



**Weaver**

CONSTRUCTION MANAGEMENT

3679 S Huron Street, Suite 404 Englewood, Colorado 80110

Phone: (303) 789-4111 FAX: (303) 789-4310

**SUBMITTAL TRANSMITTAL**

February 3, 2012

**Submittal No: 08301-002**

PROJECT: **Harold Thompson Regional WRF**  
Birdsall Rd.  
Fountain, CO 80817  
Job No. 2908

ENGINEER: **GMS, Inc.**  
611 No. Weber St., #300  
Colorado Springs, CO 80903  
719-475-2935 Roger Sams

OWNER: **Lower Fountain Metropolitan  
Sewage Disposal District**  
901 S. Santa Fe Ave.  
Fountain, CO 80817  
719-382-5303 James Heckman

CONTRACTOR: **Front Range Raynor, Inc.**  
3847 South Mason Street  
Fort Collins, CO 80525  
970-567-5162 Merlin Kooiman

SUBJECT: Submittal for the Overhead Sectional Doors for the E&M Building

SPEC SECTION: 08301 - OH Sectional Doors

PREVIOUS SUBMISSION DATES: 11/01/12

DEVIATIONS FROM SPEC:  YES  NO

CONTRACTOR'S STAMP: This submittal has been reviewed by WCM and approved with respect to the means, methods, techniques, & safety precautions & programs incidental thereto. Weaver General Construction also warrants that this submittal complies with contracted documents and comprises on deviations thereto.

Contractor's Stamp:

Engineer's Stamp:

Date: 2/3/12

Reviewed by: John Jacob

( ) Reviewed Without Comments

(X) Reviewed With Comments

ENGINEER'S  
COMMENTS:

\_\_\_\_\_



**Project: HDTWRF Project**

**Location: Fountain, CO**

**Supplier: Front Range Raynor, Inc.**

**Date: 2/3/12**

**Submittal 08301-02 Overhead Sectional Doors for the EM Building by Raynor Thermal Seal Optima**

**Additional Submittal Review Comments:**

- 1. Submitting 1 ¾" nominal thickness in-lieu of specified 2" nominal thickness.**

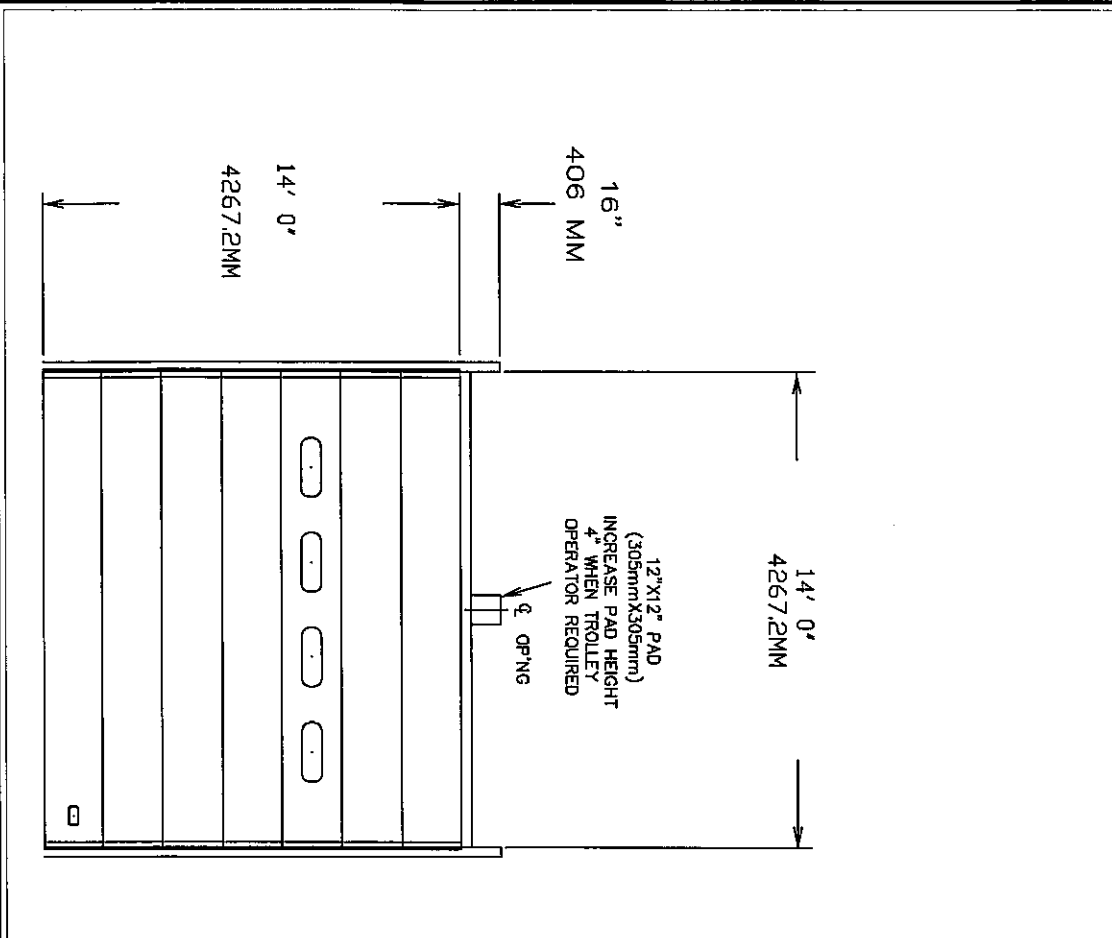
ALL SPRING MOUNTING PADS MUST BE FLUSH WITH JAMES'S FIELD CHECK AND VERIFY ALL DETAILS AND DIMENSIONS. JAMBS, LEADER, JAMB EXTENSIONS, AND PADS (AS SHOWN) BY OTHER THAN RAYNOR WILL BE AT THE BUYER'S RISK. THIS DRAWING WAS AS CONCEPT AND FACTUAL AS POSSIBLE AT THE TIME IT WAS PRINTED. MEET TO HOWEVER RESERVE THE RIGHT TO MAKE PRODUCT CHANGES IN SPECIFICATIONS AND AVAILABILITY WITHOUT NOTICE.

DRAWING(S) MUST BE APPROVED AND RETURNED TO DOOR DISTRIBUTOR AND FORWARDED TO RAYNOR GARAGE DOORS BEFORE ORDER WILL BE ENTERED INTO PRODUCTION.  
 SHOP DRAWING FAX NUMBER 800/835-5463.

DOOR NUMBER	QTY	OPENING		ACTUAL		MODEL	JAMB MOUNTING			LOCK	
		WIDTH	HEIGHT	WIDTH	HEIGHT		W	S	M		ANGLE
1	4	14' 0"	14' 0"	14' 2"	14' 0 3/4"	TSO		X	X		ELR
		4267.2MM	4267.2MM	4318 MM	4286.25MM						

JOB NAME: Wayver - LEMSDD Maintenance LOCATION:  
 DISTRIBUTOR: FRONT RANGE RAYNOR DR CO.  
 CONTRACTOR:  
 ARCHITECT:  
 CHECKED BY:  
 DATE: 2/1/2012  
 REVISION A NOTES

SHEET 1 OF 2 DRAWING NUMBER 483313 A  
**RAYNOR**  
 PROPOSAL DRAWING



- DOORS SHALL BE THERMASEAL SECTIONAL OVERHEAD TYPE RAYNOR SERIES DOTTN GAS MANUFACTURED BY RAYNOR GARAGE DOOR CO. SECTIONS SHALL BE 1 3/4" (44.5mm) THICK ROLL-FORMED FROM COMMERCIAL QUALITY HOT DIPPED GALVANIZED STEEL PER ASTM-924 AND A-653. DOOR SECTIONS CONSTRUCTED OF 20 GAUGE EXTERIOR AND 26 GAUGE INTERIOR SUDOC-EMERGED. PERFORMED SKINS OF SKINS BONDED TOGETHER BY A CONTINUOUS HOT MELT BEAD TO FORM AN EFFECTIVE THERMAL BREAK. JOINT SEALS ARE USED TO COMPLETE A WEATHER-TITE SEAL ALONG THE ENTIRE SECTION JOINTS. END STILES TO BE 16 GAUGE. SECTIONS TO HAVE CONTINUOUS 20 GAUT HARDWARE SKINS. SEAL HAS THE FOLLOWING ENERGY VALUES: R1 VALUE= 16.4 AND U-VALUE= .091 FINISH- EXTERIOR/INTERIOR OF DOOR SKINS PRE-COATED PRIOR TO ROLL-FORMING WITH A TWO COAT PROCESS OF BAKED ON POLYESTER FINISH OVER EPOXY PRIMER. EXTERIOR AND WHITE INTERIOR.
- LOCKING- CREMONE TYPE BOLT ENGAGES SLOT IN TRACK, RIGHT HAND SIDE. FIVE PIN TUMBLER CYLINDER OUTSIDE- NIGHT LATCH INSIDE.
- GLAZING- LITE INSERTS TO BE 24"(610MM)x28"(703MM)x5/8"(16MM) THERMAL TYPE GLASS, DSB INTERIOR, DSB EXTERIOR. (BREAKER TUBE)
- TRACKS- 2" (50.8mm) HOT-DIPPED GALVANIZED TRACK PER ASTM A-653. TO BE BRACKETED FROM INTERIOR CONTINUOUS ANGLE MOUNTED AND FULLY ADJUSTABLE FOR SEALING DOOR TO JAMB. CONTINUOUS ANGLE SIZE TO BE NOT LESS THAN 2-5/16"x2-1/2"x3/32" (58.7mm x 27mm x .4mm). HORIZONTAL TRACK TO BE ADEQUATELY REINFORCED WITH CONTINUOUS ANGLE HARDWARE- HINGERS AND BRACKETS MADE FROM GALVANIZED STEEL. TRACK ROLLERS SHALL HAVE TEN 1/2" (31.4mm) DIAMETER HARDENED STEEL BALLS SPRING COUNTERBALANCE- HEAVY DUTY OIL-TEMPERED WIRE TORSION SPRINGS ON A CONTINUOUS BALL BEARING CROSS-HEADER SHAFT. GALVANIZED AIRCRAFT TYPE LIFTING CABLES WITH MIN. SAFETY FACTOR OF 5 TO 1.
- HEAD SEAL AND JAMB SEAL REQUIRED.

*6)-100 MPH*

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 DISTRIBUTOR: FRONT RANGE RAYNOR DR CO.  
 CONTRACTOR:

LOCATION:

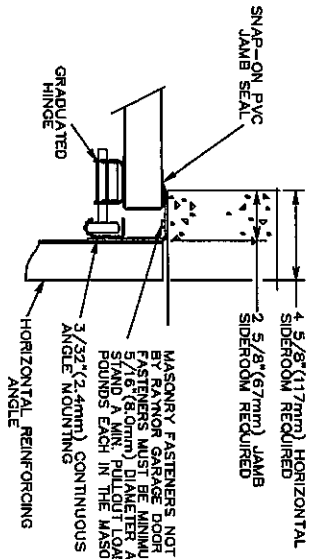
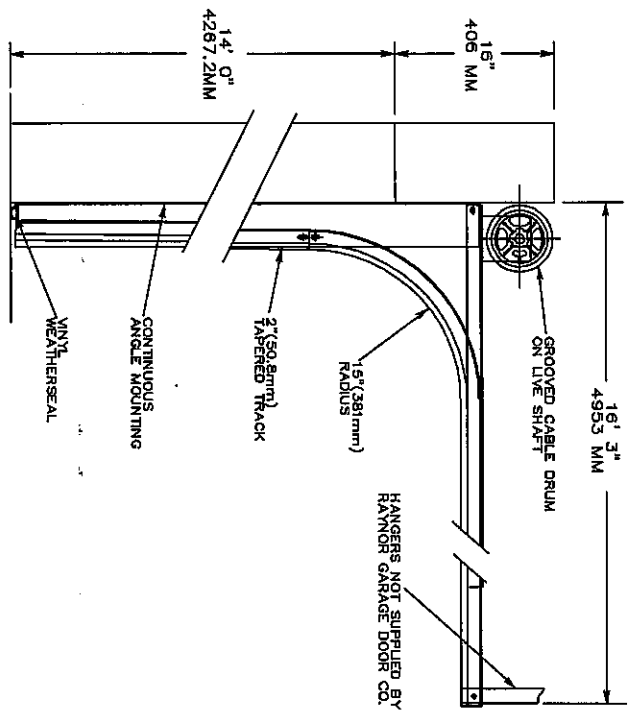
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SHEET 2 OF 2  
 DRAWING NUMBER 483313 A

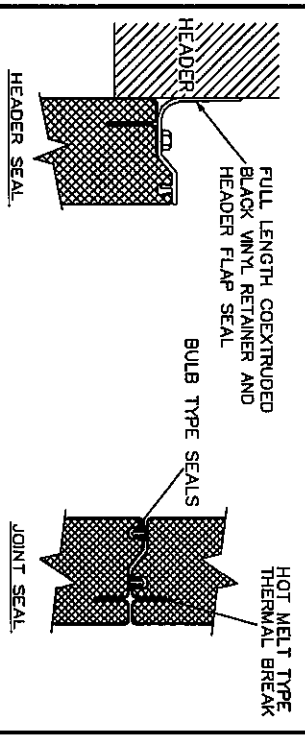
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REVISION A NOTES

PROPOSAL DRAWING



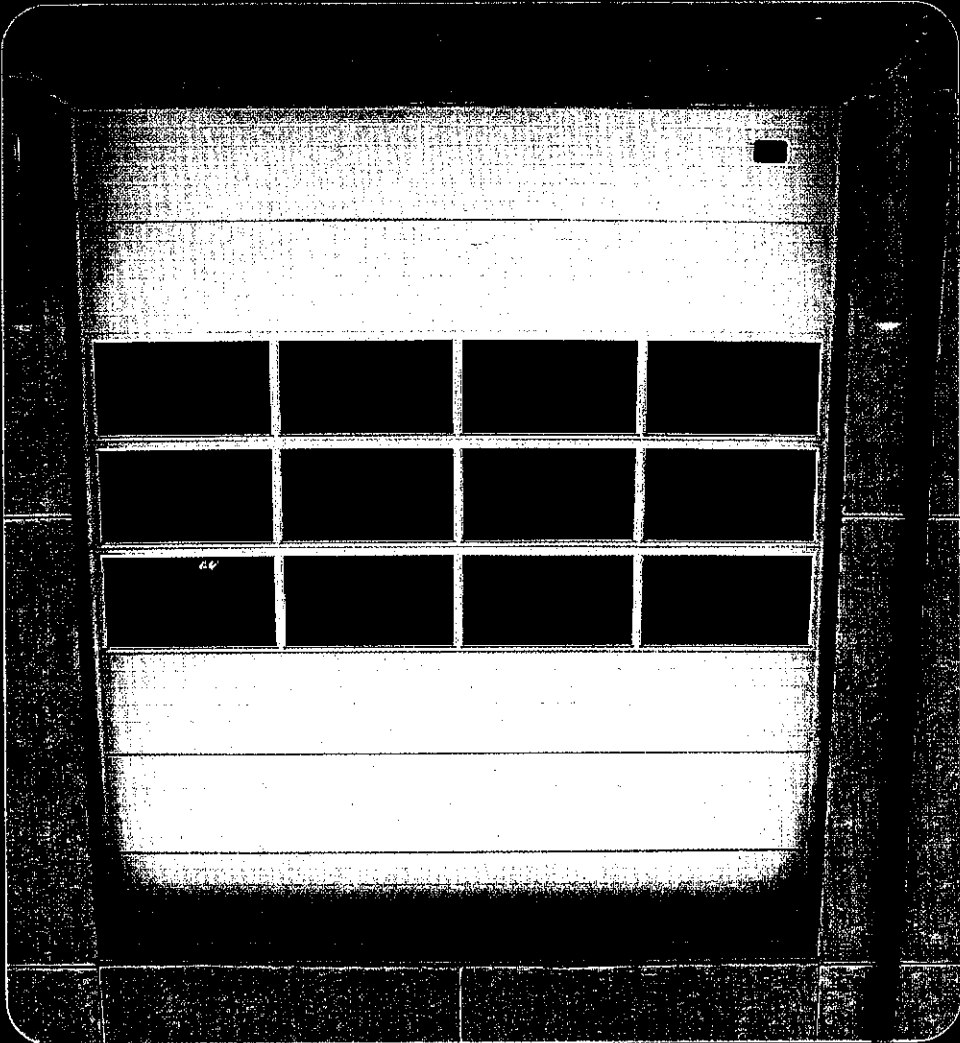
MASONRY FASTENERS NOT SUPPLIED BY RAYNOR GARAGE DOOR COMPANY. FASTENERS MUST BE INSTALLED AT 5' ON CENTER AND 5' FROM EACH STAND A MIN. PULLOUT LOAD OF 1000 POUNDS EACH IN THE MASONRY WALL.



**RAYNOR**

M A X I M U M  
T H E R M A L  
P R O T E C T I O N

ThermaSeal STANDARD with full-view windows



**THERMASEAL**<sup>TM</sup>

VENTILATION AND AIR CONDITIONING  
EQUIPMENT IN REFRIGERATION

RECTIONAL THERMAL OBERS

# THERMASSEAL™

## SECTIONAL THERMAL DOORS

For maximum thermal protection, choose ThermaSeal™, our durable, energy-efficient sectional door. Our exclusive process fills 100% of the door's interior space with energy-saving polyurethane foam insulation to deliver exceptional R-values. This process also provides superior foam density for excellent structural integrity.

**THERMASSEAL™ OPTIMA**

The ultimate choice for durability and thermal efficiency in demanding environments is the ThermaSeal OPTIMA. With a heavy duty 20-gauge exterior and a 16.4 R-value, this 1-3/4" thick model has all the features you expect and options you need for a wide range of applications.

**THERMASSEAL™ STANDARD**

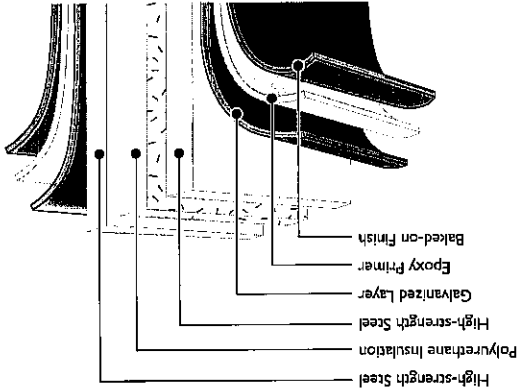
With a 16.4 R-value, the benchmark product provides proven Raynor reliability and durability to meet or exceed the requirements of daily use. This door is offered with the widest selection of quality features and options for the most common product applications.

**THERMASSEAL™ BASIC**

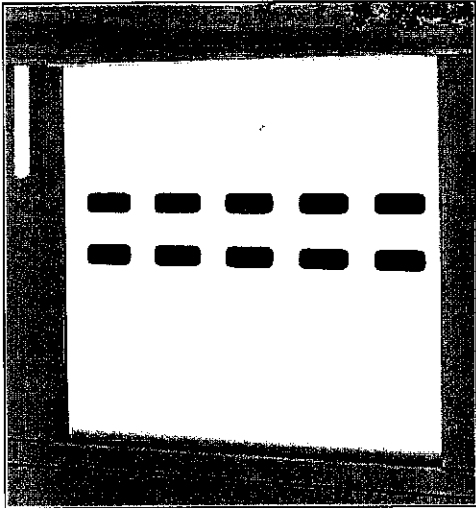
Practical when thermal performance is desired but cost is a consideration, this door is available in a limited selection of sizes, features and options.

### BUILT TOUGH.

Rust-resistant galvanized steel is finished with a two-coat, baked-on paint process for long life. The superior thermal bond between steel and polyurethane foam is warranted against delamination for 10 years.



ThermaSeal BASIC, white, with oval windows



Series	MODEL	Max. Opening Width	Max. Opening Height	Construction	Surface Texture	Section Thickness	Exterior/Interior Steel Thickness	End Site Insulation (R-Value)	Thermal Break	Exterior Colors	Section Warranty
ThermaSeal	OPTIMA	24' 2"	20'	Steel Sandwich	Suocco	13/4"	20-Gauge (.035" min.) / 16-Gauge (.055" min.)	Polyurethane Foam (16.4)	Yes	White	10-Year (Delamination) / 1-Year (Any Rust)
ThermaSeal	STANDARD	28'	20'	Steel Sandwich	Suocco	13/4"	25-Gauge (.018" min.) / 16-Gauge (.055" min.)	Polyurethane Foam (16.4)	Yes	White, Dark Brown	10-Year (Delamination) / 1-Year (Any Rust)
ThermaSeal	BASIC	16'	16'	Steel Sandwich	Suocco	11/2"	26-Gauge (.013" min.) / 16-Gauge (.055" min.)	Polyurethane Foam (14.5)	Yes	White	10-Year (Delamination) / 1-Year (Any Rust)

Dealer for complete details.

**WARRANTY** ThermaSeal door sections carry a 1-year limited warranty against any rust and a 10-year limited warranty against delamination (of the steel skins from the insulating foam). Hardware and springs are warranted for 1 year against defects in materials and workmanship. See your local Raynor

• VISIT US AT [WWW.RAYNOR.COM](http://WWW.RAYNOR.COM) FOR  
 CSI MASTER FORMAT™ SPECIFICATIONS,  
 RAYNOR QUICK SPECS  
 AND STANDARD DRAWINGS

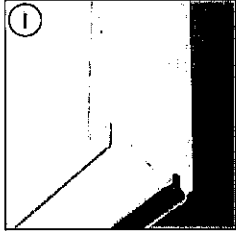
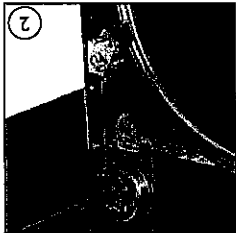
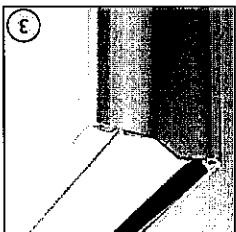
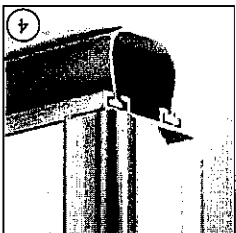
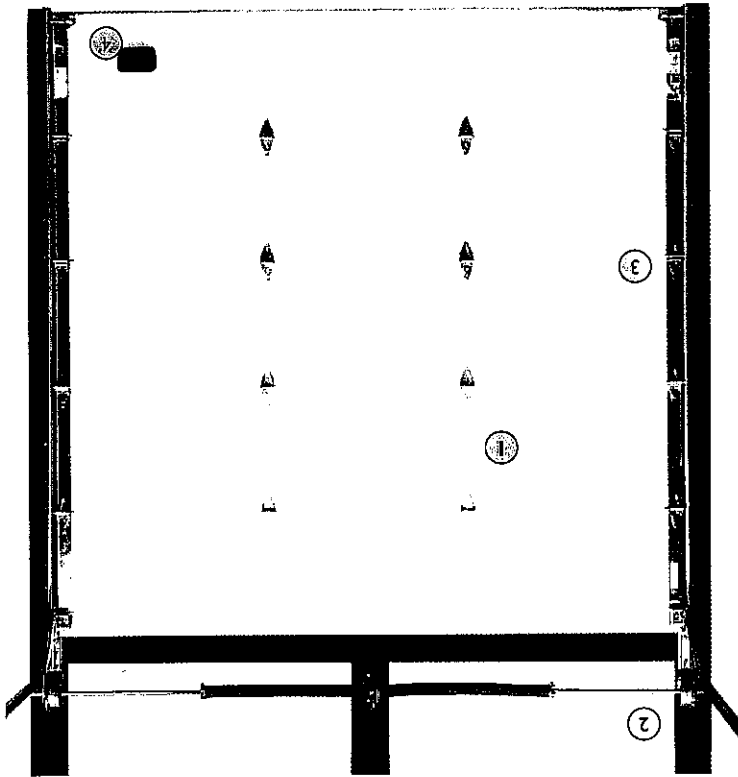


**Maximum thermal protection.** Energy-saving polyurethane foam insulation is used to deliver exceptional R-values.

**Rugged hardware and springs.** Your Thermaseal door comes packaged with the right combination of long-lasting hardware, track and springs to precisely match your door's size and application.

**Reduced airflow.** Dual vinyl barriers dramatically reduce air infiltration. A true thermal break prevents heat loss and eliminates any metal-to-metal contact between surfaces.

**Decreased energy costs.** Thermaseal doors help you reduce energy costs with a U-shaped, vinyl bottom weatherseal and sturdy aluminum retainer.

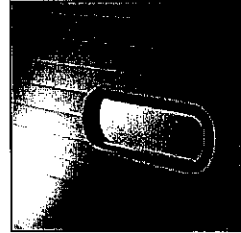
APPLICATION GUIDE

	Thermaseal	OPTIMA	STANDARD	BASIC
Agricultural Buildings	●	●	○	○
Car Wash/Corrosive Environments	●	●	○	○
Commercial/Multi-Tenant	●	●	○	○
Fire Station/Ambulance	●	●	○	○
High Security	●	●	○	○
Large Opening Size	●	●	○	○
Mining, Pulp & Paper	●	●	○	○
Non-Insulated Storage	●	●	○	○
Service Station	●	●	○	○
Thermal Environments	●	●	○	○
Transit Facility/Truck Terminal	●	●	○	○
Underground Parking	●	○	○	○
Warehouse/Manufacturing	●	●	○	○

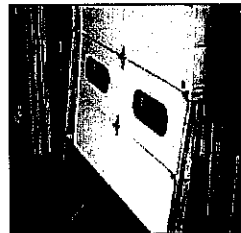
● Best Choice   ● Good Solution   ○ Applicable

Thermaseal Features

**MODEL OPTIONS AND UPGRADE**



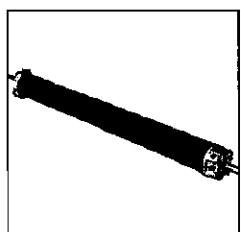
**Choice of windows.** Select either 24" x 8" oval (shown), 34" x 16" rectangle or aluminum full-view window sections. Choose from a variety of insulated glass, acrylic and polycarbonate styles to suit any application.



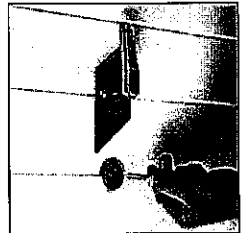
**Customized track and hardware systems.** Track systems are supplied to fit special clearances, inclines or contour applications. Hardware and track systems can be designed to fit any need.\* Additional trussing is available for special windloading applications.



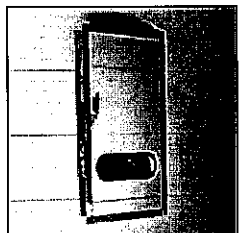
**Removable center posts.** Carry-away and swing-up options are available for extra-wide openings. Ideal for agricultural or airplane hangar applications.



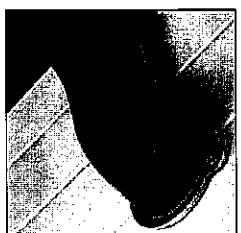
**High-cycle counterbalance systems.** For reliable operation in high-traffic areas, choose high-cycle torsion springs with 25,000, 50,000 or 100,000-cycle life.\* For reduced maintenance and ultra-smooth operation in heavy-use applications, choose a weight counterbalance system.



**Locks.** In applications where control and access are important, choose from a variety of locking options to help keep your building secure. Locks come in both inside and outside variations.



**Pedestrian doors.** Pedestrian doors are designed for convenient entry and to help minimize energy loss.\*

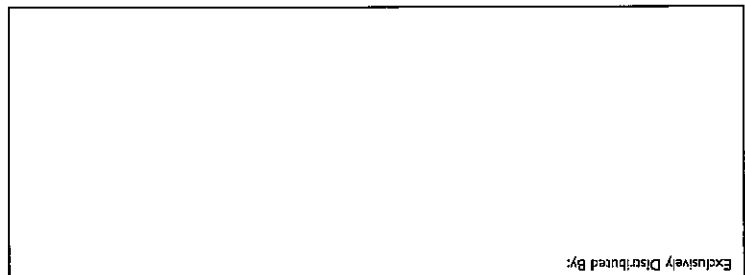


**Carbon monoxide vents.** Allows you to channel fumes to the outside when door is closed. Available in a variety of sizes.

**CLICK** WWW.RAYNOR.COM

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**FAX** 1-815-288-7142



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