



WAUPACA
ELEVATOR COMPANY, INC.
Specify the Specialists®

Planning Guide

Custom-Lift®
Elevator

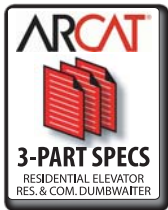


We are a proud member of the Accessibility Equipment Manufacturers Association. This symbol assures you of our commitment to high quality and accessibility to everyone.



Waupaca Elevator Mission Statement

Our company’s mission is to supply and service products that meet or exceed our customers’ expectations of high quality, value, delivery and longevity. Our success is a direct reflection of our employees’ involvement and commitment to excellence. We strive to continuously improve our products to ensure meeting the future requirements of our customers and facilitate competitive growth.



CSI 3-Part Specifications

Customize and download CSI 3-Part Specifications by logging on to:

www.arcat.com - specify Waupaca Elevator as the requested manufacturer

www.waupacaelevator.com - go to “Architect Section” click on linking icon



Spec Wizard is a faster easier way to customize CSI 3-part residential elevator specifications. Follow the above website information and choose the Spec Wizard icon. The drop down menus couldn’t be any easier to use, just click on your choice of listed options and within a couple of minutes you have a completely customized spec.

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Introduction

This Planning Reference Guide is to be used as a guide in deciding the type of elevator to be installed, parameters of installation and steps taken to achieve a proper elevator installation. This guide may be used by the architect, contractor, dealer or home owner. The information in this guide is intended as an overview, each installation will have job specific specifications that must be followed. Do not attempt to construct a hoistway on this information alone.

Elevator installation is to be done by an authorized elevator contractor, and in accordance with installation instructions provided by the manufacturer. Installation must also be in compliance with requirements of the National Electric Code, American Society of Mechanical Engineers safety code, and state and local building codes. Waupaca Elevator's products are designed to meet the requirements of ASME - 17.1 National Elevator Codes for residential elevators and are fully certified by a registered professional engineer. Waupaca Elevator Company, Inc. elevators manufactured and installed under the proper parameters are warranted for 2 years. Manufacturer assumes no liability for equipment not installed in compliance with these codes.

Planning Steps

1. - Locate local dealer and together determine the following:
 - A - Select drive system, car type and design specifications
 - B - Address national, state and local code requirements
 - C - Hoistway size
 - D - Car size, layout and options
 - E - Machine room location and layout (if required)
 - F - Electrical requirements
2. - Obtain and follow site specific field drawings while building hoistway, doorways and any other construction related to the elevator.
3. - Coordinate with dealer to install elevator.



Custom-Lift®

Winding Drum Elevator

Series **010** (500 lbs.)

Series **210** with PLC (500 lbs.)

Advantages

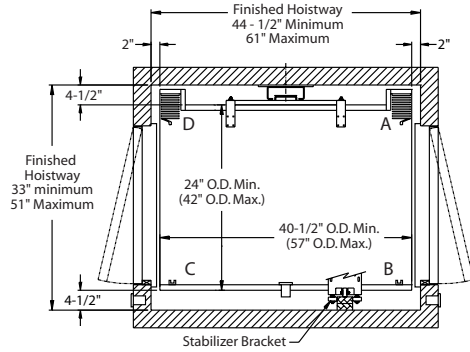
- Minimum Required Hoistway Space
- Economical
- Reliable

The elevators listed in the following section are based upon our standard 12 sq.ft. car.



Hoistway Layout - Custom-Lift

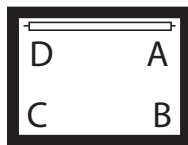
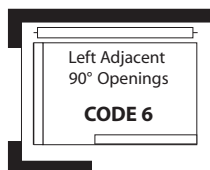
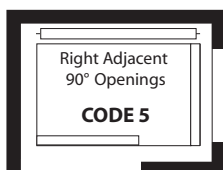
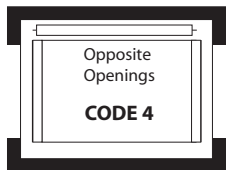
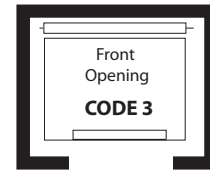
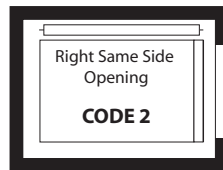
Minimum and Maximum Dimensions



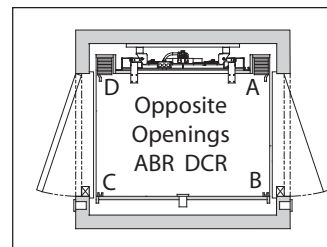
* Single Opening - 36 - 1/4" O.D. (outside dimension) **minimum** (rail is not centered in hoistway)

- NOTE:**
- 1) Minimum **D A** dimensions reflect rail centered in hoistway
 - 2) Minimum **D A** dimension for car without a gate recess is 24" O.D. (outside dimension)
 - 3) Car I.D. (inside dimensions) can not exceed 12 sq. ft.

Car Opening Configurations and Coding



- 1 - The D A is the side on which the rail is mounted.
- 2 - The first letter refers to the attachment location of the gate.
- 3 - The second letter refers to the location of the strike plate.
- 4 - If present, the third letter "R" denotes a recessed gate.



Example: ABR DCR

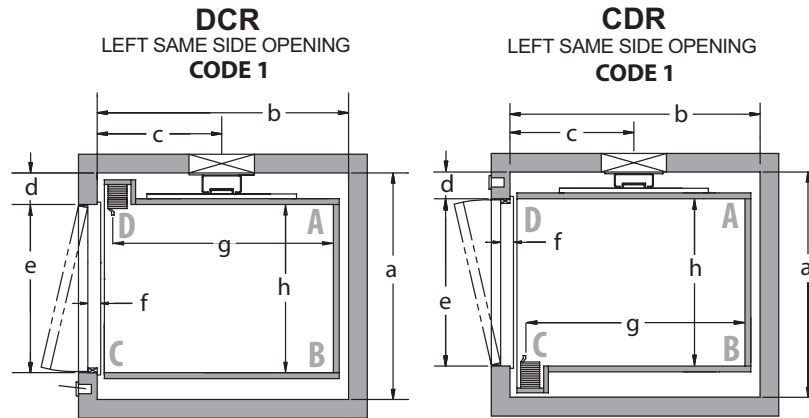
- | | |
|---------------------|---------------------|
| First Gate - ABR | Second Gate - DCR |
| A - gate attachment | D - gate attachment |
| B - strike plate | C - strike plate |
| R - recessed gate | R - recessed gate |



Hoistway Layout - Custom-Lift

- Use specified rail backing from architect to frame into wall.
- The hoistway illustrations below show finished dimensions. Finished hoistway dimensions include drywall, plaster and paint.
- A maximum of 3" (see "f" below) are allowed between the closed hoistway door and the outer edge of the landing sill.
- Determine height of hall station by local code.
- Rough frame door in place with an extra inch of space on each side of the door to allow for door installation.

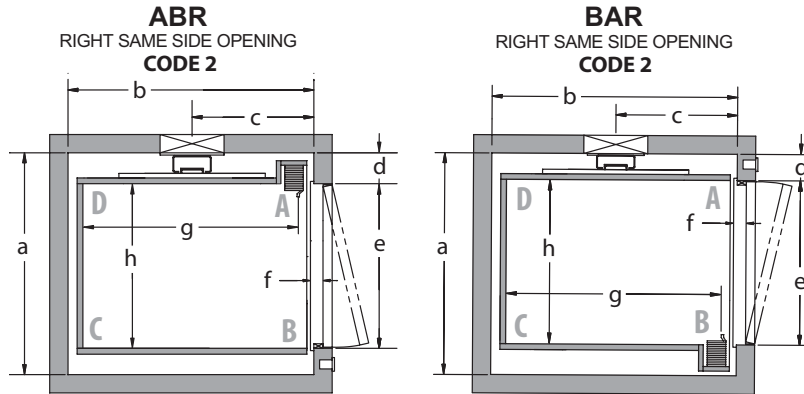
The following examples are of a 500 lb. unit. Elevators are illustrated with accordion gates. The following layouts were designed for travel less than 25 feet, for distances up to 50 feet contact Waupaca Elevator Co.



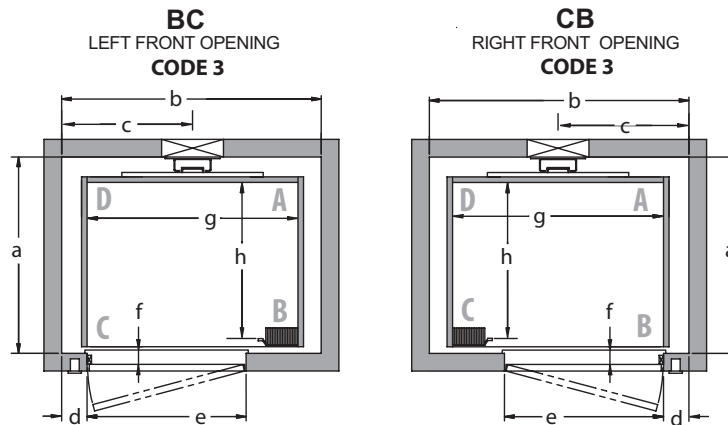
ELEVATOR HOISTWAY LAYOUT		CUSTOM-LIFT ELEVATOR HOISTWAY DIMENSIONS								
		CAR SIZE	FINISHED HOISTWAY DIMENSIONS							
			a	b	c	d	e	f	g	h
CODE 1 LEFT SAME SIDE OPENING	DCR	48" x 36"	47"	54.5"	27.25"	5.5"	36"	3"	48"	36"
		54" x 40"	Not Available							
		60" x 36"	Not Available							
CODE 1 LEFT SAME SIDE OPENING	CDR	48" x 36"	48"	54.5"	27.25"	5.5"	36"	3"	48"	36"
		54" x 40"	Not Available							
		60" x 36"	Not Available							



Hoistway Layout - Custom-Lift



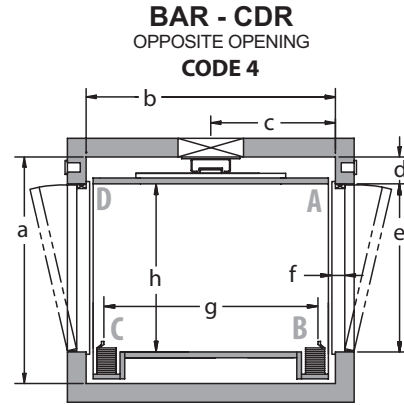
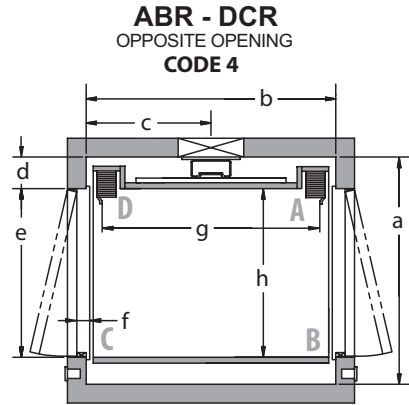
ELEVATOR HOISTWAY LAYOUT		CUSTOM-LIFT ELEVATOR HOISTWAY DIMENSIONS								
		CAR SIZE	FINISHED HOISTWAY DIMENSIONS							
			a	b	c	d	e	f	g	h
CODE 2 RIGHT SAME SIDE OPENING	ABR	48" x 36"	47"	54.5"	27.25"	5.5"	36"	3"	48"	36"
		54" x 40"	Not Available							
		60" x 36"	Not Available							
CODE 2 RIGHT SAME SIDE OPENING	BAR	48" x 36"	48"	54.5"	27.25"	5.5"	36"	3"	48"	36"
		54" x 40"	Not Available							
		60" x 36"	Not Available							



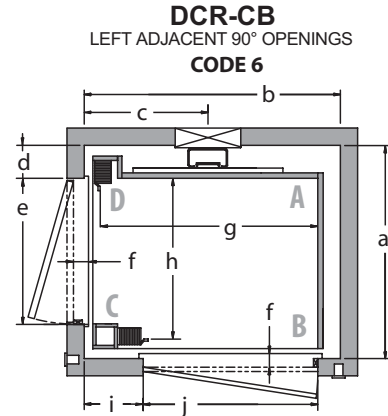
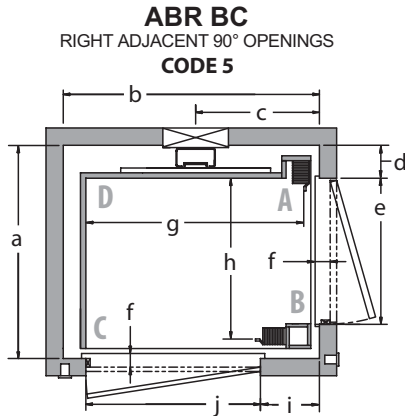
ELEVATOR HOISTWAY LAYOUT		CUSTOM-LIFT ELEVATOR HOISTWAY DIMENSIONS								
		CAR SIZE	FINISHED HOISTWAY DIMENSIONS							
			a	b	c	d	e	f	g	h
CODE 3 LEFT FRONT OPENING	BC	48" x 36"	45"	56.5"	29.5"	5.5"	36"	3"	48"	36"
		54" x 40"	Not Available							
		60" x 36"	Not Available							
CODE 3 RIGHT FRONT OPENING	CB	48" x 36"	45"	56.5"	29.5"	5.5"	36"	3"	48"	36"
		54" x 40"	Not Available							
		60" x 36"	Not Available							



Hoistway Layout - Custom-Lift



ELEVATOR HOISTWAY LAYOUT		CUSTOM-LIFT ELEVATOR HOISTWAY DIMENSIONS								
		CAR SIZE	FINISHED HOISTWAY DIMENSIONS							
			a	b	c	d	e	f	g	h
CODE 4 OPPOSITE OPENING	ABR-DCR	48" x 36"	47"	55"	27.50"	5.5"	36"	3"	48"	36"
		54" x 40"	Not Available							
		60" x 36"	Not Available							
CODE 4 OPPOSITE OPENING	BAR-CDR	48" x 36"	48"	55"	27.50"	5.5"	36"	3"	48"	36"
		54" x 40"	Not Available							
		60" x 36"	Not Available							



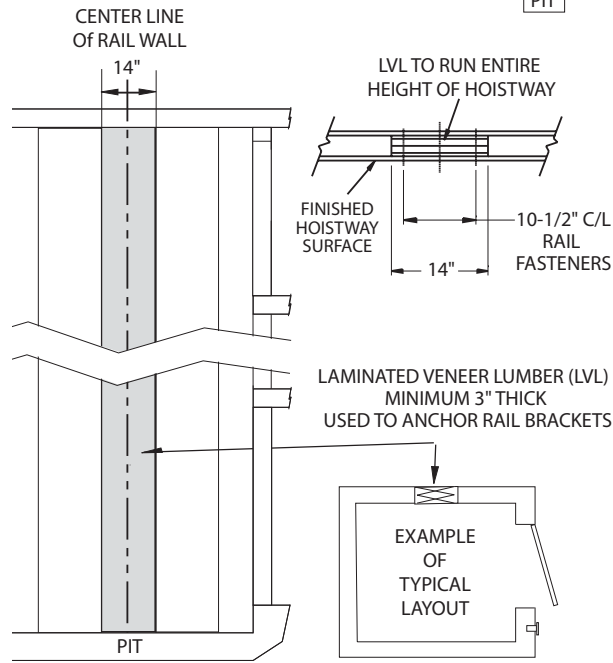
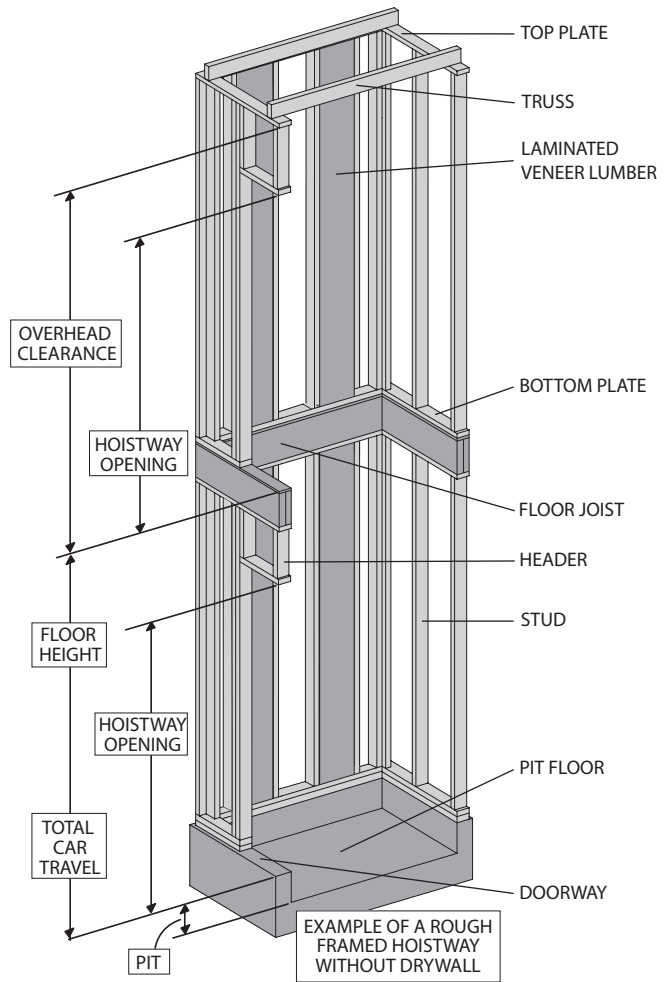
ELEVATOR HOISTWAY LAYOUT		CUSTOM-LIFT ELEVATOR HOISTWAY DIMENSIONS										
		CAR SIZE	FINISHED HOISTWAY DIMENSIONS									
			a	b	c	d	e	f	g	h	i	j
CODE 5 RIGHT ADJACENT 90° OPENING	ABR-BC	48" x 36"	45"	57"	27.25"	5.25"	32"	3"	48"	36"	15.5"	36"
		54" x 40"	Not Available									
		60" x 36"	Not Available									
CODE 6 LEFT ADJACENT 90° OPENING	DCR-CB	48" x 36"	45"	57"	27.25"	5.25"	32"	3"	48"	36"	15.5"	36"
		54" x 40"	Not Available									
		60" x 36"	Not Available									



Hoistway Illustrations - Custom-Lift

The typical layouts shown here may vary from your actual hoistway. The purpose of these layouts are for a general understanding. Please refer to the Waupaca Elevator drawings and specifications that will be provided by the company.

This example applies to units with up to 25' of travel. Contact Waupaca Elevator for requirements on units traveling over 25.'



These drawings depict sample construction only. It is the responsibility of the installer/contractor or engineer to design and specify structural supports. All construction to be in compliance with local codes.

Hoistway Specifications - Cutom-Lift®

Refer to Illustration on previous page

ATTENTION CONSTRUCTION CONTRACTOR:

This is an example of a winding drum hoistway. Job specific documentation will be provided by Waupaca Elevator from which to construct the hoistway.

Hoistway Construction Requirements

(to be completed prior to elevator installation by contractor)

1. **Electrical Requirements:**

- Dedicated 230 VAC 30 AMP Circuit Single Phase. Fuse should be a time delay 20 AMP.
- Power supply to be installed in a lockable fused disconnect.
- 120 VAC 15 Amp Circuit Single Phase with manual disconnect & 15 AMP fuse.
- Electrical wiring to comply with applicable codes.

2. **Unfinished/Un-installed Door** - Installation company may prefer a minimum of one hoistway door and associated framing be left unfinished/un-installed to accommodate elevator installation equipment and to prevent accidental damage to door and framing (preferably at grade level).

3. **Plumb and Square Hoistway** - Hoistway must be plumb within 1/8 inch per 10 ft. of height and square at any point within 1/4 inch based on difference in diagonal measurements.

4. **Supportive Structure** - Structure must be capable of supporting the appropriate loads. Local engineering support is recommended.

5. **Machine Room** - If machine room space is provided, it must meet National Electrical Code clear space requirements and all local codes. Machine room space must have a light switch and a convenience outlet at code specified location.

An opening between machine room space and hoistway must be provided in specified location for sheave & wire rope arrangement.

6. **Telephone Connection** - Code requires a telephone connection to the elevator car therefore, a phone line must be installed in the machine room (near controller).

7. **ASME 17.1 Part 5.3** - Hoistway to be constructed in accordance with ASME17.1 Part 5.3 and all local codes.

8. **Hoistway Door Security (Interlocks)** - All hoistway doors require interlocks as well as a door handle and a latch set. Interlocks will be installed by the elevator installers. Waupaca Elevator recommends the use of solid core doors.

9. **Temperature Requirements** - Hoistway and machine room (if applicable) temperature should be maintainable between 60° F- 110° F and should not be exposed to the elements.

10. **No Alterations** - Any alterations to the equipment without written authorization by Waupaca Elevator will void all warranties.

11. **Pit Floor Strength** - A pit floor must be designed to withstand an impact of 1050 lbs. per sq.ft. When used, concrete must be a minimum of 4" thick rated at 3500PSI.

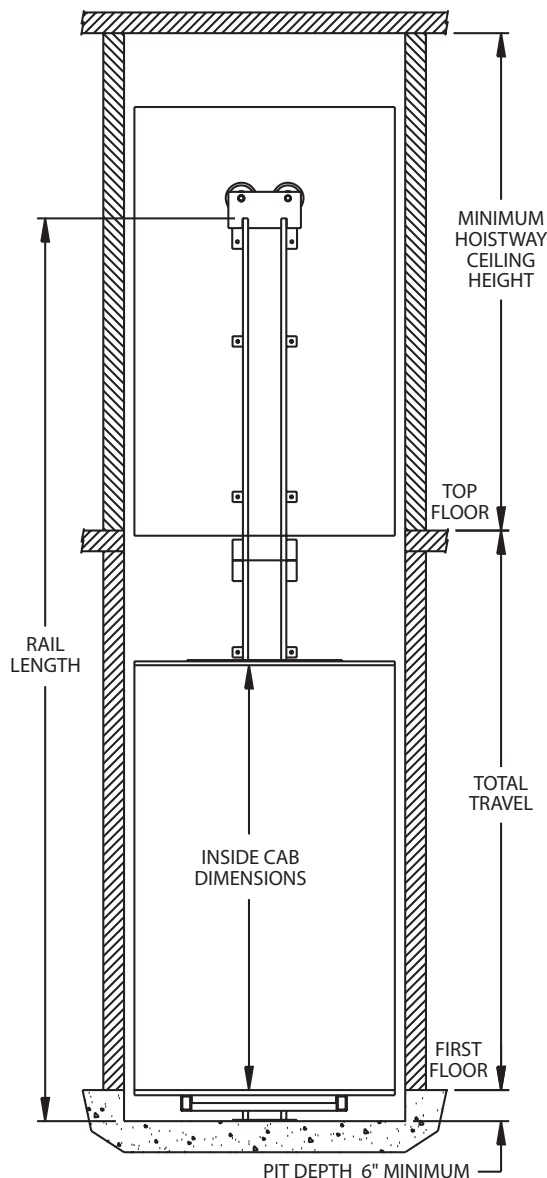


Hoistway Ceiling Heights and Elevation - Custom Lift

Minimum Hoistway Ceiling Heights*

	Series 010				Series 210				
Inside Cab Dimension	6' 10"	7' 0"	7' 4"	8' 0"	Inside Cab Dimension	6' 10"	7' 0"	7' 4"	8' 0"
Minimum	7' 6"	7' 8"	8' 6"	8' 8"	Minimum	7' 10"	8' 0"	8' 4"	9' 0"

* Custom sized cabs will alter these dimensions. Waupaca Elevator will provide you with the appropriate dimensions.



Additional space may be required for hoisting and maneuvering equipment into place with overhead mounted units.

Waupaca Elevator's Custom-Lift offers a total of six stops and a total travel distance of 50 feet.

Pit Depth

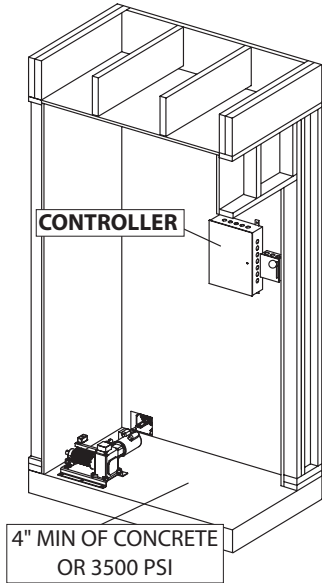
All other layouts require a minimum of 6" but 8" is recommended.



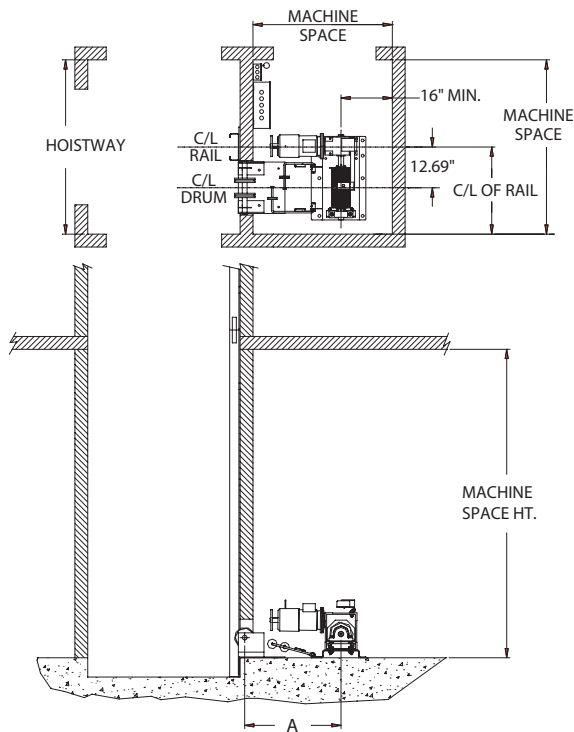
Machine Room - Custom-Lift®

Series 010 & 210 (500 lbs.)

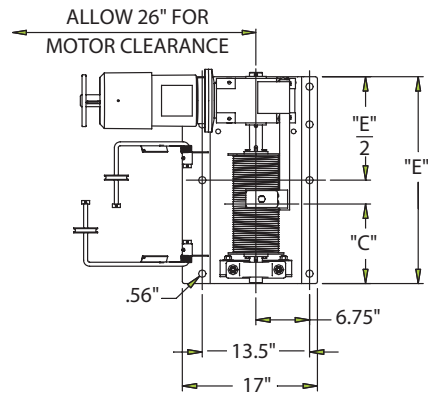
Typical Machine Room Layout (with traveling sheave and machine room behind rail)
 additional layouts can be found on the Architect's Binder CD or contact Waupaca Elevator
 for drawings.



1. Fleet angle distance and drum size will change per job (refer to table below).
2. Concrete floor must be a minimum of 4" thick rated at 3500 psi. If a floating slab is used, it must be tied to the structure.
3. A lockable service disconnect must be placed within sight of the controller and easily accessible from the latch side of the doorway.
4. The temperature should be maintainable between 60° F - 110° F and should not be exposed to the elements.



TYPICAL TRAVELING SHEAVE ARRANGEMENT					
TRAVEL	<14'	<24'	<32'	<40'	<50'
DRUM LENGTH	8"	12"	15"	18"	22"
DRUM C/L DIST. "C"	8.25"	10"	12.25"	14.5"	14.5"
MACH. BASE "E"	22"	26"	29"	34"	34"
MINIMUM FOR "A"	30"	30"	30"	43"	72"

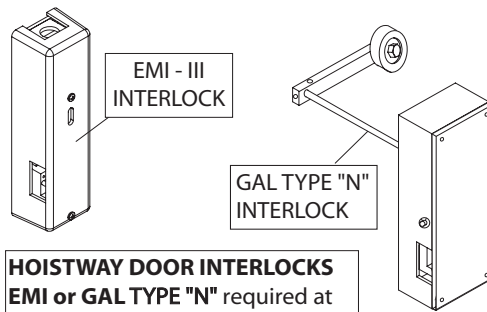
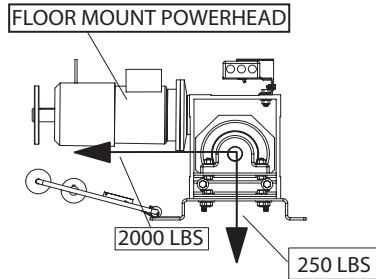


Elevator Equipment - Custom-Lift®

Series 010 & 210 (500 lbs.)

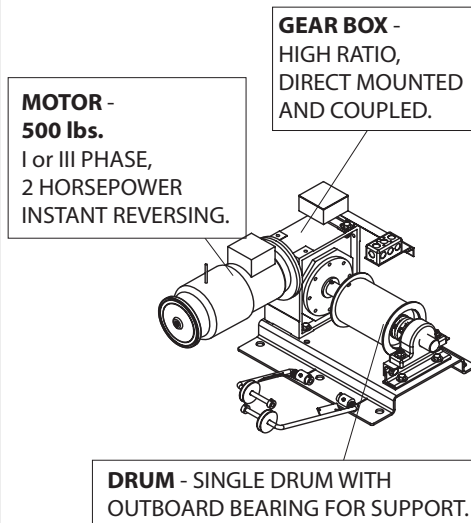
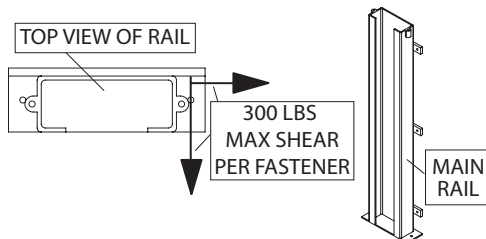
Typical

- Powerhead
- Main Rail
- Gear Box
- Sheaves
- Interlocks
- Motor
- Drum

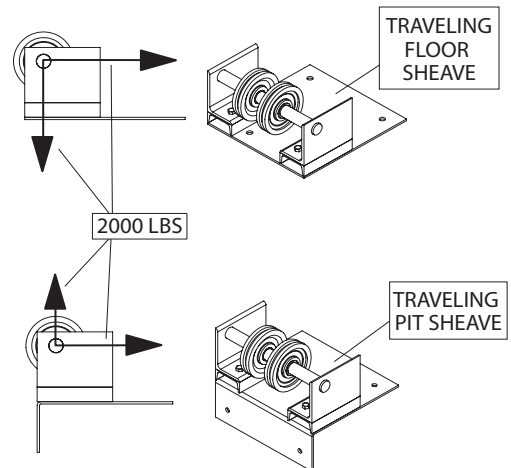


HOISTWAY DOOR INTERLOCKS
EMI or GAL TYPE "N" required at each opening to prevent hoistway or elevator access while elevator is operating or at another landing.

MAIN RAIL - 3/16" thick x 8" wide precision formed steel channel with mounting bracket supports at 30" intervals. Heavy-duty splice bolts are used at all matched, ground, and numbered rail splices for installation.

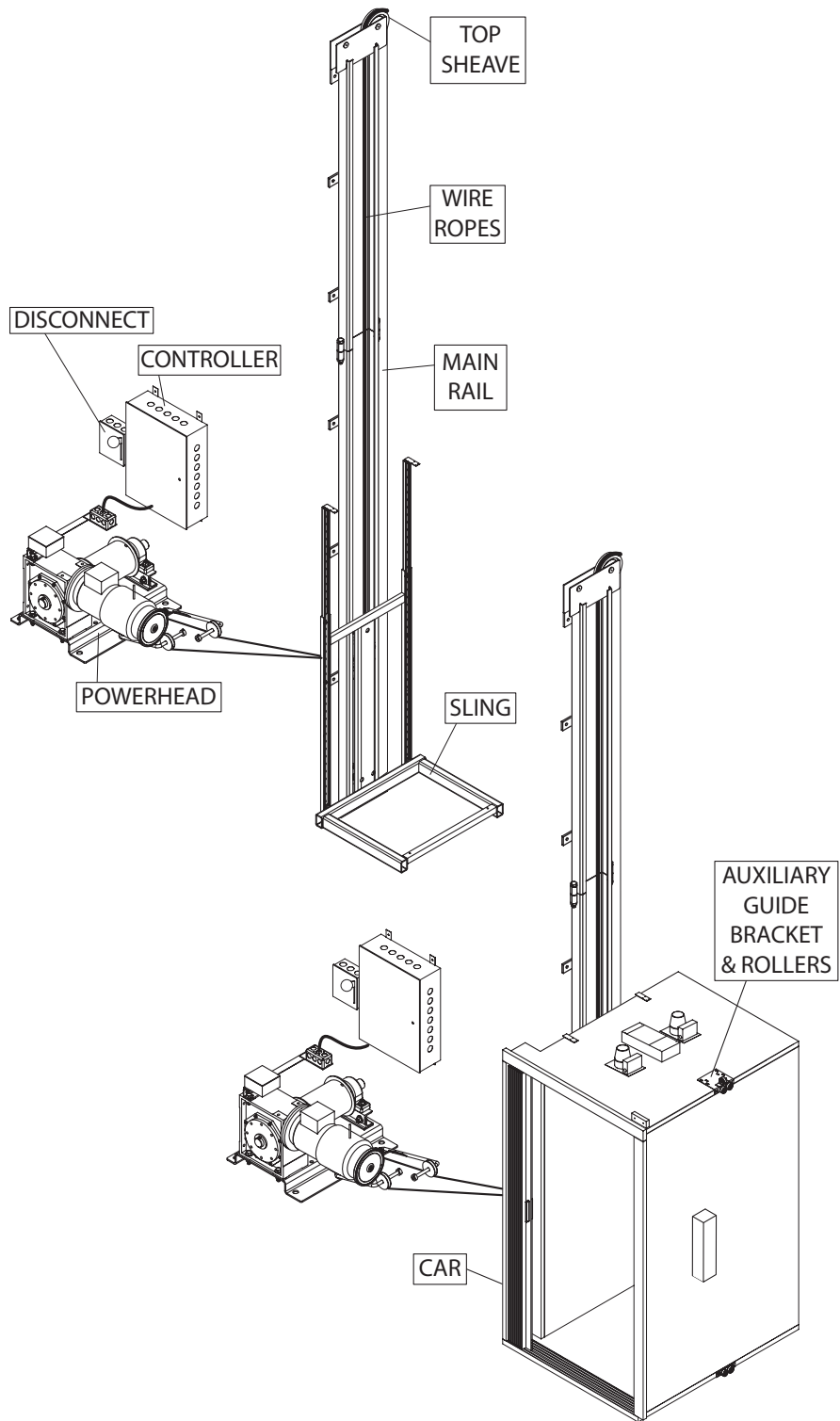


NOTE: THE SHEAVES & ARRANGEMENT WILL BE DETERMINED BY LOCATION OF THE MACHINE ROOM.



Custom-Lift® Elevator

Series 010 & 210 (500 lbs.)





PMQ0100-A
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