SYMMETRY

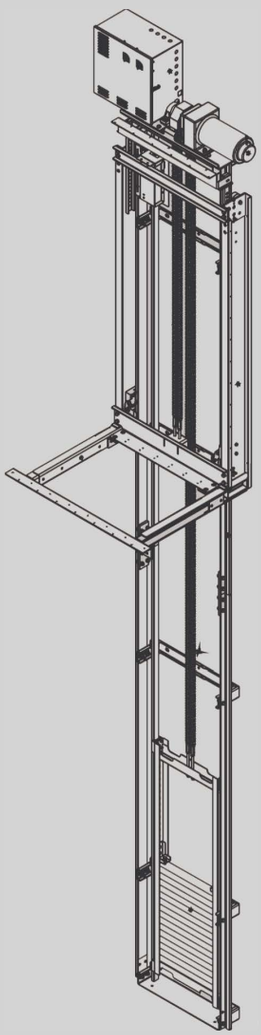
ELEVATING SOLUTIONS

RESIDENTIAL ELEVATORS

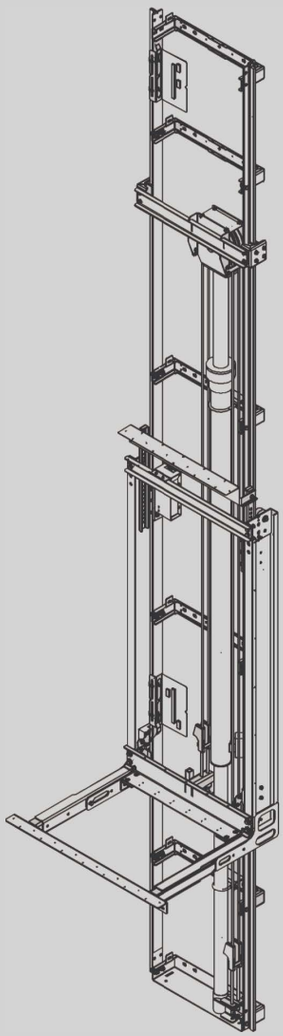
Design Guide

ASME A17.1, Part V, Section 5.3

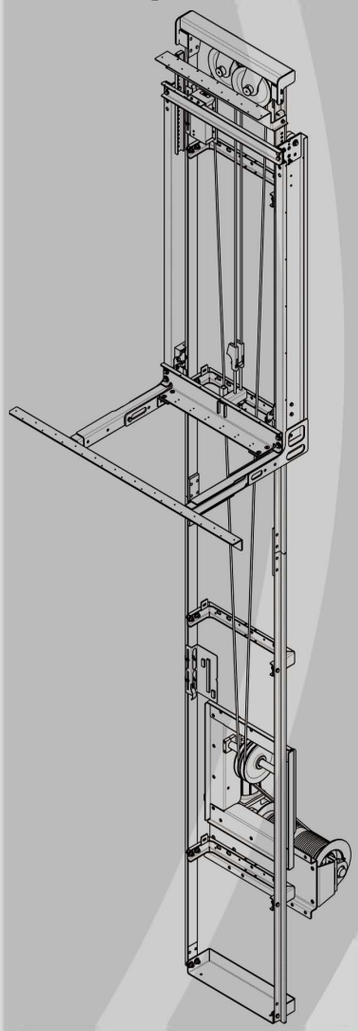
In-Line Gear Drive



Roped Hydraulic Drive



Winding Drum Drive



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Symmetry Residential

Home Elevator Systems

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About Symmetry

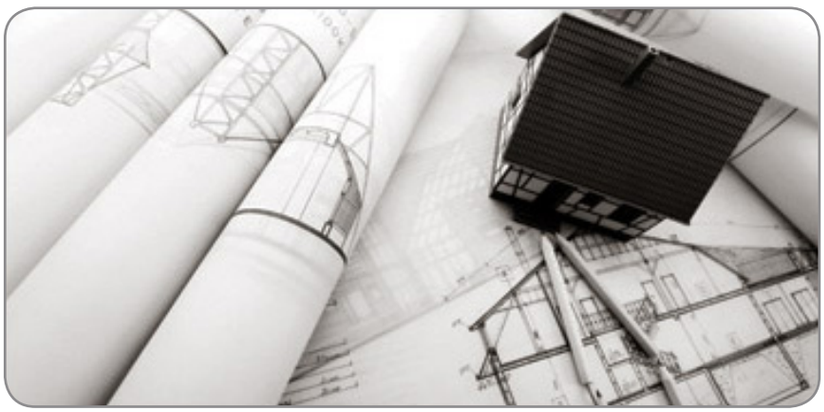
Beautifully Crafted, Expertly Engineered, Thoughtfully Constructed

Symmetry is committed to its quest to develop innovative accessibility products, rigorous in its commitment to beautiful craftsmanship, expert engineering, thoughtful construction, and affordability.

Symmetry is committed to being the leading provider of lift products in North America. We are focused on being your complete lift solutions provider.

Symmetry Elevating Solutions dealer network possesses over 120 combined years of hands-on, real-world home elevator and lift equipment experience.

Symmetry is committed to an unwavering, relentless, honest pursuit of excellence. The result? A visionary product expertly installed, unrivaled in the residential elevator industry.



Symmetry Elevating Solutions

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At Symmetry, we are your complete lift solutions provider! Please visit us at www.symmetryelevator.com to see our full line of lift solutions.

- Residential Elevators
- Dumbwaiters
- Stairlifts
- Limited Use/Limited Application Elevators
- Vertical Wheelchair Lifts
- Vertical Reciprocating Conveyors
- Auto Gate Operators
- Material Handling Equipment
- Specialty Elevator Fixtures
- Planned Maintenance and Service

IMPORTANT Elevator Safety Notice

WARNING! RISK OF SERIOUS INJURY OR DEATH

There is a potential that a small child could become trapped between the hoistway door and the elevator car gate, leading to serious injury or death. Do not permit children to use the elevator without supervision.

Always enter the elevator cab before closing the landing door behind you. **Never** allow a person to be between the closed elevator gate and the closed landing door.

The elevator gate should be installed in accordance with ASME A17.1 Code or any more stringent local code requirements.

There are several options available to reduce and/or remove this hazard from your elevator installation. It is the manufacturers recommendation this gap be eliminated or reduced to the smallest functional space possible. The maximum space currently allowed by code is governed by the 3/5 rule, however, it has been determined that this code is not stringent enough to ensure the safety of small children.

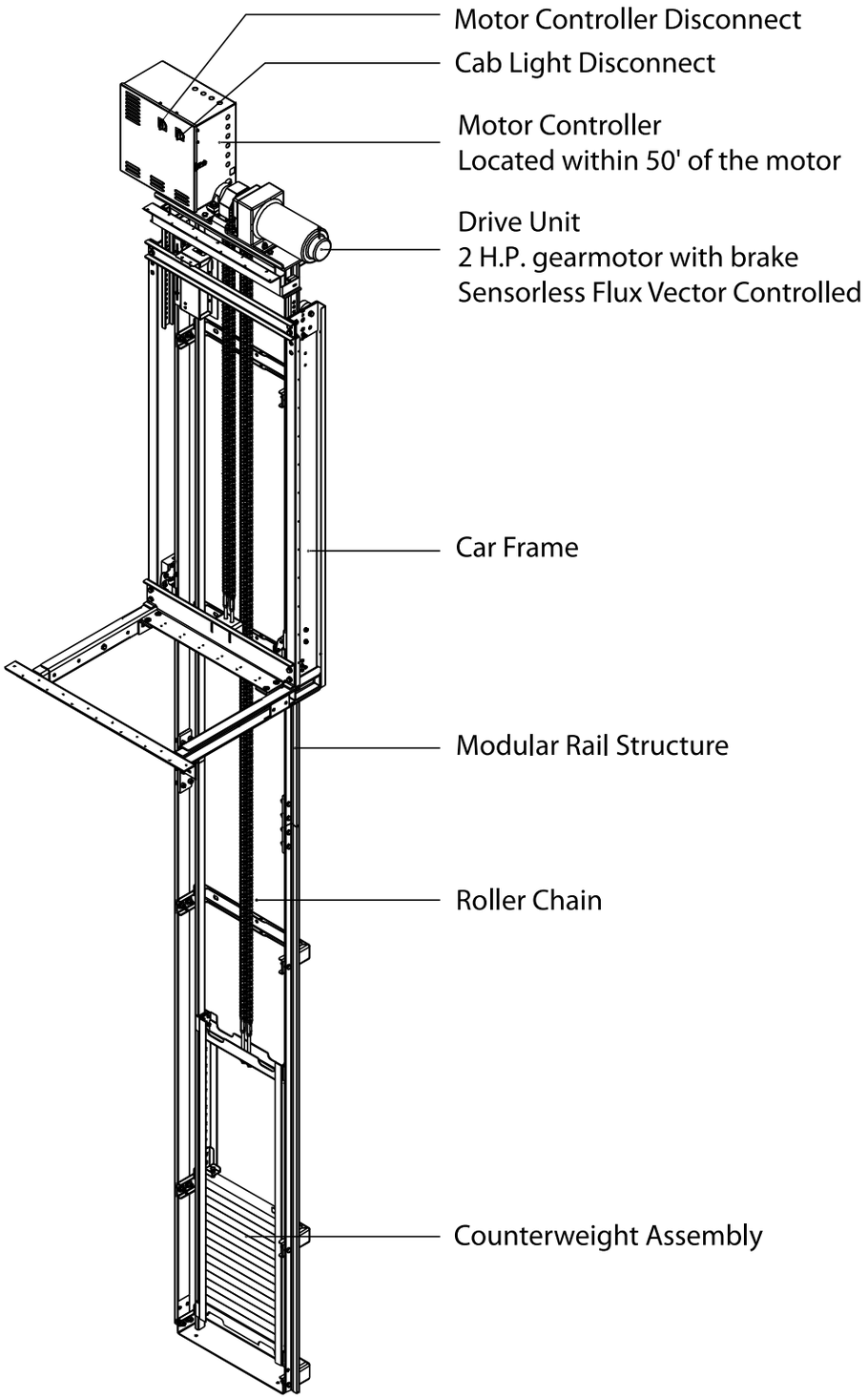
This hazard can be reduced or eliminated by the following:

- Door guard or door baffle
- RDI Elevator Flush door application – flush mounted to the interior of the hoistway door and jamb, with integrated electro-mechanical door interlock
- Light curtain in combination with RDI Elevator Flush door application
- Solid wrap around gate (replacing accordion style gate)
- Fully automatic mechanically interlocked elevator car and hoistway doors.

All ITEMS LISTED ABOVE IN RED CAN BE ATTAINED THROUGH YOUR LOCAL SYMMETRY ELEVATING SOLUTIONS RESIDENTIAL ELEVATOR CONTRACTOR. – www.symmetryelevators.com

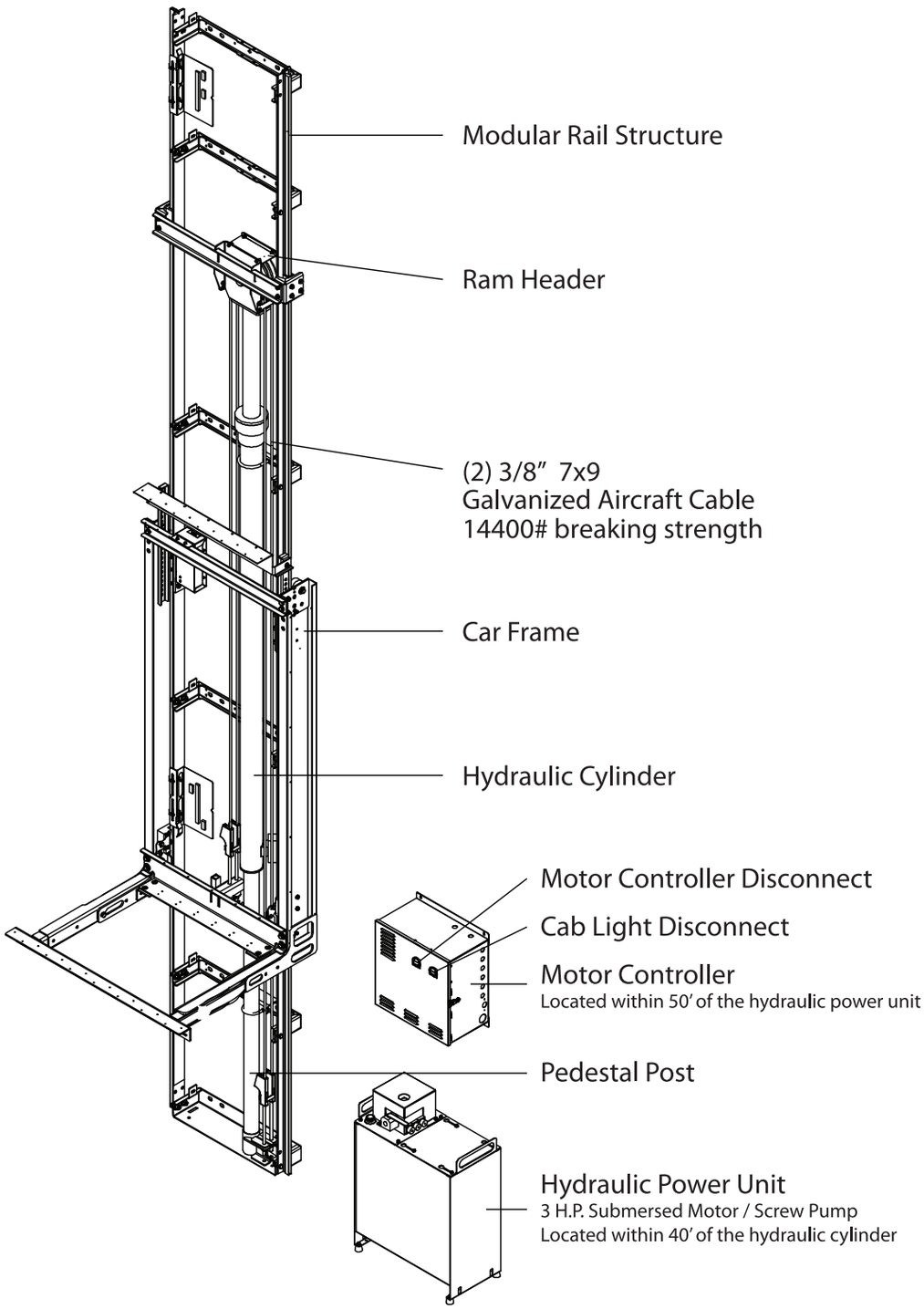
COMPONENT IDENTIFICATION

In-Line Gear Drive - Overview



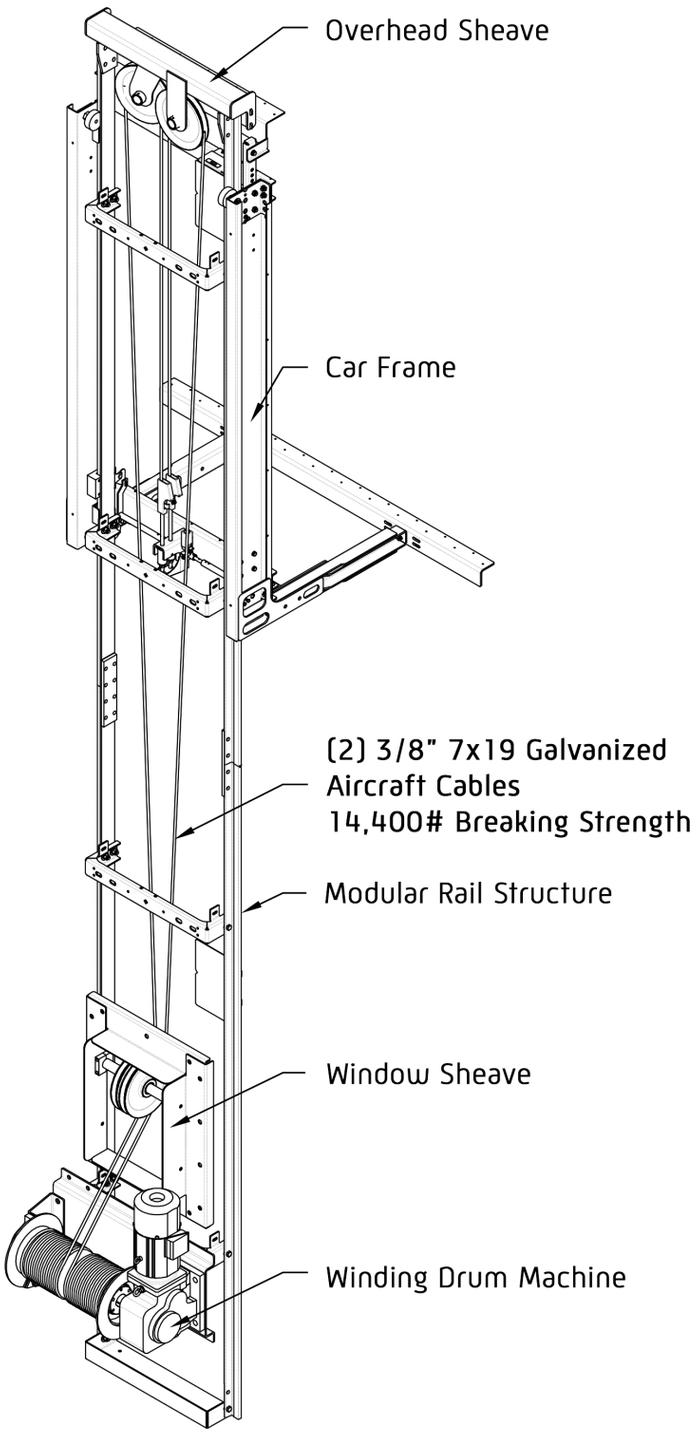
COMPONENT IDENTIFICATION

Hydraulic Drive - Overview



COMPONENT IDENTIFICATION

Winding Drum Drive - Overview



Equipment for Symmetry Residential Elevator

InLine Gear Drive System

General

- Travel: Maximum of 50' (minimum 12" between stops)
- Speed: 40 FPM
- Load Capacity: 1000#
- ** Overhead Minimum of 8' (96") with remote controller* Minimum of 9' with controller in hoistway
- Pit depth: 6" minimum (8" preferred)
- Two stops
- Single opening
- Three year limited parts warranty

Mechanical Equipment

- Modular 6 1/4# T-rail structure
- Car frame assembly
- 208/230VAC, 60Hz, 20 amp single phase power supply for motor controller
- 120 VAC, 60Hz, 15 amp single phase power supply for lighting
- (2) #60 roller chains
- Inverter controlled variable speed In-Line Gear assembly with counterweighted chain drive and 2 H.P. motor
- ** Code compliant electrical disconnects included*

Safety Features

- Slack chain safety device
- Motor controller supply disconnects (located in controller)
- Car light supply disconnects (located in controller)
- Upper and lower final limits
- Pit stop switch
- Car top stop switch
- In-car emergency stop switch and alarm
- Safety switch for car gate(s)
- Battery back up emergency car lights and alarm
- Electromechanical hoistway door interlocks (doors by others)

Controls

- Programmable Logic Controller (PLC)
- Non-selective collective automatic operation
- ** S.M.A.R.T. system (Self-Monitoring Alert Response Technology)*
- Car Operating Panel (COP) with LED floor position indicator; available in multiple finishes
- Recessed phone box in multiple finishes (phone jack included)
- Hall stations with call button and LED floor position indicator; available in multiple finishes
- Automatic car lighting
- Single floor designated car homing
- ** Uninterruptible Power Supply (UPS) for car lowering and automatic gate operation (if provided) in the event of power failure*
- Manual lowering device

Car Features

- Cab size up to 15 square feet
- 7'0" interior car height
- ** Birch, Oak, or Maple flat veneer interior walls with matching ceiling*
- Matching wood handrail
- ** Matching wood car sill*
- Unfinished plywood floor with sill set for .75" (flooring by others)
- ** 2 energy saving recessed LED lights with black trim rings*
- 7'0" vinyl laminate accordion gate (light oak, dark oak, birch, white, or antique white)

All accordion gates except white have bronze hardware. White gates have aluminum hardware.

Optional Features

- Up to six stops
- Single automatic push button operation
- Custom car size up to 18 square feet**
- Custom car heights
- Shaker or Recessed panel car with flush ceiling
- Shaker or Recessed panel car with matching ceiling
- Raised panel car with matching ceiling
- ** 4 recessed LED lights with black, brass, nickel or bronze trim rings*
- Factory finished car
- Polished stainless steel, polished or brushed brass, black, vintage bronze and oil rubbed brass fixtures (including COP, phone box, hall calls, and handrail)
- ** COP with integrated keypad phone*
- Custom wood interiors
- ** Custom factory finishes (antiqued, distressed, & crackle)*
- ** Green material alternatives and finishes for car interiors*
- Scissor gate
- Hardwood veneer accordion gate
- Clear panel accordion gate
- Autogate operator (available for use with accordion gate only)
- .75" finished or unfinished factory installed hardwood car flooring
- Factory flooring insert for 1/4" flooring by others
- Buffer springs (requires minimum of 10" pit depth)
- Key switch for COP and hall stations
- 750# car capacity

**** This symbol denotes exclusive features***
***** May require local code authority approval***

Equipment for Symmetry Residential Elevator

Hydraulic Drive System

General

- Travel: Maximum of 60' (minimum 12" between stops)
- Speed: 40 FPM
- Load Capacity: 1000#
- ** Overhead Minimum of 7'10"' (94") with remote controller*
- Pit depth: 6" minimum (8" preferred)
- Two stops
- Single opening
- Three year limited parts warranty

Mechanical Equipment

- Modular 6 $^{1}/_{4}$# T-rail structure
- Car frame assembly
- 208/203 VAC, 60Hz, 30 amp single phase power supply for motor controller
- 120 VAC, 60Hz, 15 amp single phase power supply for lighting
- (2) $^{3}/_{8}$" 7x19 galvanized aircraft cable (14400# breaking strength) with wedge rope shackles
- 80mm diameter piston/102mm diameter cylinder incl. 1" - $^{3}/_{4}$" reducer bushing
- 208/230, 3HP submersed motor with 2-speed valve assembly (1750 RPM / 17 FL Amps) - manual down valve for emergency lowering
- Screw pump (300 micron screen)
- Positive pressure switch
- ** Code compliant electrical disconnects included*

Safety Features

- Slack rope safety device
- Motor controller supply disconnects (located in controller)
- Car light supply disconnects (located in controller)
- Rupture Valve (Type "C" Safety)
- Pit stop switch
- Car top stop switch
- In-car emergency stop switch and alarm
- Safety switch for car gate(s)
- Battery back-up emergency car lights and alarm
- Electromechanical hoistway door interlocks (doors by others)

Controls

- Programmable Logic Controller (PLC)
- Non-selective collective automatic operation
- ** S.M.A.R.T. System (Self-Monitoring Alert Response Technology)*
- Car Operating Panel (COP) with LED floor position indicator; available in multiple finishes
- Recessed phone box in multiple finishes (phone jack included)
- Hall stations with call button and LED floor position indicator; available in multiple finishes
- Automatic car lighting
- Single floor designated car homing
- ** Uninterruptible Power Supply (UPS) for car lowering and automatic gate operation (if provided) in the event of power failure*

Car Features

- Cab size up to 15 square feet
- 7'0" interior car height
- ** Birch, Oak, or Maple flat veneer interior walls with matching ceiling*
- Matching wood handrail
- ** Matching wood car sill*
- Unfinished plywood floor with sill set for .75" (flooring by others)
- ** 2 energy saving recessed LED lights with black trim rings*
- 7'0" vinyl accordion gate (light oak, dark oak, birch, white, or antique white)

Optional Features

- Up to seven stops
- Single automatic push button operation
- Custom car size up to 18 square feet**
- Custom car heights
- Shaker or Recessed panel car with flush ceiling
- Shaker or Recessed panel car with matching ceiling
- Raised panel car with matching ceiling
- ** 4 recessed LED lights with black, brass, nickel or bronze trim rings*
- Factory finished car
- Polished stainless steel, polished or brushed brass, black, vintage bronze and oil rubbed brass fixtures (including COP, phone box, hall calls, and handrail)
- ** COP with integrated keypad phone*
- Custom wood interiors
- ** Custom factory finishes (antiqued, distressed, & crackle)*
- ** Green material alternatives and finishes for car interiors*
- Scissor gate
- Hardwood veneer accordion gate
- Clear panel accordion gate
- Autogate operator (available for use with accordion gate only)
- .75" finished or unfinished factory installed hardwood car flooring
- Factory flooring insert for 1/4" flooring by others
- Buffer springs (requires minimum of 10" pit depth)
- Key switch for COP and hall stations
- 750# car capacity

*** This symbol denotes exclusive features**

***** May require local code authority approval***

Equipment for Symmetry Residential Elevator

Winding Drive System

General

- Travel: Maximum of 50' (minimum 12" between stops)
- Speed: 40 FPM
- Load Capacity: 1000#

** Overhead Minimum of 7'10" (94")*

- Pit depth: 6" minimum (8" preferred)
- Six stops
- Single opening
- Three year limited parts warranty

Mechanical Equipment

- Modular 6 $^{1}/_{4}$# T-rail structure
- Car frame assembly
- 208/203 VAC, 60Hz, 30 amp single phase power supply for motor controller
- 120 VAC, 60Hz, 15 amp single phase power supply for lighting
- (2) $^{3}/_{8}$" 7x19 galvanized aircraft cable (14400# breaking strength)
- Inverter controlled variable speed geared assembly with winding drum drive unit and 3 H.P. motor.

** Code compliant electrical disconnects included*

Safety Features

- Slack rope safety device
- Motor controller supply disconnects (located in controller)
- Car light supply disconnects (located in controller)
- Pit stop switch
- Car top stop switch
- In-car emergency stop switch and alarm
- Safety switch for car gate(s)
- Battery back-up emergency car lights and alarm
- Uninterruptible Power Supply - (USP) for car lowering and automatic gate operation (if auto gate operator provided) in the case of power failure (to allow emergency lower of cab in case of main power failure)
- Electromechanical hoistway door interlocks (doors by others)

Controls

- Programmable Logic Controller (PLC)
- Non-selective collective automatic operation

** S.M.A.R.T. System (Self-Monitoring Alert Response Technology)*

- Car Operating Panel (COP) with LED floor position indicator; available in multiple finishes
- Recessed phone box in multiple finishes (phone jack included)
- Hall stations with call button and LED floor position indicator; available in multiple finishes
- Automatic car lighting
- Single floor designated car homing

** Uninterruptible Power Supply (UPS) for car lowering and automatic gate operation (if provided) in the event of power failure*

Car Features

- Cab size up to 15 square feet
- 7'0" interior car height

** Birch, Oak, or Maple flat veneer interior walls with matching ceiling*

- Matching wood handrail

** Matching wood car sill*

- Unfinished plywood floor with sill set for .75" (flooring by others)

** 2 energy saving recessed LED lights with black trim rings*

- 7'0" vinyl accordion gate (light oak, dark oak, birch, white, or antique white)

Optional Features

- Up to Six stops
- Single automatic push button operation
- Custom car size up to 18 square feet**
- Custom car heights
- Shaker or Recessed panel car with flush ceiling
- Shaker or Recessed panel car with matching ceiling
- Raised panel car with matching ceiling

** 4 recessed LED lights with black, brass , nickel or bronze trim rings*

- Factory finished car
- Polished stainless steel, polished brass, black, vintage bronze and oil rubbed brass fixtures (including COP, phone box, hall calls, and handrail)

** COP with integrated keypad phone*

- Custom wood interiors

** Custom factory finishes (antiqued, distressed, & crackle)*

** Green material alternatives and finishes for car interiors*

- Scissor gate
- Hardwood veneer accordion gate
- Clear panel accordion gate
- Autogate operator (available for use with accordion gate only)
- .75" finished or unfinished factory installed hardwood car flooring
- Factory flooring insert for 1/4" flooring by others
- Buffer springs (requires minimum of 10" pit depth)
- Key switch for COP and hall stations
- 750# car capacity

*** This symbol denotes exclusive features**

***** May require local code authority approval***

Hoistway Construction Outline:

- PROVIDE APPROPRIATE RAIL BACKING FOR T-RAIL
- CONSULT DEALER FOR SPAN OF GREATER THAN 10' BETWEEN FLOOR JOISTS
- MAINTAIN BELOW 1/8" TOLERANCES THROUGHOUT HOISTWAY
- RAIL BACKING WALL MUST BE A LOAD BEARING WALL
- PIT FLOOR MUST BE A MINIMUM OF 6" (8" PREFERRED) BELOW THE FINISHED FLOOR OF THE LOWEST LANDING. CONFIRM PIT DEPTH WITH ELEVATOR CONTRACTOR PRIOR TO CONCRETE POUR
- CONSTRUCTION OF PIT FLOOR MUST WITHSTAND AN IMPACT LOAD OF 6489#, STATIC LOAD 3764# (1000# CAPACITY)
- 8'0" MINIMUM HOISTWAY OVERHEAD ABOVE THE FINISHED FLOOR AT THE TOP LANDING IS REQUIRED FOR 7'0" CAR WITH REMOTE CONTROLLER
- 9'0" MINIMUM HOISTWAY OVERHEAD ABOVE THE FINISHED FLOOR AT THE TOP LANDING IS REQUIRED FOR 7'0" CAR WITH CONTROLLER LOCATED IN THE HOISTWAY (IN-LINE DRIVE UNIT ONLY)
- PROVIDE AN ACCESS HATCH FOR SERVICING THE CONTROLLER/DRIVE UNIT ON IN-LINE GEAR DRIVE ELEVATOR
- HATCH TO ACCESS MOTOR BRAKE ON UNITS WITH REMOTE CONTROLLER
- HOISTWAY DOORS PROVIDED BY OTHERS. MINIMUM 3'0" X 6'8" SOLID CORE DOORS ARE RECOMMENDED
- HOISTWAY MUST BE FREE OF ANY OBSTRUCTIONS UNRELATED TO THE ELEVATOR OPERATION (I.E. SPRINKLERS, PIPES, DUCTS, ETC,)
- THE STRUCTURE OF THE HOISTWAY MUST ALLOW FOR INSTALLATION OF A CHAIN HOIST TO TRANSFER MATERIALS TO THE UPPER LANDINGS DURING ELEVATOR INSTALLATION

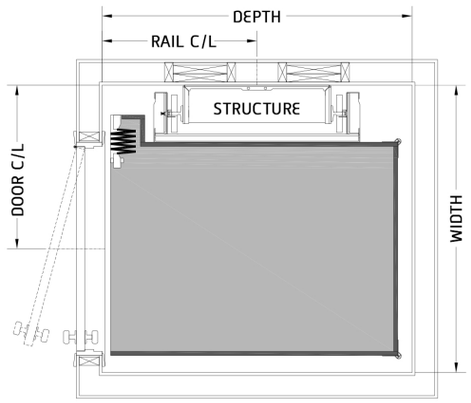
* The Winding Drum Drive system requires a framed window for placement and support of cable sheave. Please see Typical Machine Room layout on Page 21 & 22 for proper layout.

* This guide is for planning purposes only. This guide is **NOT** intended for construction purposes. Prior to construction, please request a **job specific** set of elevator plans to ensure **correct** and **accurate** dimensions and requirements for your project.

* Your local Symmetry Elevating Solutions representative will assist you in ensuring your project specific plans will comply with your local and state codes and building authority.

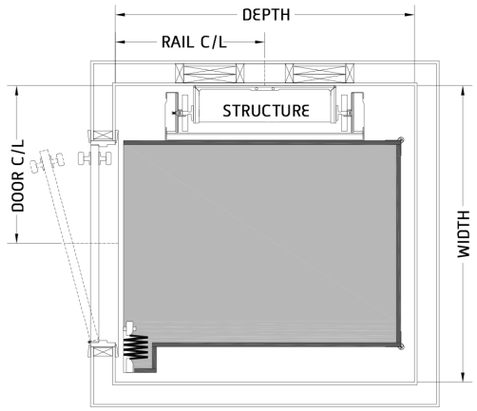
Typical Hoistway Options

All Hoistway Dimensions Reference Interior Dimensions (Finished Wall to Finished Wall)



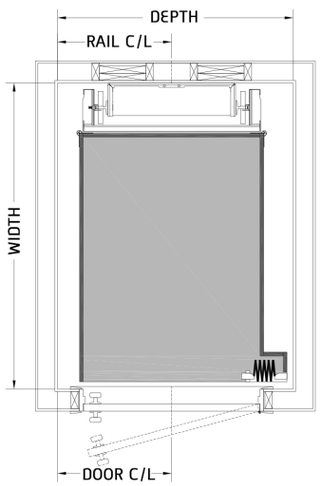
SINGLE OPENING, RAIL LEFT, RIGHT HAND DOOR OR RAIL RIGHT/LEFT HAND DOOR

Car Size	Width	Depth	Rail C/L	Door C/L	Clear Opening
36 x 48	50½"	54½"	27¼"	28¾"	32¼"
36 x 60	50½"	66½"	33¼"	28¾"	32¼"
40 x 54	54½"	60½"	30¼"	32¾"	33½"



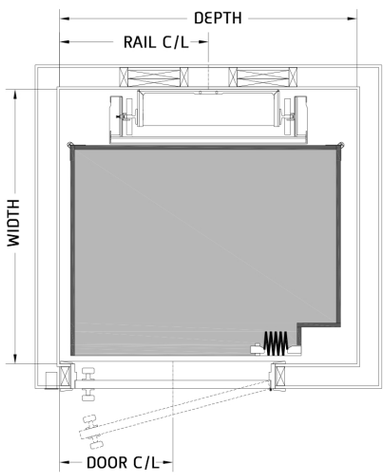
SINGLE OPENING, RAIL LEFT, LEFT HAND DOOR OR RAIL RIGHT/RIGHT HAND DOOR

Car Size	Width	Depth	Rail C/L	Door C/L	Clear Opening
36 x 48	54"	54½"	27¼"	28¾"	32¼"
36 x 60	54"	66½"	33¼"	28¾"	32¼"
40 x 54	55"	60½"	30¼"	28¾"	33½"



SINGLE OPENING, RAIL FRONT, LEFT HAND DOOR OR RAIL FRONT/RIGHT HAND DOOR

Car Size	Width	Depth	Rail C/L	Door C/L	Clear Opening
36 x 48	48"	62½"	23¼"	23¼"	32¼"
36 x 60	48"	74½"	23¼"	23¼"	32¼"
40 x 54	48"	68½"	24"	21¾"	33½"



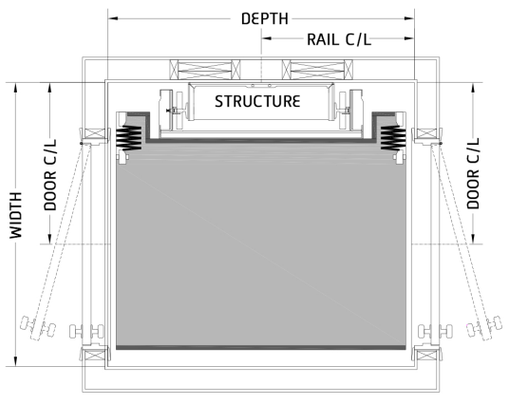
SINGLE OPENING, RAIL FRONT, LEFT HAND DOOR OR RAIL FRONT/RIGHT HAND DOOR

Car Size	Width	Depth	Rail C/L	Door C/L	Clear Opening
48 x 36	54½"	50½"	27¼"	20¾"	32¼"
60 x 36	66½"	50½"	33¼"	20¾"	32¼"
54 x 40	60½"	54½"	30¼"	20¾"	32¼"

DOOR CENTERLINES ARE SHOWN WITH 3'0" (36") DOORS, PLEASE CONSULT MANUFACTURER FOR ALTERNATE DOOR WIDTHS

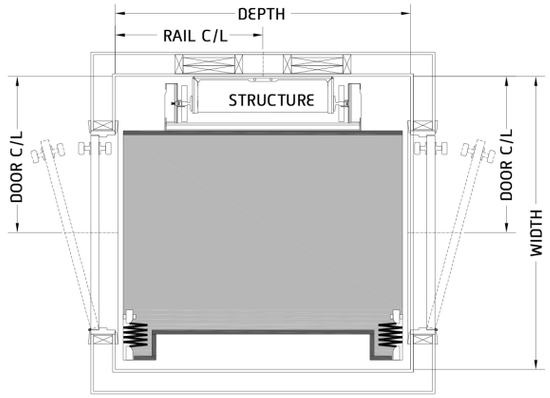
Typical Hoistway Options

All Hoistway Dimensions Reference Interior Dimensions (Finished Wall to Finished Wall)



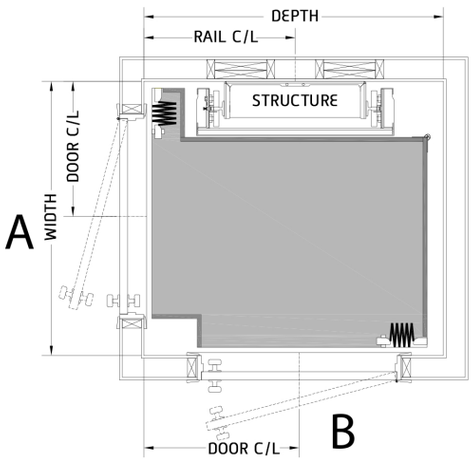
OPPOSITE OPENING, RAIL LEFT, RIGHT HAND DOOR OR RAIL RIGHT/LEFT HAND DOOR

Car Size	Width	Depth	Rail C/L	Door C/L	Clear Opening
36 x 48	50½"	54½"	27¼"	28¾"	32¼"
36 x 60	50½"	66½"	33¼"	28¾"	32¼"
40 x 54	54½"	60½"	30¼"	32¾"	33½"



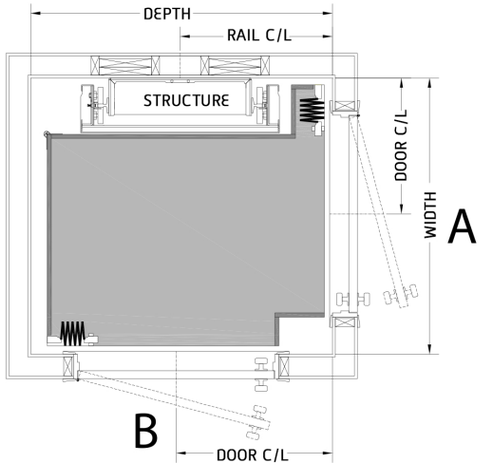
OPPOSITE OPENING, RAIL LEFT, LEFT HAND DOOR OR RAIL RIGHT/RIGHT HAND DOOR

Car Size	Width	Depth	Rail C/L	Door C/L	Clear Opening
36 x 48	54"	54½"	27¼"	28¾"	32¼"
36 x 60	54"	66½"	33¼"	28¾"	32¼"
40 x 54	55"	60½"	30¼"	28¾"	33½"



90 DEGREE OPENING, RAIL FRONT, LEFT HAND DOOR OR RAIL FRONT/RIGHT HAND DOOR

Car Size	Width	Depth	Rail C/L	Door C/L A+B	Clear Opening
36 x 48	50½"	55"	27¾"	25"/28½"	32¼"
36 x 60	50½"	67"	33¾"	25"/40½"	32¼"
40 x 54	54½"	61"	30¾"	29"/34½"	32¼"



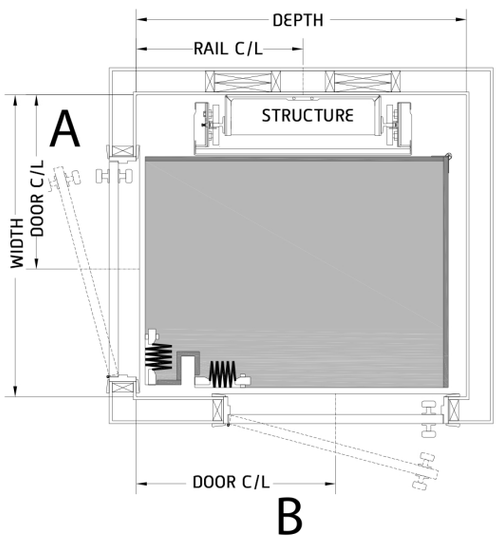
90 DEGREE OPENING, RAIL FRONT, LEFT HAND DOOR OR RAIL FRONT/RIGHT HAND DOOR

Car Size	Width	Depth	Rail C/L	Door C/L A+B	Clear Opening
36 x 48	50½"	55"	27¾"	25"/28½"	32¼"
36 x 60	50½"	67"	33¾"	25"/40½"	32¼"
40 x 54	54½"	61"	30¾"	29"/34½"	32¼"

DOOR CENTERLINES ARE SHOWN WITH 3'0" (36") DOORS, PLEASE CONSULT MANUFACTURER FOR ALTERNATE DOOR WIDTHS

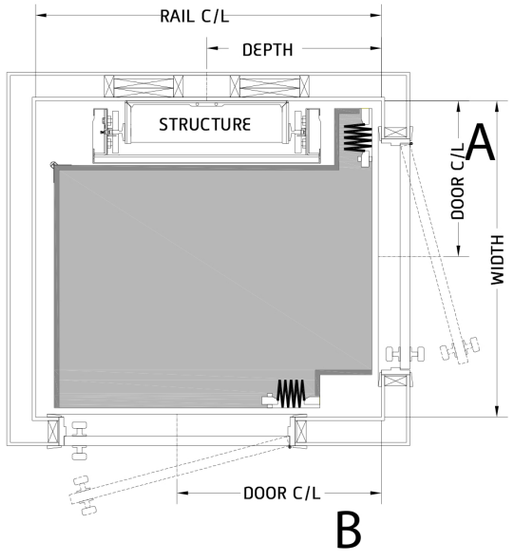
Typical Hoistway Options

All Hoistway Dimensions Reference Interior Diminsions (Finished Wall to Finished Wall)



90 DEGREE OPENING, RAIL LEFT, LEFT HAND DOOR/RIGHT HAND DOOR

Car Size	Width	Depth	Rail C/L	Door C/L A+B	Clear Opening
36 x 48	50½"	55"	27¾"	29¼/33¼"	28½"/32¼"
36 x 60	50½"	67"	33¾"	29¼/45¼"	28½"/32¼"
40 x 54	54½"	61"	30¾"	29¼/39¼"	32¼"



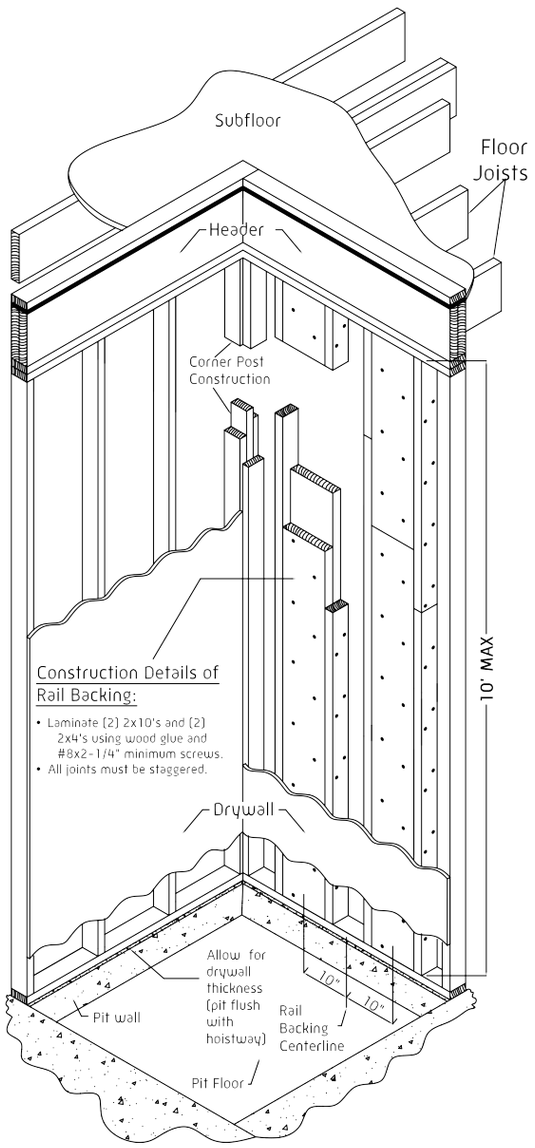
90 DEGREE OPENING, RAIL RIGHT, LEFT HAND DOOR/LEFT HAND DOOR

Car Size	Width	Depth	Rail C/L	Door C/L A+B	Clear Opening
36 x 48	50½"	55"	27¾"	25"/33¼"	32¼"
36 x 60	50½"	67"	33¾"	25"/45¼"	32¼"
40 x 54	54½"	61"	30¾"	29"/39¼"	32¼"

DOOR CENTERLINES ARE SHOWN WITH 3'0" (36") DOORS, PLEASE CONSULT MANUFACTURER FOR ALTERNATE DOOR WIDTHS

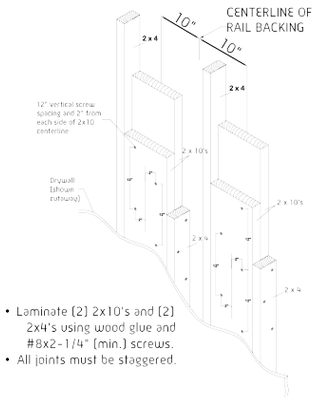
Typical Hoistway Construction

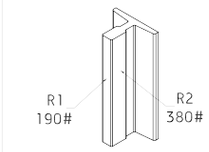
Construction & Rail Backing Details –
Hydraulic Drive, InLine Gear Drive, and Winding Drum Drive (Winding Drum Under 30' of Travel)



Typical Hoistway Construction Details

Typical Rail Backing Construction

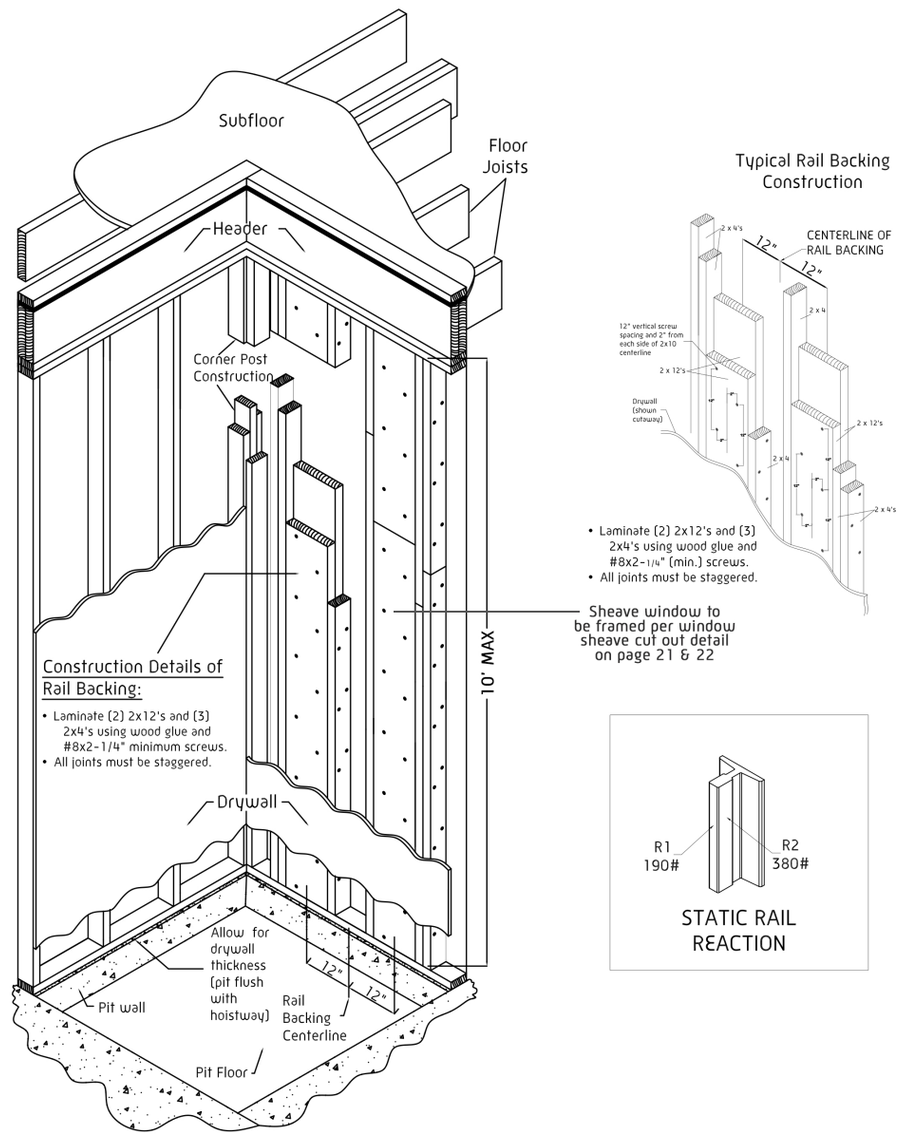




STATIC RAIL REACTION

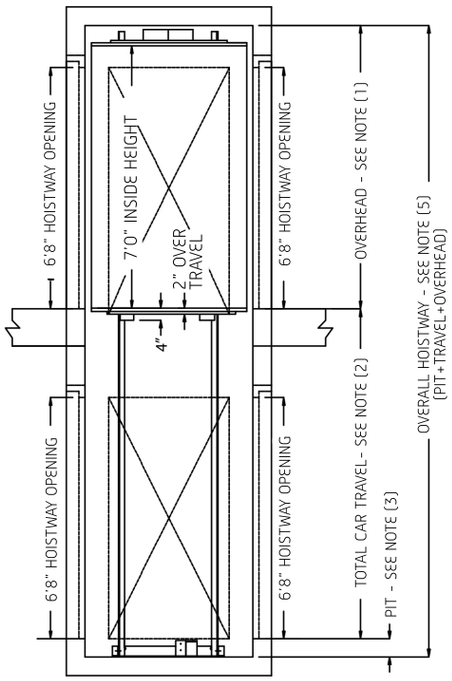
Typical Hoistway Construction

Winding Drum Drive Over 30' of Travel: Construction & Rail Backing Details



Winding Drum
Hoistway Construction Details
Greater Than 30' of Travel

Typical Hoistway Overview



Notes:

1) 8'0" Overhead required for 7'0" Interior Cab Height for Hydraulic, WD and Remote Controller In-Line Gear.

   9'0" Overhead required for 7'0" Interior Cab Height for In-Line Gear with Controller in the Hoistway. (includes 9" of Cartop Clearance.)

2) Minimum Floor to Floor Travel is 12" between Floors (If Travel is Less than 12" Consult Factory).

   Maximum Floor to Floor Travel:
   950lb Unit = 50'0"

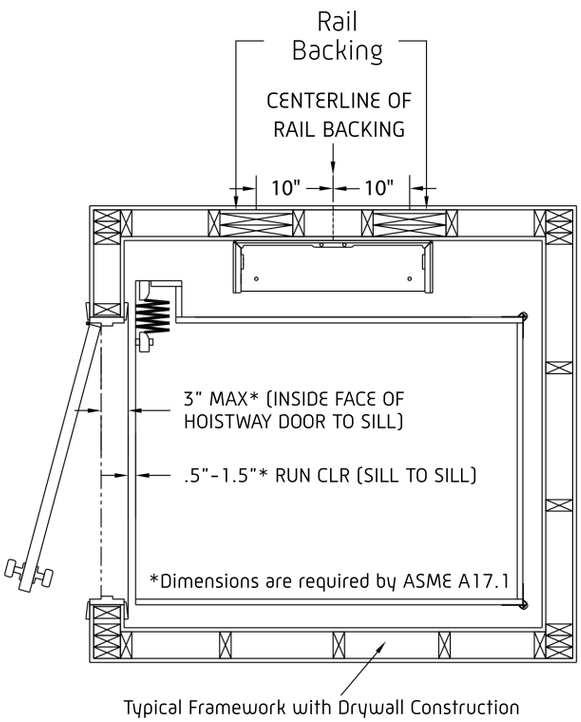
3) Minimum Pit Depth is 6" (8" preferred)
   Impact Load @ Pit
   6500lbs (950lb Capacity)
   Static Load @ Pit
   3800lbs (950ob Capacity)
   Buffer Springs require 10" Pit Depth Minimum.

4) Consult Local Authority to Ensure Compliance with State and Local Codes.

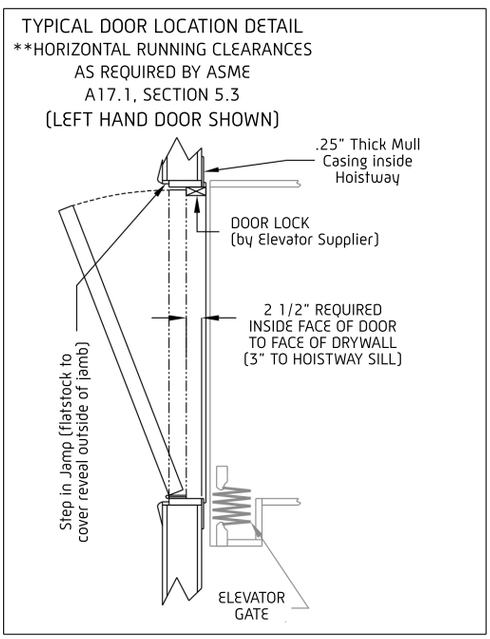
5) The Hoistway is required to be Free of all Pipes, Wiring, and Obstructions not related to the Operation of the Elevator

OVERHEAD CLEARANCE REQUIREMENTS

Car Height Hydraulic, IGD & WD	Remote Controller Hydraulic, IGD, WD	Controller in Hoistway IGD Only
7'0"	8'0" (96")	9'0" (108")
7'11"	8'11" (107")	9'11" (119")



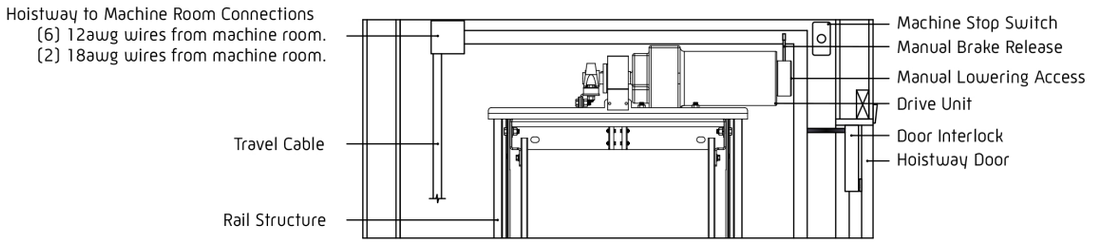
Typical Framework with Drywall Construction



Typical Machine Room Layouts

InLine Gear Drive

IN-LINE GEAR DRIVE WITH REMOTE LOCATED CONTROLLER

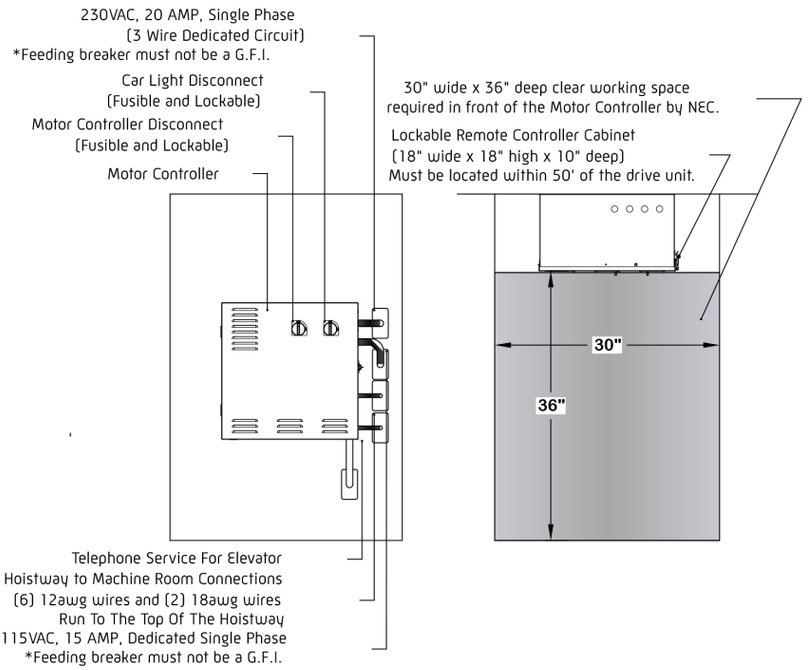


Please note that this layout is shown for manual lowering access at the top right of the view. The drive unit can be mounted opposite to accomodate access.

Notes:

- Minimum overhead clearance as measured from the top of the upper most landing sill to the bottom of the shaft ceiling is 8' - 0" for a standard 7' - 0" car.

REMOTE CONTROLLER MACHINE ROOM LAYOUT

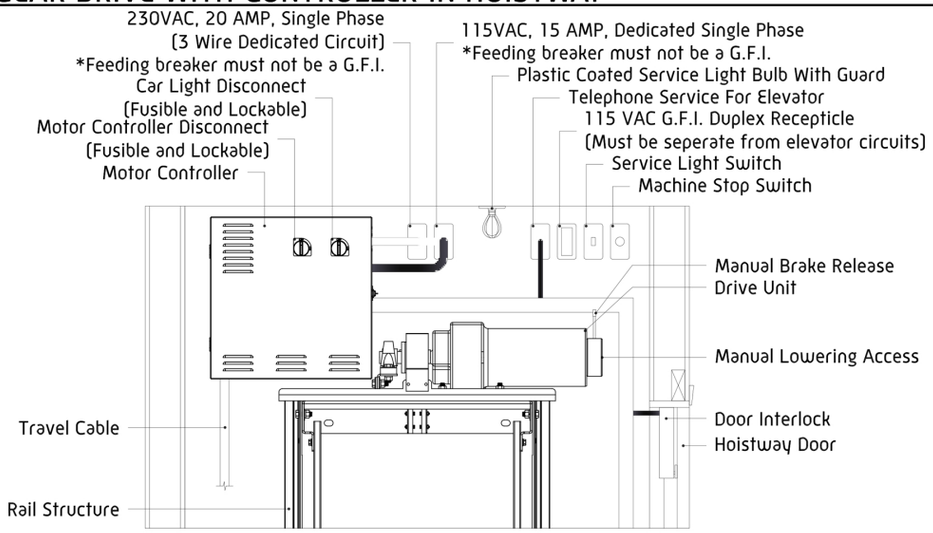


CONSTRUCTION OF MACHINE ROOMS MUST ADHERE TO LOCAL, STATE, AND NATIONAL CODES.

Typical Machine Room Layouts

InLine Gear Drive

IN-LINE GEAR DRIVE WITH CONTROLLER IN HOISTWAY

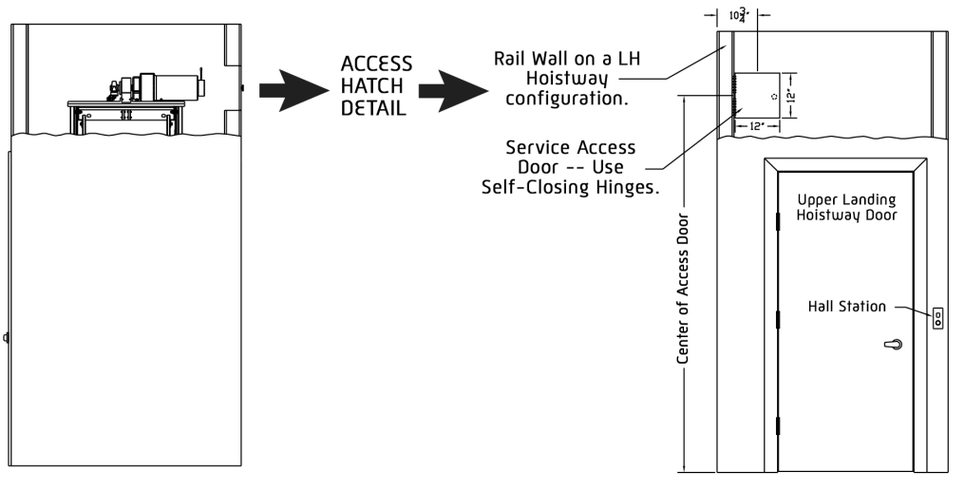


Please note that this layout is shown for manual lowering access at the top right of the view. The drive unit can be mounted opposite to accommodate access.

Notes:

- Minimum overhead clearance as measured from the top of the upper most landing sill to the bottom of the shaft ceiling is 8' - 0" for a standard 7' - 0" car.

MANUAL LOWERING ACCESS HATCH DETAIL



(REQUIRED FOR ALL IGD APPLICATIONS)

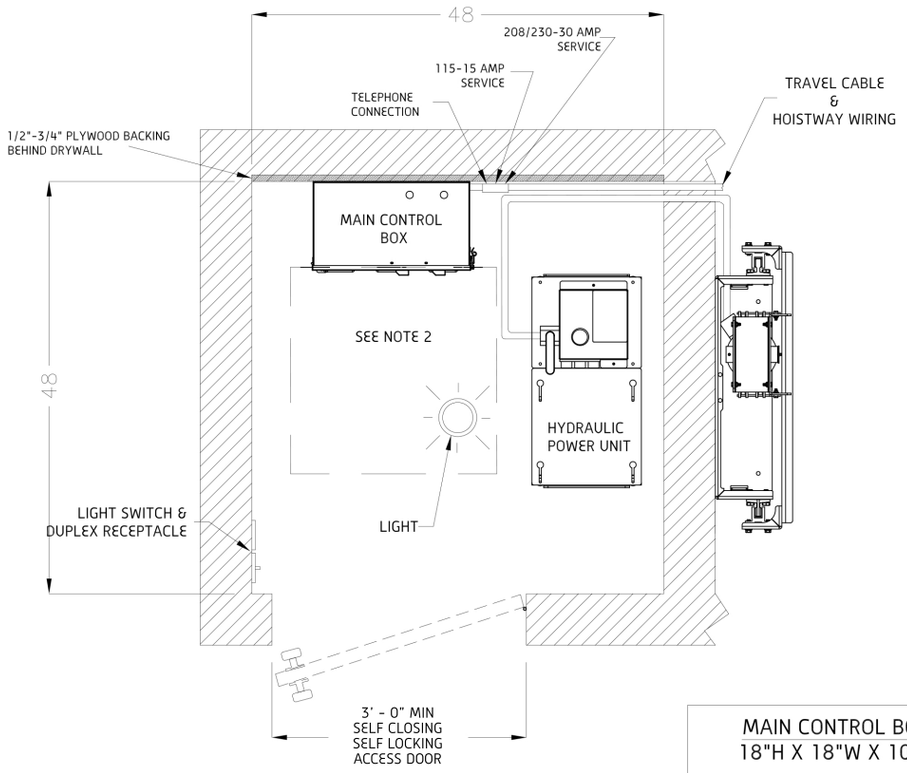
CENTERLINE OF ACCESS DOOR

Cab Height:	6-8	7-0	7-2	7-11	8-0
Dim. to Door:	88"	90"	92"	101"	102"

CONSTRUCTION OF MACHINE ROOMS MUST ADHERE TO LOCAL, STATE, AND NATIONAL CODES.

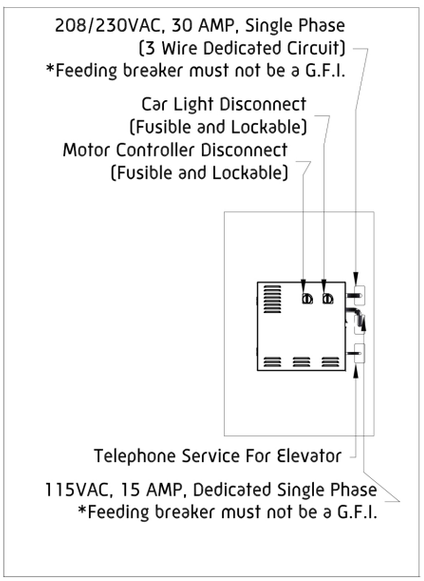
Typical Machine Room Layouts

Hydraulic Drive - Standard Machine Room



MAIN CONTROL BOX
18"H X 18"W X 10"D

HYDRAULIC POWER UNIT
33 1/2"H X 24 1/4"W X 12 3/4"D



NOTES:

1) THE ELEVATOR MACHINE ROOM LOCATION AND LAYOUT MUST MEET CODE REQUIREMENTS DEFINED BY THE LOCAL AUTHORITY HAVING JURISDICTION.

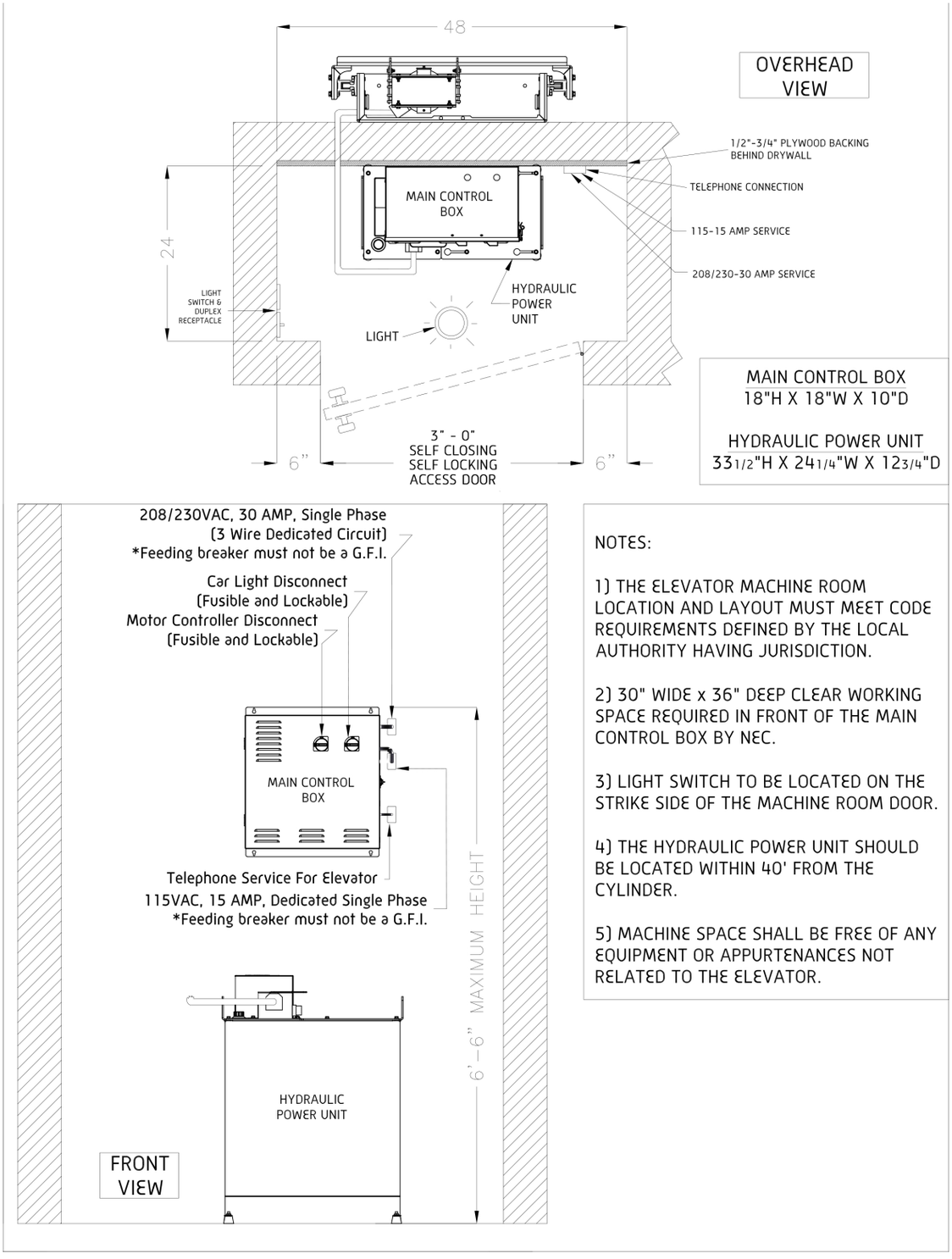
2) 30" WIDE x 36" DEEP CLEAR WORKING SPACE REQUIRED IN FRONT OF THE MAIN CONTROL BOX BY NEC.

3) LIGHT SWITCH TO BE LOCATED ON THE STRIKE SIDE OF THE MACHINE ROOM DOOR.

4) THE HYDRAULIC POWER UNIT SHOULD BE LOCATED WITHIN 40' FROM THE CYLINDER.

Typical Machine Room Layouts

Hydraulic Drive - Compact Machine Room



NOTES:

1) THE ELEVATOR MACHINE ROOM LOCATION AND LAYOUT MUST MEET CODE REQUIREMENTS DEFINED BY THE LOCAL AUTHORITY HAVING JURISDICTION.

2) 30" WIDE x 36" DEEP CLEAR WORKING SPACE REQUIRED IN FRONT OF THE MAIN CONTROL BOX BY NEC.

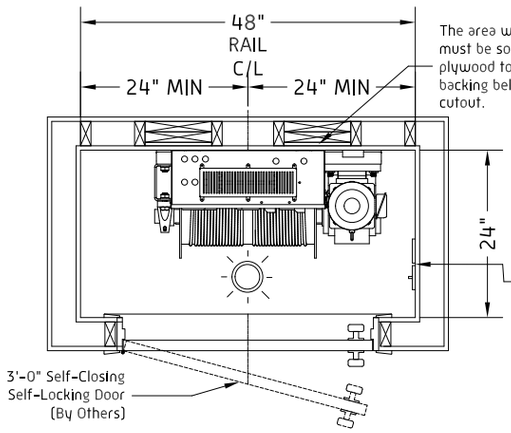
3) LIGHT SWITCH TO BE LOCATED ON THE STRIKE SIDE OF THE MACHINE ROOM DOOR.

4) THE HYDRAULIC POWER UNIT SHOULD BE LOCATED WITHIN 40' FROM THE CYLINDER.

5) MACHINE SPACE SHALL BE FREE OF ANY EQUIPMENT OR APPURTENANCES NOT RELATED TO THE ELEVATOR.

Typical Machine Room Layouts

Winding Drum - Compact Machine Room - Under 30' of Travel



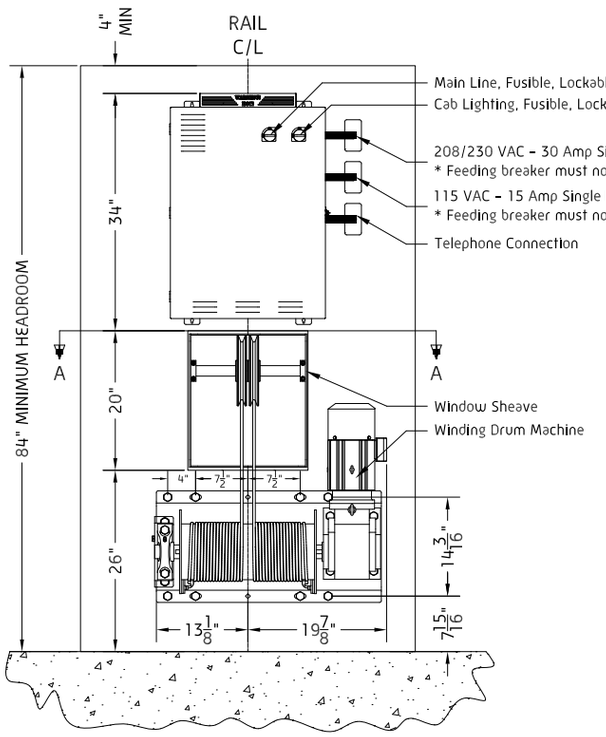
NOTES:

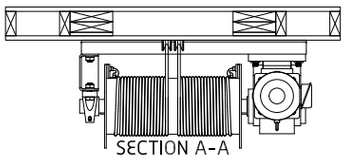
1) THE ELEVATOR MACHINE ROOM LOCATION AND LAYOUT MUST MEET CODE REQUIREMENTS DEFINED BY THE LOCAL AUTHORITY HAVING JURISDICTION.

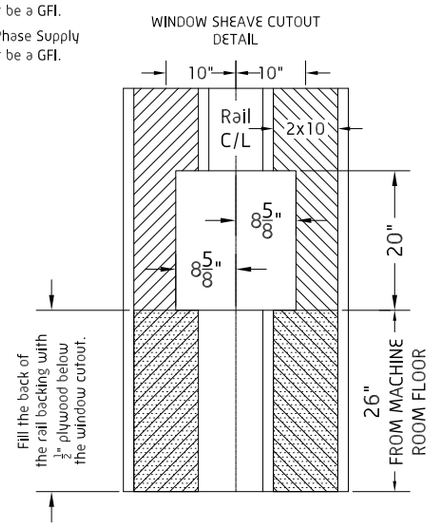
2) 30" WIDE x 36" DEEP CLEAR WORKING SPACE REQUIRED IN FRONT OF THE MAIN CONTROL BOX BY NEC.

3) LIGHT SWITCH TO BE LOCATED ON THE STRIKE SIDE OF THE MACHINE ROOM DOOR.

4) MACHINE SPACE SHALL BE FREE OF ANY EQUIPMENT OR APPURTENANCES NOT RELATED TO THE ELEVATOR.

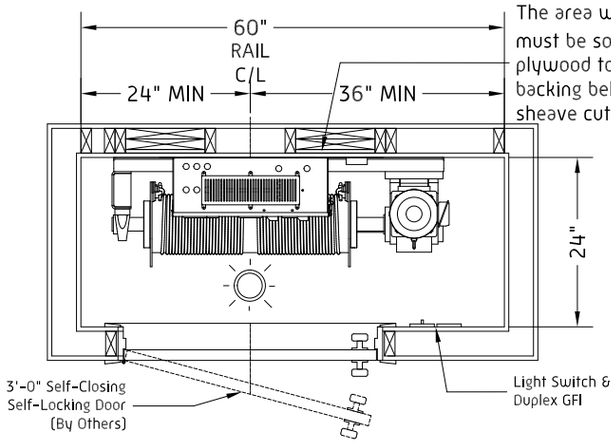






Typical Machine Room Layouts

Winding Drum - Compact Machine Room - Over 30' of Travel



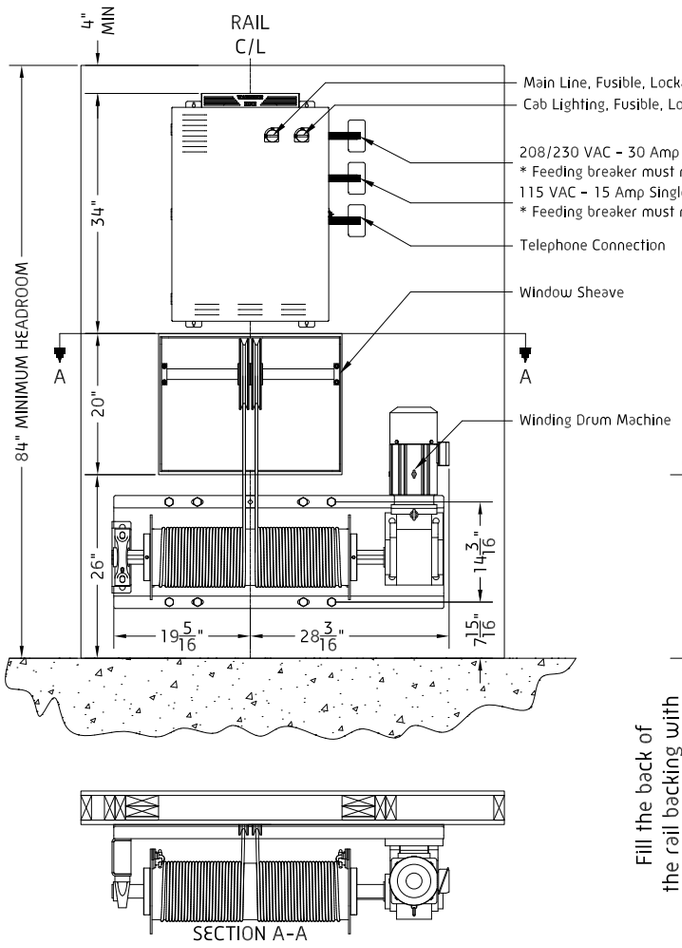
NOTES:

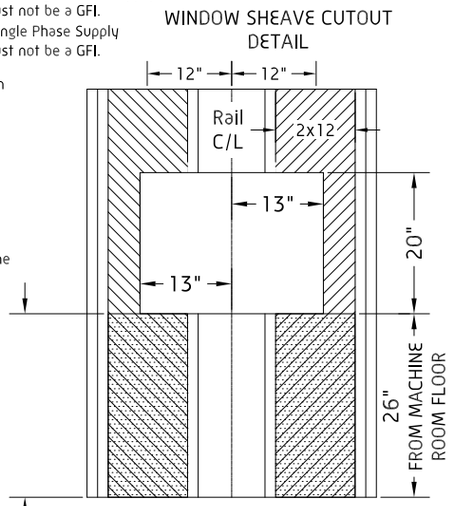
1) THE ELEVATOR MACHINE ROOM LOCATION AND LAYOUT MUST MEET CODE REQUIREMENTS DEFINED BY THE LOCAL AUTHORITY HAVING JURISDICTION.

2) 30" WIDE x 36" DEEP CLEAR WORKING SPACE REQUIRED IN FRONT OF THE MAIN CONTROL BOX BY NEC.

3) LIGHT SWITCH TO BE LOCATED ON THE STRIKE SIDE OF THE MACHINE ROOM DOOR.

4) MACHINE SPACE SHALL BE FREE OF ANY EQUIPMENT OR APPURTENANCES NOT RELATED TO THE ELEVATOR.





Fill the back of the rail backing with ½" plywood below the window cutout.

Section 14205 – Bid Specifications

Residential Elevator – In-Line Gear Drive

Part 1 General

1.01 Scope

The scope of this section of work is the provision of and installation of the residential elevator and all the necessary elevator specific equipment required to fully complete the installation and coordinate between the other associated work required by other trades. The equipment specifications are based on the Symmetry Elevating Solutions product design – InLine Gear Drive – IGD drive system with cantilever sling. All non-elevator related equipment to be provided by others and coordinated with elevator equipment provider.

1.02 References

A. Elevator equipment shall be designed, manufactured, installed and maintained in compliance and accordance with the following National and local Standards: Verify with local AHJ.

1. American National Standards Institute – ANSI A117.1 3.ICC/IBC - International Building Code - Chapter 30 1. NFPA 70-1999 National Electrical Code - NEC Chapter 620"
2. American Society of Mechanical Engineers - ASME A17.1 Part 5.3 Private Residence Elevators
3. ICC / IBC – International Building Codes A117.1
4. NFPA 70-National Electrical Code - NEC Chapter 620

1.03 Quality Assurance

A. Elevator equipment shall be designed and tested to meet or exceed the above standards and provide the following specific components. All load ratings and safety factors shall meet or exceed those specified by local AHJ and be certified by an independent professional engineer.

B. Elevator Installer/ contractor shall be certified to install the equipment by the Manufacturer and have the appropriate Local, State or National certifications to install this specific style of equipment. A minimum of 10 years industry experience. Shall be Insured to perform this type work including product and public liability insurance. Copies of current Certificates of Insurance shall be provided with the contract prior to the start of work.

C. Elevator Inspection shall be performed prior to turn over to owner. Inspection shall be performed by the local AHJ or a competent person trained to perform this type inspection to comply with AMSE A17.2 as it relates to part 5.3 Private Residence Elevators.

1.04 Warranty

A. The Manufacturer shall warranty component parts of the Symmetry Elevating Solutions equipment for a period of 3 – Three years from completion of elevator installation. (Submit Warranty details with Owners Manual)

B. A qualified Maintenance Program, complying with the manufacturer's recommended maintenance schedule, is required during the three (3) year period in order to maintain the warranty.

2.01 Product

General:

- Travel: Maximum of 50' (minimum 12" between stops) Actual travel:_____feet_____inches
- Speed: 40 FPM
- Load Capacity: 1000# (up to 50' of travel)
- Overhead: Minimum of 8' (96") Remote Controller / 9'0" (108") Controller in the Shaft
- Pit depth: 6" minimum
- Floors Served ____2____3____4____5____6
- Cab entrance_____Single opening_____Opposite openings_____90 degree/ Adjacent openings
- Three year limited parts warranty

Section 14205 – Bid Specifications
Residential Elevator – In-Line Gear Drive

2.02 Mechanical Equipment

Mechanical Equipment and Drive : InLine Gear Drive

- Modular 6 1/4# T-rail structure
- Car frame assembly: Cantilever
- 208/230VAC, 60Hz, 20 amp single phase power supply for motor controller
- 120 VAC, 60Hz, 15 amp single phase power supply for lighting
- (2) #60 roller chain suspension means
- Inverter controlled variable speed geared assembly with In-Line Gear drive unit and 2 H.P. motor.

*Code compliant electrical disconnects included

2.03 Safety Devices:

- Slack chain safety device
- Motor controller supply disconnect (located in controller)
- Car light supply disconnect (located in controller)
- Upper and lower final limits
- Pit stop switch
- Car top stop switch
- In-car emergency stop switch and alarm
- Safety switch for car gate(s)
- Battery backup emergency car lights and alarm
- Electromechanical hoistway door interlocks (doors by others)
- Uninterruptible Power Supply – (UPS) for car lowering and automatic gate operation (if auto gate operator provided) in the case of power failure (to allow emergency lower of cab in case of main power failure)
- Manual lowering device

2.04 Controls:

- Programmable Logic Controller (PLC)
- Non-selective collective automatic operation
- S.M.A.R.T. system (Self-Monitoring Alert Response Technology)
- Hall stations with call button and LED floor position indicator – Finishes see section 2.05
- Car Operating Panel (COP) with LED floor position indicator – Finishes see section 2.05
- Recessed phone box in same finish above (phone jack included) – Finishes see section 2.05
- Automatic car lighting
- Single floor designated car homing

2.05 Metal Finishes

Car Operating panel, Hall call stations & phone box are available in _____Brushed Stainless Steel (standard finish) - Optional Features:_____ Brushed Brass_____Black ____Vintage Bronze Powder coat.

Optional Finish selections: _____Polished Stainless Steel____Polished Brass___Oil Rubbed brass. Custom finish request_____

Section 14205 – Bid Specifcation

Residential Elevator – InLine Gear Drive

2.06 Car Features:

- Cab size up to 15 square feet
- 7'0" interior standard car height;____7'11" optional interior car height at "no charge"; Custom car heights_____to 9'0" Interior Car Wall styles
  - A. Flat veneer interior walls with flat ceiling and Matching wood car sill (standard)_____
  - B. Shaker style interior walls with flat ceiling and Matching wood car sill_____
  - C. Recessed style interior walls with flat ceiling and Matching wood car sill_____
  - D. Raised style interior walls with matching ceiling and Matching wood car sill_____
  - E. Custom design interior wall panels, ceiling & sill_____

  (Select one style interior wall panel from above.)
- Unfinished plywood floor with sill set for 3/4" (flooring by others)

  Custom flooring_____
- 2 energy saving recessed with black trim rings
- 7'0" vinyl accordion gate (light oak, dark oak, birch, white, or antique white)

  Optional Real hard wood veneer accordion gate panels_____Choose from sample kit.

All accordion gates except white have bronze hardware.
White gates have aluminum hardware.

2.07 Optional Features:

- Recessed panel car with matching ceiling
- Raised panel car with matching ceiling
- Wrap around gate
- Victory powder coated doors
- Flush hoistway doors
- 4 recessed LED lights with black, bronze, brass or nickel trim rings
- Factory finished car wall panels_____Stain# _____Finish
- COP with integrated keypad phone
- Custom wood interiors
- Custom factory finishes (antiqued, distressed, & crackle)
- Green material alternatives and finishes for car interiors
- Scissor gate
- Hardwood veneer accordion gate
- Clear panel accordion gate_____All panels_____2 center panels_____4 center panels
- Autogate operator (available for use with accordion gate only)
- 3/4" finished or unfinished factory installed hardwood car flooring
- Factory flooring insert for 1/4" flooring by others
- Buffer springs (requires minimum of 10" pit depth)
- Car size up to 18 sq ft
- Key switch for COP and hall stations
- 750# car capacity

Section 14205 – Bid Specifcations
Residential Elevator – InLine Gear Drive

3.01 Work By Others:

The installation of the elevator and its' hardware is the responsibility of the Elevator Contractor. The installation and preparation of a suitable hoistway, and all hoistway construction, main power, door installation, pit construction and structural support are Work by Others

A. Hoistway shall be constructed from dimensional lumber, engineered laminate material, concrete or concrete block to support loads listed in the shop drawings with elevator rail reaction and pit loading consideration by others. The hoistway must be plumb and square within 1/8" top to bottom and side to side.

B. All structural member locations in the hoistway walls are per the manufacturer's shop drawings.

C. Door centerlines are listed on the shop drawings and are NOT the Center of the hoistway.

D. Main power from the main breaker panel to the elevator location shown in the shop drawings is "by others". Equipment disconnects are included with the controller.

E. Installation of a live phone line and outlet to the elevator location, as shown on the shop drawings, is work "by others".

F. Machine Space of approx. 4'x5' (or as required by local AHJ) shall be provided on any floor to contain the controller. The requirements for this room will be shown on the shop drawings and coordinated with the various trades prior to fabrication. (See shop drawings for layout)

G. Compact machine spaces as allowed by local AHJ top conform with manufacturers fabrication. (See shop drawings for layout)

H. Pre-wire in the walls shall be coordinated with the builder prior to wall construction and drywall installation.

End of Section

FOR MORE DETAILS:
CALL SYMMETRY ELEVATING SOLUTIONS
877.568.5804 OR VISIT WWW.SPECREATOR.US

Section 14205 – Bid Specifications

Residential Elevator – 1:2 Roped Hydraulic

Part 1 General

1.01 Scope

The scope of this section of work is the provision of and installation of the residential elevator and all the necessary elevator specific equipment required to fully complete the installation and coordinate between the other associated work required by other trades. The equipment specifications are based on the Symmetry Elevating Solutions product design – In-Line Gear Drive – IGD drive system with cantilever sling. All non-elevator related equipment to be provided by others and coordinated with elevator equipment provider.

1.02 References

A. Elevator equipment shall be designed, manufactured, installed and maintained in compliance and accordance with the following National and local Standards: Verify with local AHJ.

1. American National Standards Institute – ANSI A117.1 3.ICC/IBC - International Building Code - Chapter 30 1. NFPA 70-1999 National Electrical Code - NEC Chapter 620"
2. American Society of Mechanical Engineers - ASME A17.1 Part 5.3 Private Residence Elevators
3. ICC / IBC – International Building Codes A117.1
4. NFPA 70-National Electrical Code – NEC Chapter 620

1.03 Quality Assurance

A. Elevator equipment shall be designed and tested to meet or exceed the above standards and provide the following specific components. All load ratings and safety factors shall meet or exceed those specified by local AHJ and be certified by an independent professional engineer.

B. Elevator Installer/ contractor shall be certified to install the equipment by the Manufacturer and have the appropriate Local, State or National certifications to install this specific style of equipment. A minimum of 10 years industry experience is required to perform this type work including product and public liability insurance. Copies of current Certificates of Insurance shall be provided with the contract prior to the start of work.

C. Elevator Inspection shall be performed prior to turn over to owner. Inspection shall be performed by the local AHJ or a competent person trained to perform this type inspection to comply with AMSE A17.2 as it relates to part 5.3 Private Residence Elevators.

1.04 Warranty

A. The Manufacturer shall warranty component parts of the Symmetry Elevating Solutions equipment for a period of three (3) years from completion of elevator installation. (Submit Warranty details with Owners Manual)

B. A qualified Maintenance Program, complying with the manufacturer's recommended maintenance schedule, is required during the three(3) year period in order to maintain the warranty.

2.01 Product

General:

- Travel: Maximum of 60' (minimum 12" between stops) Actual travel:_____feet_____inches
- Speed: 40 FPM
- Load Capacity: 1000# (up to 60' of travel)
- Overhead: Minimum of 7'10" (94")
- Pit depth: 6" minimum
- Floors Served ____2____3____4____5____6____7
- Cab entrance_____Single opening_____Opposite openings_____90 degree/ Adjacent openings
- Three year limited parts warranty

Section 14205 – Bid Specifications

Residential Elevator – 1:2 Roped Hydraulic

2.02 Mechanical Equipment

Mechanical Equipment and Drive : 1:2 Roped Hydraulic

- Modular 6 1/4# T-rail structure
- Car frame assembly: Cantilever
- 208/230VAC, 60Hz, 30 amp single phase power supply for motor controller
- 120 VAC, 60Hz, 15 amp single phase power supply for lighting
- (2) 3/8" 7x19 galvanized aircraft cable (14400# breaking strength) with wedge rope shackles
- 80mm diameter piston / 102mm diameter cylinder incl. 1"-3/4" reducer bushing
- 208/230, 3 H.P. submersed motor with 2-speed valve assembly (1750RPM, 17FL Amps) - Manual down valve for emergency lowering
- Screw Pump (300 micron screen)
- Positive pressure switch

*Code compliant electrical disconnects included

2.03 Safety Devices:

- Slackrope safety device
- Motor controller supply disconnect (located in controller)
- Car light supply disconnect (located in controller)
- Rupture valve (type "C" safety)
- Pit stop switch
- Car top stop switch
- In-car emergency stop switch and alarm
- Safety switch for car gate(s)
- Battery backup emergency car lights and alarm
- Electromechanical hoistway door interlocks (doors by others)
- Uninterruptible Power Supply – (UPS) for car lowering and automatic gate operation (if auto gate operator provided) in the case of power failure (to allow emergency lower of cab in case of main power supply)

2.04 Controls:

- Programmable Logic Controller (PLC)
- Non-selective collective automatic operation
- S.M.A.R.T. system (Self-Monitoring Alert Response Technology)
- Hall stations with call button and LED floor position indicator – Finishes see section 2.05
- Car Operating Panel (COP) with LED floor position indicator – Finishes see section 2.05
- Recessed phone box in same finish above (phone jack included) – Finishes see section 2.05
- Automatic car lighting
- Single floor designated car homing
- Low oil run timer

Section 14205 – Bid Specifications
Residential Elevator – 1:2 Roped Hydraulic

2.05 Metal Finishes:

Car Operating panel, Hall call stations & phone box are available in _____Brushed Stainless Steel (standard finish) - Optional Features:_____ Brushed Brass_____Black ____Vintage Bronze Powder coat.

Optional Finish selections: _____Polished Stainless Steel____Polished Brass___Oil Rubbed brass. Custom finish request_____

2.06 Car Features:

- Cab size up to 15 square feet
- 7'0" interior standard car height;____7'11" optional interior car height at "no charge"; Custom car heights_____to 9'0" Interior Car Wall styles
  - A. Flat veneer interior walls with flat ceiling and Matching wood car sill (standard)_____
  - B. Shaker style interior walls with flat ceiling and Matching wood car sill_____
  - C. Recessed style interior walls with flat ceiling and Matching wood car sill_____
  - D. Raised style interior walls with matching ceiling and Matching wood car sill_____
  - E. Custom design interior wall panels, ceiling & sill_____

  (Select one style interior wall panel from above.)
- Unfinished plywood floor with sill set for 3/4" (flooring by others)

  Custom flooring_____
- 2 energy saving recessed with black trim rings
- 7'0" vinyl accordion gate (light oak, dark oak, birch, white, or antique white)

  Optional Real hard wood veneer accordion gate panels_____Choose from sample kit.

All accordion gates except white have bronze hardware.
White gates have aluminum hardware.

2.07 Optional Features:

- Recessed panel car with matching ceiling
- Raised panel car with matching ceiling
- Wrap around gate
- Victory powder coated doors
- Flush hoistway doors
- 4 recessed LED lights with black, bronze, brass or nickel trim rings
- Factory finished car wall panels_____Stain# _____Finish
- COP with integrated keypad phone
- Custom wood interiors
- Custom factory finishes (antiqued, distressed, & crackle)
- Green material alternatives and finishes for car interiors
- Scissor gate
- Hardwood veneer accordion gate
- Clear panel accordion gate_____All panels_____2 center panels_____4 center panels
- Autogate operator (available for use with accordion gate only)
- Car size up to 18 sq ft

Section 14205 – Bid Specifications
Residential Elevator – 1:2 Roped Hydraulic

- 3/4" finished or unfinished factory installed hardwood car flooring
- Factory flooring insert for 1/4" flooring by others
- Buffer springs (requires minimum of 10" pit depth)
- Upper and lower final limits, in addition to Normal up and down limits
- Key switch for COP and hall stations
- 750# car capacity

3.01 Work By Others:

The installation of the elevator and its' hardware is the responsibility of the Elevator Contractor. The installation and preparation of a suitable hoistway, and all hoistway construction, main power, door installation, pit construction and structural support are Work by Others

A. Hoistway shall be constructed from dimensional lumber, engineered laminate material, concrete or concrete block to support loads listed in the shop drawings with elevator rail reaction and pit loading consideration by others. The hoistway must be plumb and square within 1/8" top to bottom and side to side.

B. All structural member locations in the hoistway walls are per the manufacturer's shop drawings.

C. Door centerlines are listed on the shop drawings and are NOT the Center of the hoistway.

D. Main power from the main breaker panel to the elevator location shown in the shop drawings is "by others". Equipment disconnects are included with the controller.

E. Installation of a live phone line and outlet to the elevator location, as shown on the shop drawings, is work "by others".

F. Machine Space of approx. 4'x5' (or as required by local AHJ) shall be provided on a lower floor to contain the controller and pump unit. The requirements for this room will be shown on the shop drawings and coordinated with the various trades prior to fabrication. (See shop drawings for layout)

G. Compact machine spaces as allowed by local AHJ top conform with manufacturers layout. (See shop drawings for layout)

H. Pre-wire in the walls shall be coordinated with the builder prior to wall construction and drywall installation.

End of Section

FOR MORE DETAILS:
CALL SYMMETRY ELEVATING SOLUTIONS
877.568.5804 OR VISIT WWW.SPECREATOR.US

Section 14205 – Bid Specifications

Residential Elevator – Winding Drum

Part 1 General

1.01 Scope

The scope of this section of work is the provision of and installation of the residential elevator and all the necessary elevator specific equipment required to fully complete the installation and coordinate between the other associated work required by other trades. The equipment specifications are based on the Symmetry Elevating Solutions product design – In-Line Gear Drive – IGD drive system with cantilever sling. All non-elevator related equipment to be provided by others and coordinated with elevator equipment provider.

1.02 References

A. Elevator equipment shall be designed, manufactured, installed and maintained in compliance and accordance with the following National and local Standards: Verify with local AHJ.

1. American National Standards Institute – ANSI A117.1 3.ICC/IBC - International Building Code - Chapter 30 1. NFPA 70-1999 National Electrical Code - NEC Chapter 620"
2. American Society of Mechanical Engineers - ASME A17.1 Part 5.3 Private Residence Elevators
3. ICC / IBC – International Building Codes A117.1
4. NFPA 70-National Electrical Code – NEC Chapter 620

1.03 Quality Assurance

A. Elevator equipment shall be designed and tested to meet or exceed the above standards and provide the following specific components. All load ratings and safety factors shall meet or exceed those specified by local AHJ and be certified by an independent professional engineer.

B. Elevator Installer/ contractor shall be certified to install the equipment by the Manufacturer and have the appropriate Local, State or National certifications to install this specific style of equipment. A minimum of 10 years industry experience is required to perform this type work including product and public liability insurance. Copies of current Certificates of Insurance shall be provided with the contract prior to the start of work.

C. Elevator Inspection shall be performed prior to turn over to owner. Inspection shall be performed by the local AHJ or a competent person trained to perform this type inspection to comply with AMSE A17.2 as it relates to part 5.3 Private Residence Elevators.

1.04 Warranty

A. The Manufacturer shall warranty component parts of the Symmetry Elevating Solutions equipment for a period of three (3) years from completion of elevator installation. (Submit Warranty details with Owners Manual)

B. A qualified Maintenance Program, complying with the manufacturer's recommended maintenance schedule, is required during the three(3) year period in order to maintain the warranty.

2.01 Product

General:

- Travel: Maximum of 50' (minimum 12" between stops) Actual travel:_____feet_____inches
- Speed: 40 FPM
- Load Capacity: 1000# (up to 50' of travel)
- Overhead: Minimum of 7'10" (94")
- Pit depth: 6" minimum
- Floors Served ____2____3____4____5____6
- Cab entrance_____Single opening_____Opposite openings_____90 degree/ Adjacent openings
- Three year limited parts warranty

Section 14205 – Bid Specifications
Residential Elevator – Winding Drum

2.02 Mechanical Equipment

Mechanical Equipment and Drive : Winding Drum Drive

- Modular 6 1/4# T-rail structure
- Car frame assembly: Cantilever
- 208/230VAC, 60Hz, 30 amp single phase power supply for motor controller
- 120 VAC, 60Hz, 15 amp single phase power supply for lighting
- (2) 3/8" 7x19 galvanized aircraft cable (14400# breaking strength)
- Inverter controlled variable speed geared assembly with winding drum drive unit and 3 H.P. motor

*Code compliant electrical disconnects included

2.03 Safety Devices:

- Slackrope safety device
- Motor controller supply disconnect (located in controller)
- Car light supply disconnect (located in controller)
- Two upper and one lower final limit
- Pit stop switch
- Car top stop switch
- In-car emergency stop switch and alarm
- Safety switch for car gate(s)
- Battery backup emergency car lights and alarm
- Electromechanical hoistway door interlocks (doors by others)
- Uninterruptible Power Supply – (UPS) for car lowering and automatic gate operation (if auto gate operator provided) in the case of power failure (to allow emergency lower of cab in case of main power supply)
- Manual lowering device

2.04 Controls:

- Programmable Logic Controller (PLC)
- Non-selective collective automatic operation
- S.M.A.R.T. System (Self-Monitoring Alert Response Technology)
- Hall stations with call button and LED floor position indicator – Finishes see section 2.05
- Car Operating Panel (COP) with LED floor position indicator – Finishes see section 2.05
- Recessed phone box in same finish above (phone jack included) – Finishes see section 2.05
- Automatic car lighting
- Single floor designated car homing

Section 14205 – Bid Specifications
Residential Elevator – Winding Drum

2.05 Metal Finishes:

Car Operating panel, Hall call stations & phone box are available in _____Brushed Stainless Steel (standard finish) - Optional Features:_____ Brushed Brass_____Black ____Vintage Bronze Powder coat.

Optional Finish selections: _____Polished Stainless Steel____Polished Brass___Oil Rubbed brass. Custom finish request_____

2.06 Car Features:

- Cab size up to 15 square feet
- 7'0" interior standard car height;____7'11" optional interior car height at "no charge"; Custom car heights_____to 9'0" Interior Car Wall styles
  - A. Flat veneer interior walls with flat ceiling and Matching wood car sill (standard)_____
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  - C. Recessed style interior walls with flat ceiling and Matching wood car sill_____
  - D. Raised style interior walls with matching ceiling and Matching wood car sill_____
  - E. Custom design interior wall panels, ceiling & sill_____

  (Select one style interior wall panel from above.)
- Unfinished plywood floor with sill set for 3/4" (flooring by others)

  Custom flooring_____
- 2 energy saving recessed with black trim rings
- 7'0" vinyl accordion gate (light oak, dark oak, birch, white, or antique white)

  Optional Real hard wood veneer accordion gate panels_____Choose from sample kit.

All accordion gates except white have bronze hardware.
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- Green material alternatives and finishes for car interiors
- Scissor gate
- Hardwood veneer accordion gate
- Clear panel accordion gate_____All panels_____2 center panels_____4 center panels
- Autogate operator (available for use with accordion gate only)

Section 14205 – Bid Specifications
Residential Elevator – Winding Drum

- 3/4" finished or unfinished factory installed hardwood car flooring
- Factory flooring insert for 1/4" flooring by others
- Buffer springs (requires minimum of 10" pit depth)
- Key switch for COP and hall stations
- 750# car capacity

3.01 Work By Others:

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B. All structural member locations in the hoistway walls are per the manufacturer's shop drawings.

C. Door centerlines are listed on the shop drawings and are NOT the Center of the hoistway.

D. Main power from the main breaker panel to the elevator location shown in the shop drawings is "by others". Equipment disconnects are included with the controller.

E. Installation of a live phone line and outlet to the elevator location, as shown on the shop drawings, is work "by others".

F. Machine Space of approx. 4'x2' (or as required by local AHJ) shall be provided on a lower floor to contain the controller and drive unit. The requirements for this room will be shown on the shop drawings and coordinated with the various trades prior to fabrication. (See shop drawings for layout)

G. Compact machine spaces as allowed by local AHJ top conform with manufacturers layout. (See shop drawings for layout)

H. Pre-wire in the walls shall be coordinated with the builder prior to wall construction and drywall installation.

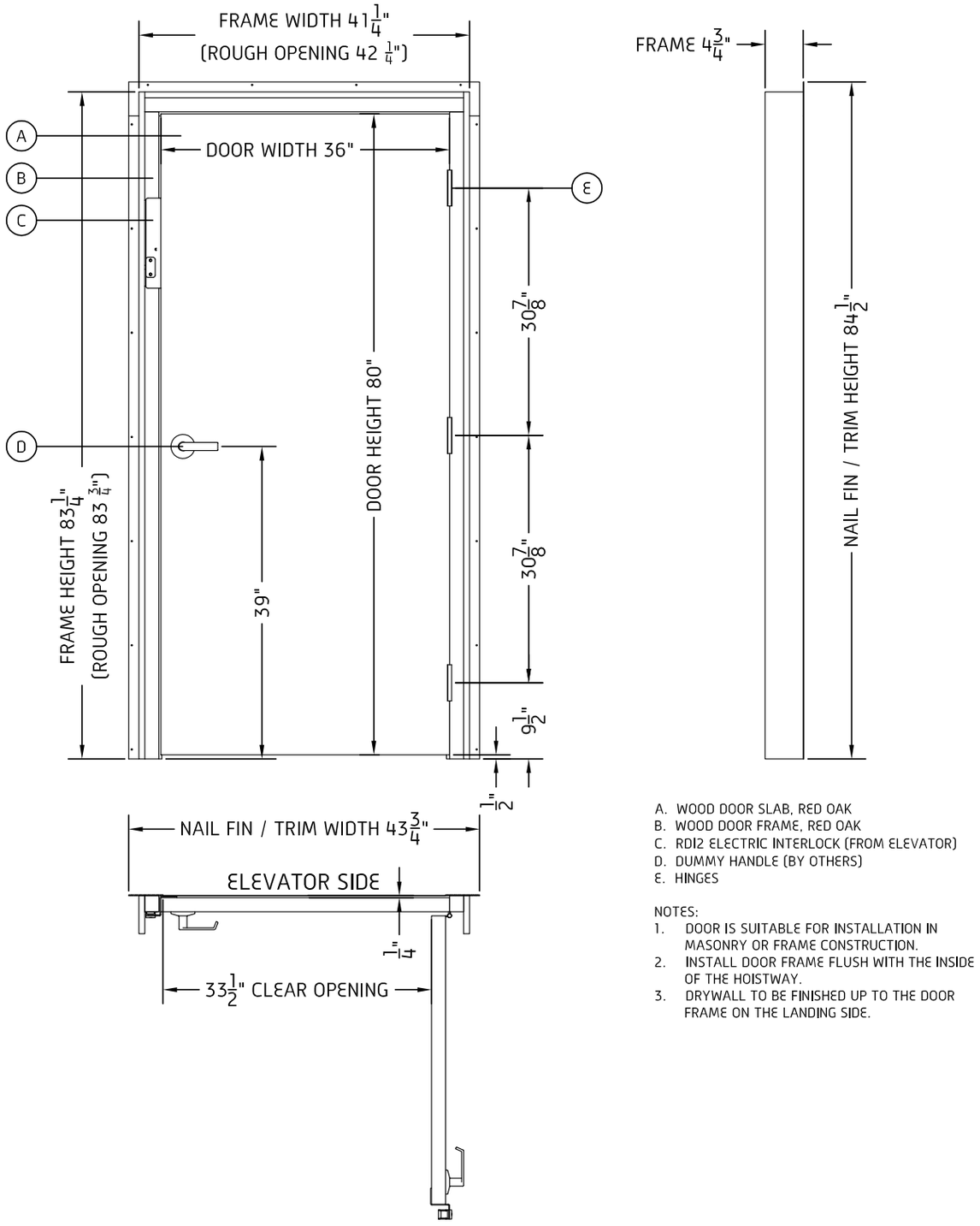
I. Frame opening in rail wall for winding sheave. Sheave window to be framed ber final plan set.

End of Section

FOR MORE DETAILS:
CALL SYMMETRY ELEVATING SOLUTIONS
877.568.5804 OR VISIT WWW.SPECREATOR.US

Elevator Flush Door Details

RDI Flush Door

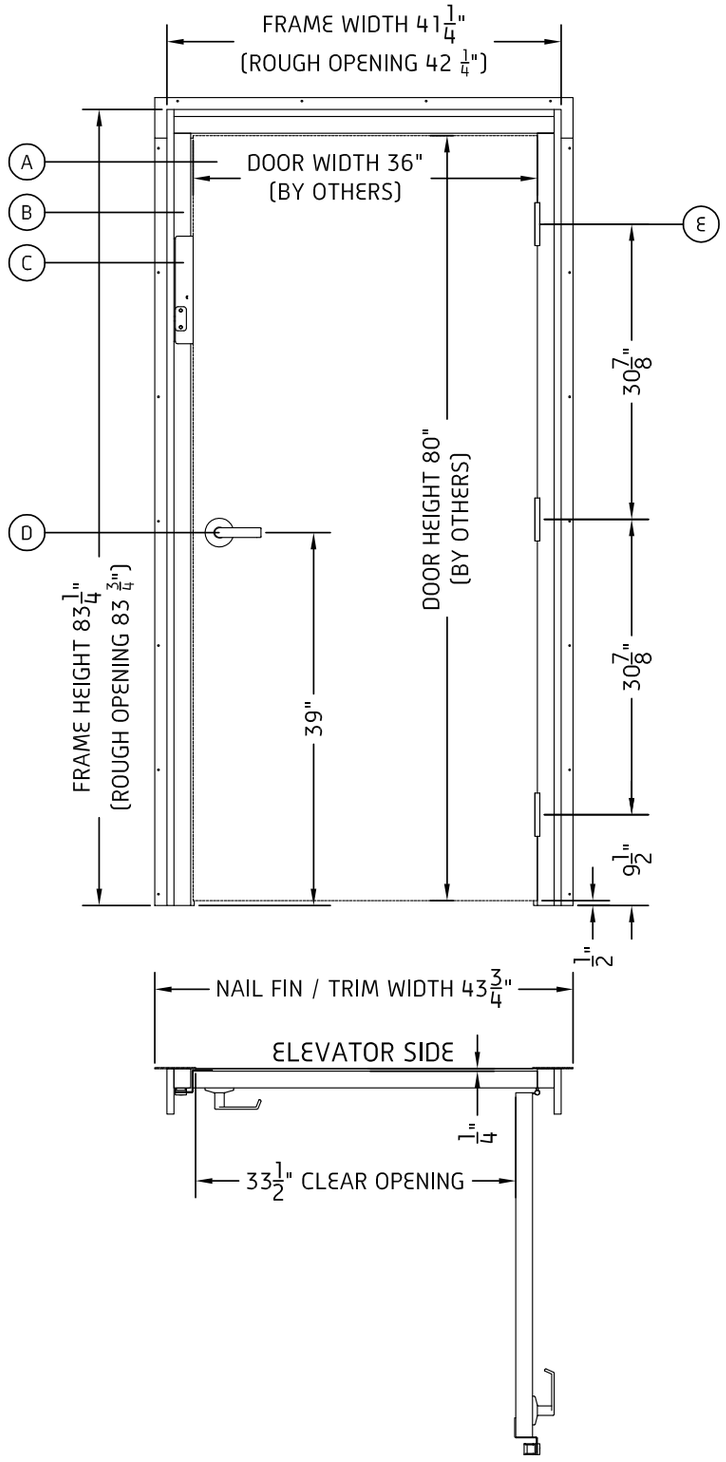


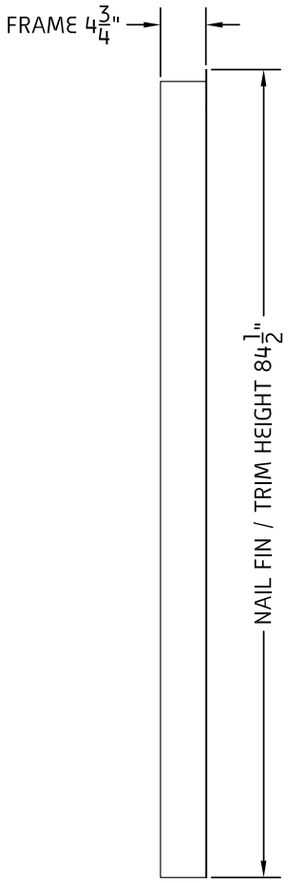
A. WOOD DOOR SLAB, RED OAK
B. WOOD DOOR FRAME, RED OAK
C. RDI2 ELECTRIC INTERLOCK (FROM ELEVATOR)
D. DUMMY HANDLE (BY OTHERS)
E. HINGES

NOTES:
1. DOOR IS SUITABLE FOR INSTALLATION IN MASONRY OR FRAME CONSTRUCTION.
2. INSTALL DOOR FRAME FLUSH WITH THE INSIDE OF THE HOISTWAY.
3. DRYWALL TO BE FINISHED UP TO THE DOOR FRAME ON THE LANDING SIDE.

Elevator Flush Door Details

RDI Flush Door - Frame Only





A. WOOD DOOR SLAB (BY OTHERS)
B. WOOD DOOR FRAME, RED OAK
C. RDI2 ELECTRIC INTERLOCK (FROM ELEVATOR)
D. DUMMY HANDLE (BY OTHERS)
E. HINGES (BY OTHERS)

NOTES:
1. DOOR IS SUITABLE FOR INSTALLATION IN MASONRY OR FRAME CONSTRUCTION.
2. INSTALL DOOR FRAME FLUSH WITH THE INSIDE OF THE HOISTWAY.
3. DRYWALL TO BE FINISHED UP TO THE DOOR FRAME ON THE LANDING SIDE.

Front View – RDI Flush Door

Interior View – Flush Door Stop

Side View – Door Interlock Keeper

Side View – Door Interlock

Interior View – Door Interlock Keeper

Front View – Jamb Set Interlock

SECURE LOCK

Symmetry Elevating Solutions is erious about SAFETY! That's why we use only the best. The Relialign Series by Honeywell electromechanical door interlock holds the door in place and prevents it from being opened when not desired. A number of design features contribute to its enhanced safety, reduction of nuisance stoppages and call-backs, as well as simplified wiring and installation. A Honeywell MICRO SWITCH is used to indicate door closure, providing an extra level of reliability.

Reliability and smooth operations are also enhanced by use of a metal latch that is less susceptible to bending and breakage than plastic. The lack of open or exposed contacts minimizes the possibility of owners making manual adjustments. Finally, the engagement of the latch initiates electrical contact.

The snap action cam mechanism requires less adjustment setup time and reduces door movement that could lead to a nuisance shutdown. Connection options include a 6-pin terminal strip or a Cat 5-pin connector, simplifying installation. The Relialign Series is designed to work seamlessly with your Symmetry elevator.

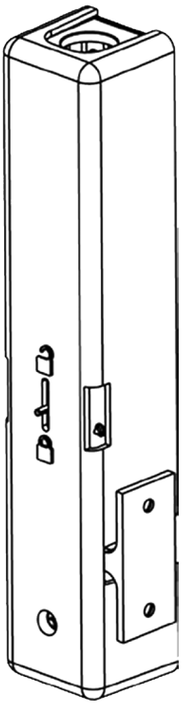
Compliant to ASME A17.1 UL Standard 104, and CSA-B44.1

Standard Features

- Manual override for easy activation without user hazard
- Two way separate mechanical actions to indicate door closure
- Rugged plastic molded housing
- Metal latch, latch engagement minimizes nuisance stoppage
- Internal solenoid control
- No open or exposed contacts
- Door closure retention cam to hold door with minimal latch-to-interlock play
- Series or parallel wiring option for the door closed and door locked switches
- 6-pin terminal strip or Cat 5-pin connection options
- Configurable product platform
- Universal voltage for AC and DC applications

Design Features

- Thermoplastic cover offers durability as well as aesthetically
  appealing design (fixture matching covers available)
- MICRO SWITCH used to indicate door locked when latch rotates cam
- MICRO SWITCH used to monitor door closure, new design location harder to tamper or defeat
- Custom solenoid designs offers universal voltage for AC or DC
- New entry for wiring on backside of interlock helps keep wiring neat and out of sight
- Manual override feature as required by certain approval agencies
- MICRO SWITCH controlling solenoid, reduces power consumption and complexity of host controller
- Honeywell's reliable cam design provides positive snap action, new material provides more pull force
- Stainless steel latch engagement holds the door securely closed to minimize alignment issues/nuisance stoppages



ISOMETRIC VIEW

*Lock Design may vary with Application

symmetry
elevating solutions

RESIDENTIAL ELEVATORS

Div14Specs.com

One stop website for all technical specifications including Drawings in PDF, Revit and CAD, Brochures, Specs and Product Applications.

SpeCreator.us

A custom designed software and specification generator created to easily build Division 14 product specifications. The SpeCreator will create your project specific set of CSI 3-part specifications.

AIAEducation.com

Symmetry Elevating Solutions is pleased to announce a registered continuing education course worth 1 (one) LU/HSW /SD.

This course provides a detailed review of vertical wheelchair lifts, limited use / limited application elevators and residential elevators.

In addition the course addresses code application, specification and suitability of product type and the direct governance and guidelines of the ADA, ANSI, and ASME.

Complete the course online!

SymmetryElevator.com

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