Operation: Pull rope.
- 9. Manual Operation: Chain hoist.
- 10. Electric Motor Operation: Provide UL listed electric operator, size and type as recommended by manufacturer to move door in either direction at not less than 2/3 foot nor more than 1 foot per second. Operator shall meet UL325/2010 requirements for continuous monitoring of safety devices.
 - a. Entrapment Protection: Required for momentary contact, includes radio control operation.

**** NOTE TO SPECIFIER ** Select one of the following protection paragraphs and delete those not required.**

- 1) Pneumatic sensing edge up to 18 feet (5.5 m) wide. Constant contact only complying with UL 325/2010.
- 2) Electric sensing edge monitored to meet UL 325/2010.
- 3) Photoelectric sensors monitored to meet UL 325/2010.

- b. Operator Controls:

**** NOTE TO SPECIFIER ** Select one of the following control paragraphs and delete those not required.**

- 1) Push-button operated control stations with open, close, and stop buttons.
- 2) Key operated control stations with open, close, and stop buttons.
- 3) Push-button and key operated control stations with open, close, and stop buttons.

**** NOTE TO SPECIFIER ** Select one of the following mounting paragraphs and delete the one not required.**

- 4) Flush mounting.
- 5) Surface mounting.

**** NOTE TO SPECIFIER ** Select one of the following mounting location paragraphs and delete those not required.**

- 6) Interior location.
- 7) Exterior location.
- 8) Both interior and exterior location.

**** NOTE TO SPECIFIER ** Select special operation features from the following paragraphs and delete those not required. Delete entirely if not required.**

- c. Special Operation:
 - 1) Pull switch.
 - 2) Vehicle detector operation.
 - 3) Radio control operation.
 - 4) Card reader control.
 - 5) Photocell operation.
 - 6) Door timer operation.
 - 7) Commercial light package.
 - 8) Explosion and dust ignition proof control wiring.

**** NOTE TO SPECIFIER ** Overhead Door Corporation 594 Series Thermacore® Insulated Steel Doors are available up to a maximum width of 20 feet 2 inches and a maximum height of 16 feet 1 inch. Edit as required to suit project requirements.**

- F. Insulated Steel Sectional Overhead Doors: 594 Series Thermacore Insulated Steel Doors by Overhead Door Corporation. Units shall have the following characteristics:
 - 1. Door Assembly: Metal/foam/metal sandwich panel construction, with hot melt thermal break and weather-tight ship-lap design meeting joints.
 - a. Panel Thickness: 1-3/8 inches (35 mm).
 - b. Exterior Surface: Raised panel, textured woodgrain surface.
 - c. Exterior Steel: .012 inch (.30 mm), hot-dip galvanized.
 - d. End Stiles: 20 gauge.
 - e. Spring Counterbalance: Sized to weight of the door, with a helically wound, oil tempered torsion spring mounted on a steel shaft; cable drum of diecast aluminum with high strength galvanized aircraft cable. Sized with a minimum 7 to 1 safety factor.

**** NOTE TO SPECIFIER ** Select one of the following paragraphs and delete the ones not required. 10,000 cycles are standard.**

- 1) Standard cycle spring: 10,000 cycles.
- 2) High cycle spring: 25,000 cycles.
- 3) High cycle spring: 50,000 cycles.
- 4) High cycle spring: 75,000 cycles.
- 5) High cycle spring: 100,000 cycles.
- f. Insulation: CFC-free and HCFC-free polyurethane, fully encapsulated.
- g. Thermal Values: R-value of 12.76; U-value of 0.078.
- h. Air Infiltration: 0.08 cfm at 15 mph; 0.15 cfm at 25 mph.

**** NOTE TO SPECIFIER ** Select the following paragraph if required and delete if not required.**

- i. High-Usage Package: Provide with optional high-usage package.

**** NOTE TO SPECIFIER ** Select partial glazing or full glazing from the following glazing paragraphs and edit to select glazing required. Delete those not required or delete entirely if glazing is not required. Partial glazing with two or more sections glazed with 1/4 inch glass or 1/2 inch insulated glass require engineering review by the manufacturer. Full view sash sections are available in widths up to 24 feet 2 inches with 1/8, 1/4 or 1/2 inch insulated glass, up to 30 feet 2 inches with 1/8 inch double strength glass or 1/4 inch acrylic or Lean glazing only. Contact the manufacturer if additional requirements are required.**

- j. Partial Glazing of Steel Panels:
 - 1) 1/8 inch (3 mm) Acrylic glazing.
 - 2) 1/4 inch (6 mm) Acrylic glazing.
 - 3) 1/8 inch (3 mm) Clear Lexan glazing.
 - 4) 1/4 inch (6 mm) Clear Lexan glazing.
 - 5) 1/2 inch (12.5 mm) Clear Lexan Insulated glazing.
 - 6) 1/8 inch (3 mm) Tempered glass.
 - 7) 1/4 inch (6 mm) Tempered glass.
 - 8) 1/2 inch (12.5 mm) Tempered Insulating Glass.
 - 9) 1/4 inch (6 mm) Wire glass.
 - 10) 1/8 inch (3 mm) Double Strength glass.
 - 11) 1/2 inch (12.5 mm) Double Strength Insulating Glass.
 - 12) 1/8 inch (3 mm) Low E glazing.
 - 13) 1/4 inch (6 mm) Low E glazing.
 - 14) 1/2 inch (12.5 mm) Low E Insulated glazing.
 - 15) 1/8 inch (3 mm) Solar Bronze glazing.
 - 16) 1/4 inch (6 mm) Solar Bronze glazing.
 - 17) 1/2 inch (12.5 mm) Solar Bronze Insulated glazing.
 - 18) 1/8 inch (3 mm) Obscure glazing.
 - 19) 1/4 inch (6 mm) Obscure glazing.

- 20) 1/2 inch (12.5 mm) Obscure Insulated glazing.
 - 21) 1/4 inch (6 mm) Twin-Wall Polycarbonate (clear, bronze, white).
 - 22) 3/8 inch (9.5 mm) Twin-Wall Polycarbonate (clear, bronze, white).
 - 23) 5/8 inch (15.87 mm) Triple-Wall Polycarbonate (clear, bronze, white).
- k. Full Glazed Aluminum Sash Panels:
- 1) 1/8 inch (3 mm) Acrylic glazing.
 - 2) 1/4 inch (6 mm) Acrylic glazing.
 - 3) 1/8 inch (3 mm) Clear Lexan glazing.
 - 4) 1/4 inch (6 mm) Clear Lexan glazing.
 - 5) 1/2 inch (12.5 mm) Clear Lexan Insulated glazing.
 - 6) 1/8 inch (3 mm) Tempered glass.
 - 7) 1/4 inch (6 mm) Tempered glass.
 - 8) 1/2 inch (12.5 mm) Tempered Insulating Glass.
 - 9) 1/4 inch (6 mm) Wire glass.
 - 10) 1/8 inch (3 mm) Double Strength glass.
 - 11) 1/2 inch (12.5 mm) Double Strength Insulating Glass.
 - 12) 1/8 inch (3 mm) Low E glazing.
 - 13) 1/4 inch (6 mm) Low E glazing.
 - 14) 1/2 inch (12.5 mm) Low E Insulated glazing.
 - 15) 1/8 inch (3 mm) Solar Bronze glazing.
 - 16) 1/4 inch (6 mm) Solar Bronze glazing.
 - 17) 1/2 inch (12.5 mm) Solar Bronze Insulated glazing.
 - 18) 1/8 inch (3 mm) Obscure glazing.
 - 19) 1/4 inch (6 mm) Obscure glazing.
 - 20) 1/2 inch (12.5 mm) Obscure Insulated glazing.
 - 21) 1/4 inch (6 mm) Twin-Wall Polycarbonate (clear, bronze, white).
 - 22) 3/8 inch (9.5 mm) Twin-Wall Polycarbonate (clear, bronze, white).
 - 23) 5/8 inch (15.87 mm) Triple-Wall Polycarbonate (clear, bronze, white).

2. Finish and Color:

**** NOTE TO SPECIFIER ** Select one of the following exterior finish and color paragraphs and delete the ones not required. Note that the Trinar finish is only available on Series 591, 592, 593 and 594 doors.**

- a. Two coat baked-on polyester:
- 1) Interior color, white.

**** NOTE TO SPECIFIER ** Select one of the following exterior color paragraphs and delete the ones not required.**

- 2) Exterior color, white.
- 3) Exterior color, brown.
- 4) Exterior color, Desert Tan.
- 5) Exterior color, Sandstone.
- 6) Exterior color, Almond.
- 7) Exterior color, Hunter Green.
- 8) Exterior color, Terra Bronze.

- b. Baked-on Trinar polyvinylidene fluoride high performance coating:

**** NOTE TO SPECIFIER ** Select one of the following exterior color paragraphs and delete the ones not required.**

- 1) Exterior color, white.
- 2) Exterior color, brown.
- 3) Exterior color, beige.

**** NOTE TO SPECIFIER ** Edit the following paragraphs using the applicable building code to determine the actual loading required. Coordinate with the manufacturer for the selection of doors to meet the required criteria.**

3. Wind Load Design: Design as calculated in accordance with applicable code as follows:
 - a. Design pressure of _____ lb/sq ft (_____ kPa).
4. Hardware: Galvanized steel hinges and fixtures. Ball bearing rollers with hardened steel races.
5. Lock:

**** NOTE TO SPECIFIER ** Select one of the following paragraphs and delete the ones not required. Interior mounted slide lock is standard.**

- a. Interior mounted slide lock.
 - b. Interior mounted slide lock with interlock switch for automatic operator.
 - c. Keyed lock.
 - d. Keyed lock with interlock switch for automatic operator.
6. Weatherstripping:

**** NOTE TO SPECIFIER ** Select the seals required from the following paragraphs and delete those not required. Bottom seal is standard, jamb seals and head seals are optional.**

- a. EPDM bulb-type strip at bottom section.
 - b. Flexible Jamb seals.
 - c. Flexible Header seal.
7. Track: Provide track as recommended by manufacturer to suit loading required and clearances available.

**** NOTE TO SPECIFIER ** Edit the following track size and type paragraphs as required and delete the ones not required.**

- a. Size:
 - 1) 2 inch (51 mm).
 - 2) 3 inch (76 mm).
- b. Type:
 - 1) Standard lift.
 - 2) Vertical lift.
 - 3) High lift.
 - 4) Low headroom.
 - 5) Follow roof slope.

**** NOTE TO SPECIFIER ** Select one of the following Operation paragraphs and delete the ones not required. Manual pull rope is standard.**

8. Manual Operation: Pull rope.
9. Manual Operation: Chain hoist.
10. Electric Motor Operation: Provide UL listed electric operator, size and type as recommended by manufacturer to move door in either direction at not less than 2/3 foot nor more than 1 foot per second. Operator shall meet UL325/2010 requirements for continuous monitoring of safety devices.
 - a. Entrapment Protection: Required for momentary contact, includes radio control operation.

**** NOTE TO SPECIFIER ** Select one of the following protection paragraphs and delete those not required.**

- 1) Pneumatic sensing edge up to 18 feet (5.5 m) wide. Constant contact only complying with UL 325/2010.
 - 2) Electric sensing edge monitored to meet UL 325/2010.
 - 3) Photoelectric sensors monitored to meet UL 325/2010.
- b. Operator Controls:

**** NOTE TO SPECIFIER ** Select one of the following control paragraphs and delete those not required.**

- 1) Push-button operated control stations with open, close, and stop buttons.
- 2) Key operated control stations with open, close, and stop buttons.
- 3) Push-button and key operated control stations with open, close, and stop buttons.

**** NOTE TO SPECIFIER ** Select one of the following mounting paragraphs and delete the one not required.**

- 4) Flush mounting.
- 5) Surface mounting.

**** NOTE TO SPECIFIER ** Select one of the following mounting location paragraphs and delete those not required.**

- 6) Interior location.
- 7) Exterior location.
- 8) Both interior and exterior location.

**** NOTE TO SPECIFIER ** Select special operation features from the following paragraphs and delete those not required. Delete entirely if not required.**

- c. Special Operation:
 - 1) Pull switch.
 - 2) Vehicle detector operation.
 - 3) Radio control operation.
 - 4) Card reader control.
 - 5) Photocell operation.
 - 6) Door timer operation.
 - 7) Commercial light package.
 - 8) Explosion and dust ignition proof control wiring.

**** NOTE TO SPECIFIER ** Overhead Door Corporation 593 Series Thermacore® Insulated Steel Doors are available up to a maximum width of 20 feet 2 inches and a maximum height of 16 feet 1 inch. Edit as required to suit project requirements.**

- G. Insulated Steel Sectional Overhead Doors: 593 Series Thermacore Insulated Steel Doors by Overhead Door Corporation. Units shall have the following characteristics:
 - 1. Door Assembly: Metal/foam/metal sandwich panel construction, with hot melt thermal break and weather-tight ship-lap design meeting joints.
 - a. Panel Thickness: 1-3/8 inches (35 mm).
 - b. Exterior Surface: Ribbed, textured.
 - c. Exterior Steel: .015 inch (.38 mm), hot-dip galvanized.
 - d. End Stiles: 20 gauge.
 - e. Spring Counterbalance: Sized to weight of the door, with a helically wound, oil tempered torsion spring mounted on a steel shaft; cable drum of diecast aluminum with high strength galvanized aircraft cable. Sized with a minimum 7 to 1 safety factor.

**** NOTE TO SPECIFIER ** Select one of the following paragraphs and delete the ones not required. 10,000 cycles are standard.**

- 1) Standard cycle spring: 10,000 cycles.
- 2) High cycle spring: 25,000 cycles.
- 3) High cycle spring: 50,000 cycles.
- 4) High cycle spring: 75,000 cycles.
- 5) High cycle spring: 100,000 cycles.
- f. Insulation: CFC-free and HCFC-free polyurethane, fully encapsulated.
- g. Thermal Values: R-value of 12.76; U-value of 0.078.
- h. Air Infiltration: 0.08 cfm at 15 mph; 0.15 cfm at 25 mph.

**** NOTE TO SPECIFIER ** Select the following paragraph if required and delete if not required.**

- i. High-Usage Package: Provide with optional high-usage package.

**** NOTE TO SPECIFIER ** Select partial glazing or full glazing from the following glazing paragraphs and edit to select glazing required. Delete those not required or delete entirely if glazing is not required. Partial glazing with two or more sections glazed with 1/4 inch glass or 1/2 inch insulated glass require engineering review by the manufacturer. Full view sash sections are available in widths up to 24 feet 2 inches with 1/8, 1/4 or 1/2 inch insulated glass, up to 30 feet 2 inches with 1/8 inch double strength glass or 1/4 inch**

acrylic or Lean glazing only. Contact the manufacturer if additional requirements are required.

- j. Partial Glazing of Steel Panels:
 - 1) 1/8 inch (3 mm) Acrylic glazing.
 - 2) 1/4 inch (6 mm) Acrylic glazing.
 - 3) 1/8 inch (3 mm) Clear Lexan glazing.
 - 4) 1/4 inch (6 mm) Clear Lexan glazing.
 - 5) 1/2 inch (12.5 mm) Clear Lexan Insulated glazing.
 - 6) 1/8 inch (3 mm) Tempered glass.
 - 7) 1/4 inch (6 mm) Tempered glass.
 - 8) 1/2 inch (12.5 mm) Tempered Insulating glass.
 - 9) 1/4 inch (6 mm) Wire glass.
 - 10) 1/8 inch (3 mm) Double Strength glass.
 - 11) 1/2 inch (12.5 mm) Double Strength Insulating glass.
 - 12) 1/8 inch (3 mm) Low E glazing.
 - 13) 1/4 inch (6 mm) Low E glazing.
 - 14) 1/2 inch (12.5 mm) Low E Insulated glazing.
 - 15) 1/8 inch (3 mm) Solar Bronze glazing.
 - 16) 1/4 inch (6 mm) Solar Bronze glazing.
 - 17) 1/2 inch (12.5 mm) Solar Bronze Insulated glazing.
 - 18) 1/8 inch (3 mm) Obscure glazing.
 - 19) 1/4 inch (6 mm) Obscure glazing.
 - 20) 1/2 inch (12.5 mm) Obscure Insulated glazing.
 - 21) 1/4 inch (6 mm) Twin-Wall Polycarbonate (clear, bronze, white).
 - 22) 3/8 inch (9.5 mm) Twin-Wall Polycarbonate (clear, bronze, white).
 - 23) 5/8 inch (15.87 mm) Triple-Wall Polycarbonate (clear, bronze, white).
 - k. Full Glazed Aluminum Sash Panels:
 - 1) 1/8 inch (3 mm) Acrylic glazing.
 - 2) 1/4 inch (6 mm) Acrylic glazing.
 - 3) 1/8 inch (3 mm) Clear Lexan glazing.
 - 4) 1/4 inch (6 mm) Clear Lexan glazing.
 - 5) 1/2 inch (12.5 mm) Clear Lexan Insulated glazing.
 - 6) 1/8 inch (3 mm) Tempered glass.
 - 7) 1/4 inch (6 mm) Tempered glass.
 - 8) 1/2 inch (12.5 mm) Tempered Insulating glass.
 - 9) 1/4 inch (6 mm) Wire glass.
 - 10) 1/8 inch (3 mm) Double Strength glass.
 - 11) 1/2 inch (12.5 mm) Double Strength Insulating glass.
 - 12) 1/8 inch (3 mm) Low E glazing.
 - 13) 1/4 inch (6 mm) Low E glazing.
 - 14) 1/2 inch (12.5 mm) Low E Insulated glazing.
 - 15) 1/8 inch (3 mm) Solar Bronze glazing.
 - 16) 1/4 inch (6 mm) Solar Bronze glazing.
 - 17) 1/2 inch (12.5 mm) Solar Bronze Insulated glazing.
 - 18) 1/8 inch (3 mm) Obscure glazing.
 - 19) 1/4 inch (6 mm) Obscure glazing.
 - 20) 1/2 inch (12.5 mm) Obscure Insulated glazing.
 - 21) 1/4 inch (6 mm) Twin-Wall Polycarbonate (clear, bronze, white).
 - 22) 3/8 inch (9.5 mm) Twin-Wall Polycarbonate (clear, bronze, white).
 - 23) 5/8 inch (15.87 mm) Triple-Wall Polycarbonate (clear, bronze, white).
2. Finish and Color:

**** NOTE TO SPECIFIER **** Select one of the following exterior finish and color paragraphs and delete the ones not required. Note that the Trinar finish is only available on Series 591, 592, 593 and 594 doors.

- a. Two coat baked-on polyester:
 - 1) Interior color, white.

**** NOTE TO SPECIFIER **** Select one of the following exterior color paragraphs and delete the ones not required.

- 2) Exterior color, white.
- 3) Exterior color, brown.
- 4) Exterior color, tan.
- 5) Exterior color, gray.

- b. Baked-on Trinar polyvinylidene fluoride high performance coating:

**** NOTE TO SPECIFIER **** Select one of the following exterior color paragraphs and delete the ones not required.

- 1) Exterior color, white.
- 2) Exterior color, brown.
- 3) Exterior color, beige.

**** NOTE TO SPECIFIER **** Edit the following paragraph using the applicable building code to determine the actual loading required. Coordinate with the manufacturer for the selection of doors to meet the required criteria.

- 3. Wind Load Design: Design as calculated in accordance with applicable code as follows:
 - a. Design pressure of _____ lb/sq ft (_____ kPa).
- 4. Hardware: Galvanized steel hinges and fixtures. Ball bearing rollers with hardened steel races.
- 5. Lock:

**** NOTE TO SPECIFIER **** Select one of the following paragraphs and delete the ones not required. Interior mounted slide lock is standard.

- a. Interior mounted slide lock.
- b. Interior mounted slide lock with interlock switch for automatic operator.
- c. Keyed lock.
- d. Keyed lock with interlock switch for automatic operator.
- 6. Weatherstripping:

**** NOTE TO SPECIFIER **** Select the seals required from the following paragraphs and delete those not required. Bottom seal is standard, jamb seals and head seals are optional.

- a. EPDM bulb-type strip at bottom section.
- b. Flexible Jamb seals.
- c. Flexible Header seal.
- 7. Track: Provide track as recommended by manufacturer to suit loading required and clearances available.

**** NOTE TO SPECIFIER **** Edit the following track size and type paragraphs as required and delete the ones not required.

- a. Size:
 - 1) 2 inch (51 mm).
 - 2) 3 inch (76 mm).
- b. Type:
 - 1) Standard lift.
 - 2) Vertical lift.
 - 3) High lift.
 - 4) Low headroom.
 - 5) Follow roof slope.

**** NOTE TO SPECIFIER **** Select one of the following Operation paragraphs and delete the ones not required. Manual pull rope is standard.

- 8. Manual Operation: Pull rope.
- 9. Manual Operation: Chain hoist.

10. Electric Motor Operation: Provide UL listed electric operator, size and type as recommended by manufacturer to move door in either direction at not less than 2/3 foot nor more than 1 foot per second. Operator shall meet UL325/2010 requirements for continuous monitoring of safety devices.
- a. Entrapment Protection: Required for momentary contact, includes radio control operation.

**** NOTE TO SPECIFIER ** Select one of the following protection paragraphs and delete those not required.**

- 1) Pneumatic sensing edge up to 18 feet (5.5 m) wide. Constant contact only complying with UL 325/2010.
- 2) Electric sensing edge monitored to meet UL 325/2010.
- 3) Photoelectric sensors monitored to meet UL 325/2010.

- b. Operator Controls:

**** NOTE TO SPECIFIER ** Select one of the following control paragraphs and delete those not required.**

- 1) Push-button operated control stations with open, close, and stop buttons.
- 2) Key operated control stations with open, close, and stop buttons.
- 3) Push-button and key operated control stations with open, close, and stop buttons.

**** NOTE TO SPECIFIER ** Select one of the following mounting paragraphs and delete the one not required.**

- 4) Flush mounting.
- 5) Surface mounting.

**** NOTE TO SPECIFIER ** Select one of the following mounting location paragraphs and delete those not required.**

- 6) Interior location.
- 7) Exterior location.
- 8) Both interior and exterior location.

**** NOTE TO SPECIFIER ** Select special operation features from the following paragraphs and delete those not required. Delete entirely if not required.**

- c. Special Operation:

- 1) Pull switch.
- 2) Vehicle detector operation.
- 3) Radio control operation.
- 4) Card reader control.
- 5) Photocell operation.
- 6) Door timer operation.
- 7) Commercial light package.
- 8) Explosion and dust ignition proof control wiring.

**** NOTE TO SPECIFIER ** Overhead Door Corporation 598 Series Thermacore® Insulated Steel Doors are available up to a maximum width of 16 feet 2 inches and a maximum height of 14 feet 1 inch. Edit as required to suit project requirements.**

- H. Insulated Steel Sectional Overhead Doors: 598 Series Thermacore Insulated Steel Doors by Overhead Door Corporation. Units shall have the following characteristics:
1. Door Assembly: Metal/foam/metal sandwich panel construction, with hot melt thermal break and weather-tight ship-lap design meeting joints.
 - a. Panel Thickness: 1 inch (25.4 mm).
 - b. Exterior Surface: Ribbed, textured.
 - c. Exterior Steel: .012 inch (.30 mm), hot-dip galvanized.
 - d. End Stiles: 20 gauge.
 - e. Spring Counterbalance: Sized to weight of the door, with a helically wound, oil tempered torsion spring mounted on a steel shaft; cable drum of diecast aluminum with high strength galvanized aircraft cable. Sized with a minimum 7 to 1 safety factor.

**** NOTE TO SPECIFIER ** Select one of the following paragraphs and delete the ones not required. 10,000 cycles are standard.**

- 1) Standard cycle spring: 10,000 cycles.
 - 2) High cycle spring: 25,000 cycles.
 - 3) High cycle spring: 50,000 cycles.
 - 4) High cycle spring: 75,000 cycles.
 - 5) High cycle spring: 100,000 cycles.
- f. Insulation: CFC-free and HCFC-free polyurethane, fully encapsulated.
- g. Thermal Values: R-value of 9.31; U-value of 0.107.
- h. Air Infiltration: 0.24 cfm at 15 mph; 0.46 cfm at 25 mph.

**** NOTE TO SPECIFIER ** Select the following paragraph if required and delete if not required.**

- i. High-Usage Package: Provide with optional high-usage package.

**** NOTE TO SPECIFIER ** Select partial glazing or full glazing from the following glazing paragraphs and edit to select glazing required. Delete those not required or delete entirely if glazing is not required. Partial glazing with two or more sections glazed with 1/4 inch glass or 1/2 inch insulated glass require engineering review by the manufacturer. Full view sash sections are available in widths up to 24 feet 2 inches with 1/8, 1/4 or 1/2 inch insulated glass, up to 30 feet 2 inches with 1/8 inch double strength glass or 1/4 inch acrylic or Lean glazing only. Contact the manufacturer if additional requirements are required.**

- j. Partial Glazing of Steel Panels:
- 1) 1/8 inch (3 mm) Acrylic glazing.
 - 2) 1/4 inch (6 mm) Acrylic glazing.
 - 3) 1/8 inch (3 mm) Clear Lexan glazing.
 - 4) 1/4 inch (6 mm) Clear Lexan glazing.
 - 5) 1/2 inch (12.5 mm) Clear Lexan Insulated glazing.
 - 6) 1/8 inch (3 mm) Tempered glass.
 - 7) 1/4 inch (6 mm) Tempered glass.
 - 8) 1/2 inch (12.5 mm) Tempered Insulating glass.
 - 9) 1/4 inch (6 mm) Wire glass.
 - 10) 1/8 inch (3 mm) Double Strength glass.
 - 11) 1/2 inch (12.5 mm) Double Strength Insulating glass.
 - 12) 1/8 inch (3 mm) Low E glazing.
 - 13) 1/4 inch (6 mm) Low E glazing.
 - 14) 1/2 inch (12.5 mm) Low E Insulated glazing.
 - 15) 1/8 inch (3 mm) Solar Bronze glazing.
 - 16) 1/4 inch (6 mm) Solar Bronze glazing.
 - 17) 1/2 inch (12.5 mm) Solar Bronze Insulated glazing.
 - 18) 1/8 inch (3 mm) Obscure glazing.
 - 19) 1/4 inch (6 mm) Obscure glazing.
 - 20) 1/2 inch (12.5 mm) Obscure Insulated glazing.
 - 21) 1/4 inch (6 mm) Twin-Wall Polycarbonate (clear, bronze, white).
 - 22) 3/8 inch (9.5 mm) Twin-Wall Polycarbonate (clear, bronze, white).
 - 23) 5/8 inch (15.87 mm) Triple-Wall Polycarbonate (clear, bronze, white).
- k. Full Glazed Aluminum Sash Panels:
- 1) 1/8 inch (3 mm) Acrylic glazing.
 - 2) 1/4 inch (6 mm) Acrylic glazing.
 - 3) 1/8 inch (3 mm) Clear Lexan glazing.
 - 4) 1/4 inch (6 mm) Clear Lexan glazing.
 - 5) 1/2 inch (12.5 mm) Clear Lexan Insulated glazing.
 - 6) 1/8 inch (3 mm) Tempered glass.
 - 7) 1/4 inch (6 mm) Tempered glass.
 - 8) 1/2 inch (12.5 mm) Tempered Insulating glass.

- 9) 1/4 inch (6 mm) Wire glass.
 - 10) 1/8 inch (3 mm) Double Strength glass.
 - 11) 1/2 inch (12.5 mm) Double Strength Insulating glass.
 - 12) 1/8 inch (3 mm) Low E glazing.
 - 13) 1/4 inch (6 mm) Low E glazing.
 - 14) 1/2 inch (12.5 mm) Low E Insulated glazing.
 - 15) 1/8 inch (3 mm) Solar Bronze glazing.
 - 16) 1/4 inch (6 mm) Solar Bronze glazing.
 - 17) 1/2 inch (12.5 mm) Solar Bronze Insulated glazing.
 - 18) 1/8 inch (3 mm) Obscure glazing.
 - 19) 1/4 inch (6 mm) Obscure glazing.
 - 20) 1/2 inch (12.5 mm) Obscure Insulated glazing.
 - 21) 1/4 inch (6 mm) Twin-Wall Polycarbonate (clear, bronze, white).
 - 22) 3/8 inch (9.5 mm) Twin-Wall Polycarbonate (clear, bronze, white).
 - 23) 5/8 inch (15.87 mm) Triple-Wall Polycarbonate (clear, bronze, white).
2. Finish and Color: Two coat baked-on polyester with white exterior and white interior color.

**** NOTE TO SPECIFIER ** Edit the following paragraphs using the applicable building code to determine the actual loading required. Coordinate with the manufacturer for the selection of doors to meet the required criteria.**

3. Wind Load Design: Design as calculated in accordance with applicable code as follows:
 - a. Design pressure of _____ lb/sq ft (_____ kPa).
4. Hardware: Galvanized steel hinges and fixtures. Ball bearing rollers with hardened steel races.
5. Lock:

**** NOTE TO SPECIFIER ** Select one of the following paragraphs and delete the ones not required. Interior mounted slide lock is standard.**

- a. Interior mounted slide lock.
 - b. Interior mounted slide lock with interlock switch for automatic operator.
 - c. Keyed lock.
 - d. Keyed lock with interlock switch for automatic operator.
6. Weatherstripping:

**** NOTE TO SPECIFIER ** Select the seals required from the following paragraphs and delete those not required. Bottom seal is standard, jamb seals and head seals are optional.**

- a. EPDM bulb-type strip at bottom section.
 - b. Flexible Jamb seals.
 - c. Flexible Header seal.
7. Track: Provide track as recommended by manufacturer to suit loading required and clearances available.

**** NOTE TO SPECIFIER ** Edit the following track size and type paragraphs as required and delete the ones not required.**

- a. Size:
 - 1) 2 inch (51 mm).
 - 2) 3 inch (76 mm).
- b. Type:
 - 1) Standard lift.
 - 2) Vertical lift.
 - 3) High lift.
 - 4) Low headroom.
 - 5) Follow roof slope.

**** NOTE TO SPECIFIER ** Select one of the following Operation paragraphs and delete the ones not required. Manual pull rope is standard.**

8. Manual Operation: Pull rope.

9. Manual Operation: Chain hoist.
10. Electric Motor Operation: Provide UL listed electric operator, size and type as recommended by manufacturer to move door in either direction at not less than 2/3 foot nor more than 1 foot per second. Operator shall meet UL325/2010 requirements for continuous monitoring of safety devices.
 - a. Entrapment Protection: Required for momentary contact, includes radio control operation.

**** NOTE TO SPECIFIER ** Select one of the following protection paragraphs and delete those not required.**

- 1) Pneumatic sensing edge up to 18 feet (5.5 m) wide. Constant contact only complying with UL 325/2010.
- 2) Electric sensing edge monitored to meet UL 325/2010.
- 3) Photoelectric sensors monitored to meet UL 325/2010.

- b. Operator Controls:

**** NOTE TO SPECIFIER ** Select one of the following control paragraphs and delete those not required.**

- 1) Push-button operated control stations with open, close, and stop buttons.
- 2) Key operated control stations with open, close, and stop buttons.
- 3) Push-button and key operated control stations with open, close, and stop buttons.

**** NOTE TO SPECIFIER ** Select one of the following mounting paragraphs and delete the one not required.**

- 4) Flush mounting.
- 5) Surface mounting.

**** NOTE TO SPECIFIER ** Select one of the following mounting location paragraphs and delete those not required.**

- 6) Interior location.
- 7) Exterior location.
- 8) Both interior and exterior location.

**** NOTE TO SPECIFIER ** Select special operation features from the following paragraphs and delete those not required. Delete entirely if not required.**

- c. Special Operation:

- 1) Pull switch.
- 2) Vehicle detector operation.
- 3) Radio control operation.
- 4) Card reader control.
- 5) Photocell operation.
- 6) Door timer operation.
- 7) Commercial light package.
- 8) Explosion and dust ignition proof control wiring.

**** NOTE TO SPECIFIER ** Overhead Door Corporation 515 Series Insulated Steel Doors are available up to a maximum width of 22 feet 2 inches and a maximum height of 20 feet 1 inch. Edit as required to suit project requirements.**

- I. Insulated Steel Sectional Overhead Doors: 515 Series Thermacore Wind Load Insulated Steel Doors by Overhead Door Corporation. Units shall have the following characteristics:

1. Door Assembly: Metal/foam/metal sandwich panel construction, with hot melt thermal break.
 - a. Panel Thickness: 1-3/8 inches (34.92 mm).
 - b. Exterior Surface:

**** NOTE TO SPECIFIER ** Select one of the following exterior surface paragraphs and delete those not required.**

- 1) Microgroove, textured.
- 2) Flush with non-repeating wood grain texture.

- 3) Raised panel with non-repeating wood grain texture.
- c. Exterior Steel: .015 inch (0.38 mm), hot-dipped galvanized.
- d. Ends: Hot-dipped galvanized steel, full height with end caps.

**** NOTE TO SPECIFIER ** Select one of the following paragraphs and delete the ones not required. Delete entirely if gauge is to be determined by PERFORMANCE REQUIREMENTS.**

- 1) 18 gauge.
- 2) 16 gauge.
- e. Spring Counterbalance: Sized to weight of the door, with a helically wound, oil tempered torsion spring mounted on a steel shaft; cable drum of die cast aluminum with high strength galvanized aircraft cable. Sized with a minimum 5 to 1 safety factor.

**** NOTE TO SPECIFIER ** Select one of the following paragraphs and delete the ones not required. 10,000 cycles are standard.**

- 1) High cycle spring: 25,000 cycles.
- 2) High cycle spring: 50,000 cycles.
- 3) High cycle spring: 100,000 cycles.
- f. Thermal Values: R-value of 12.12; U-value of 0.0825.
- g. Air Infiltration: 0.23 cfm at 15 mph.
- h. Sound transmission class 20 when tested in accordance with ASTM E 413.
- i. Outdoor-indoor transmission class 20 when tested in accordance with ASTM E 1332.
- j. Insulation: CFC-free and HCFC-free polyurethane, fully encapsulated.
 - 1) Insulated sections tested in accordance with ASTM E 84 and achieve a Flame spread Index of 10 or less, and a Smoke Developed Index of 210 or less.
 - 2) Insulation material tested in accordance with ASTM D 1929 and achieve a minimum Flash Ignition temperature of 734 degrees F, and a minimum Self Ignition temperature of 950 degrees F.
 - 3) Insulated sections shall meet all requirements of the UBC 17-5 corner burn.

**** NOTE TO SPECIFIER ** Select Thermolite glazing for flush doors or colonial style SSB for raised panel or flush glazing from the following glazing paragraphs and edit to select glazing required. Delete those not required or delete entirely if glazing is not required. Contact the manufacturer if additional requirements are required.**

- k. Partial Glazing of Steel Panels:
 - 1) Thermolite double insulated SSB set in 2-piece high-impact polymer frame.
 - 2) Tempered Thermolite.
 - 3) StyleLine Lite Colonial SSB.
- l. Single Panel Lite:
 - 1) 1/4 inch (6 mm) Tempered glass.
 - 2) 1/4 inch (6 mm) Acrylic (Plexiglass) glazing.
 - 3) 1/4 inch (6 mm) Polycarbonate (Lexan) glazing.
 - 4) 1/4 inch (6 mm) Polished wire glass.
- m. Colonial Style SSB with High Impact Polymer Frame:
- 2. Finish and Color:

**** NOTE TO SPECIFIER ** Select one of the following finish paragraphs and delete the one not required.**

- a. Two coat baked-on polyester:
 - 1) Interior color, white.

**** NOTE TO SPECIFIER ** Select one of the following exterior color paragraphs and delete the ones not required.**

- 2) Exterior color, white.
- 3) Exterior color, taupe.
- 4) Exterior color, almond.

- 5) Exterior color, brown.
- 6) Exterior color, black
- b. Exterior Bi-Directional Woodgrain Pattern:

**** NOTE TO SPECIFIER ** Select one of the following exterior color paragraphs and delete the ones not required.**

- 1) Exterior color, Oak.
- 2) Exterior color, Dark brown.

**** NOTE TO SPECIFIER ** Edit the following paragraphs using the applicable building code to determine the actual loading required. Coordinate with the manufacturer for the selection of doors to meet the required criteria.**

- 3. Wind Load Design: Design as calculated in accordance with applicable code as follows:

**** NOTE TO SPECIFIER ** Include one of the following paragraphs for doors meeting the Florida Building Code or Texas Department of Insurance requirements for Large Missile-Impact and Non-Impact doors up to 22 feet 2 inches wide high depending on the wind pressure design requirement specified.**

- a. Provide to meet Florida Building Code Product Approval #FL 16798 Large Missile-Impact.
- b. Provide to meet Florida Building Code Product Approval #FL 16798 Non-Impact.
- c. Provide to meet Texas Department of Insurance Product Evaluation TDI GDR-98 Large Missile-Impact.
- d. Provide to meet Texas Department of Insurance Product Evaluation TDI GDR-98 Non-Impact.

**** NOTE TO SPECIFIER ** Include one of the following paragraphs for doors meeting the Miami-Dade Code requirements NOA 11-0912.06 Large Missile-Impact for doors up to 9 feet 2 inches wide depending on the wind pressure design requirement specified.**

- e. Provide to meet Miami-Dade NOA 14-0204.08 Large Missile-Impact.
- f. Provide to meet Miami-Dade NOA 14-0204.07 Large Missile-Impact.
- 4. Hardware: Galvanized steel hinges and fixtures. Ball bearing rollers with hardened steel races.
- 5. Lock:

**** NOTE TO SPECIFIER ** Select one of the following paragraphs and delete the ones not required. Interior mounted slide lock is standard.**

- a. Interior mounted slide lock.
- b. Interior mounted slide lock with interlock switch for automatic operator.
- c. Keyed lock.
- d. Keyed lock with interlock switch for automatic operator.

**** NOTE TO SPECIFIER ** Select the following paragraph for use with knock-out lower door sections only and delete the ones above.**

- e. Locking mechanism designed to maintain security for exterior while permitting break out when impacted from the inside.
- 6. Weatherstripping:

**** NOTE TO SPECIFIER ** Select the seals required from the following paragraphs and delete those not required. Bottom seal is standard, jamb seals and head seals are optional.**

- a. Flexible bulb-type strip at bottom section.
- b. Flexible Jamb seals.
- c. Flexible Header seal.
- 7. Track: Provide track as recommended by manufacturer to suit loading required and clearances available.

**** NOTE TO SPECIFIER ** Edit the following track size and type paragraphs as required and delete the ones not required.**

- a. Size:
 - 1) 2 inch (51 mm).
 - 2) 3 inch (76 mm).
- b. Type:

- 1) Standard lift.
- 2) Vertical lift.
- 3) High lift.
- 4) Low headroom.
- 5) Follow roof slope.

**** NOTE TO SPECIFIER ** Select one of the following paragraphs as required and delete the one not required. Horizontal track applies to standard lift, high lift, low headroom and follow-the-roof designs only.**

- c. Horizontal track shall be reinforced with continuous angle of adequate length and gauge to minimize deflection.
- d. Vertical track shall be graduated to provide wedge type weathertight closing with continuous angle mounting for steel or wood jambs, and shall be fully adjustable to seal door at jambs.

**** NOTE TO SPECIFIER ** Select one of the following Operation paragraphs and delete the ones not required. Manufacturer does not recommend chain hoists or jack shaft operators on the following track applications: 15 inch radius standard lift with roof pitch less than 2:12; Hi-Lift less than 24 inch; Low headroom track. Special chain hoist assemblies (using a trolley rail) are available for the above track systems. Special chain hoist assemblies using a trolley rail are available for track systems. Consult manufacturer for additional information.**

8. Manual Operation: Push-up.
9. Manual Operation: Chain hoist.
10. Electric Motor Operation: Provide UL listed electric operator, equal to Genie Commercial Operators, size and type as recommended by manufacturer to move door in either direction at not less than 2/3 foot nor more than 1 foot per second.

**** NOTE TO SPECIFIER ** Select one of the following Duty Type and Model paragraphs and delete those not required.**

- a. Medium Duty
 - 1) Model MH – hoist
 - 2) Model MT – trolley
 - 3) Model MJ - jackshaft
- b. Standard Duty
 - 1) Model H – hoist
 - 2) Model T – trolley
 - 3) Model J – jackshaft
- c. Heavy Duty
 - 1) Model GH – hoist
 - 2) Model GT - trolley
- d. Entrapment Protection: Required for momentary contact, includes radio control operation.

**** NOTE TO SPECIFIER ** Select one of the following protection paragraphs and delete those not required.**

- 1) Pneumatic sensing edge up to 18 feet (5.5 m) wide. Constant contact only complying with UL 325/2010.
- 2) Electric sensing edge monitored to meet UL 325/2010 equal to Miller Edge.
- 3) Photoelectric sensors monitored to meet UL 325/2010.
- e. Operator Controls:

**** NOTE TO SPECIFIER ** Select one of the following control paragraphs and delete those not required.**

- 1) Push-button operated control stations with open, close, and stop buttons.
- 2) Key operated control stations with open, close, and stop buttons.
- 3) Push-button and key operated control stations with open, close, and stop buttons.

**** NOTE TO SPECIFIER ** Select one of the following mounting paragraphs and delete the one not required.**

- 4) Flush mounting.
- 5) Surface mounting.

**** NOTE TO SPECIFIER ** Select one of the following mounting location paragraphs and delete those not required.**

- 6) Interior location.
- 7) Exterior location.
- 8) Both interior and exterior location.

**** NOTE TO SPECIFIER ** Select special operation features from the following paragraphs and delete those not required. Delete entirely if not required.**

- f. Special Operation:
 - 1) Pull switch.
 - 2) Vehicle detector operation.
 - 3) Radio control operation.
 - 4) Card reader control.
 - 5) Photocell operation.
 - 6) Door timer operation.
 - 7) Commercial light package.
 - 8) Explosion and dust ignition proof control wiring.

**** NOTE TO SPECIFIER ** Overhead Door Corporation 525 Series Insulated Steel Doors are available up to a maximum width of 22 feet 2 inches and a maximum height of 20 feet 1 inch. Edit as required to suit project requirements.**

- J. Insulated Steel Sectional Overhead Doors: 525 Series Thermacore Wind Load Insulated Steel Doors by Overhead Door Corporation. Units shall have the following characteristics:
 1. Door Assembly: Metal/foam/metal sandwich panel construction, with hot melt thermal break.
 - a. Panel Thickness: 1-7/8 inches (47.63 mm).
 - b. Exterior Surface:

**** NOTE TO SPECIFIER ** Select one of the following exterior surface paragraphs and delete those not required.**

- 1) Microgroove, textured.
- 2) Flush with non-repeating wood grain texture.
- 3) Raised panel with non-repeating wood grain texture.
- c. Exterior Steel: .015 inch (0.38 mm), hot-dipped galvanized.
- d. Ends: Hot-dipped galvanized steel, full height with end caps.

**** NOTE TO SPECIFIER ** Select one of the following paragraphs and delete the ones not required. Delete entirely if gauge is to be determined by PERFORMANCE REQUIREMENTS.**

- 1) 18 gauge.
- 2) 16 gauge.
- e. Spring Counterbalance: Sized to weight of the door, with a helically wound, oil tempered torsion spring mounted on a steel shaft; cable drum of die cast aluminum with high strength galvanized aircraft cable. Sized with a minimum 5 to 1 safety factor.

**** NOTE TO SPECIFIER ** Select one of the following paragraphs and delete the ones not required. 10,000 cycles are standard.**

- 1) High cycle spring: 25,000 cycles.
- 2) High cycle spring: 50,000 cycles.
- 3) High cycle spring: 100,000 cycles.
- f. Thermal Values: R-value of 16.22; U-value of 0.0616.
- g. Air Infiltration: 0.07 cfm at 15 mph.
- h. Sound transmission class 20 when tested in accordance with ASTM E 413.

- i. Outdoor-indoor transmission class 20 when tested in accordance with ASTM E 1332.
- j. Insulation: CFC-free and HCFC-free polyurethane, fully encapsulated.
 - 1) Insulated sections tested in accordance with ASTM E 84 and achieve a Flame spread Index of 10 or less, and a Smoke Developed Index of 210 or less.
 - 2) Insulation material tested in accordance with ASTM D 1929 and achieve a minimum Flash Ignition temperature of 734 degrees F, and a minimum Self Ignition temperature of 950 degrees F.
 - 3) Insulated sections shall meet all requirements of the UBC 17-5 corner burn.

**** NOTE TO SPECIFIER ** Select Thermolite glazing for flush doors or colonial style SSB for raised panel or flush glazing from the following glazing paragraphs and edit to select glazing required. Delete those not required or delete entirely if glazing is not required. Contact the manufacturer if additional requirements are required.**

- k. Partial Glazing of Steel Panels:
 - 1) Thermolite double insulated SSB set in 2-piece high-impact polymer frame.
 - 2) Tempered Thermolite.
 - 3) StyleLine Lite Colonial SSB.
 - l. Single Panel Lite:
 - 1) 1/4 inch (6 mm) Tempered glass.
 - 2) 1/4 inch (6 mm) Acrylic (Plexiglass) glazing.
 - 3) 1/4 inch (6 mm) Polycarbonate (Lexan) glazing.
 - 4) 1/4 inch (6 mm) Polished wire glass.
 - m. Colonial Style SSB with High Impact Polymer Frame:
2. Finish and Color:

**** NOTE TO SPECIFIER ** Select one of the following finish paragraphs and delete the one not required.**

- a. Two coat baked-on polyester:
 - 1) Interior color, white.

**** NOTE TO SPECIFIER ** Select one of the following exterior color paragraphs and delete the ones not required.**

- 2) Exterior color, white.
- 3) Exterior color, taupe.
- 4) Exterior color, almond.
- 5) Exterior color, brown.

**** NOTE TO SPECIFIER ** Edit the following paragraphs using the applicable building code to determine the actual loading required. Coordinate with the manufacturer for the selection of doors to meet the required criteria.**

- 3. Wind Load Design: Design as calculated in accordance with applicable code as follows:
 - a. Design pressure of _____ lb/sq ft (_____ kPa).

**** NOTE TO SPECIFIER ** Include one of the following paragraphs for doors meeting the Florida Building Code or Texas Department of Insurance requirements for Large Missile-Impact and Non-Impact doors up to 22 feet 2 inches wide high depending on the wind pressure design requirement specified.**

- b. Provide to meet Florida Building Code Product Approval #FL 16798 Large Missile-Impact.
- c. Provide to meet Florida Building Code Product Approval #FL 16798 Non-Impact.
- d. Provide to meet Texas Department of Insurance Product Evaluation TDI GDR-98 Large Missile-Impact.
- e. Provide to meet Texas Department of Insurance Product Evaluation TDI GDR-98 Non-Impact.

**** NOTE TO SPECIFIER ** Include one of the following paragraphs for doors meeting the Miami-Dade Code requirements NOA 11-0912.06 Large Missile-Impact for doors up to 9 feet 2 inches wide depending on the wind pressure design requirement specified.**

- f. Provide to meet Miami-Dade NOA 14-0204.08 Large Missile-Impact.
- g. Provide to meet Miami-Dade NOA 14-0204.07 Large Missile-Impact.
- 4. Hardware: Galvanized steel hinges and fixtures. Ball bearing rollers with hardened steel races.
- 5. Lock:

**** NOTE TO SPECIFIER ** Select one of the following paragraphs and delete the ones not required. Interior mounted slide lock is standard.**

- a. Interior mounted slide lock.
- b. Interior mounted slide lock with interlock switch for automatic operator.
- c. Keyed lock.
- d. Keyed lock with interlock switch for automatic operator.

**** NOTE TO SPECIFIER ** Select the following paragraph for use with knock-out lower door sections only and delete the ones above.**

- e. Locking mechanism designed to maintain security for exterior while permitting break out when impacted from the inside.
- 6. Weatherstripping:

**** NOTE TO SPECIFIER ** Select the seals required from the following paragraphs and delete those not required. Bottom seal is standard, jamb seals and head seals are optional.**

- a. Flexible bulb-type strip at bottom section.
- b. Flexible Jamb seals.
- c. Flexible Header seal.
- 7. Track: Provide track as recommended by manufacturer to suit loading required and clearances available.

**** NOTE TO SPECIFIER ** Edit the following track size and type paragraphs as required and delete the ones not required.**

- a. Size:
 - 1) 2 inch (51 mm).
 - 2) 3 inch (76 mm).
- b. Type:
 - 1) Standard lift.
 - 2) Vertical lift.
 - 3) High lift.
 - 4) Low headroom.
 - 5) Follow roof slope.

**** NOTE TO SPECIFIER ** Select one of the following paragraphs as required and delete the one not required. Horizontal track applies to standard lift, high lift, low headroom and follow-the-roof designs only.**

- c. Horizontal track shall be reinforced with continuous angle of adequate length and gauge to minimize deflection.
- d. Vertical track shall be graduated to provide wedge type weathertight closing with continuous angle mounting for steel or wood jambs, and shall be fully adjustable to seal door at jambs.

**** NOTE TO SPECIFIER ** Select one of the following Operation paragraphs and delete the ones not required. Manufacturer does not recommend chain hoists or jack shaft operators on the following track applications: 15 inch radius standard lift with roof pitch less than 2:12; Hi-Lift less than 24 inch; Low headroom track. Special chain hoist assemblies (using a trolley rail) are available for the above track systems. Special chain hoist assemblies using a trolley rail are available for track systems. Consult manufacturer for additional information.**

- 8. Manual Operation: Push-up.
- 9. Manual Operation: Chain hoist.
- 10. Electric Motor Operation: Provide UL listed electric operator, equal to Genie Commercial Operators, size and type as recommended by manufacturer to

move door in either direction at not less than 2/3 foot nor more than 1 foot per second.

**** NOTE TO SPECIFIER ** Select one of the following Duty Type and Model paragraphs and delete those not required.**

- a. Medium Duty
 - 1) Model MH – hoist
 - 2) Model MT – trolley
 - 3) Model MJ - jackshaft
- b. Standard Duty
 - 1) Model H – hoist
 - 2) Model T – trolley
 - 3) Model J – jackshaft
- c. Heavy Duty
 - 1) Model GH – hoist
 - 2) Model GT - trolley
- d. Entrapment Protection: Required for momentary contact, includes radio control operation.

**** NOTE TO SPECIFIER ** Select one of the following protection paragraphs and delete those not required.**

- 1) Pneumatic sensing edge up to 18 feet (5.5 m) wide. Constant contact only complying with UL 325/2010.
- 2) Electric sensing edge monitored to meet UL 325/2010 equal to Miller Edge.
- 3) Photoelectric sensors monitored to meet UL 325/2010.
- e. Operator Controls:

**** NOTE TO SPECIFIER ** Select one of the following control paragraphs and delete those not required.**

- 1) Push-button operated control stations with open, close, and stop buttons.
- 2) Key operated control stations with open, close, and stop buttons.
- 3) Push-button and key operated control stations with open, close, and stop buttons.

**** NOTE TO SPECIFIER ** Select one of the following mounting paragraphs and delete the one not required.**

- 4) Flush mounting.
- 5) Surface mounting.

**** NOTE TO SPECIFIER ** Select one of the following mounting location paragraphs and delete those not required.**

- 6) Interior location.
- 7) Exterior location.
- 8) Both interior and exterior location.

**** NOTE TO SPECIFIER ** Select special operation features from the following paragraphs and delete those not required. Delete entirely if not required.**

- f. Special Operation:
 - 1) Pull switch.
 - 2) Vehicle detector operation.
 - 3) Radio control operation.
 - 4) Card reader control.
 - 5) Photocell operation.
 - 6) Door timer operation.
 - 7) Commercial light package.
 - 8) Explosion and dust ignition proof control wiring.

**** NOTE TO SPECIFIER ** Overhead Door Corporation 418 Series Insulated Steel Doors are available up to a maximum width of 32 feet 2 inches and a maximum height of 21 feet 1 inch. Edit as required to suit project requirements.**

- K. Insulated Steel Sectional Overhead Doors: 418 Series Insulated Steel Doors by Overhead Door Corporation. Units shall have the following characteristics:
1. Door Assembly: Insulated steel door assembly with rabbeted meeting rails to provide full-width interlocking structural rigidity.
 - a. Panel Thickness: 2 inches (51 mm).
 - b. Exterior Surface: Flush.
 - c. Exterior Steel: 16 gauge, hot-dip galvanized.
 - d. Back Cover:

**** NOTE TO SPECIFIER ** Select one of the following backcover paragraphs and delete those not required.**

- 1) 26 gauge steel.
 - 2) Poly-Backed.
 - 3) High Impact Polystyrene Backcover.
- e. Center and End Stiles: 16 gauge steel.
 - f. Spring Counterbalance: Sized to weight of the door, with a helically wound, oil tempered torsion spring mounted on a steel shaft; cable drum of diecast aluminum with high strength galvanized aircraft cable. Sized with a minimum 7 to 1 safety factor.

**** NOTE TO SPECIFIER ** Select one of the following paragraphs and delete the ones not required. 10,000 cycles are standard.**

- 1) Standard cycle spring: 10,000 cycles.
 - 2) High cycle spring: 25,000 cycles.
 - 3) High cycle spring: 50,000 cycles.
 - 4) High cycle spring: 75,000 cycles.
 - 5) High cycle spring: 100,000 cycles.
- g. Insulation: Polystyrene.
 - h. Thermal Values:
 - 1) Polystyrene - R-value of 7.35; U-Value of 0.136.

**** NOTE TO SPECIFIER ** Select partial glazing or full glazing from the following glazing paragraphs and edit to select glazing required. Delete those not required or delete entirely if glazing is not required..**

- i. Partial Glazing of Steel Panels:
 - 1) Insulated double strength glass, 24 inch by 7 inch (610 mm by 178 mm) window.
 - 2) Insulated tempered glass, 24 inch by 7 inch (610 mm by 178 mm) window.
 - j. Full Glazed Aluminum Sash Panels:
 - 1) 1/8 inch (3 mm) Acrylic glazing.
 - 2) 1/4 inch (6 mm) Acrylic glazing.
 - 3) 1/8 inch (3 mm) Polycarbonate glazing.
 - 4) 1/4 inch (6 mm) Polycarbonate glazing.
 - 5) 1/2 inch (12.5 mm) Polycarbonate glazing.
 - 6) 1/8 inch (3 mm) Tempered Glass.
 - 7) 1/4 inch (6 mm) Tempered Glass.
 - 8) 1/2 inch (12.5 mm) Tempered Glass.
 - 9) 1/4 inch (6 mm) Wire Glass.
 - 10) 1/2 inch (12.5 mm) Insulating Glass.
 - 11) 1/8 inch (3 mm) Double strength glass.
2. Finish and Color: Two coat baked-on polyester with white exterior and white interior color.

**** NOTE TO SPECIFIER ** Edit the following paragraphs using the applicable building code to determine the actual loading required. Coordinate with the manufacturer for the selection of doors to meet the required criteria.**

3. Wind Load Design: Design as calculated in accordance with applicable code as follows:
 - a. Design pressure of _____ lb/sq ft (_____ kPa).

**** NOTE TO SPECIFIER ** Include the following paragraph for doors meeting Florida Building Code Product Approval #FL 11734 Non-Impact. Suitable for doors up to 32 feet 2 inches wide depending on the wind pressure design requirement specified.**

- b. Provide to meet Florida Building Code Product Approval #FL 11734 Non-Impact.
- 4. Hardware: Galvanized steel hinges and fixtures. Ball bearing rollers with hardened steel races.
- 5. Lock:

**** NOTE TO SPECIFIER ** Select one of the following paragraphs and delete the ones not required. Interior mounted slide lock is standard.**

- a. Interior mounted slide lock.
- b. Interior mounted slide lock with interlock switch for automatic operator.
- c. Keyed lock.
- d. Keyed lock with interlock switch for automatic operator.

**** NOTE TO SPECIFIER ** Select the following paragraph for use with knock-out lower door sections only and delete the ones above.**

- e. Locking mechanism designed to maintain security for exterior while permitting break out when impacted from the inside.
- 6. Weatherstripping:

**** NOTE TO SPECIFIER ** Select the seals required from the following paragraphs and delete those not required. Bottom seal is standard, jamb seals and head seals are optional.**

- a. Flexible bulb-type strip at bottom section.
- b. Flexible Jamb seals.
- c. Flexible Header seal.
- 7. Track: Provide track as recommended by manufacturer to suit loading required and clearances available.

**** NOTE TO SPECIFIER ** Edit the following track size and type paragraphs as required and delete the ones not required.**

- a. Size:
 - 1) 2 inch (51 mm).
 - 2) 3 inch (76 mm).
- b. Type:
 - 1) Standard lift.
 - 2) Vertical lift.
 - 3) High lift.
 - 4) Low headroom.
 - 5) Follow roof slope.

**** NOTE TO SPECIFIER ** Select one of the following Operation paragraphs and delete the ones not required. Manual pull rope is standard.**

- 8. Manual Operation: Pull rope.
- 9. Manual Operation: Chain hoist.
- 10. Electric Motor Operation: Provide UL listed electric operator, size and type as recommended by manufacturer to move door in either direction at not less than 2/3 foot nor more than 1 foot per second. Operator shall meet UL325/2010 requirements for continuous monitoring of safety devices.
 - a. Entrapment Protection: Required for momentary contact, includes radio control operation.

**** NOTE TO SPECIFIER ** Select one of the following protection paragraphs and delete those not required.**

- 1) Pneumatic sensing edge up to 18 feet (5.5 m) wide. Constant contact only complying with UL 325/2010.
- 2) Electric sensing edge monitored to meet UL 325/2010.
- 3) Photoelectric sensors monitored to meet UL 325/2010.
- b. Operator Controls:

**** NOTE TO SPECIFIER ** Select one of the following control paragraphs and delete those not required.**

- 1) Push-button operated control stations with open, close, and stop buttons.
- 2) Key operated control stations with open, close, and stop buttons.
- 3) Push-button and key operated control stations with open, close, and stop buttons.

**** NOTE TO SPECIFIER ** Select one of the following mounting paragraphs and delete the one not required.**

- 4) Flush mounting.
- 5) Surface mounting.

**** NOTE TO SPECIFIER ** Select one of the following mounting location paragraphs and delete those not required.**

- 6) Interior location.
- 7) Exterior location.
- 8) Both interior and exterior location.

**** NOTE TO SPECIFIER ** Select special operation features from the following paragraphs and delete those not required. Delete entirely if not required.**

- c. Special Operation:
 - 1) Pull switch.
 - 2) Vehicle detector operation.
 - 3) Radio control operation.
 - 4) Card reader control.
 - 5) Photocell operation.
 - 6) Door timer operation.
 - 7) Commercial light package.
 - 8) Explosion and dust ignition proof control wiring.

**** NOTE TO SPECIFIER ** Overhead Door Corporation 422 Series Insulated Steel Doors are available up to a maximum width of 31 feet 2 inches and a maximum height of 24 feet 1 inch. Edit as required to suit project requirements.**

- L. Insulated Steel Sectional Overhead Doors: 422 Series Insulated Steel Doors by Overhead Door Corporation. Units shall have the following characteristics:
 1. Door Assembly: Insulated steel door assembly with rabbeted meeting rails to provide full-width interlocking structural rigidity.
 - a. Panel Thickness: 2 inches (51 mm).
 - b. Exterior Surface: Ribbed.
 - c. Exterior Steel: 20 gauge, hot-dip galvanized.
 - d. Back Cover:
 - 1) 26 gauge steel.
 - 2) Poly-Backed.
 - 3) High Impact Polystyrene Backcover.
 - e. Center and End Stiles: 16 gauge steel.
 - f. Spring Counterbalance: Sized to weight of the door, with a helically wound, oil tempered torsion spring mounted on a steel shaft; cable drum of diecast aluminum with high strength galvanized aircraft cable. Sized with a minimum 7 to 1 safety factor.

**** NOTE TO SPECIFIER ** Select one of the following backcover paragraphs and delete those not required.**

- 1) 26 gauge steel.
- 2) Poly-Backed.
- 3) High Impact Polystyrene Backcover.
- e. Center and End Stiles: 16 gauge steel.
- f. Spring Counterbalance: Sized to weight of the door, with a helically wound, oil tempered torsion spring mounted on a steel shaft; cable drum of diecast aluminum with high strength galvanized aircraft cable. Sized with a minimum 7 to 1 safety factor.

**** NOTE TO SPECIFIER ** Select one of the following paragraphs and delete the ones not required. 10,000 cycles are standard.**

- 1) Standard cycle spring: 10,000 cycles.
- 2) High cycle spring: 25,000 cycles.
- 3) High cycle spring: 50,000 cycles.
- 4) High cycle spring: 75,000 cycles.
- 5) High cycle spring: 100,000 cycles.
- g. Insulation: Polystyrene.
- h. Thermal Values:

- 1) Polystyrene - R-value of 7.35; U-value of 0.136.

**** NOTE TO SPECIFIER ** Select partial glazing or full glazing from the following glazing paragraphs and edit to select glazing required. Delete those not required or delete entirely if glazing is not required..**

- i. Partial Glazing of Steel Panels:
 - 1) Insulated double strength glass, 24 inch by 7 inch (610 mm by 178 mm) window.
 - 2) Insulated tempered glass, 24 inch by 7 inch (610 mm by 178 mm) window.
- j. Full Glazed Aluminum Sash Panels:
 - 1) 1/8 inch (3 mm) Acrylic glazing.
 - 2) 1/4 inch (6 mm) Acrylic glazing.
 - 3) 1/8 inch (3 mm) Polycarbonate glazing.
 - 4) 1/4 inch (6 mm) Polycarbonate glazing.
 - 5) 1/2 inch (12.5 mm) Polycarbonate glazing.
 - 6) 1/8 inch (3 mm) Tempered Glass.
 - 7) 1/4 inch (6 mm) Tempered Glass.
 - 8) 1/2 inch (12.5 mm) Tempered Glass.
 - 9) 1/4 inch (6 mm) Wire Glass.
 - 10) 1/2 inch (12.5 mm) Insulating Glass.
 - 11) 1/8 inch (3 mm) Double strength glass.
2. Finish and Color: Two coat baked-on polyester with white exterior and white interior color.

**** NOTE TO SPECIFIER ** Edit the following paragraphs using the applicable building code to determine the actual loading required. Coordinate with the manufacturer for the selection of doors to meet the required criteria.**

3. Wind Load Design: Design as calculated in accordance with applicable code as follows:
 - a. Design pressure of _____ lb/sq ft (_____ kPa).

**** NOTE TO SPECIFIER ** Include the following paragraph for doors meeting Florida Building Code Product Approval #FL 11734 Non-Impact. Suitable for doors up to 28 feet 2 inches wide depending on the wind pressure design requirement specified.**

- b. Provide to meet Florida Building Code Product Approval #FL 11734 Non-Impact.
4. Hardware: Galvanized steel hinges and fixtures. Ball bearing rollers with hardened steel races.
5. Lock:

**** NOTE TO SPECIFIER ** Select one of the following paragraphs and delete the ones not required. Interior mounted slide lock is standard.**

- a. Interior mounted slide lock.
- b. Interior mounted slide lock with interlock switch for automatic operator.
- c. Keyed lock.
- d. Keyed lock with interlock switch for automatic operator.

**** NOTE TO SPECIFIER ** Select the following paragraph for use with knock-out lower door sections only and delete the ones above.**

- e. Locking mechanism designed to maintain security for exterior while permitting break out when impacted from the inside.

6. Weatherstripping:

**** NOTE TO SPECIFIER ** Select the seals required from the following paragraphs and delete those not required. Bottom seal is standard, jamb seals and head seals are optional.**

- a. Flexible bulb-type strip at bottom section.
 - b. Flexible Jamb seals.
 - c. Flexible Header seal.
7. Track: Provide track as recommended by manufacturer to suit loading required and clearances available.

**** NOTE TO SPECIFIER ** Edit the following track size and type paragraphs as required and delete the ones not required.**

- a. Size:
 - 1) 2 inch (51 mm).
 - 2) 3 inch (76 mm).
- b. Type:
 - 1) Standard lift.
 - 2) Vertical lift.
 - 3) High lift.
 - 4) Low headroom.
 - 5) Follow roof slope.

***** NOTE TO SPECIFIER ** Select one of the following Operation paragraphs and delete the ones not required. Manual pull rope is standard.**

- 8. Manual Operation: Pull rope.
- 9. Manual Operation: Chain hoist.
- 10. Electric Motor Operation: Provide UL listed electric operator, size and type as recommended by manufacturer to move door in either direction at not less than 2/3 foot nor more than 1 foot per second. Operator shall meet UL325/2010 requirements for continuous monitoring of safety devices.
 - a. Entrapment Protection: Required for momentary contact, includes radio control operation.

**** NOTE TO SPECIFIER ** Select one of the following protection paragraphs and delete those not required.**

- 1) Pneumatic sensing edge up to 18 feet (5.5 m) wide. Constant contact only complying with UL 325/2010.
- 2) Electric sensing edge monitored to meet UL 325/2010.
- 3) Photoelectric sensors monitored to meet UL 325/2010.
- b. Operator Controls:

**** NOTE TO SPECIFIER ** Select one of the following control paragraphs and delete those not required.**

- 1) Push-button operated control stations with open, close, and stop buttons.
- 2) Key operated control stations with open, close, and stop buttons.
- 3) Push-button and key operated control stations with open, close, and stop buttons.

**** NOTE TO SPECIFIER ** Select one of the following mounting paragraphs and delete the one not required.**

- 4) Flush mounting.
- 5) Surface mounting.

**** NOTE TO SPECIFIER ** Select one of the following mounting location paragraphs and delete those not required.**

- 6) Interior location.
- 7) Exterior location.
- 8) Both interior and exterior location.

**** NOTE TO SPECIFIER ** Select special operation features from the following paragraphs and delete those not required. Delete entirely if not required.**

- c. Special Operation:
 - 1) Pull switch.
 - 2) Vehicle detector operation.
 - 3) Radio control operation.
 - 4) Card reader control.
 - 5) Photocell operation.
 - 6) Door timer operation.
 - 7) Commercial light package.
 - 8) Explosion and dust ignition proof control wiring.

**** NOTE TO SPECIFIER ** Overhead Door Corporation 426 Series Insulated Steel Doors are available up to a maximum width of 30 feet 2 inches and a maximum height of 24 feet 1 inch. Edit as required to suit project requirements.**

- M. Insulated Steel Sectional Overhead Doors: 426 Series Insulated Steel Doors by Overhead Door Corporation. Units shall have the following characteristics:
1. Door Assembly: Insulated steel door assembly with rabbeted meeting rails to provide full-width interlocking structural rigidity.
 - a. Panel Thickness: 2 inches (51 mm).
 - b. Exterior Surface: Ribbed.
 - c. Exterior Steel: 24 gauge, hot-dip galvanized.
 - d. Back Cover:

**** NOTE TO SPECIFIER ** Select one of the following backcover paragraphs and delete those not required.**

- 1) 26 gauge steel.
- 2) Poly-Backed.
- 3) High Impact Polystyrene Backcover.
- e. Center and End Stiles: 16 gauge steel.
- f. Spring Counterbalance: Sized to weight of the door, with a helically wound, oil tempered torsion spring mounted on a steel shaft; cable drum of diecast aluminum with high strength galvanized aircraft cable. Sized with a minimum 7 to 1 safety factor.

**** NOTE TO SPECIFIER ** Select one of the following paragraphs and delete the ones not required. 10,000 cycles are standard.**

- 1) Standard cycle spring: 10,000 cycles.
- 2) High cycle spring: 25,000 cycles.
- 3) High cycle spring: 50,000 cycles.
- 4) High cycle spring: 75,000 cycles.
- 5) High cycle spring: 100,000 cycles.
- g. Insulation: Polystyrene.
- h. Thermal Values:
 - 1) Polystyrene - R-value of 7.35; U-value of 0.136.

**** NOTE TO SPECIFIER ** Select partial glazing or full glazing from the following glazing paragraphs and edit to select glazing required. Delete those not required or delete entirely if glazing is not required..**

- i. Partial Glazing of Steel Panels:
 - 1) Insulated double strength glass, 24 inch by 7 inch (610 mm by 178 mm) window.
- j. Full Glazed Aluminum Sash Panels:
 - 1) 1/8 inch (3 mm) Acrylic glazing.
 - 2) 1/4 inch (6 mm) Acrylic glazing.
 - 3) 1/8 inch (3 mm) Polycarbonate glazing.
 - 4) 1/4 inch (6 mm) Polycarbonate glazing.
 - 5) 1/2 inch (12.5 mm) Polycarbonate glazing.
 - 6) 1/8 inch (3 mm) Tempered Glass.
 - 7) 1/4 inch (6 mm) Tempered Glass.
 - 8) 1/2 inch (12.5 mm) Tempered Glass.
 - 9) 1/4 inch (6 mm) Wire Glass.
 - 10) 1/2 inch (12.5 mm) Insulating Glass.
 - 11) 1/8 inch (3 mm) Double strength glass.
2. Finish and Color: Two coat baked-on polyester with white exterior and white interior color.

**** NOTE TO SPECIFIER ** Edit the following paragraphs using the applicable building code to determine the actual loading required. Coordinate with the manufacturer for the selection of doors to meet the required criteria.**

3. Wind Load Design: Design as calculated in accordance with applicable code as follows:

- a. Design pressure of _____ lb/sq ft (_____ kPa).
- 4. Hardware: Galvanized steel hinges and fixtures. Ball bearing rollers with hardened steel races.
- 5. Lock:

**** NOTE TO SPECIFIER ** Select one of the following paragraphs and delete the ones not required. Interior mounted slide lock is standard.**

- a. Interior mounted slide lock.
- b. Interior mounted slide lock with interlock switch for automatic operator.
- c. Keyed lock.
- d. Keyed lock with interlock switch for automatic operator.

**** NOTE TO SPECIFIER ** Select the following paragraph for use with knock-out lower door sections only and delete the ones above.**

- e. Locking mechanism designed to maintain security for exterior while permitting break out when impacted from the inside.

- 6. Weatherstripping:

**** NOTE TO SPECIFIER ** Select the seals required from the following paragraphs and delete those not required. Bottom seal is standard, jamb seals and head seals are optional.**

- a. Flexible bulb-type strip at bottom section.
- b. Flexible Jamb seals.
- c. Flexible Header seal.

- 7. Track: Provide track as recommended by manufacturer to suit loading required and clearances available.

**** NOTE TO SPECIFIER ** Edit the following track size and type paragraphs as required and delete the ones not required.**

- a. Size:
 - 1) 2 inch (51 mm).
 - 2) 3 inch (76 mm).
- b. Type:
 - 1) Standard lift.
 - 2) Vertical lift.
 - 3) High lift.
 - 4) Low headroom.
 - 5) Follow roof slope.

**** NOTE TO SPECIFIER ** Select one of the following Operation paragraphs and delete the ones not required. Manual pull rope is standard.**

- 8. Manual Operation: Pull rope.
- 9. Manual Operation: Chain hoist.
- 10. Electric Motor Operation: Provide UL listed electric operator, size and type as recommended by manufacturer to move door in either direction at not less than 2/3 foot nor more than 1 foot per second. Operator shall meet UL325/2010 requirements for continuous monitoring of safety devices.
 - a. Entrapment Protection: Required for momentary contact, includes radio control operation.

**** NOTE TO SPECIFIER ** Select one of the following protection paragraphs and delete those not required.**

- 1) Pneumatic sensing edge up to 18 feet (5.5 m) wide. Constant contact only complying with UL 325/2010.
- 2) Electric sensing edge monitored to meet UL 325/2010.
- 3) Photoelectric sensors monitored to meet UL 325/2010.

- b. Operator Controls:

**** NOTE TO SPECIFIER ** Select one of the following control paragraphs and delete those not required.**

- 1) Push-button operated control stations with open, close, and stop buttons.
- 2) Key operated control stations with open, close, and stop buttons.

- 3) Push-button and key operated control stations with open, close, and stop buttons.

**** NOTE TO SPECIFIER ** Select one of the following mounting paragraphs and delete the one not required.**

- 4) Flush mounting.
- 5) Surface mounting.

**** NOTE TO SPECIFIER ** Select one of the following mounting location paragraphs and delete those not required.**

- 6) Interior location.
- 7) Exterior location.
- 8) Both interior and exterior location.

**** NOTE TO SPECIFIER ** Select special operation features from the following paragraphs and delete those not required. Delete entirely if not required.**

- c. Special Operation:
 - 1) Pull switch.
 - 2) Vehicle detector operation.
 - 3) Radio control operation.
 - 4) Card reader control.
 - 5) Photocell operation.
 - 6) Door timer operation.
 - 7) Commercial light package.
 - 8) Explosion and dust ignition proof control wiring.

**** NOTE TO SPECIFIER ** Overhead Door Corporation 432 Series Insulated Steel Doors are available up to a maximum width of 20 feet 2 inches and a maximum height of 16 feet 1 inch. Edit as required to suit project requirements.**

- N. Insulated Steel Sectional Overhead Doors: 432 Series Insulated Steel Doors by Overhead Door Corporation. Units shall have the following characteristics:
 1. Door Assembly: Insulated steel door assembly with rabbeted meeting rails to provide full-width interlocking structural rigidity.
 - a. Panel Thickness: 2 inches (51 mm).
 - b. Exterior Surface: Ribbed.
 - c. Exterior Steel: Nominal 24 gauge, hot-dip galvanized.
 - d. Back Cover:

**** NOTE TO SPECIFIER ** Select one of the following backcover paragraphs and delete those not required.**

- 1) 26 gauge steel.
- 2) Poly-Backed.
- 3) High Impact Polystyrene Backcover.
- e. Center and End Stiles: 16 gauge steel.
- f. Spring Counterbalance: Sized to weight of the door, with a helically wound, oil tempered torsion spring mounted on a steel shaft; cable drum of diecast aluminum with high strength galvanized aircraft cable. Sized with a minimum 7 to 1 safety factor.

**** NOTE TO SPECIFIER ** Select one of the following paragraphs and delete the ones not required. 10,000 cycles are standard.**

- 1) Standard cycle spring: 10,000 cycles.
- 2) High cycle spring: 25,000 cycles.
- 3) High cycle spring: 50,000 cycles.
- 4) High cycle spring: 75,000 cycles.
- 5) High cycle spring: 100,000 cycles.
- g. Insulation: Polystyrene.
- h. Thermal Values:

- 1) Polystyrene - R-value of 7.35; U-value of 0.136.

**** NOTE TO SPECIFIER ** Select partial glazing or full glazing from the following glazing paragraphs and edit to select glazing required. Delete those not required or delete entirely**

if glazing is not required. Florida code requires minimum insulated double strength glass. Multiple full view sash or glazed sections acceptable under FL Code when reinforced with the reinforcing strut. Contact the manufacturer for additional information.

- i. Partial Glazing of Steel Panels:
 - 1) Insulated double strength glass, 24 inch by 7 inch (610 mm by 178 mm) window.
- j. Full Glazed Aluminum Sash Panels:
 - 1) 1/8 inch (3 mm) Acrylic glazing.
 - 2) 1/4 inch (6 mm) Acrylic glazing.
 - 3) 1/8 inch (3 mm) Polycarbonate glazing.
 - 4) 1/4 inch (6 mm) Polycarbonate glazing.
 - 5) 1/2 inch (12.5 mm) Polycarbonate glazing.
 - 6) 1/8 inch (3 mm) Tempered Glass.
 - 7) 1/4 inch (6 mm) Tempered Glass.
 - 8) 1/2 inch (12.5 mm) Tempered Glass.
 - 9) 1/4 inch (6 mm) Wire Glass.
 - 10) 1/2 inch (12.5 mm) Insulating Glass.
 - 11) 1/8 inch (3 mm) Double strength glass.
2. Finish and Color: Two coat baked-on polyester with white exterior and white interior color.

**** NOTE TO SPECIFIER ** Edit the following paragraphs using the applicable building code to determine the actual loading required. Coordinate with the manufacturer for the selection of doors to meet the required criteria.**

3. Wind Load Design: Design as calculated in accordance with applicable code as follows:
 - a. Design pressure of _____ lb/sq ft (_____ kPa).

**** NOTE TO SPECIFIER ** Include the following paragraphs for doors meeting the Florida Building Code requirements. Florida Building Code Product Approval #FL 11734 Non-Impact is suitable for doors up to 22 feet 2 inches wide by 30 feet 1 inch high depending on the wind pressure design requirement specified.**

- b. Provide to meet Florida Building Code Product Approval #FL 11734 Non-Impact.
4. Hardware: Galvanized steel hinges and fixtures. Ball bearing rollers with hardened steel races.

5. Lock:

**** NOTE TO SPECIFIER ** Select one of the following paragraphs and delete the ones not required. Interior mounted slide lock is standard.**

- a. Interior mounted slide lock.
- b. Interior mounted slide lock with interlock switch for automatic operator.
- c. Keyed lock.
- d. Keyed lock with interlock switch for automatic operator.

**** NOTE TO SPECIFIER ** Select the following paragraph for use with knock-out lower door sections only and delete the ones above.**

- e. Locking mechanism designed to maintain security for exterior while permitting break out when impacted from the inside.

6. Weatherstripping:

**** NOTE TO SPECIFIER ** Select the seals required from the following paragraphs and delete those not required. Bottom seal is standard, jamb seals and head seals are optional.**

- a. Flexible bulb-type strip at bottom section.
- b. Flexible Jamb seals.
- c. Flexible Header seal.

7. Track: Provide track as recommended by manufacturer to suit loading required and clearances available.

**** NOTE TO SPECIFIER ** Edit the following track size and type paragraphs as required and delete the ones not required.**

- a. Size:

- 1) 2 inch (51 mm).
- 2) 3 inch (76 mm).
- b. Type:
 - 1) Standard lift.
 - 2) Vertical lift.
 - 3) High lift.
 - 4) Low headroom.
 - 5) Follow roof slope.

**** NOTE TO SPECIFIER ** Select one of the following Operation paragraphs and delete the ones not required. Manual pull rope is standard.**

- 8. Manual Operation: Pull rope.
- 9. Manual Operation: Chain hoist.
- 10. Electric Motor Operation: Provide UL listed electric operator, size and type as recommended by manufacturer to move door in either direction at not less than 2/3 foot nor more than 1 foot per second. Operator shall meet UL325/2010 requirements for continuous monitoring of safety devices.
 - a. Entrapment Protection: Required for momentary contact, includes radio control operation.

**** NOTE TO SPECIFIER ** Select one of the following protection paragraphs and delete those not required.**

- 1) Pneumatic sensing edge up to 18 feet (5.5 m) wide. Constant contact only complying with UL 325/2010.
- 2) Electric sensing edge monitored to meet UL 325/2010.
- 3) Photoelectric sensors monitored to meet UL 325/2010.
- b. Operator Controls:

**** NOTE TO SPECIFIER ** Select one of the following control paragraphs and delete those not required.**

- 1) Push-button operated control stations with open, close, and stop buttons.
- 2) Key operated control stations with open, close, and stop buttons.
- 3) Push-button and key operated control stations with open, close, and stop buttons.

**** NOTE TO SPECIFIER ** Select one of the following mounting paragraphs and delete the one not required.**

- 4) Flush mounting.
- 5) Surface mounting.

**** NOTE TO SPECIFIER ** Select one of the following mounting location paragraphs and delete those not required.**

- 6) Interior location.
- 7) Exterior location.
- 8) Both interior and exterior location.

**** NOTE TO SPECIFIER ** Select special operation features from the following paragraphs and delete those not required. Delete entirely if not required.**

- c. Special Operation:
 - 1) Pull switch.
 - 2) Vehicle detector operation.
 - 3) Radio control operation.
 - 4) Card reader control.
 - 5) Photocell operation.
 - 6) Door timer operation.
 - 7) Commercial light package.
 - 8) Explosion and dust ignition proof control wiring.

- O. Insulated Steel Sectional Overhead Doors: 470 Series Insulated Steel Doors by Overhead Door Corporation. Units shall have the following characteristics:

1. Door Assembly: Rigid steel construction; fully insulated on the inside face with continuous steel backing on the inside face. Fabricated with steel end stiles and tongue and groove sections.
 - a. Panel Thickness: 2 inches (51 mm).
 - b. Exterior Surface: Ribbed.
 - c. Exterior Steel: 26 gauge, hot-dipped galvanized with an embossed simulated wood grain texture.
 - d. Interior Steel: 29 gauge, hot-dipped galvanized
 - e. Springs:

**** NOTE TO SPECIFIER ** Select one of the following paragraphs and delete the ones not required. 10,000 cycles are standard.**

- 1) 10,000 cycles.
- 2) 25,000 cycles.
- 3) 50,000 cycles.
- 4) 75,000 cycles.
- 5) 100,000 cycles.
- f. Insulation: Polystyrene.
- g. Thermal Values:
 - 1) Polystyrene - R-value of 9.83; U-value of 0.102.

**** NOTE TO SPECIFIER ** The following paragraph is optional. Delete if not required.**

**** NOTE TO SPECIFIER ** Select partial glazing or full glazing from the following glazing paragraphs and edit to select glazing required. Delete those not required or delete entirely if glazing is not required..**

- h. Partial Glazing of Steel Panels:
 - 1) 19 inch by 12 inch window.
 - (a) DSB
 - (b) Tempered Glass
 - (c) Clear Lexan
 - (d) Solar Bronze
 - (e) Obscure
 - 2) 42 inch by 13 inch window.
 - (a) DSB
2. Finish and Color: Two coat baked-on polyester. Color as follows:
 - a. White
 - b. Almond
 - c. Brown
 - d. Sandstone
 - e. Desert Tan

**** NOTE TO SPECIFIER ** The following paragraph is optional. Contact the manufacturer for additional information. Include the Design/Performance Requirements in Part 1 of this specification.**

3. Windload Design: Provide to meet the Design/Performance requirements specified.
4. Hardware: Galvanized steel hinges and fixtures. Ball bearing rollers with hardened steel races.
5. Lock:

**** NOTE TO SPECIFIER ** Select one of the following paragraphs and delete the ones not required. Interior mounted slide lock is standard.**

- a. Interior mounted slide lock.
- b. Interior mounted slide lock with interlock switch for automatic operator.
- c. Keyed lock.
- d. Keyed lock with interlock switch for automatic operator.

**** NOTE TO SPECIFIER ** Select the following paragraph for use with knock-out lower door sections only and delete the ones above.**

- e. Locking mechanism designed to maintain security for exterior while permitting break out when impacted from the inside.

6. Weatherstripping:

**** NOTE TO SPECIFIER ** Select the seals required from the following paragraphs and delete those not required. Bottom seal is standard, jamb seals and head seals are optional.**

- a. Flexible bulb-type strip at bottom section.
- b. Flexible Jamb seals.
- c. Flexible Header seal.

7. Track: Provide track as recommended by manufacturer to suit loading required and clearances available.

**** NOTE TO SPECIFIER ** Select one of the following Operation paragraphs and delete the ones not required. Manual pull rope is standard.**

8. Manual Operation: Pull rope.
9. Manual Operation: Chain hoist.
10. Electric Motor Operation: Provide UL listed electric operator, size and type as recommended by manufacturer to move door in either direction at not less than 2/3 foot nor more than 1 foot per second. Operator shall meet UL325/2010 requirements for continuous monitoring of safety devices.
 - a. Entrapment Protection: Required for momentary contact, includes radio control operation.

**** NOTE TO SPECIFIER ** Select one of the following protection paragraphs and delete those not required.**

- 1) Pneumatic sensing edge up to 18 feet (5.5 m) wide. Constant contact only complying with UL 325/2010.
- 2) Electric sensing edge monitored to meet UL 325/2010.
- 3) Photoelectric sensors monitored to meet UL 325/2010.

b. Operator Controls:

**** NOTE TO SPECIFIER ** Select one of the following control paragraphs and delete those not required.**

- 1) Push-button operated control stations with open, close, and stop buttons.
- 2) Key operated control stations with open, close, and stop buttons.
- 3) Push-button and key operated control stations with open, close, and stop buttons.

**** NOTE TO SPECIFIER ** Select one of the following mounting paragraphs and delete the one not required.**

- 4) Flush mounting.
- 5) Surface mounting.

**** NOTE TO SPECIFIER ** Select one of the following mounting location paragraphs and delete those not required.**

- 6) Interior location.
- 7) Exterior location.
- 8) Both interior and exterior location.

**** NOTE TO SPECIFIER ** Select special operation features from the following paragraphs and delete those not required. Delete entirely if not required.**

- c. Special Operation:
 - 1) Pull switch.
 - 2) Vehicle detector operation.
 - 3) Radio control operation.
 - 4) Card reader control.
 - 5) Photocell operation.
 - 6) Door timer operation.
 - 7) Commercial light package.
 - 8) Explosion and dust ignition proof control wiring.

2.3 STEEL SECTIONAL OVERHEAD DOORS

**** NOTE TO SPECIFIER ** Overhead Door Corporation 416 Series Steel Doors are available up to a maximum width of 32 feet 2 inches and a maximum height of 21 feet 1 inch. Edit as required to suit project requirements.**

- A. Sectional Overhead Steel Doors: 416 Series Steel Doors by Overhead Door Corporation. Units shall have the following characteristics:
1. Door Assembly: Steel door assembly with rabbeted meeting rails to provide full-width interlocking structural rigidity.
 - a. Panel Thickness: 2 inches (51 mm).
 - b. Exterior Surface: Flush.
 - c. Section Material: 16 gauge, galvanized steel.
 - d. Center and End Stiles: 16 gauge steel.
 - e. Springs:

**** NOTE TO SPECIFIER ** Select one of the following paragraphs and delete the ones not required. 10,000 cycles are standard.**

- 1) 10,000 cycles.
- 2) 25,000 cycles.
- 3) 50,000 cycles.
- 4) 75,000 cycles.
- 5) 100,000 cycles.

**** NOTE TO SPECIFIER ** Select partial glazing or full glazing from the following glazing paragraphs and edit to select glazing required. Delete those not required or delete entirely if glazing is not required..**

- f. Partial Glazing of Steel Panels:
 - 1) Non-Insulated double strength glass, 24 inch by 7 inch (610 mm by 178 mm) window.
- g. Full Glazed Aluminum Sash Panels:
 - 1) Acrylic glazing.
 - 2) 1/8 inch (3 mm) double strength glass.
2. Finish and Color: Two coat baked-on polyester, white color.

**** NOTE TO SPECIFIER ** Edit the following paragraphs using the applicable building code to determine the actual loading required. Coordinate with the manufacturer for the selection of doors to meet the required criteria.**

3. Wind Load Design: Design as calculated in accordance with applicable code as follows:
 - a. Design pressure of _____ lb/sq ft (_____ kPa).

**** NOTE TO SPECIFIER ** Include the following paragraph for doors meeting Florida Building Code Product Approval #FL 11734 Non-Impact. Suitable for doors up to 32 feet 2 inches wide depending on the wind pressure design requirement specified.**

- b. Provide to meet Florida Building Code Product Approval #FL 11734 Non-Impact.
4. Hardware: Galvanized steel hinges and fixtures. Ball bearing rollers with hardened steel races.
5. Lock:

**** NOTE TO SPECIFIER ** Select one of the following paragraphs and delete the ones not required. Interior mounted slide lock is standard.**

- a. Interior mounted slide lock.
- b. Interior mounted slide lock with interlock switch for automatic operator.
- c. Keyed lock.
- d. Keyed lock with interlock switch for automatic operator.

**** NOTE TO SPECIFIER ** Select the following paragraph for use with knock-out lower door sections only and delete the ones above.**

- e. Locking mechanism designed to maintain security for exterior while permitting break out when impacted from the inside.

6. Weatherstripping:

**** NOTE TO SPECIFIER ** Select the seals required from the following paragraphs and delete those not required. Bottom seal is standard, jamb seals and head seals are optional.**

- a. Flexible bulb-type strip at bottom section.
 - b. Flexible Jamb seals.
 - c. Flexible Header seal.
7. Track: Provide track as recommended by manufacturer to suit loading required and clearances available.

**** NOTE TO SPECIFIER ** Select one of the following Operation paragraphs and delete the ones not required. Manual pull rope is standard.**

- 8. Manual Operation: Pull rope.
- 9. Manual Operation: Chain hoist.
- 10. Electric Motor Operation: Provide UL listed electric operator, size and type as recommended by manufacturer to move door in either direction at not less than 2/3 foot nor more than 1 foot per second. Operator shall meet UL325/2010 requirements for continuous monitoring of safety devices.
 - a. Entrapment Protection: Required for momentary contact, includes radio control operation.

**** NOTE TO SPECIFIER ** Select one of the following protection paragraphs and delete those not required.**

- 1) Pneumatic sensing edge up to 18 feet (5.5 m) wide. Constant contact only complying with UL 325/2010.
 - 2) Electric sensing edge monitored to meet UL 325/2010.
 - 3) Photoelectric sensors monitored to meet UL 325/2010.
- b. Operator Controls:

**** NOTE TO SPECIFIER ** Select one of the following control paragraphs and delete those not required.**

- 1) Push-button operated control stations with open, close, and stop buttons.
- 2) Key operated control stations with open, close, and stop buttons.
- 3) Push-button and key operated control stations with open, close, and stop buttons.

**** NOTE TO SPECIFIER ** Select one of the following mounting paragraphs and delete the one not required.**

- 4) Flush mounting.
- 5) Surface mounting.

**** NOTE TO SPECIFIER ** Select one of the following mounting location paragraphs and delete those not required.**

- 6) Interior location.
- 7) Exterior location.
- 8) Both interior and exterior location.

**** NOTE TO SPECIFIER ** Select special operation features from the following paragraphs and delete those not required. Delete entirely if not required.**

- c. Special Operation:
 - 1) Pull switch.
 - 2) Vehicle detector operation.
 - 3) Radio control operation.
 - 4) Card reader control.
 - 5) Photocell operation.
 - 6) Door timer operation.
 - 7) Commercial light package.
 - 8) Explosion and dust ignition proof control wiring.

**** NOTE TO SPECIFIER ** Overhead Door Corporation 420 Series Steel Doors are available up to a maximum width of 31 feet 2 inches and a maximum height of 24 feet 1 inch. Edit as required to suit project requirements.**

- B. Sectional Overhead Steel Doors: 420 Series Steel Doors by Overhead Door Corporation. Units shall have the following characteristics:

1. Door Assembly: Steel door assembly with rabbeted meeting rails to provide full-width interlocking structural rigidity.
 - a. Panel Thickness: 2 inches (51 mm).
 - b. Exterior Surface: Ribbed.
 - c. Section Material: 20 gauge, galvanized steel.
 - d. Center and End Stiles: 16 gauge steel.
 - e. Springs:

**** NOTE TO SPECIFIER ** Select one of the following paragraphs and delete the ones not required. 10,000 cycles are standard.**

- 1) 10,000 cycles.
- 2) 25,000 cycles.
- 3) 50,000 cycles.
- 4) 75,000 cycles.
- 5) 100,000 cycles.

**** NOTE TO SPECIFIER ** Select partial glazing or full glazing from the following glazing paragraphs and edit to select glazing required. Delete those not required or delete entirely if glazing is not required..**

- f. Partial Glazing of Steel Panels:
 - 1) Non-Insulated double strength glass, 24 inch by 7 inch (610 mm by 178 mm) window.
- g. Full Glazed Aluminum Sash Panels:
 - 1) Acrylic glazing.
 - 2) 1/8 inch (3 mm) double strength glass.
2. Finish and Color: Two coat baked-on polyester, white color.

**** NOTE TO SPECIFIER ** Edit the following paragraphs using the applicable building code to determine the actual loading required. Coordinate with the manufacturer for the selection of doors to meet the required criteria.**

3. Wind Load Design: Design as calculated in accordance with applicable code as follows:
 - a. Design pressure of _____ lb/sq ft (_____ kPa).

**** NOTE TO SPECIFIER ** Include the following paragraph for doors meeting Florida Building Code Product Approval #FL 11734 Non-Impact. Suitable for doors up to 28 feet 2 inches wide depending on the wind pressure design requirement specified.**

- b. Provide to meet Florida Building Code Product Approval #FL 11734 Non-Impact.
4. Hardware: Galvanized steel hinges and fixtures. Ball bearing rollers with hardened steel races.
5. Lock:

**** NOTE TO SPECIFIER ** Select one of the following paragraphs and delete the ones not required. Interior mounted slide lock is standard.**

- a. Interior mounted slide lock.
- b. Interior mounted slide lock with interlock switch for automatic operator.
- c. Keyed lock.
- d. Keyed lock with interlock switch for automatic operator.

**** NOTE TO SPECIFIER ** Select the following paragraph for use with knock-out lower door sections only and delete the ones above.**

- e. Locking mechanism designed to maintain security for exterior while permitting break out when impacted from the inside.

6. Weatherstripping:

**** NOTE TO SPECIFIER ** Select the seals required from the following paragraphs and delete those not required. Bottom seal is standard, jamb seals and head seals are optional.**

- a. Flexible bulb-type strip at bottom section.
- b. Flexible Jamb seals.
- c. Flexible Header seal.
7. Track: Provide track as recommended by manufacturer to suit loading required and clearances available.

**** NOTE TO SPECIFIER ** Select one of the following Operation paragraphs and delete the ones not required. Manual pull rope is standard.**

8. Manual Operation: Pull rope.
9. Manual Operation: Chain hoist.
10. Electric Motor Operation: Provide UL listed electric operator, size and type as recommended by manufacturer to move door in either direction at not less than 2/3 foot nor more than 1 foot per second. Operator shall meet UL325/2010 requirements for continuous monitoring of safety devices.
 - a. Entrapment Protection: Required for momentary contact, includes radio control operation.

**** NOTE TO SPECIFIER ** Select one of the following protection paragraphs and delete those not required.**

- 1) Pneumatic sensing edge up to 18 feet (5.5 m) wide. Constant contact only complying with UL 325/2010.
 - 2) Electric sensing edge monitored to meet UL 325/2010.
 - 3) Photoelectric sensors monitored to meet UL 325/2010.
- b. Operator Controls:

**** NOTE TO SPECIFIER ** Select one of the following control paragraphs and delete those not required.**

- 1) Push-button operated control stations with open, close, and stop buttons.
- 2) Key operated control stations with open, close, and stop buttons.
- 3) Push-button and key operated control stations with open, close, and stop buttons.

**** NOTE TO SPECIFIER ** Select one of the following mounting paragraphs and delete the one not required.**

- 4) Flush mounting.
- 5) Surface mounting.

**** NOTE TO SPECIFIER ** Select one of the following mounting location paragraphs and delete those not required.**

- 6) Interior location.
- 7) Exterior location.
- 8) Both interior and exterior location.

**** NOTE TO SPECIFIER ** Select special operation features from the following paragraphs and delete those not required. Delete entirely if not required.**

- c. Special Operation:
 - 1) Pull switch.
 - 2) Vehicle detector operation.
 - 3) Radio control operation.
 - 4) Card reader control.
 - 5) Photocell operation.
 - 6) Door timer operation.
 - 7) Commercial light package.
 - 8) Explosion and dust ignition proof control wiring.

**** NOTE TO SPECIFIER ** Overhead Door Corporation 421 Series Steel Doors are available up to a maximum width of 14 feet 2 inches and a maximum height of 24 feet 1 inch. Edit as required to suit project requirements.**

- C. Sectional Overhead Steel Doors: 421 Series Steel Doors by Overhead Door Corporation. Units shall have the following characteristics:
 1. Door Assembly: Steel door assembly of roll formed steel type with tongue and groove meeting rails and box shaped 20 gauge stile construction.
 - a. Panel Thickness: 2 inches (51 mm).
 - b. Exterior Surface: Ribbed.
 - c. Section Material: 20 gauge, galvanized steel.
 - d. Center and End Stiles: 20 gauge steel.

e. Springs:

**** NOTE TO SPECIFIER ** Select one of the following paragraphs and delete the ones not required. 10,000 cycles are standard.**

- 1) 10,000 cycles.
- 2) 25,000 cycles.
- 3) 50,000 cycles.
- 4) 75,000 cycles.
- 5) 100,000 cycles.

**** NOTE TO SPECIFIER ** Select partial glazing from the following paragraph if required. Delete if not required or delete entirely if glazing is not required.**

f. Partial Glazing of Steel Panels:

- 1) Impact rated: 1/4 inch (6 mm) Polycarbonate glazing.
2. Finish and Color: Two coat baked-on polyester, white color.

**** NOTE TO SPECIFIER ** Edit the following paragraphs using the applicable building code to determine the actual loading required. Coordinate with the manufacturer for the selection of doors to meet the required criteria.**

3. Wind Load Design: Design as calculated in accordance with applicable code as follows:

a. Design pressure of plus 50.0/minus 56.0 lb/sq ft.

**** NOTE TO SPECIFIER ** Include one of the following paragraphs for doors meeting the Miami-Dade Code requirements NOA 17-1207.08 Large Missile-Impact for doors up to 10 feet 2 inches wide and NOA 17-1207.09; depending on the wind pressure design requirement specified.**

b. Provide to meet Miami-Dade Specifications NOA 17-1207.08 Large Missile-Impact – Garage Doors up to 10 feet 2 inches (3.10 m) wide and 24 feet 1 inch (7.34 m) high.

c. Provide to meet Miami-Dade Specifications NOA 17-1207.09 Large Missile-Impact – Garage Doors up to 14 feet 2 inches (3.32 m) wide and 24 feet 1 inch (7.34 m) high.

4. Hardware: Galvanized steel hinges and fixtures. Ball bearing rollers with hardened steel races.

5. Lock:

**** NOTE TO SPECIFIER ** Select one of the following paragraphs and delete the ones not required. Interior mounted slide lock is standard.**

a. Interior mounted slide lock.

b. Interior mounted slide lock with interlock switch for automatic operator.

c. Keyed lock.

d. Keyed lock with interlock switch for automatic operator.

**** NOTE TO SPECIFIER ** Select the following paragraph for use with knock-out lower door sections only and delete the ones above.**

e. Locking mechanism designed to maintain security for exterior while permitting break out when impacted from the inside.

6. Weatherstripping:

**** NOTE TO SPECIFIER ** Select the seals required from the following paragraphs and delete those not required. Bottom seal is standard, jamb seals and head seals are optional.**

a. Flexible bulb-type strip at bottom section.

b. Flexible Jamb seals.

c. Flexible Header seal.

7. Track: Provide track as recommended by manufacturer to suit loading required and clearances available.

**** NOTE TO SPECIFIER ** Select one of the following Operation paragraphs and delete the ones not required. Manual pull rope is standard.**

8. Manual Operation: Pull rope.

9. Manual Operation: Chain hoist.

10. Electric Motor Operation: Provide UL listed electric operator, size and type as recommended by manufacturer to move door in either direction at not less

than 2/3 foot nor more than 1 foot per second. Operator shall meet UL325/2010 requirements for continuous monitoring of safety devices.

- a. Entrapment Protection: Required for momentary contact, includes radio control operation.

**** NOTE TO SPECIFIER ** Select one of the following protection paragraphs and delete those not required.**

- 1) Pneumatic sensing edge up to 18 feet (5.5 m) wide. Constant contact only complying with UL 325/2010.
- 2) Electric sensing edge monitored to meet UL 325/2010.
- 3) Photoelectric sensors monitored to meet UL 325/2010.

- b. Operator Controls:

**** NOTE TO SPECIFIER ** Select one of the following control paragraphs and delete those not required.**

- 1) Push-button operated control stations with open, close, and stop buttons.
- 2) Key operated control stations with open, close, and stop buttons.
- 3) Push-button and key operated control stations with open, close, and stop buttons.

**** NOTE TO SPECIFIER ** Select one of the following mounting paragraphs and delete the one not required.**

- 4) Flush mounting
- 5) Surface mounting

**** NOTE TO SPECIFIER ** Select one of the following mounting location paragraphs and delete those not required.**

- 6) Interior location
- 7) Exterior location
- 8) Both interior and exterior location

**** NOTE TO SPECIFIER ** Select special operation features from the following paragraphs and delete those not required. Delete entirely if not required.**

- c. Special Operation:

- 1) Pull switch
- 2) Vehicle detector operation
- 3) Radio control operation
- 4) Card reader control
- 5) Photocell operation
- 6) Door timer operation
- 7) Commercial light package
- 8) Explosion and dust ignition proof control wiring

**** NOTE TO SPECIFIER ** Overhead Door Corporation 423 Series Steel Doors are available up to a maximum width of 14 feet 2 inches and a maximum height of 24 feet 1 inch. Edit as required to suit project requirements.**

- D. Insulated Steel Sectional Overhead Doors: 423 Series Insulated Steel Doors by Overhead Door Corporation. Units shall have the following characteristics:

1. Door Assembly: Insulated steel door assembly of roll formed steel type with tongue and groove meeting rails and box shaped 20 gauge stile construction.
 - a. Panel Thickness: 2 inches (51 mm).
 - b. Exterior Surface: Ribbed.
 - c. Exterior Steel: 20 gauge, galvanized steel
 - d. Back Cover:

**** NOTE TO SPECIFIER ** Select one of the following backcover paragraphs and delete those not required.**

- 1) .022 inch minimum embossed pre-painted white steel.
 - 2) Insulation covered with vinyl.
- e. Center and End Stiles: 20 gauge steel.

- f. Spring Counterbalance: Sized to weight of the door, with a helically wound, oil tempered torsion spring mounted on a steel shaft; cable drum of diecast aluminum with high strength galvanized aircraft cable. Sized with a minimum 7 to 1 safety factor.

**** NOTE TO SPECIFIER ** Select one of the following paragraphs and delete the ones not required. 10,000 cycles are standard.**

- 1) Standard cycle spring: 10,000 cycles.
- 2) High cycle spring: 25,000 cycles.
- 3) High cycle spring: 50,000 cycles.
- 4) High cycle spring: 75,000 cycles.
- 5) High cycle spring: 100,000 cycles.
- g. Insulation: 1-5/8 inch expanded polystyrene.
- h. Thermal Values:
 - 1) Polystyrene - R-value of 7.64;

**** NOTE TO SPECIFIER ** Select partial glazing from the following glazing paragraph if required. Delete if not required or delete entirely if glazing is not required.**

- i. Partial Glazing of Steel Panels:
 - 1) Impact Rated: 1/4 inch (6 mm) Polycarbonate glazing.
- 2. Finish and Color: Two coat baked-on polyester with white exterior and white interior color.

**** NOTE TO SPECIFIER ** Edit the following paragraphs using the applicable building code to determine the actual loading required. Coordinate with the manufacturer for the selection of doors to meet the required criteria.**

- 3. Wind Load Design: Design as calculated in accordance with applicable code as follows:
 - a. Design pressure of plus 50.0/ minus 56.0 lb/sq ft.

**** NOTE TO SPECIFIER ** Include one of the following paragraphs for doors meeting the Miami-Dade Code requirements NOA 17-1207.08 Large Missile-Impact for doors up to 10 feet 2 inches wide and NOA 17-1207.09; depending on the wind pressure design requirement specified.**

- b. Provide to meet Miami-Dade Specifications NOA 17-1207.08 Large Missile-Impact – Garage Doors up to 10 feet 2 inches (3.10 m) wide and 24 feet 1 inch (7.34 m) high.
- c. Provide to meet Miami-Dade Specifications NOA 17-1207.09 Large Missile-Impact – Garage Doors up to 14 feet 2 inches (3.32 m) wide and 24 feet 1 inch (7.34 m) high.
- 4. Hardware: Galvanized steel hinges and fixtures. Ball bearing rollers with hardened steel races.
- 5. Lock:

**** NOTE TO SPECIFIER ** Select one of the following paragraphs and delete the ones not required. Interior mounted slide lock is standard.**

- a. Interior mounted slide lock.
- b. Interior mounted slide lock with interlock switch for automatic operator.
- c. Keyed lock.
- d. Keyed lock with interlock switch for automatic operator.

**** NOTE TO SPECIFIER ** Select the following paragraph for use with knock-out lower door sections only and delete the ones above.**

- e. Locking mechanism designed to maintain security for exterior while permitting break out when impacted from the inside.
- 6. Weatherstripping:

**** NOTE TO SPECIFIER ** Select the seals required from the following paragraphs and delete those not required. Bottom seal is standard, jamb seals and head seals are optional.**

- a. Flexible bulb-type strip at bottom section.
- b. Flexible Jamb seals.
- c. Flexible Header seal.

7. Track: Provide track as recommended by manufacturer to suit loading required and clearances available.

**** NOTE TO SPECIFIER ** Edit the following track size and type paragraphs as required and delete the ones not required.**

- a. Size:
 - 1) 2 inch (51 mm).
 - 2) 3 inch (76 mm).
- b. Type:
 - 1) Standard lift.
 - 2) Vertical lift.
 - 3) High lift.
 - 4) Low headroom.

**** NOTE TO SPECIFIER ** Select one of the following Operation paragraphs and delete the ones not required. Manual pull rope is standard.**

8. Manual Operation: Pull rope.
9. Manual Operation: Chain hoist.
10. Electric Motor Operation: Provide UL listed electric operator, size and type as recommended by manufacturer to move door in either direction at not less than 2/3 foot nor more than 1 foot per second. Operator shall meet UL325/2010 requirements for continuous monitoring of safety devices.
 - a. Entrapment Protection: Required for momentary contact, includes radio control operation.

**** NOTE TO SPECIFIER ** Select one of the following protection paragraphs and delete those not required.**

- 1) Pneumatic sensing edge up to 18 feet (5.5 m) wide. Constant contact only complying with UL 325/2010.
- 2) Electric sensing edge monitored to meet UL 325/2010.
- 3) Photoelectric sensors monitored to meet UL 325/2010.

- b. Operator Controls:

**** NOTE TO SPECIFIER ** Select one of the following control paragraphs and delete those not required.**

- 1) Push-button operated control stations with open, close, and stop buttons.
- 2) Key operated control stations with open, close, and stop buttons.
- 3) Push-button and key operated control stations with open, close, and stop buttons.

**** NOTE TO SPECIFIER ** Select one of the following mounting paragraphs and delete the one not required.**

- 4) Flush mounting.
- 5) Surface mounting.

**** NOTE TO SPECIFIER ** Select one of the following mounting location paragraphs and delete those not required.**

- 6) Interior location.
- 7) Exterior location.
- 8) Both interior and exterior location.

**** NOTE TO SPECIFIER ** Select special operation features from the following paragraphs and delete those not required. Delete entirely if not required.**

- c. Special Operation:
 - 1) Pull switch.
 - 2) Vehicle detector operation.
 - 3) Radio control operation.
 - 4) Card reader control.
 - 5) Photocell operation.
 - 6) Door timer operation.
 - 7) Commercial light package.
 - 8) Explosion and dust ignition proof control wiring.

**** NOTE TO SPECIFIER ** Overhead Door Corporation 424 Series Steel Doors are available up to a maximum width of 30 feet 2 inches and a maximum height of 24 feet 1 inch. Edit as required to suit project requirements.**

- E. Sectional Overhead Steel Doors: 424 Series Steel Doors by Overhead Door Corporation. Units shall have the following characteristics:
1. Door Assembly: Steel door assembly with rabbeted meeting rails to provide full-width interlocking structural rigidity.
 - a. Panel Thickness: 2 inches (51 mm).
 - b. Exterior Surface: Ribbed.
 - c. Section Material: 24 gauge, galvanized steel.
 - d. Center and End Stiles: 16 gauge steel.
 - e. Springs:

**** NOTE TO SPECIFIER ** Select one of the following paragraphs and delete the ones not required. 10,000 cycles are standard.**

- 1) 10,000 cycles.
- 2) 25,000 cycles.
- 3) 50,000 cycles.
- 4) 75,000 cycles.
- 5) 100,000 cycles.

**** NOTE TO SPECIFIER ** Select partial glazing or full glazing from the following glazing paragraphs and edit to select glazing required. Delete those not required or delete entirely if glazing is not required..**

- f. Partial Glazing of Steel Panels:
 - 1) Non-Insulated double strength glass, 24 inch by 7 inch (610 mm by 178 mm) window.
 - g. Full Glazed Aluminum Sash Panels:
 - 1) Acrylic glazing.
 - 2) 1/8 inch (3 mm) double strength glass.
2. Finish and Color: Two coat baked-on polyester, white color.

**** NOTE TO SPECIFIER ** Edit the following paragraphs using the applicable building code to determine the actual loading required. Coordinate with the manufacturer for the selection of doors to meet the required criteria.**

3. Wind Load Design: Design as calculated in accordance with applicable code as follows:
 - a. Design pressure of _____ lb/sq ft (_____ kPa).

**** NOTE TO SPECIFIER ** Include the following paragraph for doors meeting Florida Building Code Product Approval #FL 11734 Non-Impact. Suitable for doors up to 26 feet 2 inches wide depending on the wind pressure design requirement specified.**

- b. Provide to meet Florida Building Code Product Approval #FL 11734 Non-Impact.

**** NOTE TO SPECIFIER ** Include one of the following paragraphs for doors meeting the Miami-Dade Code requirements NOA 11-0912.06 Large Missile-Impact for doors up to 10 feet 2 inches wide; NOA 11-0330.05 Large Missile-Impact for doors up to 12 feet 2 inches wide; and NOA 11-1222.02 Large Missile-Impact for doors up to 10 feet 2 inches wide; depending on the wind pressure design requirement specified.**

- c. Provide to meet Miami-Dade NOA 11-0912.06 Large Missile-Impact.
 - d. Provide to meet Miami-Dade NOA 11-0330.05 Large Missile-Impact.
 - e. Provide to meet Miami-Dade NOA 11-1222.02 Large Missile-Impact.
4. Hardware: Galvanized steel hinges and fixtures. Ball bearing rollers with hardened steel races.
5. Lock:

**** NOTE TO SPECIFIER ** Select one of the following paragraphs and delete the ones not required. Interior mounted slide lock is standard.**

- a. Interior mounted slide lock.
- b. Interior mounted slide lock with interlock switch for automatic operator.

- c. Keyed lock.
- d. Keyed lock with interlock switch for automatic operator.

**** NOTE TO SPECIFIER ** Select the following paragraph for use with knock-out lower door sections only and delete the ones above.**

- e. Locking mechanism designed to maintain security for exterior while permitting break out when impacted from the inside.

6. Weatherstripping:

**** NOTE TO SPECIFIER ** Select the seals required from the following paragraphs and delete those not required. Bottom seal is standard, jamb seals and head seals are optional.**

- a. Flexible bulb-type strip at bottom section.
- b. Flexible Jamb seals.
- c. Flexible Header seal.

7. Track: Provide track as recommended by manufacturer to suit loading required and clearances available.

**** NOTE TO SPECIFIER ** Select one of the following Operation paragraphs and delete the ones not required. Manual pull rope is standard.**

- 8. Manual Operation: Pull rope.
- 9. Manual Operation: Chain hoist.
- 10. Electric Motor Operation: Provide UL listed electric operator, size and type as recommended by manufacturer to move door in either direction at not less than 2/3 foot nor more than 1 foot per second. Operator shall meet UL325/2010 requirements for continuous monitoring of safety devices.
 - a. Entrapment Protection: Required for momentary contact, includes radio control operation.

**** NOTE TO SPECIFIER ** Select one of the following protection paragraphs and delete those not required.**

- 1) Pneumatic sensing edge up to 18 feet (5.5 m) wide. Constant contact only complying with UL 325/2010.
- 2) Electric sensing edge monitored to meet UL 325/2010.
- 3) Photoelectric sensors monitored to meet UL 325/2010.

b. Operator Controls:

**** NOTE TO SPECIFIER ** Select one of the following control paragraphs and delete those not required.**

- 1) Push-button operated control stations with open, close, and stop buttons.
- 2) Key operated control stations with open, close, and stop buttons.
- 3) Push-button and key operated control stations with open, close, and stop buttons.

**** NOTE TO SPECIFIER ** Select one of the following mounting paragraphs and delete the one not required.**

- 4) Flush mounting.
- 5) Surface mounting.

**** NOTE TO SPECIFIER ** Select one of the following mounting location paragraphs and delete those not required.**

- 6) Interior location.
- 7) Exterior location.
- 8) Both interior and exterior location.

**** NOTE TO SPECIFIER ** Select special operation features from the following paragraphs and delete those not required. Delete entirely if not required.**

- c. Special Operation:
 - 1) Pull switch.
 - 2) Vehicle detector operation.
 - 3) Radio control operation.
 - 4) Card reader control.
 - 5) Photocell operation.
 - 6) Door timer operation.

- 7) Commercial light package.
- 8) Explosion and dust ignition proof control wiring.

**** NOTE TO SPECIFIER ** Overhead Door Corporation 427 Series Steel Doors are available up to a maximum width of 14 feet 2 inches and a maximum height of 24 feet 1 inch. Edit as required to suit project requirements.**

- F. Sectional Overhead Steel Doors: 427 Series Steel Doors by Overhead Door Corporation. Units shall have the following characteristics:
1. Door Assembly: Steel door assembly of roll formed steel type with tongue and groove meeting rails and box shaped 20 gauge stile construction.
 - a. Panel Thickness: 2 inches (51 mm).
 - b. Exterior Surface: Ribbed.
 - c. Section Material: 24 gauge, galvanized steel.
 - d. Center and End Stiles: 20-gauge steel.
 - e. Springs:

**** NOTE TO SPECIFIER ** Select one of the following paragraphs and delete the ones not required. 10,000 cycles are standard.**

- 1) 10,000 cycles.
- 2) 25,000 cycles.
- 3) 50,000 cycles.
- 4) 75,000 cycles.
- 5) 100,000 cycles.

**** NOTE TO SPECIFIER ** Select partial glazing from the following paragraph if required. Delete if not required or delete entirely if glazing is not required.**

- f. Partial Glazing of non-insulated Steel Panels:
 - 1) Impact rated: 1/4 inch (6 mm) Polycarbonate glazing
2. Finish and Color: Two coat baked-on polyester:
 - a. White Color.
 - b. Brown Color

**** NOTE TO SPECIFIER ** Edit the following paragraphs using the applicable building code to determine the actual loading required. Coordinate with the manufacturer for the selection of doors to meet the required criteria.**

3. Wind Load Design: Design as calculated in accordance with applicable code as follows:
 - a. Design pressure of plus 50.0/ minus 56.0 lb/sq ft .

**** NOTE TO SPECIFIER ** Include one of the following paragraphs for doors meeting the Miami-Dade Code requirements NOA 17-1207.08 Large Missile-Impact for doors up to 10 feet 2 inches wide and NOA 17-1207.09; depending on the wind pressure design requirement specified.**

- b. Provide to meet Miami-Dade Specifications NOA 17-1207.08 Large Missile-Impact – Garage Doors up to 10 feet 2 inches (3.10 m) wide and 24 feet 1 inch (7.34 m) high.
- c. Provide to meet Miami-Dade Specifications NOA 17-1207.09 Large Missile-Impact – Garage Doors up to 14 feet 2 inches (3.32 m) wide and 24 feet 1 inch (7.34 m) high.
4. Hardware: Galvanized steel hinges and fixtures. Ball bearing rollers with hardened steel races.
5. Lock:

**** NOTE TO SPECIFIER ** Select one of the following paragraphs and delete the ones not required. Interior mounted slide lock is standard.**

- a. Interior mounted slide lock.
- b. Interior mounted slide lock with interlock switch for automatic operator.
- c. Keyed lock.
- d. Keyed lock with interlock switch for automatic operator.

**** NOTE TO SPECIFIER ** Select the following paragraph for use with knock-out lower door sections only and delete the ones above.**

- e. Locking mechanism designed to maintain security for exterior while permitting break out when impacted from the inside.

6. Weatherstripping:

**** NOTE TO SPECIFIER ** Select the seals required from the following paragraphs and delete those not required. Bottom seal is standard, jamb seals and head seals are optional.**

- a. Flexible bulb-type strip at bottom section.
 - b. Flexible Jamb seals.
 - c. Flexible Header seal.
7. Track: Provide track as recommended by manufacturer to suit loading required and clearances available.

**** NOTE TO SPECIFIER ** Select one of the following Operation paragraphs and delete the ones not required. Manual pull rope is standard.**

- 8. Manual Operation: Pull rope.
- 9. Manual Operation: Chain hoist.
- 10. Electric Motor Operation: Provide UL listed electric operator, size and type as recommended by manufacturer to move door in either direction at not less than 2/3 foot nor more than 1 foot per second. Operator shall meet UL325/2010 requirements for continuous monitoring of safety devices.
 - a. Entrapment Protection: Required for momentary contact, includes radio control operation.

**** NOTE TO SPECIFIER ** Select one of the following protection paragraphs and delete those not required.**

- 1) Pneumatic sensing edge up to 18 feet (5.5 m) wide. Constant contact only complying with UL 325/2010.
- 2) Electric sensing edge monitored to meet UL 325/2010.
- 3) Photoelectric sensors monitored to meet UL 325/2010.

b. Operator Controls:

**** NOTE TO SPECIFIER ** Select one of the following control paragraphs and delete those not required.**

- 1) Push-button operated control stations with open, close, and stop buttons.
- 2) Key operated control stations with open, close, and stop buttons.
- 3) Push-button and key operated control stations with open, close, and stop buttons.

**** NOTE TO SPECIFIER ** Select one of the following mounting paragraphs and delete the one not required.**

- 4) Flush mounting.
- 5) Surface mounting.

**** NOTE TO SPECIFIER ** Select one of the following mounting location paragraphs and delete those not required.**

- 6) Interior location.
- 7) Exterior location.
- 8) Both interior and exterior location.

**** NOTE TO SPECIFIER ** Select special operation features from the following paragraphs and delete those not required. Delete entirely if not required.**

- c. Special Operation:
 - 1) Pull switch.
 - 2) Vehicle detector operation.
 - 3) Radio control operation.
 - 4) Card reader control.
 - 5) Photocell operation.
 - 6) Door timer operation.
 - 7) Commercial light package.
 - 8) Explosion and dust ignition proof control wiring.

**** NOTE TO SPECIFIER ** Overhead Door Corporation 429 Series Steel Doors are available up to a maximum width of 14 feet 2 inches and a maximum height of 24 feet 1 inch. Edit as required to suit project requirements.**

- G. Insulated Steel Sectional Overhead Doors: 429 Series Insulated Steel Doors by Overhead Door Corporation. Units shall have the following characteristics:
 - 1. Door Assembly: Insulated steel door assembly of roll formed steel type with tongue and groove meeting rails and box shaped 20 gauge stile construction.
 - a. Panel Thickness: 2 inches (51 mm).
 - b. Exterior Surface: Ribbed.
 - c. Exterior Steel: 24 gauge, galvanized steel
 - d. Back Cover:

**** NOTE TO SPECIFIER ** Select one of the following backcover paragraphs and delete those not required.**

- 1) Insulation covered in vinyl
- 2) Insulation covered with .022 inch minimum embossed pre-painted white steel.
- e. Center and End Stiles: 20-gauge steel.
- f. Springs
 - 1) Standard cycle spring: 10,000 cycles.
 - 2) High cycle spring: 25,000 cycles.
 - 3) High cycle spring: 50,000 cycles.
 - 4) High cycle spring: 75,000 cycles.
 - 5) High cycle spring: 100,000 cycles.
- g. Insulation: 1-5/8 inch expanded polystyrene.
- h. Thermal Values:
 - 1) Polystyrene - R-value of 7.64;

**** NOTE TO SPECIFIER ** Select partial glazing from the following paragraph if required. Delete if not required or delete entirely if glazing is not required.**

- i. Partial Glazing of Steel Panels:
 - 1) Impact Rated: 1/4 inch (6 mm) Polycarbonate glazing.
- j. Finish and Color: Two coat baked-on polyester
 - 1) White Color
 - 2) Brown Color

**** NOTE TO SPECIFIER ** Edit the following paragraphs using the applicable building code to determine the actual loading required. Coordinate with the manufacturer for the selection of doors to meet the required criteria.**

- 2. Wind Load Design: Design as calculated in accordance with applicable code as follows:
 - a. Design pressure of plus 50.0/ minus 56.0 lb/sq ft

**** NOTE TO SPECIFIER ** Include one of the following paragraphs for doors meeting the Miami-Dade Code requirements NOA 17-1207.08 Large Missile-Impact for doors up to 10 feet 2 inches wide and NOA 17-1207.09; depending on the wind pressure design requirement specified.**

- b. Provide to meet Miami-Dade Specifications NOA 17-1207.08 Large Missile-Impact – Garage Doors up to 10 feet 2 inches (3.10 m) wide and 24 feet 1 inch (7.34 m) high.
- c. Provide to meet Miami-Dade Specifications NOA 17-1207.09 Large Missile-Impact – Garage Doors up to 14 feet 2 inches (3.32 m) wide and 24 feet 1 inch (7.34 m) high.
- 3. Hardware: Galvanized steel hinges and fixtures. Ball bearing rollers with hardened steel races.
- 4. Lock:

**** NOTE TO SPECIFIER ** Select one of the following paragraphs and delete the ones not required. Interior mounted slide lock is standard.**

- a. Interior mounted slide lock.
- b. Interior mounted slide lock with interlock switch for automatic operator.

- c. Keyed lock.
- d. Keyed lock with interlock switch for automatic operator.

**** NOTE TO SPECIFIER ** Select the following paragraph for use with knock-out lower door sections only and delete the ones above.**

- e. Locking mechanism designed to maintain security for exterior while permitting break out when impacted from the inside.

5. Weatherstripping:

**** NOTE TO SPECIFIER ** Select the seals required from the following paragraphs and delete those not required. Bottom seal is standard, jamb seals and head seals are optional.**

- a. Flexible bulb-type strip at bottom section.
- b. Flexible Jamb seals.
- c. Flexible Header seal.

6. Track: Provide track as recommended by manufacturer to suit loading required and clearances available.

**** NOTE TO SPECIFIER ** Edit the following track size and type paragraphs as required and delete the ones not required.**

- a. Size:
 - 1) 2 inch (51 mm).
 - 2) 3 inch (76 mm).
- b. Type:
 - 1) Standard lift.
 - 2) Vertical lift.
 - 3) High lift.
 - 4) Low headroom.

**** NOTE TO SPECIFIER ** Select one of the following Operation paragraphs and delete the ones not required. Manual pull rope is standard.**

- 7. Manual Operation: Pull rope.
- 8. Manual Operation: Chain hoist.
- 9. Electric Motor Operation: Provide UL listed electric operator, size and type as recommended by manufacturer to move door in either direction at not less than 2/3 foot nor more than 1 foot per second. Operator shall meet UL325/2010 requirements for continuous monitoring of safety devices.
 - a. Entrapment Protection: Required for momentary contact, includes radio control operation.

**** NOTE TO SPECIFIER ** Select one of the following protection paragraphs and delete those not required.**

- 1) Pneumatic sensing edge up to 18 feet (5.5 m) wide. Constant contact only complying with UL 325/2010.
- 2) Electric sensing edge monitored to meet UL 325/2010.
- 3) Photoelectric sensors monitored to meet UL 325/2010.

b. Operator Controls:

**** NOTE TO SPECIFIER ** Select one of the following control paragraphs and delete those not required.**

- 1) Push-button operated control stations with open, close, and stop buttons.
- 2) Key operated control stations with open, close, and stop buttons.
- 3) Push-button and key operated control stations with open, close, and stop buttons.

**** NOTE TO SPECIFIER ** Select one of the following mounting paragraphs and delete the one not required.**

- 4) Flush mounting.
- 5) Surface mounting.

**** NOTE TO SPECIFIER ** Select one of the following mounting location paragraphs and delete those not required.**

- 6) Interior location.
- 7) Exterior location.

- 8) Both interior and exterior location.

**** NOTE TO SPECIFIER ** Select special operation features from the following paragraphs and delete those not required. Delete entirely if not required.**

- c. Special Operation:
 - 1) Pull switch.
 - 2) Vehicle detector operation.
 - 3) Radio control operation.
 - 4) Card reader control.
 - 5) Photocell operation.
 - 6) Door timer operation.
 - 7) Commercial light package.
 - 8) Explosion and dust ignition proof control wiring.

**** NOTE TO SPECIFIER ** Overhead Door Corporation 430 Series Steel Doors are available up to a maximum width of 20 feet 2 inches and a maximum height of 16 feet 1 inch. Edit as required to suit project requirements.**

- H. Sectional Overhead Steel Doors: 430 Series Steel Doors by Overhead Door Corporation. Units shall have the following characteristics:
 1. Door Assembly: Steel door assembly with rabbeted meeting rails to provide full-width interlocking structural rigidity.
 - a. Panel Thickness: 2 inches (51 mm).
 - b. Exterior Surface: Ribbed.
 - c. Section Material: Nominal 24 gauge, galvanized steel.
 - d. Center and End Stiles: 16 gauge steel.
 - e. Springs:

**** NOTE TO SPECIFIER ** Select one of the following paragraphs and delete the ones not required. 10,000 cycles are standard.**

- 1) 10,000 cycles.
- 2) 25,000 cycles.
- 3) 50,000 cycles.
- 4) 75,000 cycles.
- 5) 100,000 cycles.

**** NOTE TO SPECIFIER ** Select partial glazing or full glazing from the following glazing paragraphs and edit to select glazing required. Delete those not required or delete entirely if glazing is not required..**

- f. Partial Glazing of Steel Panels:
 - 1) Non-Insulated double strength glass, 24 inch by 7 inch (610 mm by 178 mm) window.
- g. Full Glazed Aluminum Sash Panels:
 - 1) Acrylic glazing.
 - 2) 1/8 inch (3 mm) double strength glass.
2. Finish and Color: Two coat baked-on polyester, white color.

**** NOTE TO SPECIFIER ** Edit the following paragraphs using the applicable building code to determine the actual loading required. Coordinate with the manufacturer for the selection of doors to meet the required criteria.**

3. Wind Load Design: Design as calculated in accordance with applicable code as follows:
 - a. Design pressure of _____ lb/sq ft (_____ kPa).

**** NOTE TO SPECIFIER ** Include the following paragraph for doors meeting Florida Building Code Product Approval #FL 11734 Non-Impact. Suitable for doors up to 20 feet 2 inches wide depending on the wind pressure design requirement specified.**

4. Provide to meet Florida Building Code Product Approval #FL 11734 Non-Impact.
5. Hardware: Galvanized steel hinges and fixtures. Ball bearing rollers with hardened steel races.
6. Lock:

**** NOTE TO SPECIFIER ** Select one of the following paragraphs and delete the ones not required. Interior mounted slide lock is standard.**

- a. Interior mounted slide lock.
- b. Interior mounted slide lock with interlock switch for automatic operator.
- c. Keyed lock.
- d. Keyed lock with interlock switch for automatic operator.

**** NOTE TO SPECIFIER ** Select the following paragraph for use with knock-out lower door sections only and delete the ones above.**

- e. Locking mechanism designed to maintain security for exterior while permitting break out when impacted from the inside.

7. Weatherstripping:

**** NOTE TO SPECIFIER ** Select the seals required from the following paragraphs and delete those not required. Bottom seal is standard, jamb seals and head seals are optional.**

- a. Flexible bulb-type strip at bottom section.
 - b. Flexible Jamb seals.
 - c. Flexible Header seal.
8. Track: Provide track as recommended by manufacturer to suit loading required and clearances available.

**** NOTE TO SPECIFIER ** Select one of the following Operation paragraphs and delete the ones not required. Manual pull rope is standard.**

9. Manual Operation: Pull rope.
10. Manual Operation: Chain hoist.
11. Electric Motor Operation: Provide UL listed electric operator, size and type as recommended by manufacturer to move door in either direction at not less than 2/3 foot nor more than 1 foot per second. Operator shall meet UL325/2010 requirements for continuous monitoring of safety devices.
 - a. Entrapment Protection: Required for momentary contact, includes radio control operation.

**** NOTE TO SPECIFIER ** Select one of the following protection paragraphs and delete those not required.**

- 1) Pneumatic sensing edge up to 18 feet (5.5 m) wide. Constant contact only complying with UL 325/2010.
 - 2) Electric sensing edge monitored to meet UL 325/2010.
 - 3) Photoelectric sensors monitored to meet UL 325/2010.
- b. Operator Controls:

**** NOTE TO SPECIFIER ** Select one of the following control paragraphs and delete those not required.**

- 1) Push-button operated control stations with open, close, and stop buttons.
- 2) Key operated control stations with open, close, and stop buttons.
- 3) Push-button and key operated control stations with open, close, and stop buttons.

**** NOTE TO SPECIFIER ** Select one of the following mounting paragraphs and delete the one not required.**

- 4) Flush mounting.
- 5) Surface mounting.

**** NOTE TO SPECIFIER ** Select one of the following mounting location paragraphs and delete those not required.**

- 6) Interior location.
- 7) Exterior location.
- 8) Both interior and exterior location.

**** NOTE TO SPECIFIER ** Select special operation features from the following paragraphs and delete those not required. Delete entirely if not required.**

- c. Special Operation:
 - 1) Pull switch.
 - 2) Vehicle detector operation.

- 3) Radio control operation.
- 4) Card reader control.
- 5) Photocell operation.
- 6) Door timer operation.
- 7) Commercial light package.
- 8) Explosion and dust ignition proof control wiring.

2.4 GLAZED ALUMINUM SECTIONAL OVERHEAD DOORS

**** NOTE TO SPECIFIER ** Overhead Door Corporation 511 Series Aluminum Doors are available up to a maximum width of 16 feet 2 inches and a maximum height of 16 feet 1 inch. Edit as required to suit project requirements.**

A. Glazed Sectional Overhead Doors: 511 Series Aluminum Doors by Overhead Door Corporation. Units shall have the following characteristics:

1. Door Assembly: Stile and rail assembly secured with 1/4 inch (6 mm). diameter through rods.
 - a. Panel Thickness: 1-3/4 inches (44 mm).
 - b. Center Stile Width: 21/32 inch (17 mm).
 - c. End Stile Width: 2-3/4 inches (70 mm).
 - d. Intermediate Rail Pair Width: 1-3/8 inches (35 mm).
 - e. Top Rail Width:

**** NOTE TO SPECIFIER ** Select one of the following paragraphs and delete the one not required.**

- 1) 2-3/8 inches (60 mm).
- 2) 3-3/4 inches (95 mm).

f. Bottom Rail Width:

**** NOTE TO SPECIFIER ** Select one of the following paragraphs and delete the one not required.**

- 1) 2-3/8 inches (60 mm).
- 2) 3-3/4 inches (95 mm).
- 3) 4-1/2 inches (114 mm).

g. Aluminum Panels: 0.050 inch (1.3 mm) thick, aluminum.

h. Stiles and Rails: 6063 - T6 aluminum.

i. Springs:

**** NOTE TO SPECIFIER ** Select one of the following paragraphs and delete the ones not required. 10,000 cycles are standard.**

- 1) 10,000 cycles.
- 2) 25,000 cycles.
- 3) 50,000 cycles.
- 4) 75,000 cycles.
- 5) 100,000 cycles.

j. Glazing:

**** NOTE TO SPECIFIER ** Select one of the following glazing paragraphs and delete those not required. Note that 1/4 inch and 1/2 inch Glass is not available on 511 Series in sizes greater than 14 feet 2 inches wide, however Acrylic and Clear Lexan is available in sizes over 14 feet 2 inches wide.**

- 1) 1/8 inch (3 mm) Acrylic glazing.
- 2) 1/4 inch (6 mm) Acrylic glazing.
- 3) 1/8 inch (3 mm) Clear Lexan glazing.
- 4) 1/4 inch (6 mm) Clear Lexan glazing.
- 5) 1/2 inch (12.5 mm) Clear Lexan Insulated glazing.
- 6) 1/8 inch (3 mm) Tempered glass.
- 7) 1/4 inch (6 mm) Tempered glass.
- 8) 1/2 inch (12.5 mm) Tempered Insulating glass.
- 9) 1/4 inch (6 mm) Wire glass.
- 10) 1/8 inch (3 mm) Double Strength glass.

- 11) 1/2 inch (12.5 mm) Double Strength Insulating glass.
- 12) 1/8 inch (3 mm) Low E glazing.
- 13) 1/4 inch (6 mm) Low E glazing.
- 14) 1/2 inch (12.5 mm) Low E Insulated glazing.
- 15) 1/8 inch (3 mm) Solar Bronze glazing.
- 16) 1/4 inch (6 mm) Solar Bronze glazing.
- 17) 1/2 inch (12.5 mm) Solar Bronze Insulated glazing.
- 18) 1/8 inch (3 mm) Obscure glazing.
- 19) 1/4 inch (6 mm) Obscure glazing.
- 20) 1/2 inch (12.5 mm) Obscure Insulated glazing.
- 21) 1/4 inch (6 mm) Twin-Wall Polycarbonate (clear, bronze, white).
- 22) 3/8 inch (9.5 mm) Twin-Wall Polycarbonate (clear, bronze, white).
- 23) 5/8 inch (15.87 mm) Triple-Wall Polycarbonate (clear, bronze, white).

**** NOTE TO SPECIFIER ** Select one of the following finish paragraphs and delete those not required.**

2. Finish and Color:
 - a. Anodized Finish: Clear anodized.
 - b. Anodized Finish: Bronze anodized.
 - c. Powder coat finish bronze light.
 - d. Powder coat finish bronze medium.
 - e. Powder coat finish bronze dark.
 - f. Powder Coating Finish: Color as selected by Architect from manufacturer's standard colors.

**** NOTE TO SPECIFIER ** Edit the following paragraphs using the applicable building code to determine the actual loading required. Coordinate with the manufacturer for the selection of doors to meet the required criteria.**

3. Wind Load Design: Design as calculated in accordance with applicable code as follows:
 - a. Design pressure of _____ lb/sq ft (_____ kPa).
4. Hardware: Galvanized steel hinges and fixtures. Ball bearing rollers with hardened steel races.
5. Lock: Interior galvanized single unit.
6. Weatherstripping:

**** NOTE TO SPECIFIER ** Select the seals required from the following paragraphs and delete those not required. Bottom seal is standard, jamb seals and head seals are optional.**

- a. Flexible bulb-type strip at bottom section.
 - b. Flexible Jamb seals.
 - c. Flexible Header seal.
7. Track: Provide track as recommended by manufacturer to suit loading required and clearances available.

**** NOTE TO SPECIFIER ** Select one of the following Operation paragraphs and delete the ones not required. Manual pull rope is standard.**

8. Manual Operation: Pull rope.
9. Manual Operation: Chain hoist.
10. Electric Motor Operation: Provide UL listed electric operator, size and type as recommended by manufacturer to move door in either direction at not less than 2/3 foot nor more than 1 foot per second. Operator shall meet UL325/2010 requirements for continuous monitoring of safety devices.
 - a. Entrapment Protection: Required for momentary contact, includes radio control operation.

**** NOTE TO SPECIFIER ** Select one of the following protection paragraphs and delete those not required.**

- 1) Pneumatic sensing edge up to 18 feet (5.5 m) wide. Constant contact only complying with UL 325/2010.

- 2) Electric sensing edge monitored to meet UL 325/2010.
- 3) Photoelectric sensors monitored to meet UL 325/2010.

b. Operator Controls:

**** NOTE TO SPECIFIER ** Select one of the following control paragraphs and delete those not required.**

- 1) Push-button operated control stations with open, close, and stop buttons.
- 2) Key operated control stations with open, close, and stop buttons.
- 3) Push-button and key operated control stations with open, close, and stop buttons.

**** NOTE TO SPECIFIER ** Select one of the following mounting paragraphs and delete the one not required.**

- 4) Flush mounting.
- 5) Surface mounting.

**** NOTE TO SPECIFIER ** Select one of the following mounting location paragraphs and delete those not required.**

- 6) Interior location.
- 7) Exterior location.
- 8) Both interior and exterior location.

**** NOTE TO SPECIFIER ** Select special operation features from the following paragraphs and delete those not required. Delete entirely if not required.**

c. Special Operation:

- 1) Pull switch.
- 2) Vehicle detector operation.
- 3) Radio control operation.
- 4) Card reader control.
- 5) Photocell operation.
- 6) Door timer operation.
- 7) Commercial light package.
- 8) Explosion and dust ignition proof control wiring.

**** NOTE TO SPECIFIER ** Overhead Door Corporation 521 Series Aluminum Doors are available up to a maximum width of 26 feet 2 inches and a maximum height of 20 feet 1 inch. Edit as required to suit project requirements.**

B. Glazed Sectional Overhead Doors: 521 Series Aluminum Doors by Overhead Door Corporation.

1. Door Assembly: Stile and rail assembly secured with 1/4 inch (6 mm) diameter through rods.
 - a. Panel Thickness: 1-3/4 inches (44 mm).
 - b. Center Stile Width: 2-11/16 inches (68 mm)
 - c. End Stile Width: 3-5/16 inches (84 mm)
 - d. Intermediate Rail Pair Width: 3-11/16 inches (94 mm).
 - e. Top Rail Width:

**** NOTE TO SPECIFIER ** Select one of the following paragraphs and delete the one not required. Note that doors specified to meet Florida Building Code Product Approval require a 3-3/4 inch Top Rail.**

- 1) 2-3/8 inches (60 mm).
- 2) 3-3/4 inches (95 mm).

f. Bottom Rail Width:

**** NOTE TO SPECIFIER ** Select one of the following paragraphs and delete the one not required. Note that doors specified to meet Florida Building Code Product Approval require a 4-1/2 inch Bottom Rail.**

- 1) 3-3/4 inches (95 mm).
 - 2) 4-1/2 inches (114 mm).
- g. Aluminum Panels: 0.050 inch (1.3 mm) thick, aluminum.
 - h. Stiles and Rails: 6063 - T6 aluminum.

i. Springs:

**** NOTE TO SPECIFIER ** Select one of the following paragraphs and delete the ones not required. 10,000 cycles are standard.**

- 1) 10,000 cycles.
- 2) 25,000 cycles.
- 3) 50,000 cycles.
- 4) 75,000 cycles.
- 5) 100,000 cycles.

j. Glazing:

**** NOTE TO SPECIFIER ** Select one of the following glazing paragraphs and delete those not required. Note that Impact Glazing is required to meet FL# 17629 and Non-Impact glazing is required to meet FL # 11734.**

- 1) Impact:
 - (a) .250 inch (6.35 mm) Clear UV Resistant Polycarbonate.
 - (b) .250 inch (6.35 mm) Matte White Obscure UV Resistant Polycarbonate.
- 2) Non-Impact:
 - (a) 1/8 inch (3 mm) Acrylic glazing.
 - (b) 1/4 inch (6 mm) Acrylic glazing.
 - (c) 1/8 inch (3 mm) Clear Lexan glazing.
 - (d) 1/4 inch (6 mm) Clear Lexan glazing.
 - (e) 1/2 inch (12.5 mm) Clear Lexan Insulated glazing.
 - (f) 1/8 inch (3 mm) Tempered glass.
 - (g) 1/4 inch (6 mm) Tempered glass.
 - (h) 1/2 inch (12.5 mm) Tempered Insulating glass.
 - (i) 1/4 inch (6 mm) Wire glass.
 - (j) 1/8 inch (3 mm) Double Strength glass.
 - (k) 1/2 inch (12.5 mm) Double Strength Insulating glass.
 - (l) 1/8 inch (3 mm) Low E glazing.
 - (m) 1/4 inch (6 mm) Low E glazing.
 - (n) 1/2 inch (12.5 mm) Low E Insulated glazing.
 - (o) 1/8 inch (3 mm) Solar Bronze glazing.
 - (p) 1/4 inch (6 mm) Solar Bronze glazing.
 - (q) 1/2 inch (12.5 mm) Solar Bronze Insulated glazing.
 - (r) 1/8 inch (3 mm) Obscure glazing.
 - (s) 1/4 inch (6 mm) Obscure glazing.
 - (t) 1/2 inch (12.5 mm) Obscure Insulated glazing.
 - (u) 1/4 inch (6 mm) Twin-Wall Polycarbonate (clear, bronze, white).
 - (v) 3/8 inch (9.5 mm) Twin-Wall Polycarbonate (clear, bronze, white).
 - (w) 5/8 inch (15.87 mm) Triple-Wall Polycarbonate (clear, bronze, white).

**** NOTE TO SPECIFIER ** Select one of the following finish paragraphs and delete those not required.**

2. Finish and Color:

- a. Anodized Finish: Clear anodized.
- b. Anodized Finish: Bronze anodized.
- c. Powder coat finish bronze light.
- d. Powder coat finish bronze medium.
- e. Powder coat finish bronze dark.
- f. Powder Coating Finish: Color as selected by Architect from manufacturer's standard colors.

**** NOTE TO SPECIFIER ** Edit the following paragraphs using the applicable building code to determine the actual loading required. Coordinate with the manufacturer for the selection of doors to meet the required criteria.**

3. Wind Load Design: Design as calculated in accordance with applicable code as follows:
 - a. Design pressure of _____ lb/sq ft (_____ kPa).

**** NOTE TO SPECIFIER ** Include one of the following paragraphs for doors meeting the Florida Building Code requirements. Florida Building Code Product Approval #FL 17629 Large Missile-Impact is suitable for doors up to 16 feet 2 inches wide by 30 feet 1 inch high. Florida Building Code Product Approval #FL 11734 Non-Impact is suitable for doors up to 22 feet 2 inches wide by 30 feet 1 inch high depending on the wind pressure design requirement specified.**

- b. Provide to meet Florida Building Code Product Approval #FL 17629 Large Missile-Impact.
 - c. Provide to meet Florida Building Code Product Approval #FL 11734 Non-Impact.
4. Hardware: Galvanized steel hinges and fixtures. Ball bearing rollers with hardened steel races.
5. Lock: Interior galvanized single unit.
6. Weatherstripping:

**** NOTE TO SPECIFIER ** Select the seals required from the following paragraphs and delete those not required. Bottom seal is standard, jamb seals and head seals are optional.**

- a. Flexible bulb-type strip at bottom section.
 - b. Flexible Jamb seals.
 - c. Flexible Header seal.
7. Track: Provide track as recommended by manufacturer to suit loading required and clearances available.

**** NOTE TO SPECIFIER ** Select one of the following Operation paragraphs and delete the ones not required. Manual pull rope is standard.**

8. Manual Operation: Pull rope.
9. Manual Operation: Chain hoist.
10. Electric Motor Operation: Provide UL listed electric operator, size and type as recommended by manufacturer to move door in either direction at not less than 2/3 foot nor more than 1 foot per second. Operator shall meet UL325/2010 requirements for continuous monitoring of safety devices.
 - a. Entrapment Protection: Required for momentary contact, includes radio control operation.

**** NOTE TO SPECIFIER ** Select one of the following protection paragraphs and delete those not required.**

- 1) Pneumatic sensing edge up to 18 feet (5.5 m) wide. Constant contact only complying with UL 325/2010.
 - 2) Electric sensing edge monitored to meet UL 325/2010.
 - 3) Photoelectric sensors monitored to meet UL 325/2010.
- b. Operator Controls:

**** NOTE TO SPECIFIER ** Select one of the following control paragraphs and delete those not required.**

- 1) Push-button operated control stations with open, close, and stop buttons.
 - 2) Key operated control stations with open, close, and stop buttons.
 - 3) Push-button and key operated control stations with open, close, and stop buttons.

**** NOTE TO SPECIFIER ** Select one of the following mounting paragraphs and delete the one not required.**

- 4) Flush mounting.
 - 5) Surface mounting.

**** NOTE TO SPECIFIER ** Select one of the following mounting location paragraphs and delete those not required.**

- 6) Interior location.
 - 7) Exterior location.

- 8) Both interior and exterior location.

**** NOTE TO SPECIFIER ** Select special operation features from the following paragraphs and delete those not required. Delete entirely if not required.**

- c. Special Operation:
 - 1) Pull switch.
 - 2) Vehicle detector operation.
 - 3) Radio control operation.
 - 4) Card reader control.
 - 5) Photocell operation.
 - 6) Door timer operation.
 - 7) Commercial light package.
 - 8) Explosion and dust ignition proof control wiring.

C. Glazed Sectional Overhead Doors: 522 Series Aluminum Doors by Overhead Door Corporation.

1. Door Assembly: Stile and rail assembly of aluminum alloy 6063-T6, 1-3/8 inch thick stiles and rails, 1/4" tempered glass
2. Rails: Top and bottom rails with 3-1/2 inches wide, lower intermediate rail 1-3/8 inches, upper rail 1-5/8 inches, minimum wall thickness 0.062 inch, bottom and lower intermediate rails with glass ledge
 - a. Stiles: Top, bottom, and end stiles are 3-1/2 inches wide, center stile 3 inches wide, minimum wall thickness 0.062 inch.
 - b. Springs:

**** NOTE TO SPECIFIER ** Select one of the following paragraphs and delete the ones not required. 10,000 cycles are standard.**

- 1) Standard cycle spring: 10,000 cycles.
- 2) High cycle spring: 25,000 cycles.
- 3) High cycle spring: 50,000 cycles.
- 4) High cycle spring: 75,000 cycles.
- 5) High cycle spring: 100,000 cycles.

c. Glazing:

**** NOTE TO SPECIFIER ** Select one of the following glazing paragraphs and delete those not required.**

- 1) 1/4 inch (6 mm) White Opaque Tempered glass
- 2) 1/4 inch (6 mm) Black Opaque Tempered glass
- 3) 1/4 inch (6 mm) Mirrored Gray Tempered glass
- 4) 1/4 inch (6 mm) Mirrored Bronze Tempered glass
- 5) 1/4 inch (6 mm) Translucent Black Tempered glass

**** NOTE TO SPECIFIER ** Select one of the following finish paragraphs and delete those not required.**

3. Finish and Color:
 - a. Anodized Finish: Black anodized
 - b. Anodized Finish: Bronze anodized
 - c. Powder Coating Finish: White powder coat
 - d. Powder Coating Finish: Black powder coat
 - e. Powder Coating Finish: Bronze powder coat

**** NOTE TO SPECIFIER ** The following paragraph is optional. Contact the manufacturer for additional information regarding the options available. Include the Design/Performance Requirements in Part 1 of this specification.**

4. Hardware: Black and white powder coated steel hinges and fixtures. Ball bearing rollers with hardened steel races.
5. Lock:

**** NOTE TO SPECIFIER ** Select one of the following paragraphs and delete the ones not required. Interior mounted slide lock is standard.**

- a. Interior mounted slide lock.
- b. Interior mounted slide lock with interlock switch for automatic operator.

6. Weatherstripping:

**** NOTE TO SPECIFIER ** Select the seals required from the following paragraphs and delete those not required. Bottom seal is standard, jamb seals and head seals are optional.**

- a. Flexible bulb-type strip at bottom section.
- b. Flexible Jamb seals.
- c. Flexible Header seal.

7. Track: Provide track as recommended by manufacturer to suit loading required and clearances available.

**** NOTE TO SPECIFIER ** Edit the following track size and type paragraphs as required and delete the ones not required.**

- a. Size:
 - 1) 2 inch (51 mm).
 - 2) 3 inch (76 mm).
- b. Type:
 - 1) Standard lift.
 - 2) Vertical lift.
 - 3) High lift.
 - 4) Low headroom.
 - 5) Follow roof slope.

**** NOTE TO SPECIFIER ** Select one of the following paragraphs as required and delete the one not required. Horizontal track applies to standard lift, high lift, low headroom and follow-the-roof designs only.**

- c. Horizontal track shall be reinforced with continuous angle of adequate length and gauge to minimize deflection.
- d. Vertical track shall be graduated to provide wedge type weathertight closing with continuous angle mounting for steel or wood jambs, and shall be fully adjustable to seal door at jambs.

**** NOTE TO SPECIFIER ** Select one of the following Operation paragraphs and delete the ones not required. Manual pull rope is standard.**

8. Manual Operation: Pull rope.
9. Manual Operation: Chain hoist.
10. Electric Motor Operation: Provide UL listed electric operator, size and type as recommended by manufacturer to move door in either direction at not less than 2/3 foot nor more than 1 foot per second. Operator shall meet UL325/2010 requirements for continuous monitoring of safety devices.
 - a. Entrapment Protection: Required for momentary contact, includes radio control operation.

**** NOTE TO SPECIFIER ** Select one of the following protection paragraphs and delete those not required.**

- 1) Pneumatic sensing edge up to 18 feet (5.5 m) wide. Constant contact only complying with UL 325/2010.
- 2) Electric sensing edge monitored to meet UL 325/2010.
- 3) Photoelectric sensors monitored to meet UL 325/2010.
- b. Operator Controls:

**** NOTE TO SPECIFIER ** Select one of the following control paragraphs and delete those not required.**

- 1) Push-button operated control stations with open, close, and stop buttons.
- 2) Key operated control stations with open, close, and stop buttons.
- 3) Push-button and key operated control stations with open, close, and stop buttons.

**** NOTE TO SPECIFIER ** Select one of the following mounting paragraphs and delete the one not required.**

- 4) Flush mounting.
- 5) Surface mounting.

**** NOTE TO SPECIFIER ** Select one of the following mounting location paragraphs and delete those not required.**

- 6) Interior location.
- 7) Exterior location.
- 8) Both interior and exterior location.

**** NOTE TO SPECIFIER ** Select special operation features from the following paragraphs and delete those not required. Delete entirely if not required.**

- c. Special Operation:
 - 1) Pull switch.
 - 2) Vehicle detector operation.
 - 3) Radio control operation.
 - 4) Card reader control.
 - 5) Photocell operation.
 - 6) Door timer operation.
 - 7) Commercial light package.
 - 8) Explosion and dust ignition proof control wiring.

PART 3 EXECUTION

3.1 EXAMINATION

- A. Do not begin installation until openings have been properly prepared.
- B. Verify wall openings are ready to receive work and opening dimensions and tolerances are within specified limits.
- C. Verify electric power is available and of correct characteristics.
- D. If preparation is the responsibility of another installer, notify Architect of unsatisfactory preparation before proceeding.

3.2 PREPARATION

- A. Clean adjacent surfaces thoroughly prior to installation.
- B. Prepare surfaces using the methods recommended by the manufacturer for achieving the best result for the substrate under the project conditions.

3.3 INSTALLATION

- A. Install overhead doors and track in accordance with approved shop drawings and the manufacturer's printed instructions.
- B. Coordinate installation with adjacent work to ensure proper clearances and allow for maintenance.
- C. Anchor assembly to wall construction and building framing without distortion or stress.
- D. Securely brace door tracks suspended from structure. Secure tracks to structural members only.
- E. Fit and align door assembly including hardware.

**** NOTE TO SPECIFIER ** Select one of the following paragraph for power operated doors. Delete if not required.**

- F. Coordinate installation of electrical service. Complete power and control wiring from disconnect to unit components.

3.4 CLEANING AND ADJUSTING

- A. Adjust door assembly to smooth operation and in full contact with weatherstripping.
- B. Clean doors, frames, glass and polycarbonate according to manufacturer's instructions.
- C. Remove temporary labels and visible markings. Do not remove polycarbonate care and maintenance label required to maintain warranty.

3.5 PROTECTION

- A. Do not permit construction traffic through overhead door openings after adjustment and cleaning.
- B. Protect installed products until completion of project.
- C. Touch-up, damaged coatings and finishes and repair minor damage before Substantial Completion.

END OF SECTION