



Planning Guide

Cable-Waiter™
Paca-Waiter®

Dumbwaiters



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

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Introduction

This Planning Guide is to be used as a reference in deciding the type of dumbwaiter to be installed, parameters of installation and steps taken to achieve a proper dumbwaiter 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.

Dumbwaiter 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 dumbwaiters. Waupaca Elevator Company, Inc., dumbwaiters 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.

Waupaca Elevator Co., Inc., reserves the right to modify the design, technical specifications and dimensions of the products shown in this document.

Planning Steps

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



Dumbwaiter Reference Chart

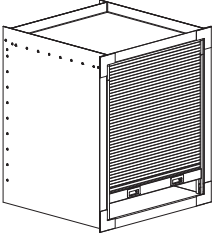
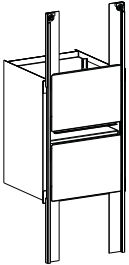
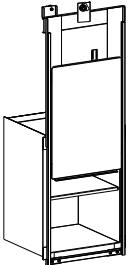
Mechanical Features		Residential Units		Commercial Units	
		Cable-Waiter		Paca-Waiter	
Weight Capacity	Up To..	100 lbs.	200 lbs.	300 lbs.	500 lbs.
Travel	Up To...	50'	34'	50'	
Stops	Up To...	6 Stops	6 Stops	5 Stops	
Nominal Speed	Feet Per Minute	30 FPM	50 FPM	60 FPM	
Overhead	Recommended space above top of car. Additional overhead required for some car gates or overhead machine configurations	1'-6"	2'-0"	2'-3"	
Electrical Requirements (Buck Boost Required on Paca-Waiter Units)	Phase	Single	Single		
	Voltage	110 V	230 V		
	Amperage	15 A	10 A	30 A	
Drive System		Winding Drum		Winding Drum	
Motor	Horsepower	3/4 HP	1 HP	2 HP	3 HP
Controller Size	Height x Width x Depth	18" x 18" x 6"	18" x 18" x 6"	24" x 18" x 8"	
Sheave	Diameter	4"	6-3/8"	7-3/4"	
Drum	Diameter	5-1/4"	5-3/4"	7-3/4"	
Cable Type		1/8" x 7 x 19	3/16" x 7 x 19	1/4" x 7 x 19	
Rail Type	Steel	1-1/2" x 1-1/2" x 1/8" Angle		2" x 1" x 3/16" C Channel	
Machine Placement		Above or Below		Above or Below	

Access Door	Gates (required)	UL "B" Label Hoistway Door(s)		
Materials:	Bi-parting or Slide-up:	Types:	Material:	Options:
- Primed Steel	- Powder Coated Steel	- Bi-parting	- Primed Steel	- Stainless Sill(s)
- Stainless Steel #4	- Stainless Steel #4	- Slide-up	- Stainless Steel #4	- Counter Loading
- By Others	Tambour (rolltop):	- Swing		- Floor Loading
	- PVC (CW 100 & PW 200 residential dumbwaiters only)	- By Others		- Fusible Link
				- Emergency Release

Car	Additional Options:	Interlock(s) (required)
Material:	- Door Open Buzzer (CW 100 & PW 200)	- HG-1 Single Contact Interlock (Commercial Doors Only)
Powder Coated Steel		
Stainless Steel #4	- Door & Gate Open Alarm (PW 300 & PW 500)	- GAL and Cam(s)
Car Options:	- Car Here	- EMI
- Shelves	- In use	
- Light	- Lantern & Gong	

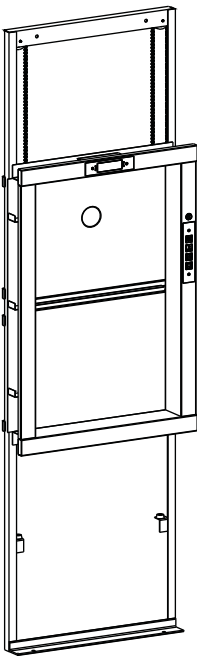
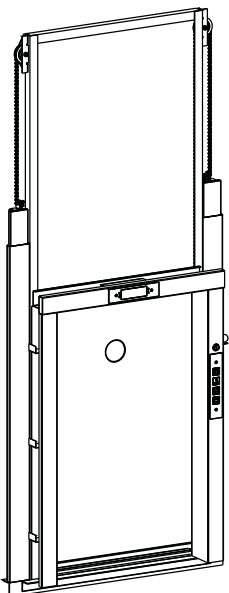
Car Gate Reference Chart

The dumbwaiter car gate, is attached to the front of the car and travels with it up and down the hoistway. The gate prevents items from leaving or entering the car.

<p>Steel Car with PVC or Metallic Rolltop Gate</p> 	<p>Cable-Waiter</p> <p>Available in 100 lb. cars</p> <p>Available Finishes & Material: PVC or Metallic Steel w/ PVC Coating</p>	<p>Paca-Waiter</p> <p>Available in 200 lb. cars</p> <p>Available Finishes & Material: PVC or Metallic Steel w/ PVC Coating</p>
<p>Steel Car with Bi-Parting Gate</p> 	<p>Cable-Waiter</p> <p>Available in 100 lb. cars</p> <p>Available Finishes & Material: Powder Coated Steel or Stainless Steel</p>	<p>Paca-Waiter</p> <p>Available in 200 lb., 300 lb. & 500 lb. cars</p> <p>Available Finishes & Material: Powder Coated Steel or Stainless Steel</p>
<p>Steel Car with Slide-Up Gate</p> 	<p>Cable-Waiter</p> <p>This Option Is Not Available</p>	<p>Paca-Waiter</p> <p>Available in 300 lb. & 500 lb. cars</p> <p>Available Finishes & Material: Powder Coated Steel or Stainless Steel</p>

Commercial Hoistway Door Reference Chart

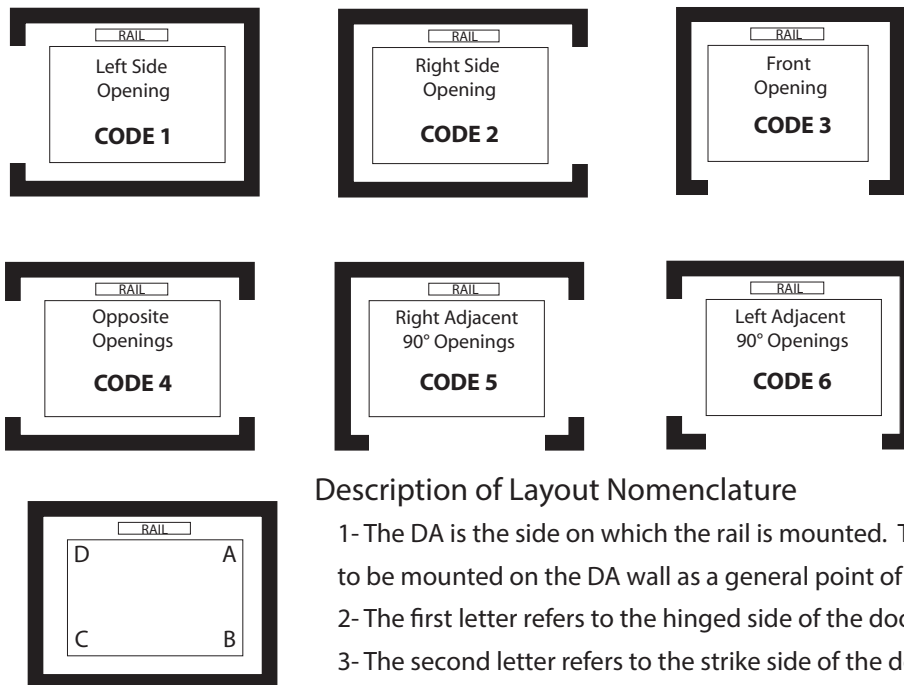
The door prevents items from accidentally entering the hoistway when the dumb-waiter car is elsewhere. An interlock located at each opening prevents the door from being opened if the dumbwaiter car is not waiting at that landing. We offer the following doors made to your specification. Every opening must have a door.

CONSTRUCTION/INSTALLATION NOTE! Hoistway door walls must not be erected until doors are set in place.		
		
Maximum Height of 36"		
Swing Door	Bi-Parting Door	Slide-Up Door
Paca-Waiter 300 lbs. & 500 lbs. Primed Steel or Stainless Steel	Paca-Waiter 300 lbs. & 500 lbs. Primed Steel or Stainless Steel	Paca-Waiter 300 lbs. & 500 lbs. Primed Steel or Stainless Steel

Note :

- Dumbwaiter to be installed in accordance with ASME A17.1 Part 7.1, 7.2, and all local codes.
- Electrical room must meet N.E.C. clear space requirements and all local codes. Temperature in machine room to be maintained between 60-110° F and must not be exposed to the elements.
- All hoistway doors require an interlock, door handle, and latch set.
- Any alterations to the equipment without written authorization by Waupaca Elevator Company, Inc., will void all warranties.
- Hoistway must be plum within 1/8 inch per 10 ft of height and square at any point within 1/4 inch based on difference in diagonal measurements.
- Structure must be capable of supporting the appropriate loads. Local engineering support is recommended.
- Do not complete door and associated framing to one door (preferably at grade level), until dumbwaiter is completely installed.
- The following hoistway illustrations are showing finished dimensions. Finished hoistway dimensions include drywall, plaster, and paint.
- The following information represented for Cable-Waiter (CW) and Paca-Waiter (PW) units are listed as residential **R** and commercial **C** units. Note the appropriate application when considering a dumbwaiter. If the application is appropriate a commercial unit may installed in a residence.

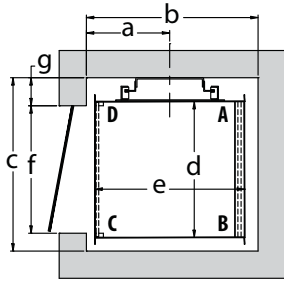
Car Opening Configurations and Coding



Hoistway Layout

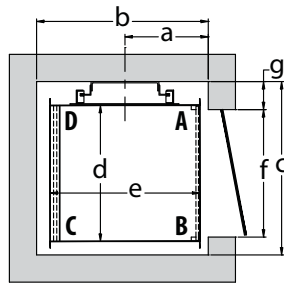
The dumbwaiters listed in the following section are based upon our standard cars. Dumbwaiter cars can be customized to meet your unique needs in accordance with ASME 17.1.

Steel Car with Rolltop Gates



LEFT OPENINGS (DC) Code 1

Dumbwaiter Type	Car Size	Finished Hoistway Dimensions						
		a	b	c	d	e	f	g
R Cable-Waiter 100 lbs.	20"x20"x30"	12.25"	25.25"	25.5"	20"	22"	18.75"	4.125"
R Paca-Waiter 200 lbs.	26"x26"x36"	15.25"	31.25"	33.25"	26"	28"	24.75"	4.875"
R Paca-Waiter 300 lbs.	30"x30"x40"	17.25"	35.25"	37.25"	30"	32"	28.75"	4.875"



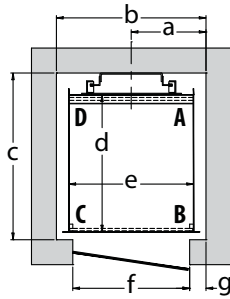
RIGHT OPENINGS (AB) Code 2

Dumbwaiter Type	Car Size	Finished Hoistway Dimensions						
		a	b	c	d	e	f	g
R Cable-Waiter 100 lbs.	20"x20"x30"	12.25"	25.25"	25.5"	20"	22"	18.75"	4.125"
R Paca-Waiter 200 lbs.	26"x26"x36"	15.25"	31.25"	33.25"	26"	28"	24.75"	4.875"
R Paca-Waiter 300 lbs.	30"x30"x40"	17.25"	35.25"	37.25"	30"	32"	28.75"	4.875"

Hoistway Layout

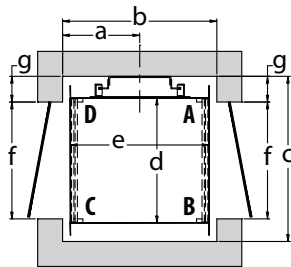
The dumbwaiters listed in the following section are based upon our standard cars. Dumbwaiter cars can be customized to meet your unique needs in accordance with ASME 17.1.

Steel Car with Rolltop Gates



FRONT OPENINGS (CB) Code 3

Dumbwaiter Type	Car Size	Finished Hoistway Dimensions						
		a	b	c	d	e	f	g
R Cable-Waiter 100 lbs.	20"x20"x30"	12"	24"	26.75"	22"	20"	18.75"	2.625"
R Paca-Waiter 200 lbs.	26"x26"x36"	16"	32"	33.5"	28"	26"	24.75"	3.625"
R Paca-Waiter 300 lbs.	30"x30"x40"	18"	36"	37.5"	32"	30"	28.75"	3.625"



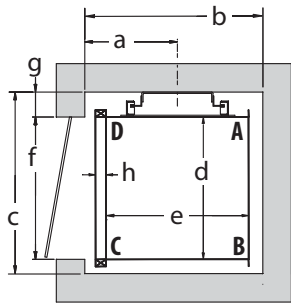
OPPOSITE OPENINGS (AB DC) Code 4

Dumbwaiter Type	Car Size	Finished Hoistway Dimensions						
		a	b	c	d	e	f	g
R Cable-Waiter 100 lbs.	20"x20"x30"	12.375"	24.75"	26.5"	20"	22.25"	18.75"	4.125"
R Paca-Waiter 200 lbs.	26"x26"x36"	15.375"	30.75"	33.25"	26"	28.25"	24.75"	4.875"
R Paca-Waiter 300 lbs.	30"x30"x40"	17.375"	34.75"	37.25"	30"	32.25"	28.75"	4.875"

Hoistway Layout

The dumbwaiters listed in the following section are based upon our standard cars. Dumbwaiter cars can be customized to meet your unique needs in accordance with ASME 17.1.

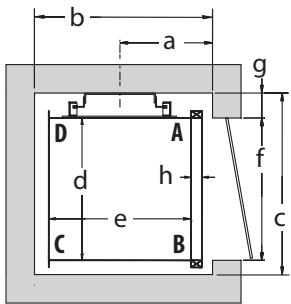
Steel Car with Bi-parting or Slide-up Gates



LEFT OPENING (DC) Code 1

Dumbwaiter Type	Car Size	Finished Hoistway Dimensions							
		a	b	c	d	e	f	g	h
R Cable-Waiter 100 lbs.	20"x20"x30"	13"	25"	25.5"	20"	20"	20"	3.5"	1.5"
R Paca-Waiter 200 lbs.	26"x26"x36"	16"	31"	33.25"	26"	26"	26"	4.25"	1.5"
R Paca-Waiter 300 lbs.	30"x30"x40"	18"	35"	37.25"	30"	30"	30"	4.25"	1.5"
R Paca-Waiter 500 lbs.	36"x36"x48"	21"	41"	43.25"	36"	36"	36"	4.25"	1.5"

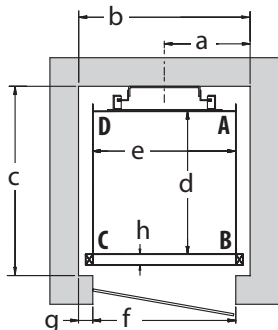
* Slide-up gates not available on CW 100 & PW 200 cars.



RIGHT OPENING (AB) Code 2

Dumbwaiter Type	Car Size	Finished Hoistway Dimensions							
		a	b	c	d	e	f	g	h
R Cable-Waiter 100 lbs.	20"x20"x30"	13"	25"	25.5"	20"	20"	20"	3.5"	1.5"
R Paca-Waiter 200 lbs.	26"x26"x36"	16"	31"	33.25"	26"	26"	26"	4.25"	1.5"
R Paca-Waiter 300 lbs.	30"x30"x40"	18"	35"	37.25"	30"	30"	30"	4.25"	1.5"
R Paca-Waiter 500 lbs.	36"x36"x48"	21"	41"	43.25"	36"	36"	36"	4.25"	1.5"

* Slide-up gates not available on CW 100 & PW 200 cars.



FRONT OPENING (CB) Code 3

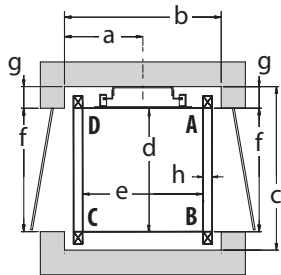
Dumbwaiter Type	Car Size	Finished Hoistway Dimensions							
		a	b	c	d	e	f	g	h
R Cable-Waiter 100 lbs.	20"x20"x30"	12"	24"	26.5"	20"	20"	20"	2"	1.5"
R Paca-Waiter 200 lbs.	26"x26"x36"	16"	32"	33.25"	26"	26"	26"	3"	1.5"
R Paca-Waiter 300 lbs.	30"x30"x40"	18"	36"	37.25"	30"	30"	30"	3"	1.5"
R Paca-Waiter 500 lbs.	36"x36"x48"	21"	42"	43.25"	36"	36"	36"	3"	1.5"

* Slide-up gates not available on CW 100 & PW 200 cars.

Hoistway Layout

The dumbwaiters listed in the following section are based upon our standard cars. Dumbwaiter cars can be customized to meet your unique needs in accordance with ASME 17.1.

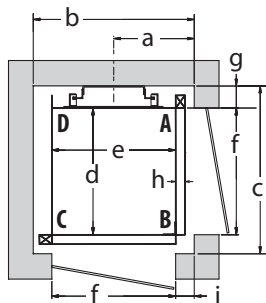
Steel Car with Bi-parting or Slide-up Gates



OPPOSITE OPENINGS (AB DC) Code 4

Dumbwaiter Type	Car Size	Finished Hoistway Dimensions							
		a	b	c	d	e	f	g	h
R Cable-Waiter 100 lbs.	20"x20"x30"	13"	26"	26.5"	20"	20"	20"	3.5"	1.5"
R Paca-Waiter 200 lbs.	26"x26"x36"	16"	32"	33.25"	26"	26"	26"	4.25"	1.5"
R Paca-Waiter 300 lbs.	30"x30"x40"	18"	36"	37.25"	30"	30"	30"	4.25"	1.5"
R Paca-Waiter 500 lbs.	30"x30"x48"	21"	42"	43.25"	36"	36"	36"	4.25"	1.5"

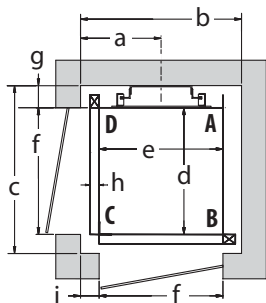
* Slide-up gates not available on CW 100 & PW 200 cars.



RIGHT ADJACENT OPENINGS (AB CB) Code 5

Dumbwaiter Type	Car Size	Finished Hoistway Dimensions								
		a	b	c	d	e	f	g	h	i
R Cable-Waiter 100 lbs.	20"x20"x30"	13"	26"	26.5"	20"	20"	20"	3.5"	1.5"	3"
R Paca-Waiter 200 lbs.	26"x26"x36"	16"	32"	33.25"	26"	26"	26"	4.25"	1.5"	3"
R Paca-Waiter 300 lbs.	30"x30"x40"	18"	36"	37.25"	30"	30"	30"	4.25"	1.5"	3"
R Paca-Waiter 500 lbs.	36"x36"x48"	21"	42"	43.25"	36"	36"	36"	4.25"	1.5"	3"

* Slide-up gates not available on CW 100 & PW 200 cars.



LEFT ADJACENT OPENINGS (DC BC) Code 6

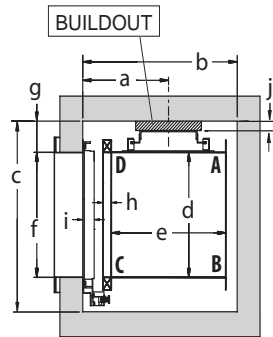
Dumbwaiter Type	Car Size	Finished Hoistway Dimensions								
		A	B	C	D	E	F	G	H	I
R Cable-Waiter 100 lbs.	20"x20"x30"	13"	26"	26.5"	20"	20"	20"	3.5"	1.5"	3"
R Paca-Waiter 200 lbs.	26"x26"x36"	16"	32"	33.25"	26"	26"	26"	4.25"	1.5"	3"
R Paca-Waiter 300 lbs.	30"x30"x40"	18"	36"	37.25"	30"	30"	30"	4.25"	1.5"	3"
R Paca-Waiter 500 lbs.	36"x36"x48"	21"	42"	43.25"	36"	36"	36"	4.25"	1.5"	3"

* Slide-up gates not available on CW 100 & PW 200 cars.

Hoistway Layout

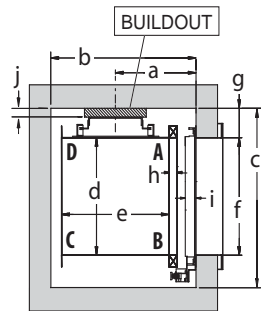
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Steel Car with Bi-parting or Slide-up Gates and Commercial Doors



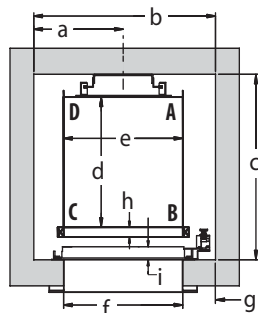
LEFT OPENING (DC) Code 1

Dumbwaiter Type	Car Size	Finished Hoistway Dimensions									
		a	b	c	d	e	f	g	h	i	j
C Paca-Waiter 300 lbs.	30"x30"x40"	20"	37"	40.5"	30"	30"	30"	5"	1.5"	2"	.75"
C Paca-Waiter 500 lbs.	36"x36"x48"	23"	43"	46.5"	36"	36"	36"	5"	1.5"	2"	.75"



RIGHT OPENING (AB) Code 2

Dumbwaiter Type	Car Size	Finished Hoistway Dimensions									
		a	b	c	d	e	f	g	h	i	j
C Paca-Waiter 300 lbs.	30"x30"x40"	20"	37"	40.5"	30"	30"	30"	5"	1.5"	2"	.75"
C Paca-Waiter 500 lbs.	36"x36"x48"	23"	43"	46.5"	36"	36"	36"	5"	1.5"	2"	.75"



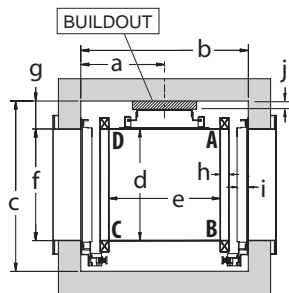
FRONT OPENING (CB) Code 3

Dumbwaiter Type	Car Size	Finished Hoistway Dimensions								
		a	b	c	d	e	f	g	h	i
C Paca-Waiter 300 lbs.	30"x30"x40"	20"	40.5"	39.25"	30"	30"	30"	5.5"	1.5"	2"
C Paca-Waiter 500 lbs.	36"x36"x48"	23"	46.5"	45.25"	36"	36"	36"	5.5"	1.5"	2"

Hoistway Layout

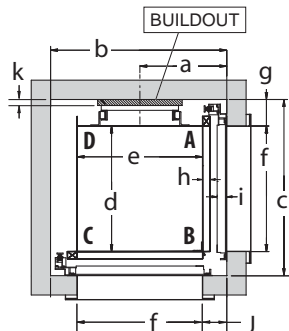
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Steel Car with Bi-parting or Slide-up Gates and Commercial Doors



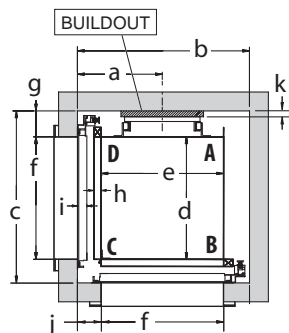
OPPOSITE OPENINGS (AB DC) Code 4

Dumbwaiter Type	Car Size	Finished Hoistway Dimensions									
		a	b	c	d	e	f	g	h	i	j
C Paca-Waiter 300 lbs.	30"x30"x40"	20"	40"	40.5"	30"	30"	30"	5"	1.5"	2"	.75"
C Paca-Waiter 500 lbs.	36"x36"x48"	23"	46"	46.5"	36"	36"	36"	5"	1.5"	2"	.75"



RIGHT ADJACENT OPENINGS (AB CB) Code 5

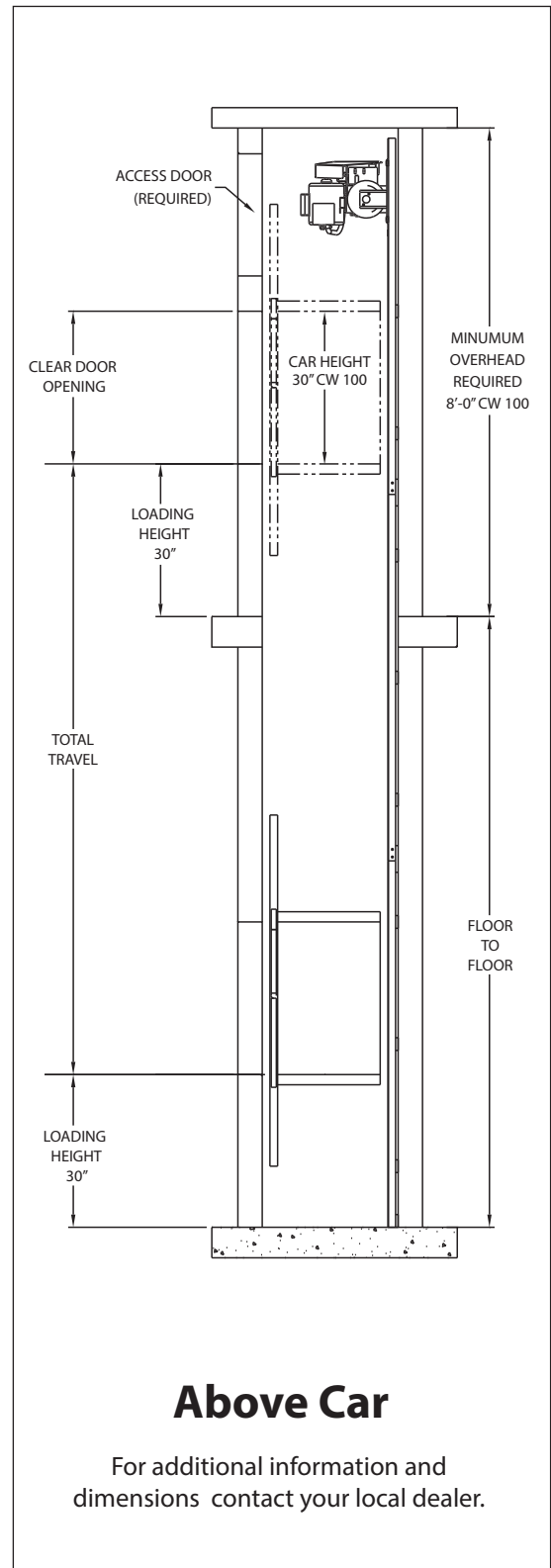
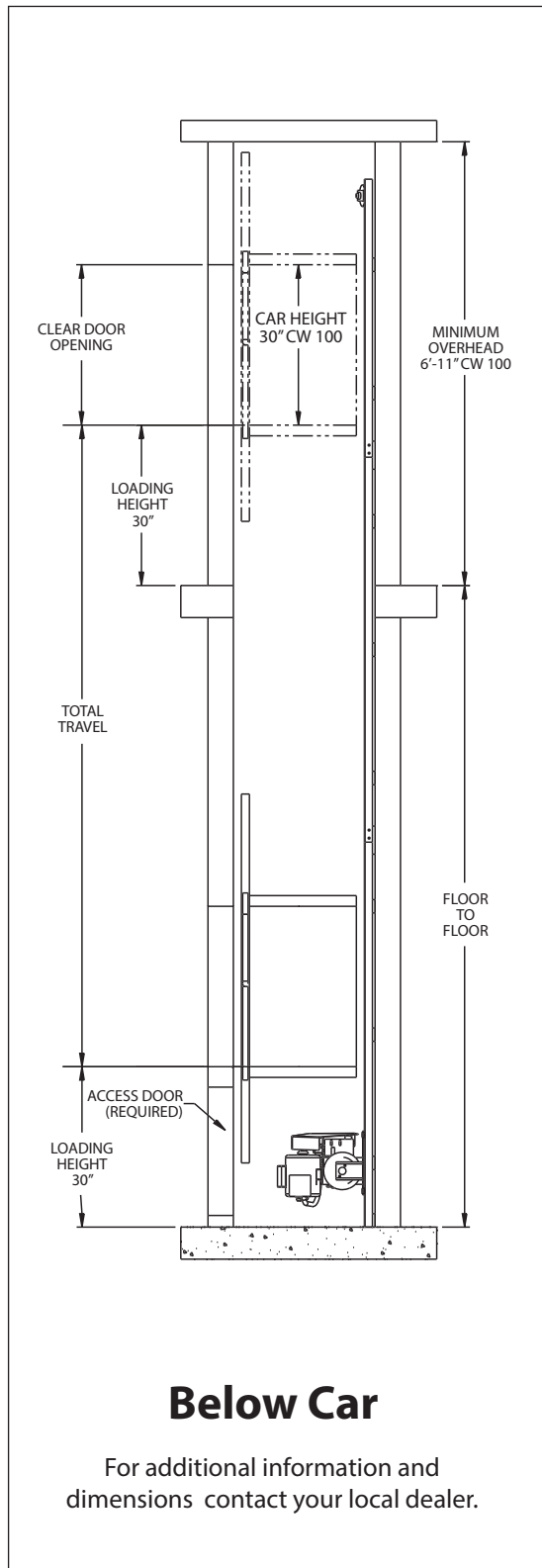
Dumbwaiter Type	Car Size	Finished Hoistway Dimensions										
		a	b	c	d	e	f	g	h	i	j	k
C Paca-Waiter 300 lbs.	30"x30"x40"	20"	40.5"	40.5"	30"	30"	28"	5.5"	1.5"	2"	7"	1.25"
C Paca-Waiter 500 lbs.	36"x36"x48"	23"	46.5"	46.5"	36"	36"	34"	5.5"	1.5"	2"	7"	1.25"



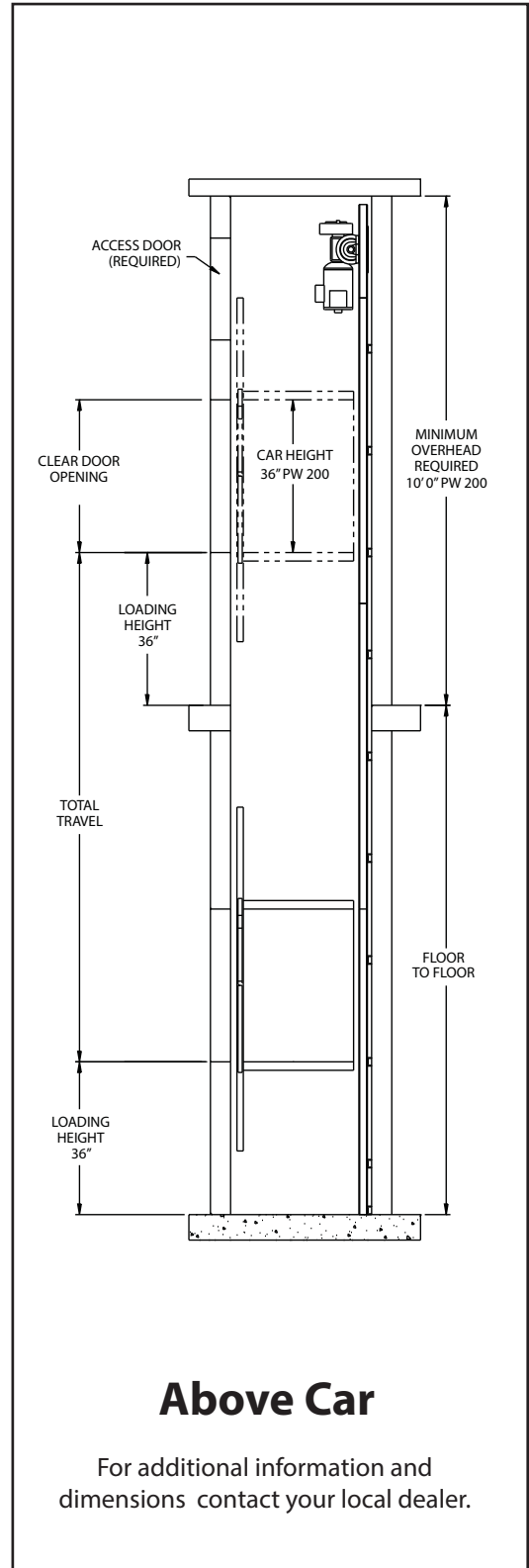
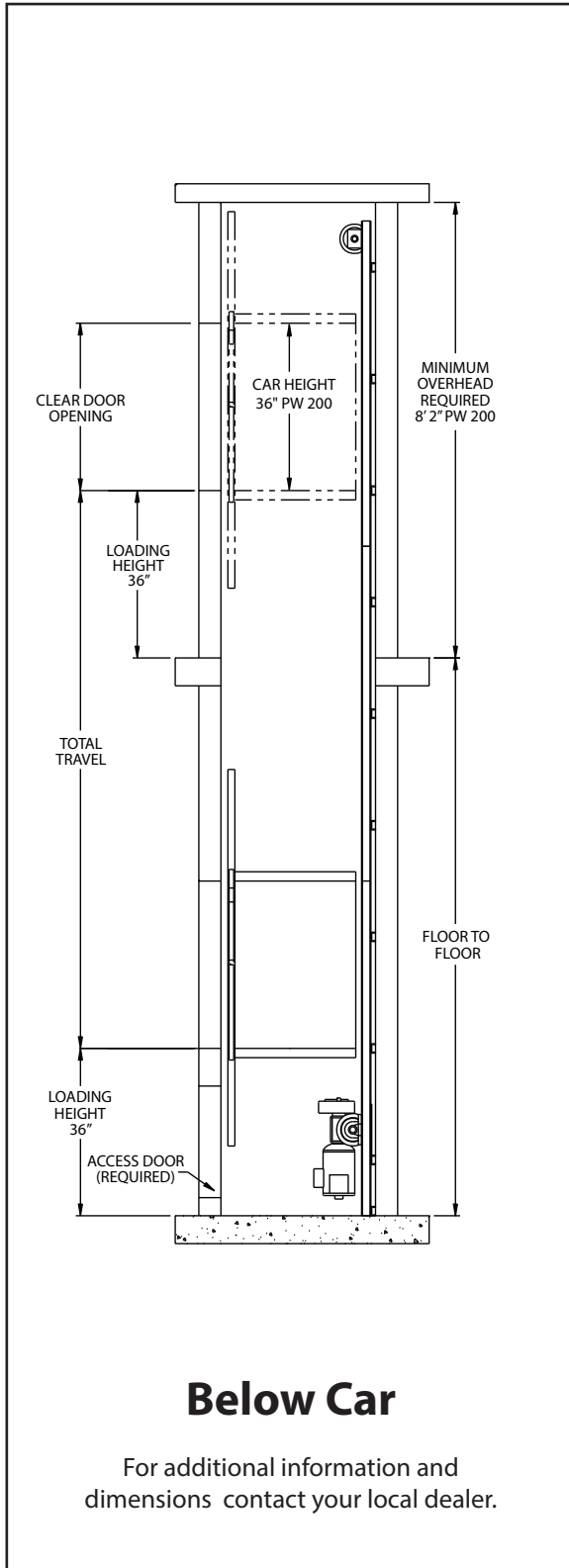
LEFT ADJACENT OPENINGS (DC BC) Code 6

Dumbwaiter Type	Car Size	Finished Hoistway Dimensions										
		a	b	c	d	e	f	g	h	i	j	k
C Paca-Waiter 300 lbs.	30"x30"x40"	20"	40.5"	40.5"	30"	30"	28"	5.5"	1.5"	2"	7"	1.25"
C Paca-Waiter 500 lbs.	36"x36"x48"	23"	46.5"	46.5"	36"	36"	34"	5.5"	1.5"	2"	7"	1.25"

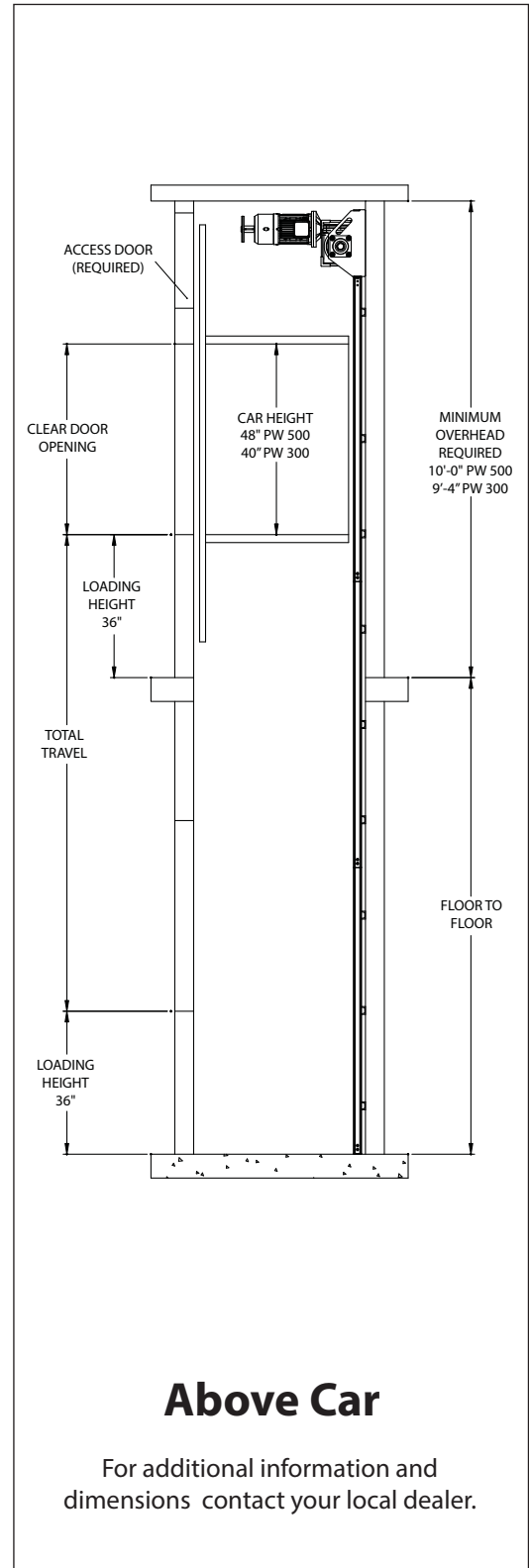
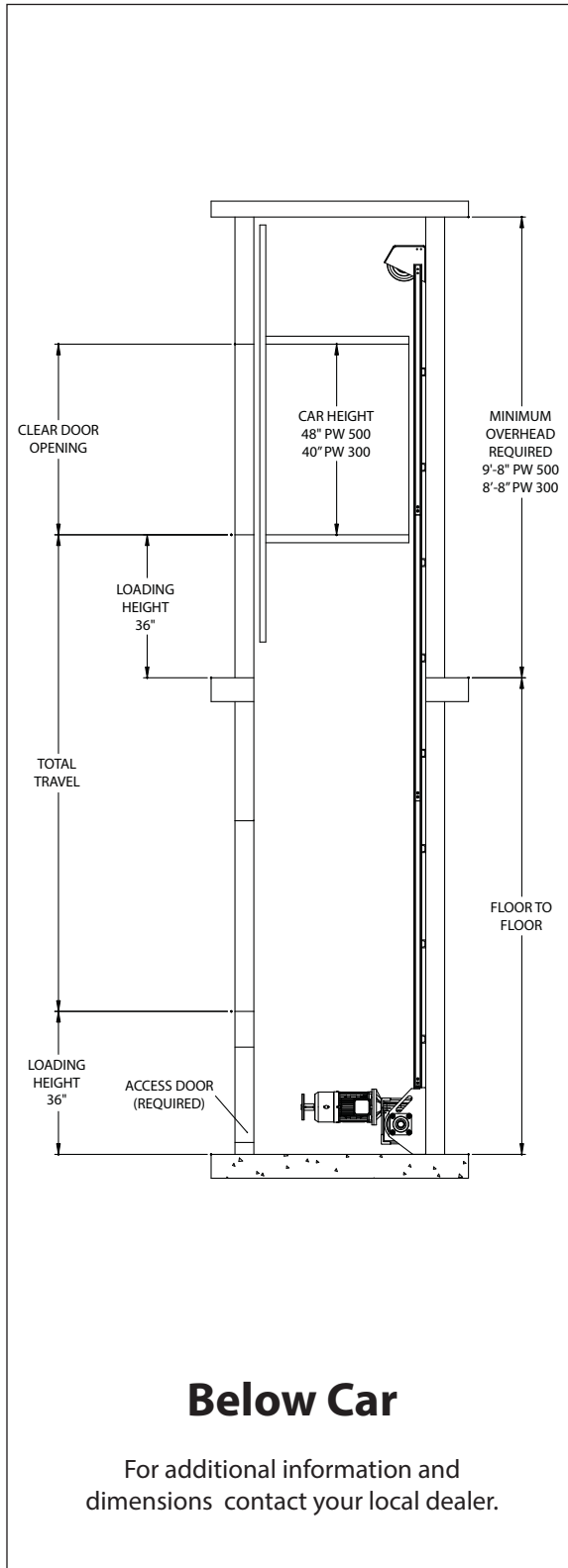
Elevation Layout - Residential Cable-Waiter



Elevation Layout - Residential Paca-Waiter



Elevation Layout - Commercial Paca-Waiter

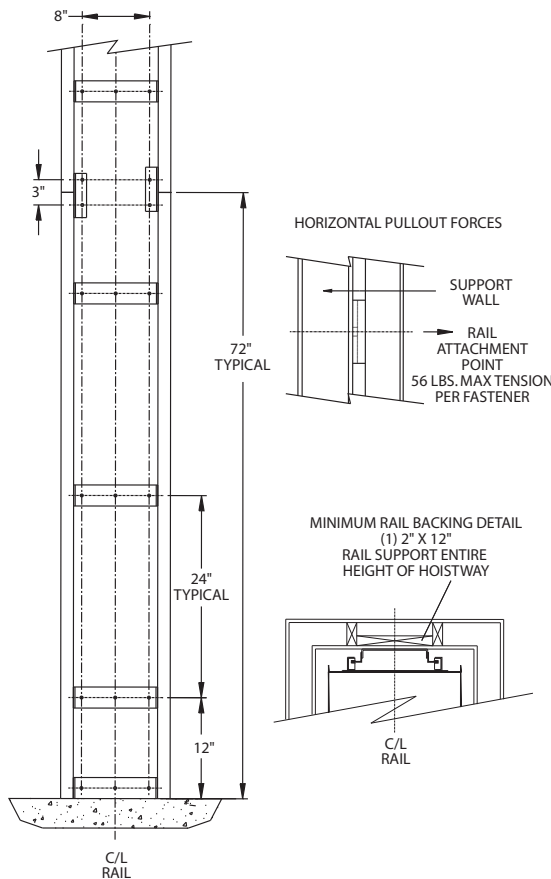


Hoistway Rail Layout

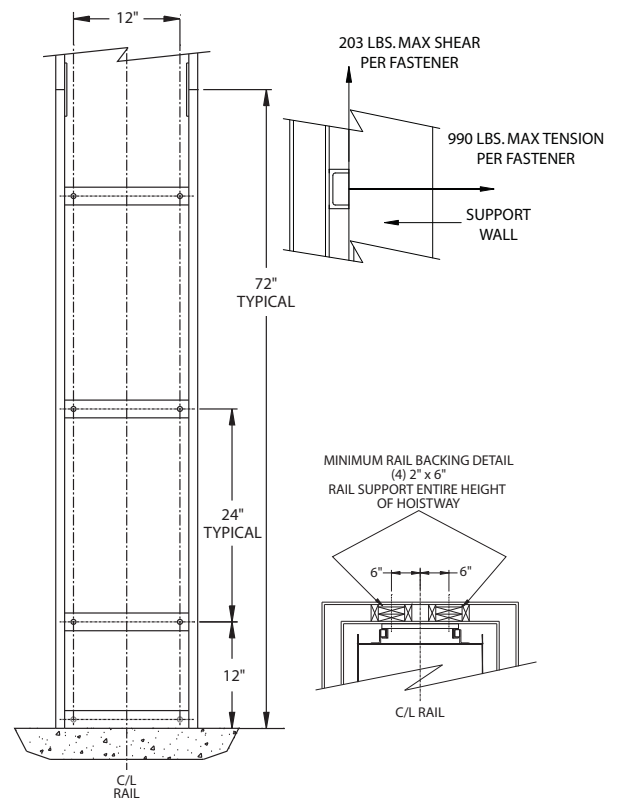
The typical layouts shown here may vary from your actual hoistway. The purpose of these layouts are for a general understanding. Please refer to Waupaca Elevator Company, Inc., drawings and specifications provided by your local dealer.

These drawings depict sample layouts 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.

Residential Cable-Waiter



Residential Paca-Waiter



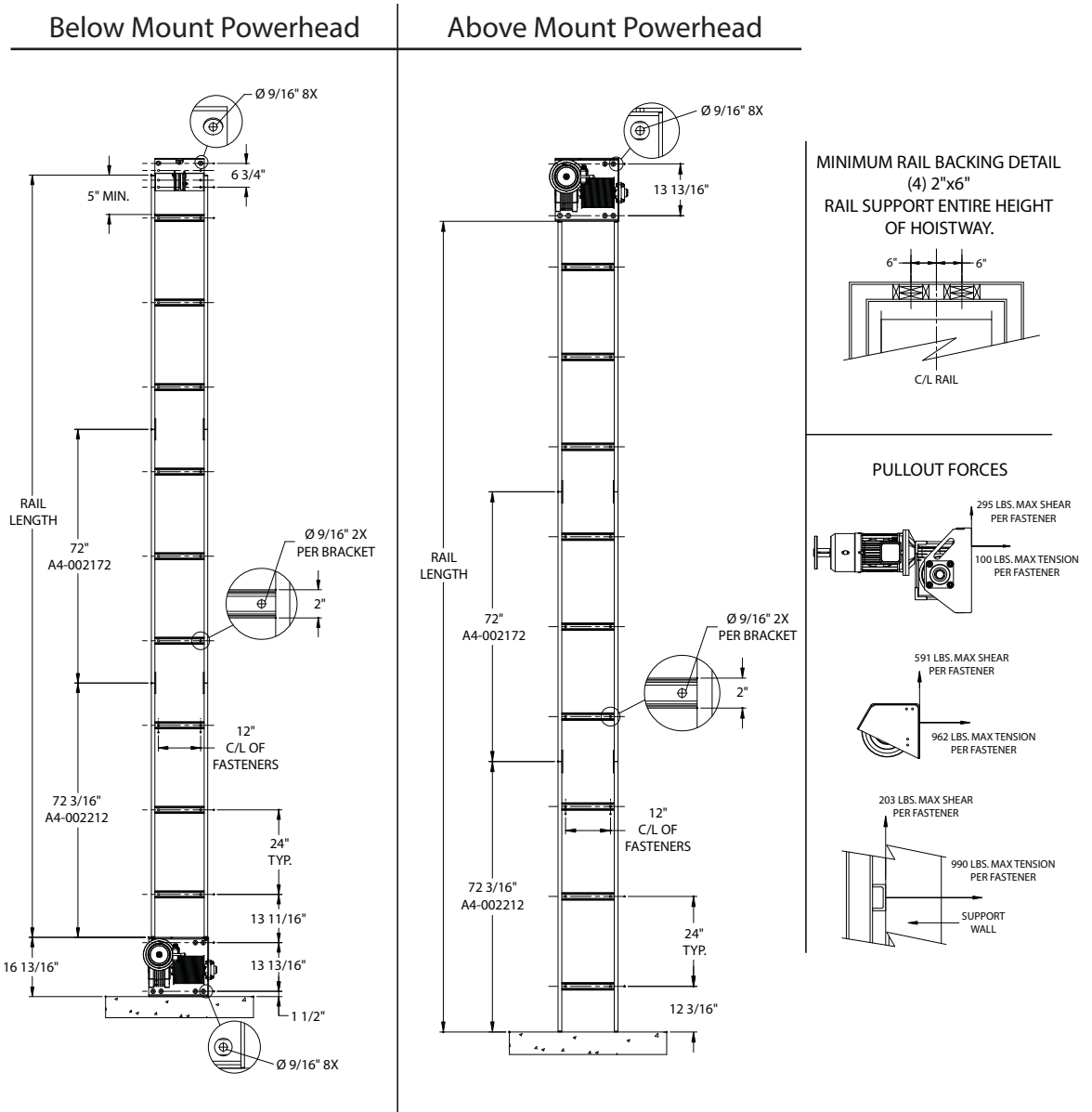
For additional information and dimensions contact your local dealer.

Hoistway Rail Layout

The typical layouts shown here may vary from your actual hoistway. The purpose of these layouts are for a general understanding. Please refer to Waupaca Elevator Company, Inc., drawings and specifications provided by your local dealer.

These drawings depict sample layouts 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.

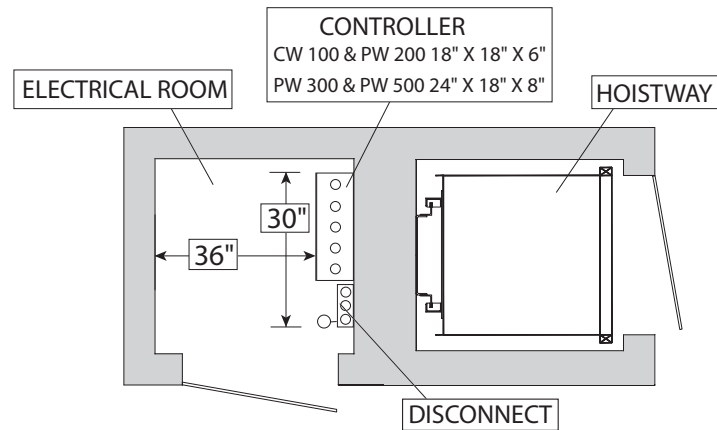
Commercial Paca-Waiter



For additional information and dimensions contact your local dealer.

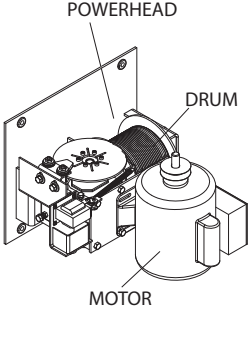
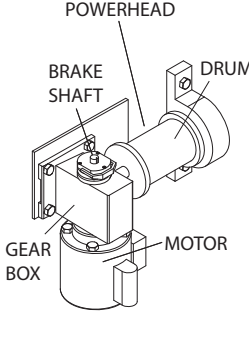
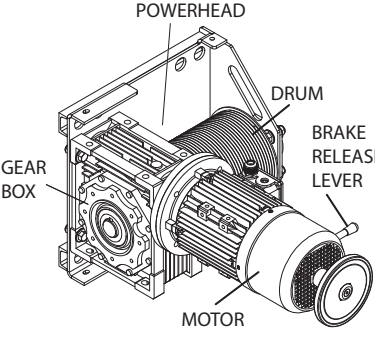
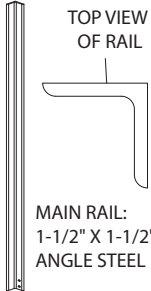
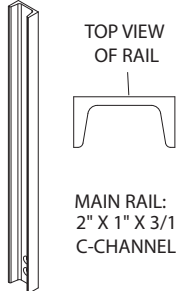
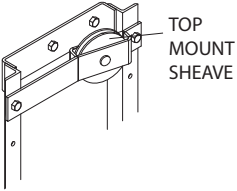
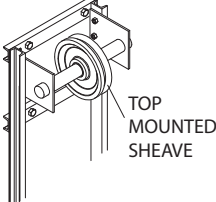
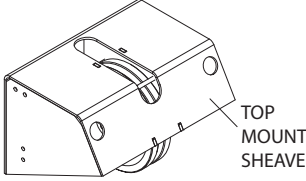

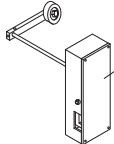
Electrical Room Layout

Typical Electrical Layout (Layouts may change depending on application)



1. Electrical room must meet N.E.C. clear space requirements and all local codes.
2. The controller requires a clear space of 36" x 30" directly in front.
3. A lockable fusible service disconnect must be placed within sight of the controller and accessible from the latch side of the doorway.
4. Temperature in machine room to be maintained between 60-110° F and must not be exposed to the elements.

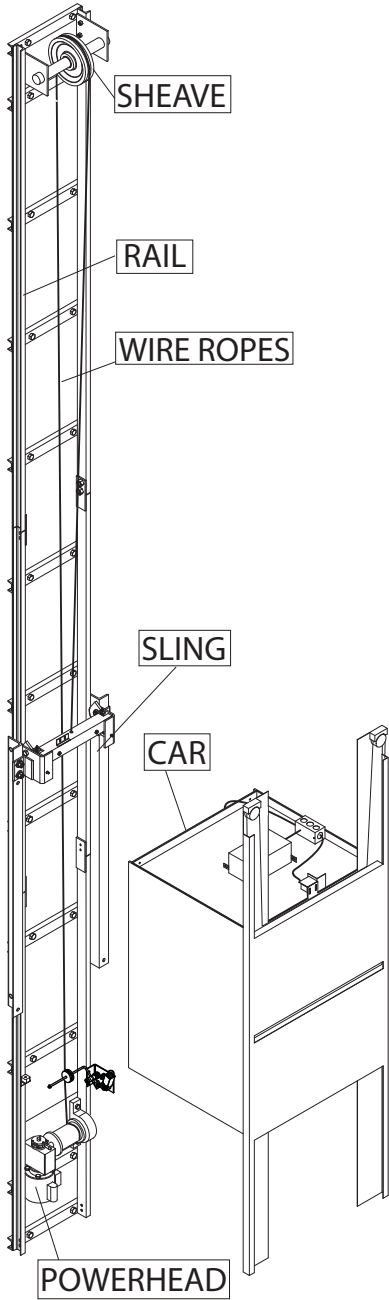
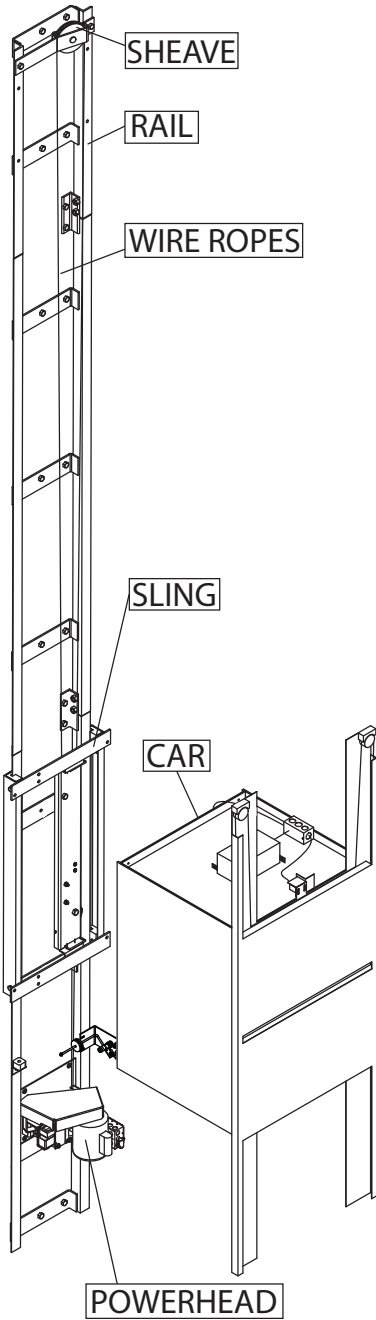
Typical Dumbwaiter Equipment

Cable-Waiter	Paca-Waiter	
RESIDENTIAL UNIT	RESIDENTIAL UNIT	COMMERCIAL UNIT
 <p>POWERHEAD DRUM MOTOR</p>	 <p>POWERHEAD BRAKE SHAFT DRUM GEAR BOX MOTOR</p>	 <p>POWERHEAD DRUM BRAKE RELEASE LEVER GEAR BOX MOTOR</p>
 <p>TOP VIEW OF RAIL</p> <p>MAIN RAIL: 1-1/2" X 1-1/2" X 1/8" ANGLE STEEL</p>	 <p>TOP VIEW OF RAIL</p> <p>MAIN RAIL: 2" X 1" X 3/16" C-CHANNEL STEEL</p>	
 <p>TOP MOUNT SHEAVE</p>	 <p>TOP MOUNTED SHEAVE</p>	 <p>TOP MOUNT SHEAVE</p>
 <p>EMI INTERLOCK (Residential Only)</p>	<p>HOISTWAY DOOR INTERLOCKS EMI OR GAL TYPE "SM" REQUIRED AT EACH OPENING TO PREVENT HOISTWAY OR DUMBWAITER ACCESS WHILE DUMBWAITER IS OPERATING OR AT ANOTHER LANDING.</p>	
		 <p>GAL TYPE "SM" INTERLOCK</p>

Residential Mechanical Illustrations

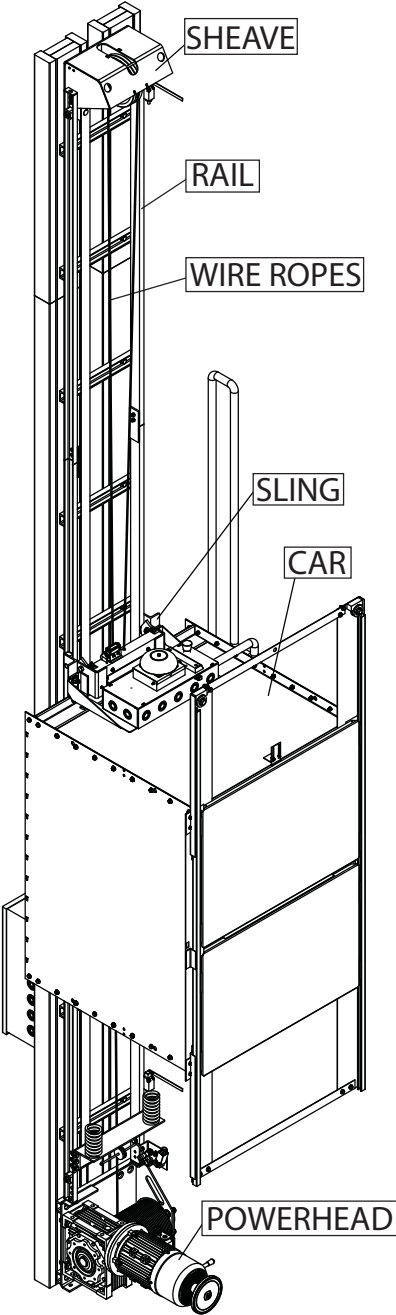
Cable-Waiter

Paca-Waiter



Commercial Mechanical Illustrations

Paca-Waiter



PMQ0400-E
8-2-2012

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