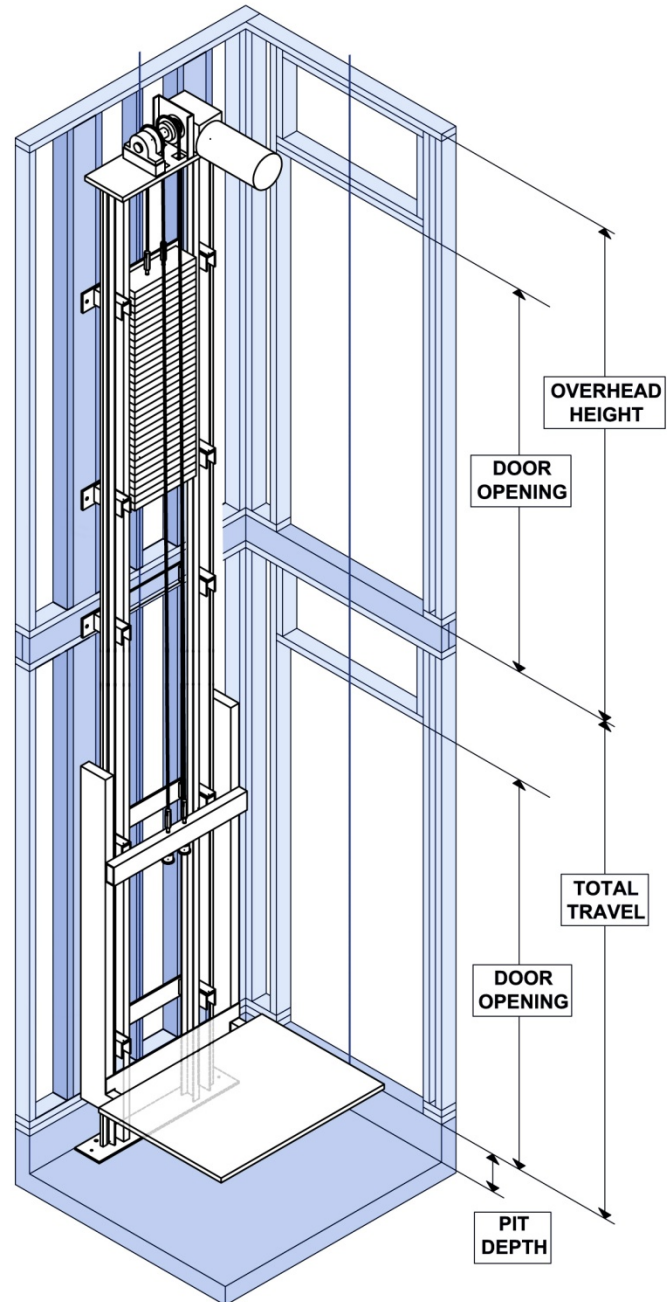


INCLINATOR ELEVETTE®

MACHINE ROOMLESS GEARED DRIVE

Planning Guide

**MACHINE
ROOMLESS
GEARED DRIVE
1000 lb.
(454 Kg)**



AMERICA'S MOST CUSTOMIZABLE ELEVATOR



Introduction

It started over 90 years ago with a passion to help an ailing friend access his multi-level home. Now, almost a century later, the Inclinator craftsmanship can be found in more North American homes today than any other brand. We want to use our heritage of service to enhance each stage of your building or remodeling experience and to help you create a uniquely personalized elevator for your home.

Of all the stages, none is quite as exciting as the initial design phase. It's where you begin to imagine the possibilities of something that's uniquely yours. A home is personalized by the components you choose to fit your needs.

Our Planning Guide is designed to simplify and assist architects, contractors, home owners and dealers in planning for a home elevator that meets or exceeds the requirements of ASME A17.1-2013 and CSA B44-13.

We recommend you contact an authorized dealer in the area where the elevator will be installed. They will be knowledgeable about local codes and restrictions. Become familiar with all requirements governing the installation and use of elevators. It is extremely important for you to know and adhere to all regulations concerning installation.

This Planning Guide provides nominal dimensions and specifications useful for the *initial* planning of an elevator project. Before beginning actual construction, be sure to contact a local authorized dealer and obtain approval drawings customized with specifications and dimensions for your specific project. Call 1-800-343-9007 to find a local dealer or visit our website, www.inclinator.com. Inclinator elevators manufactured and installed under the proper parameters are warranted for 2 years. We assume no liability for equipment not installed in compliance with national, state, and local codes.



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Steps of planning for an Inclinor MRL Geared Elevator

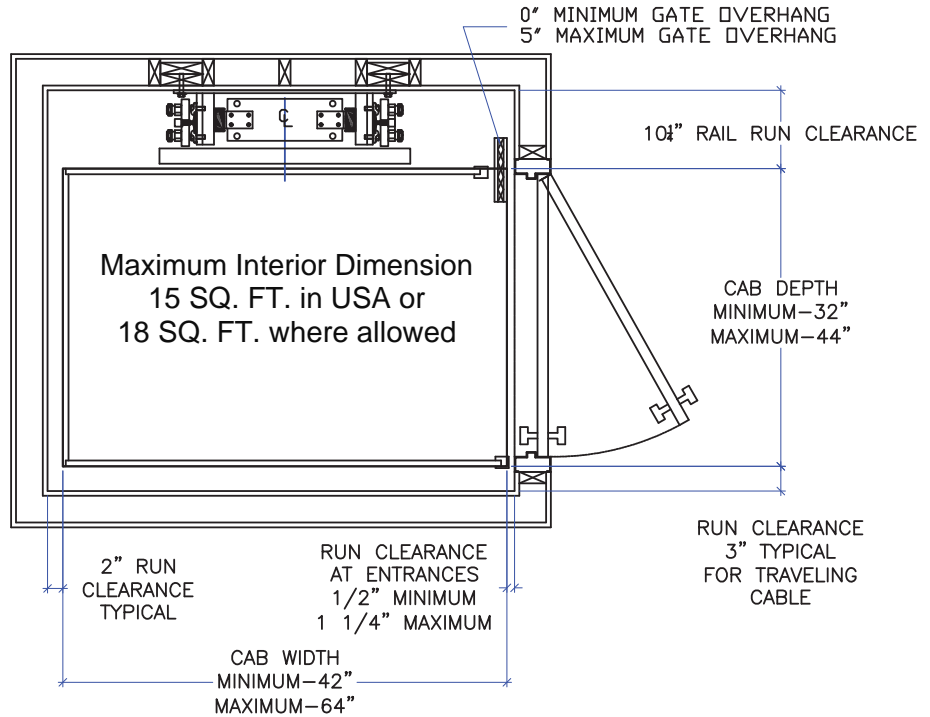
1. Locate local dealer and together determine the following:
 - a. Select a drive system, cab type and design specifications
 - b. Address national, state and local code requirements
 - c. Determine installation parameters of site
2. Obtain approval drawings before building hoistway, doorways, pit, and any other construction related to the elevator
3. Coordinate with dealer to order and install the elevator



Hoistway Layout

Cab and Hoistway Depth
is always Rail wall to
Opposite wall, North to South.

Cab and Hoistway Width
is always perpendicular
to Depth, East to West.



The following specs are to be provided by the General Contractor (GC), except as noted, prior to Elevator Contractor (EC) installing the elevator equipment.

1. Enclosed, plumb and square hoistway with smooth interior surfaces. Include for fascias or furring of hoistway interior.
2. Doors, frames and door hardware.
3. Finish openings as per elevator contractor's shop drawings.
4. Hoistway door security: All hoistway doors require door locking devices (provided by Inclinator) as well as a door handle and a latch set. All doors must be swing type (single hinge). Solid core doors are recommended.
5. Unfinished/Un-installed door: EC may prefer a minimum of one hoistway door and associated framing be left unfinished to accommodate elevator installation and prevent possible damage to door/framing. Preferably at the lowest floor.



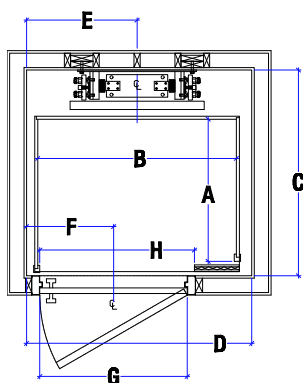
Hoistway Layout

The following data is for typical industry size elevators.

Any size cab is available in ¼" increments to dimensions **A** and **C** or **B** and **D** within the maximum and minimum dimensions shown in the diagram on page 4 not to exceed 15 SQ. FT. or 18 SQ. FT. where allowed.

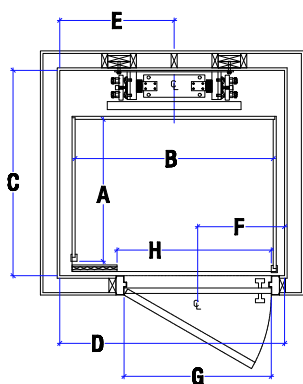


- Applicable to standard size wheelchairs



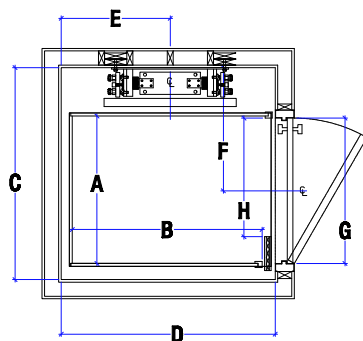
CODE 1

CODE 1	CAR SIZE (O.D.)	A	B	C	D	E	F	G	H
		CAB DEPTH (L.D.)	CAR WIDTH (L.D.)	SHAFT DEPTH	SHAFT WIDTH	CENTER OF RAIL	CENTER OF DOOR	DOOR SIZE	CLEAR OPENING
	38" x 50"	35.75"	48.50"	49.25"	55.00"	27.00"	21.25"	36"	UP TO 38"
	38" x 60"	35.75"	58.50"	49.25"	65.00"	32.00"	21.25"	36"	UP TO 44"
	42" x 48"	39.75"	46.50"	53.25"	53.00"	26.00"	21.25"	36"	UP TO 36"
	42" x 54"	39.75"	52.50"	53.25"	59.00"	29.00"	21.25"	36"	UP TO 44"



CODE 2

CODE 2	CAR SIZE (O.D.)	A	B	C	D	E	F	G	H
		CAB DEPTH (L.D.)	CAR WIDTH (L.D.)	SHAFT DEPTH	SHAFT WIDTH	CENTER OF RAIL	CENTER OF DOOR	DOOR SIZE	CLEAR OPENING
	38" x 50"	35.75"	48.50"	49.25"	55.00"	28.00"	21.25"	36"	UP TO 38"
	38" x 60"	35.75"	58.50"	49.25"	65.00"	33.00"	21.25"	36"	UP TO 44"
	42" x 48"	39.75"	46.50"	53.25"	53.00"	27.00"	21.25"	36"	UP TO 36"
	42" x 54"	39.75"	52.50"	53.25"	59.00"	30.00"	21.25"	36"	UP TO 44"



CODE 3

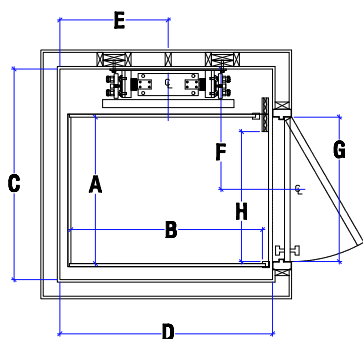
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		CAB DEPTH (L.D.)	CAR WIDTH (L.D.)	SHAFT DEPTH	SHAFT WIDTH	CENTER OF RAIL	CENTER OF DOOR	DOOR SIZE	CLEAR OPENING
	38" x 50"	36.50"	47.75"	51.25"	53.00"	27.00"	27.50"	32"	UP TO 30"
	38" x 60"	36.50"	57.75"	51.25"	63.00"	32.00"	27.50"	32"	UP TO 30"
	42" x 48"	40.50"	45.75"	55.25"	51.00"	26.00"	29.50"	36"	UP TO 34"
	42" x 54"	40.50"	51.75"	55.25"	57.00"	29.00"	29.50"	36"	UP TO 34"



Hoistway Layout

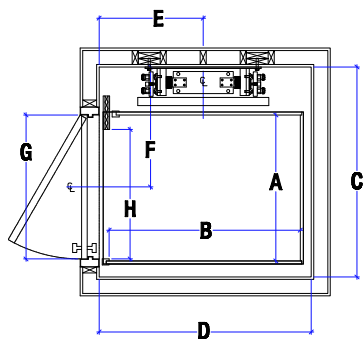
The following data is for typical industry size elevators.

Any size cab is available in ¼" increments to dimensions **A** and **C** or **B** and **D** within the maximum and minimum dimensions shown in the diagram on page 4 not to exceed 15 SQ. FT. or 18 SQ. FT. where allowed.



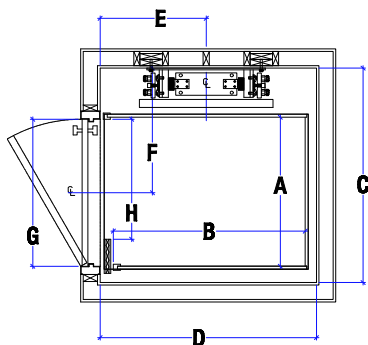
CODE 4

CODE 4	CAR SIZE (O.D.)	A	B	C	D	E	F	G	H
		CAB DEPTH (I.D.)	CAR WIDTH (I.D.)	SHAFT DEPTH	SHAFT WIDTH	CENTER OF RAIL	CENTER OF DOOR	DOOR SIZE	CLEAR OPENING
	38" x 50"	36.50"	47.75"	51.25"	53.00"	27.00"	31.00"	32"	UP TO 32"
	38" x 60"	36.50"	57.75"	51.25"	63.00"	32.00"	31.00"	32"	UP TO 32"
	42" x 48"	40.50"	45.75"	55.25"	51.00"	26.00"	33.00"	36"	UP TO 36"
	42" x 54"	40.50"	51.75"	55.25"	57.00"	29.00"	33.00"	36"	UP TO 36"



CODE 5

CODE 5	CAR SIZE (O.D.)	A	B	C	D	E	F	G	H
		CAB DEPTH (I.D.)	CAR WIDTH (I.D.)	SHAFT DEPTH	SHAFT WIDTH	CENTER OF RAIL	CENTER OF DOOR	DOOR SIZE	CLEAR OPENING
	38" x 50"	36.50"	47.75"	51.25"	53.00"	26.00"	31.00"	32"	UP TO 32"
	38" x 60"	36.50"	57.75"	51.25"	63.00"	31.00"	31.00"	32"	UP TO 32"
	42" x 48"	40.50"	45.75"	55.25"	51.00"	25.00"	33.00"	36"	UP TO 36"
	42" x 54"	40.50"	51.75"	55.25"	57.00"	28.00"	33.00"	36"	UP TO 36"

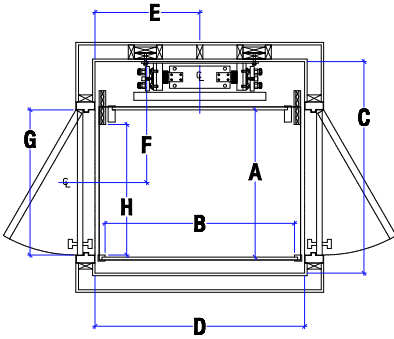


CODE 6

CODE 6	CAR SIZE (O.D.)	A	B	C	D	E	F	G	H
		CAB DEPTH (I.D.)	CAR WIDTH (I.D.)	SHAFT DEPTH	SHAFT WIDTH	CENTER OF RAIL	CENTER OF DOOR	DOOR SIZE	CLEAR OPENING
	38" x 50"	36.50"	47.75"	51.25"	53.00"	26.00"	27.50"	32"	UP TO 30"
	38" x 60"	36.50"	57.75"	51.25"	63.00"	31.00"	27.50"	32"	UP TO 30"
	42" x 48"	40.50"	45.75"	55.25"	51.00"	25.00"	29.50"	36"	UP TO 34"
	42" x 54"	40.50"	51.75"	55.25"	57.00"	28.00"	29.50"	36"	UP TO 34"

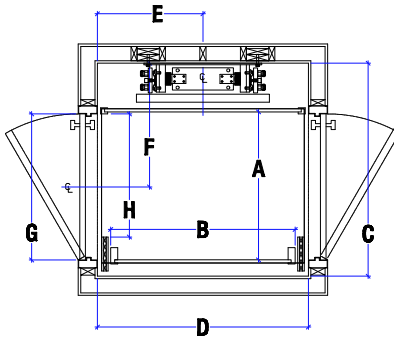


Hoistway Layout



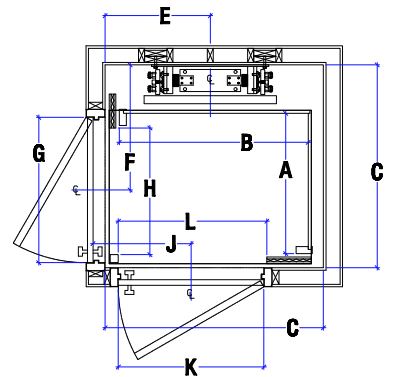
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CODE 4,5	CAR SIZE (O.D.)	A	B	C	D	E	F	G	H
		CAB DEPTH (I.D.)	CAR WIDTH (I.D.)	SHAFT DEPTH	SHAFT WIDTH	CENTER OF RAIL	CENTER OF DOOR	DOOR SIZE	CLEAR OPENING
	38" x 50"	36.50"	47.00"	51.25"	52.00"	26.00"	31.00"	32"	UP TO 32"
	38" x 60"	36.50"	57.00"	51.25"	62.00"	31.00"	31.00"	32"	UP TO 32"
	42" x 48"	40.50"	45.00"	55.25"	50.00"	25.00"	33.00"	36"	UP TO 36"
	42" x 54"	40.50"	51.00"	55.25"	56.00"	28.00"	33.00"	36"	UP TO 36"



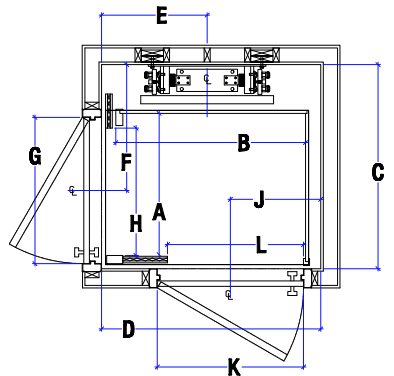
CODE 3,6

CODE 3,6	CAR SIZE (O.D.)	A	B	C	D	E	F	G	H
		CAB DEPTH (I.D.)	CAR WIDTH (I.D.)	SHAFT DEPTH	SHAFT WIDTH	CENTER OF RAIL	CENTER OF DOOR	DOOR SIZE	CLEAR OPENING
	38" x 50"	36.50"	47.00"	51.25"	52.00"	26.00"	27.50"	32"	UP TO 30"
	38" x 60"	36.50"	57.00"	51.25"	62.00"	31.00"	27.50"	32"	UP TO 30"
	42" x 48"	40.50"	45.00"	55.25"	50.00"	25.00"	29.50"	36"	UP TO 34"
	42" x 54"	40.50"	51.00"	55.25"	56.00"	28.00"	29.50"	36"	UP TO 34"



CODE 5,1

CODE 5,1	CAR SIZE (O.D.)	A	B	C	D	E	F	G	H	J	K	L
		CAB DEPTH (I.D.)	CAR WIDTH (I.D.)	SHAFT DEPTH	SHAFT WIDTH	CENTER OF RAIL	CENTER OF DOOR	ADJ. DOOR	CLEAR OPENING	CENTER OF DOOR	OPP. DOOR	CLEAR OPENING
	38" x 50"	35.75"	47.75"	49.25"	54.00"	26.00"	31.00"	32"	UP TO 32"	21.25"	36"	UP TO 36"
	38" x 60"	35.75"	57.75"	49.25"	64.00"	31.00"	31.00"	32"	UP TO 32"	21.25"	36"	UP TO 36"
	42" x 48"	39.75"	45.75"	53.25"	52.00"	25.00"	33.00"	36"	UP TO 36"	21.25"	36"	UP TO 44"
	42" x 54"	39.75"	51.75"	53.25"	58.00"	28.00"	33.00"	36"	UP TO 36"	21.25"	36"	UP TO 44"



CODE 5,2

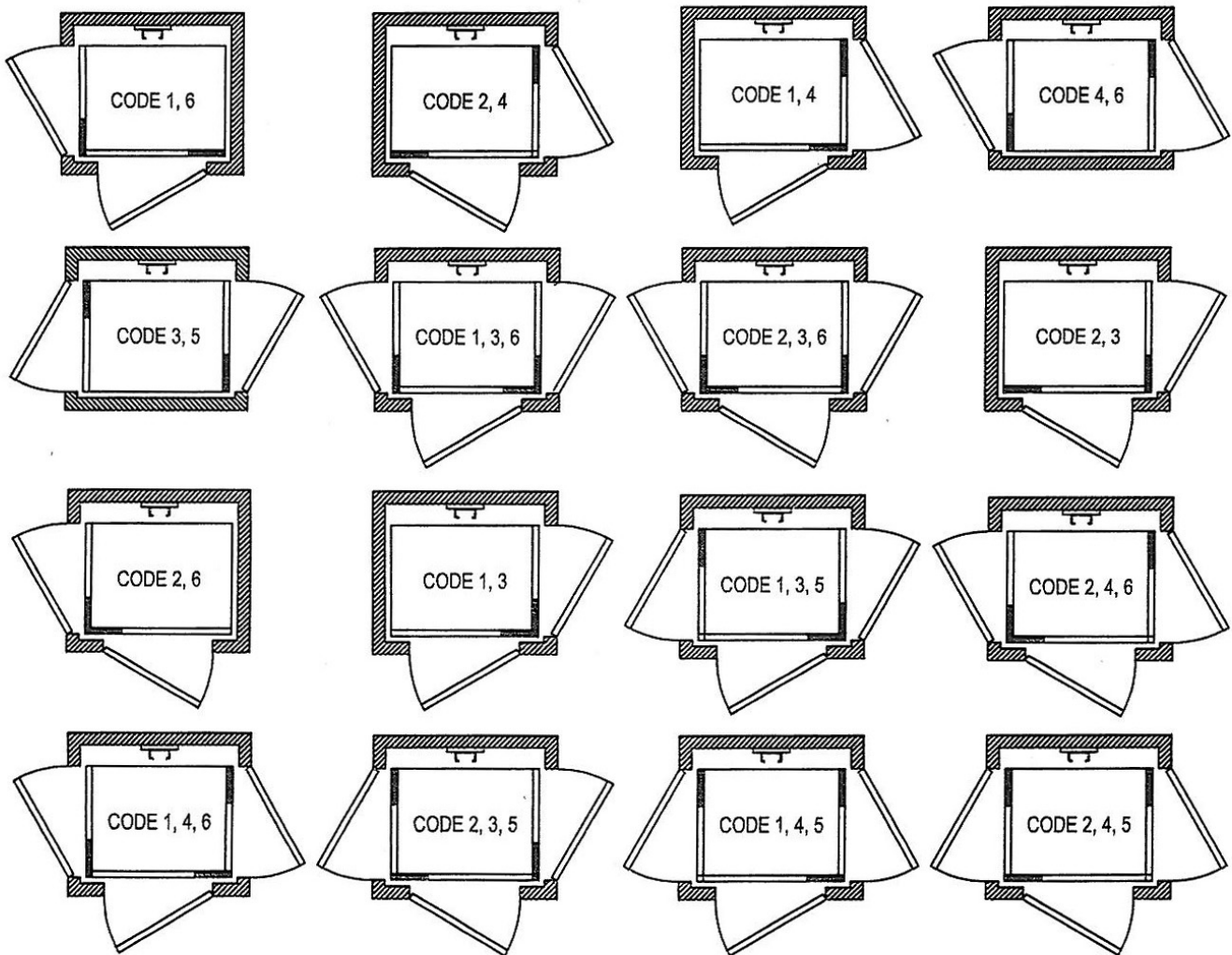
CODE 5,2	CAR SIZE (O.D.)	A	B	C	D	E	F	G	H	J	K	L
		CAB DEPTH (I.D.)	CAR WIDTH (I.D.)	SHAFT DEPTH	SHAFT WIDTH	CENTER OF RAIL	CENTER OF DOOR	ADJ. DOOR	CLEAR OPENING	CENTER OF DOOR	OPP. DOOR	CLEAR OPENING
	38" x 50"	35.75"	47.75"	49.25"	54.00"	26.00"	31.00"	32"	UP TO 32"	22.25"	36"	UP TO 36"
	38" x 60"	35.75"	57.75"	49.25"	64.00"	31.00"	31.00"	32"	UP TO 32"	22.25"	36"	UP TO 36"
	42" x 48"	39.75"	45.75"	53.25"	52.00"	25.00"	33.00"	36"	UP TO 36"	22.25"	36"	UP TO 44"
	42" x 54"	39.75"	51.75"	53.25"	58.00"	28.00"	33.00"	36"	UP TO 36"	22.25"	36"	UP TO 44"



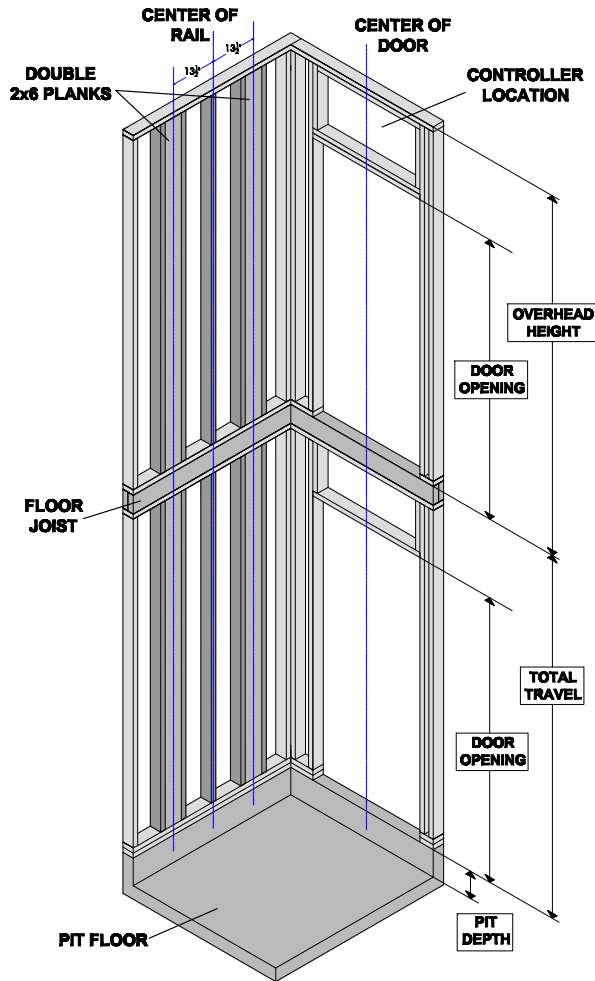
Hoistway Layout

ADDITIONAL CONFIGURATIONS

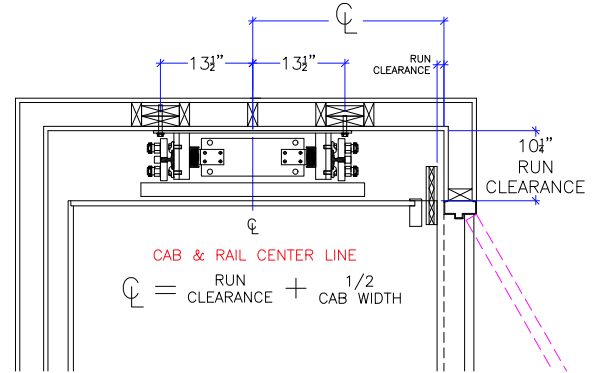
There are many additional layout options available. Please contact Inclinator or your local dealer for further assistance on shaft configurations.



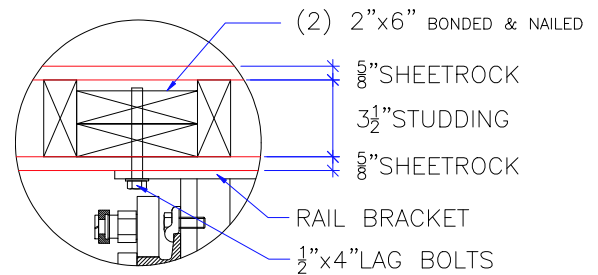
Hoistway Construction



SUPPORT WALL DETAIL

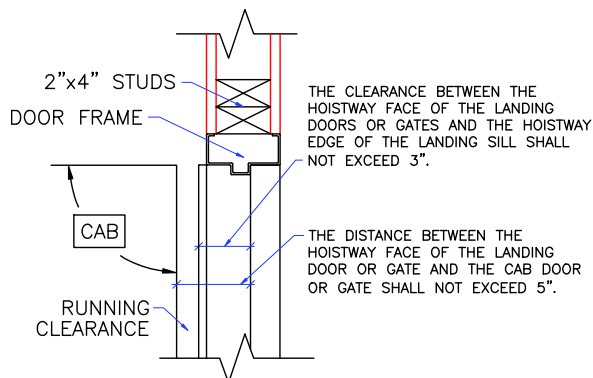


RAIL DETAILS

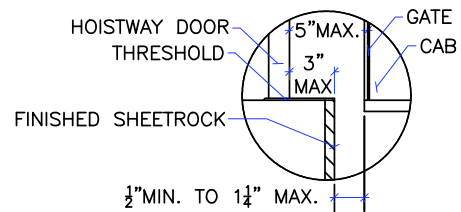


NOTE:
WHEN STUD AND SHEETROCK CONSTRUCTION IS USED ON THE RAIL BRACKET SUPPORT WALL, DBL 2x6 STUDDING IS NEEDED TO MOUNT THE RAIL BRACKETS. DO NOT USE METAL STUDS.

5-3 RULE / DOOR FRAME DETAILS



NOTE:
* FRAMING ON DOOR SIDE OF HOISTWAY MUST BE OF 2x4 CONSTRUCTION TO APPLY TO 5-3 RULE OF ANSI 17.1 CODE.



DOOR SILLS TO BE INSTALLED BY GC AFTER THE LIFT SUPPLIER HAS INSTALLED A RUNNING PLATFORM. SILL MUST BE BROUGHT OUT TO NOT LESS THAN 1/2" AND NOT MORE THAN 1 1/4" TO THE RUNNING PLATFORM WHILE MAINTAINING A DISTANCE OF 3" FROM THE HOISTWAY FACE OF THE LANDING DOOR (OR GATE) TO THE HOISTWAY EDGE OF THE LANDING SILL.



Hoistway Specifications

The following specs are to be provided by the General Contractor (GC), except as noted, prior to Elevator Contractor (EC) installing the elevator equipment.

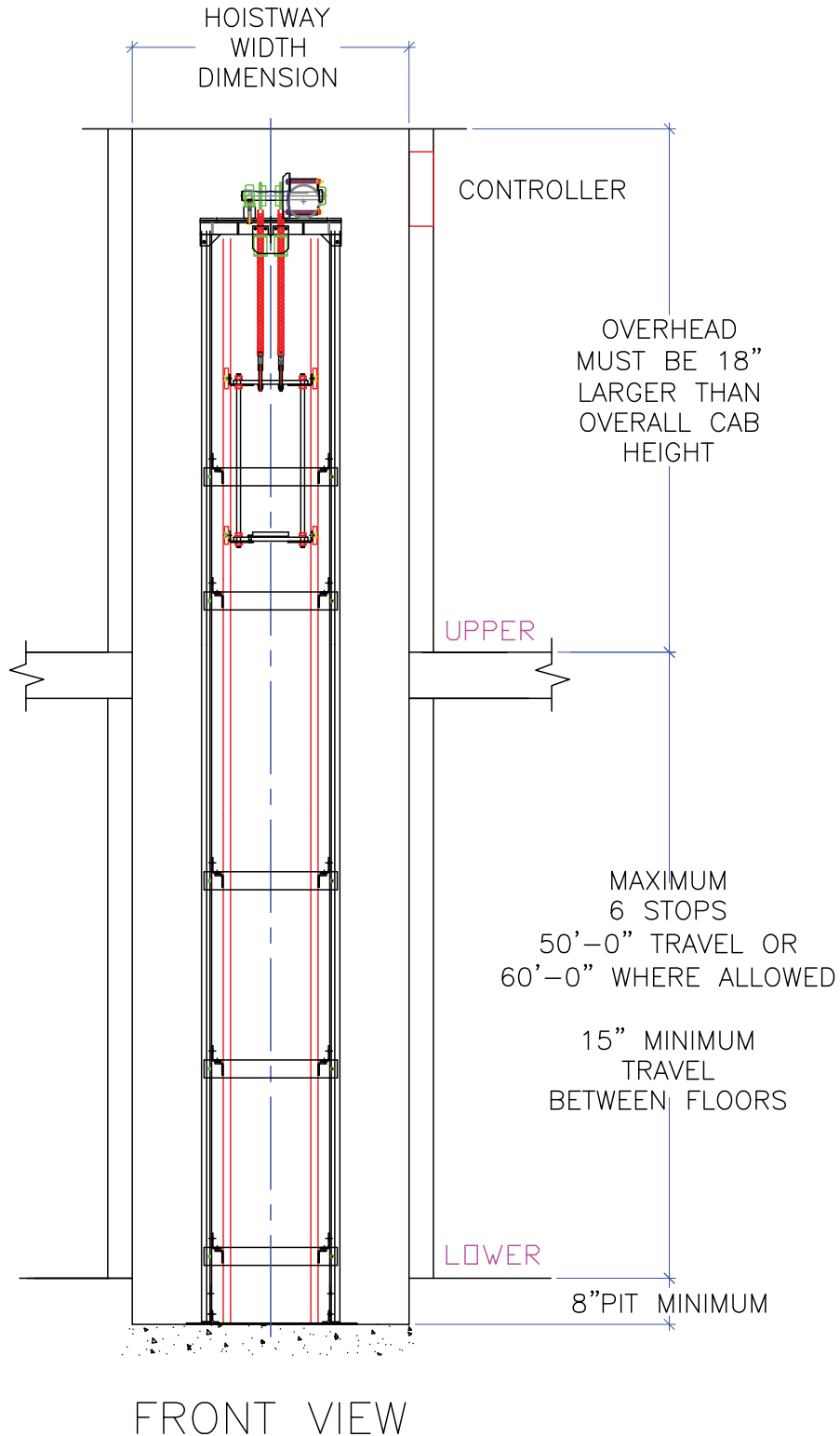
1. **Environmental requirements** for hoistway:
 - a. Temperature should be maintained between 40⁰ F to 100⁰ F.
 - b. Should not be exposed to the elements.
2. **Pit Requirements:**
 - a. Substantial level pit floor slab to support 3,123 lbs. impact load.
 - b. Waterproof pit minimum 8" below lowest floor level, unless buffer springs are required then minimum 12" pit required.
3. **Overhead Requirements:**

DOOR HEIGHT	INSIDE CAB HEIGHT	OVER ALL CAB HEIGHT	OVERHEAD REQUIREMENT
6' - 8"	80"	7' - 0"	8' - 6"
7' - 0"	84"	7' - 4"	8' - 10"
8' - 0"	92"	8' - 0"	9' - 6"
8' - 0"	96"	8' - 4"	9' - 10"

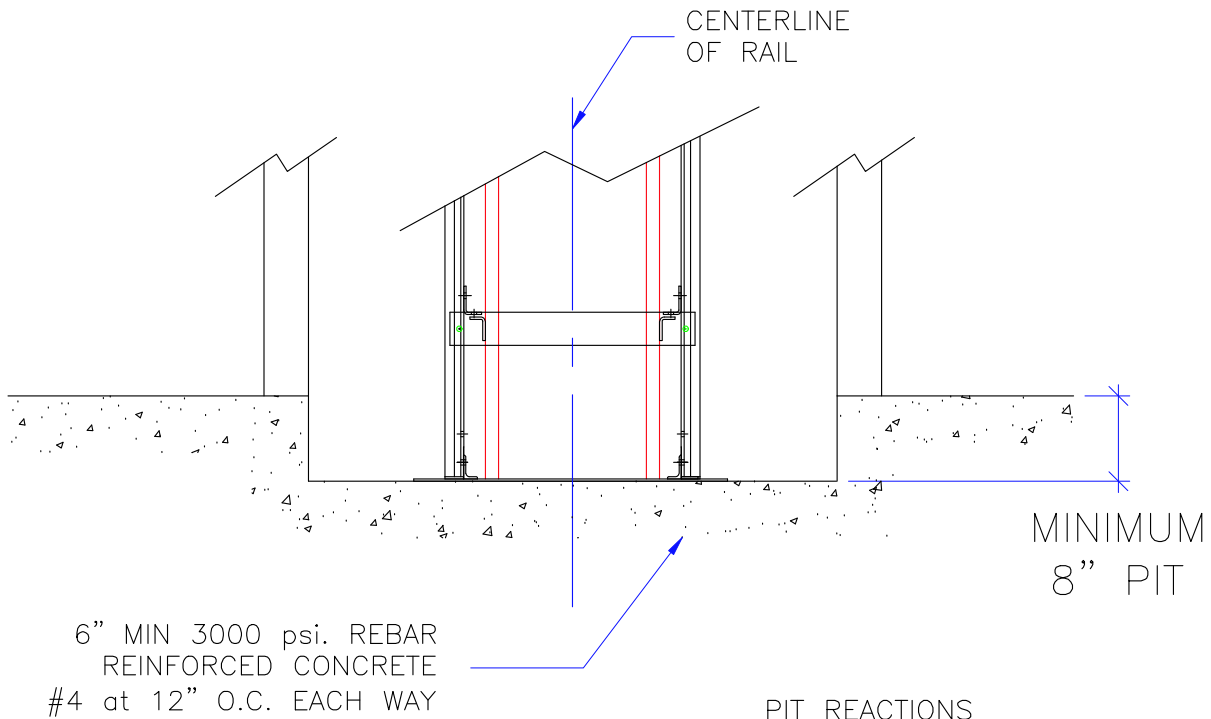
- a. If minimum 8'6" OH is not possible, consult Inclinator, or EC, about possible solutions.
4. **Rail Support Wall Requirements:**
 - a. The support wall consists of a double 2" x 6" bonded & nailed planking that is then constructed within a typical wood 2" x 4" studded wall. These double 2" x 6" planks are oriented and mounted perpendicular to the standard wall construction, all of these must be installed plumb and straight.
 - b. The dual steel "T" rail assembly provided by Inclinator is to be mounted to the double stud planking plumb and straight along the vertical plane.
 - c. The rail brackets are secured to the double 2" x 6" planking with ½" x 4" lag bolts, see drawing details.
 - d. All studs in the rail support wall must be of wood, typical steel studs are prohibited and cannot be used in the rail support wall.
 - e. Consult factory or dealer for concrete or steel framed construction.
5. **ASME 17.1 Part 5.3:** Hoistway to be constructed in accordance with this code and all local codes. It is the responsibility of the GC and the EC to comply with all appropriate codes.



Hoistway Elevation



Pit Specifications

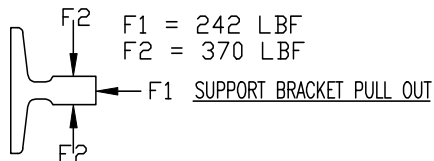


PIT FLOOR TO HAVE A SMOOTH TROWEL FINISH FREE OF HOLLOWES OR BUMPS. SURFACE TO BE LEVEL AND FLAT TO WITHIN $\pm 1/8$ " IN ANY DIRECTION.

Rail Reactions



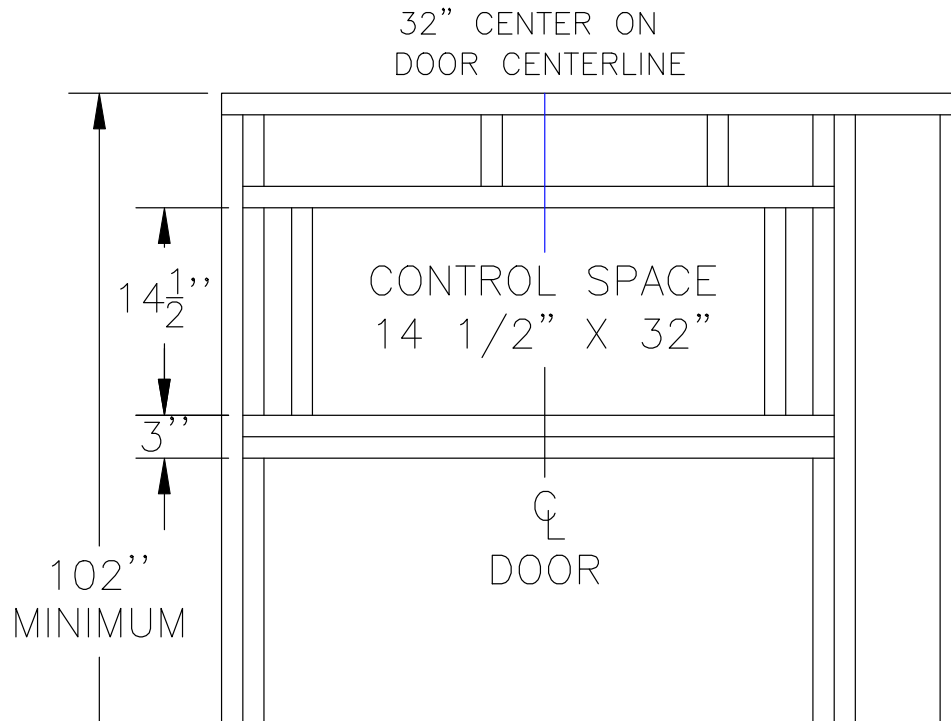
RAIL REACTIONS



1. EACH RAIL BRACKET FASTENER SHALL PROVIDE A MINIMUM PULLOUT OF 287 LBS.
2. RAIL BRACKET SPACING SHALL BE DETERMINED BY THE MANUFACTURER.
3. RAIL FASTENING MUST BE ABLE TO SUPPORT THE LOADS IMPOSED. SEE RAIL REACTIONS AND SUPPORT BRACKET PULLOUTS ON MAIN BODY OF DRAWING. BRACKETS ARE PRE-DRILLED.
4. PIT FLOOR SHALL BE CONSTRUCTED TO WITHSTAND AN IMPACT LOAD OF 3123 LBS.



Controller Space



NOTE:
CONTROL SPACE MUST BE SQUARE AND TO SIZE. GIVEN DIMENSIONS ARE MINIMUM SIZE AND MAY BE UP TO $\frac{1}{8}$ " LARGER.

UPPER DOOR OVERHEAD FRAMING DETAIL

Recommended controller position is above the top landing hoistway door. Controller may be located elsewhere. Contact Inclinator or your dealer for alternate mounting positions.

1. Permanent 230 volt, single phase, 30 amp dedicated circuit to operate the elevator.
2. 120 volt lighting supply and disconnect by others.
3. Telephone connection: Code requires a telephone connection. A phone line must be installed leading to the controller.
4. Recommended maximum distance from controller to hoistway box is 10'.
5. N.E.C. Regulations
 - a. Minimum 30" x 36" clear unobstructed floor space in front of controller.



Warranty

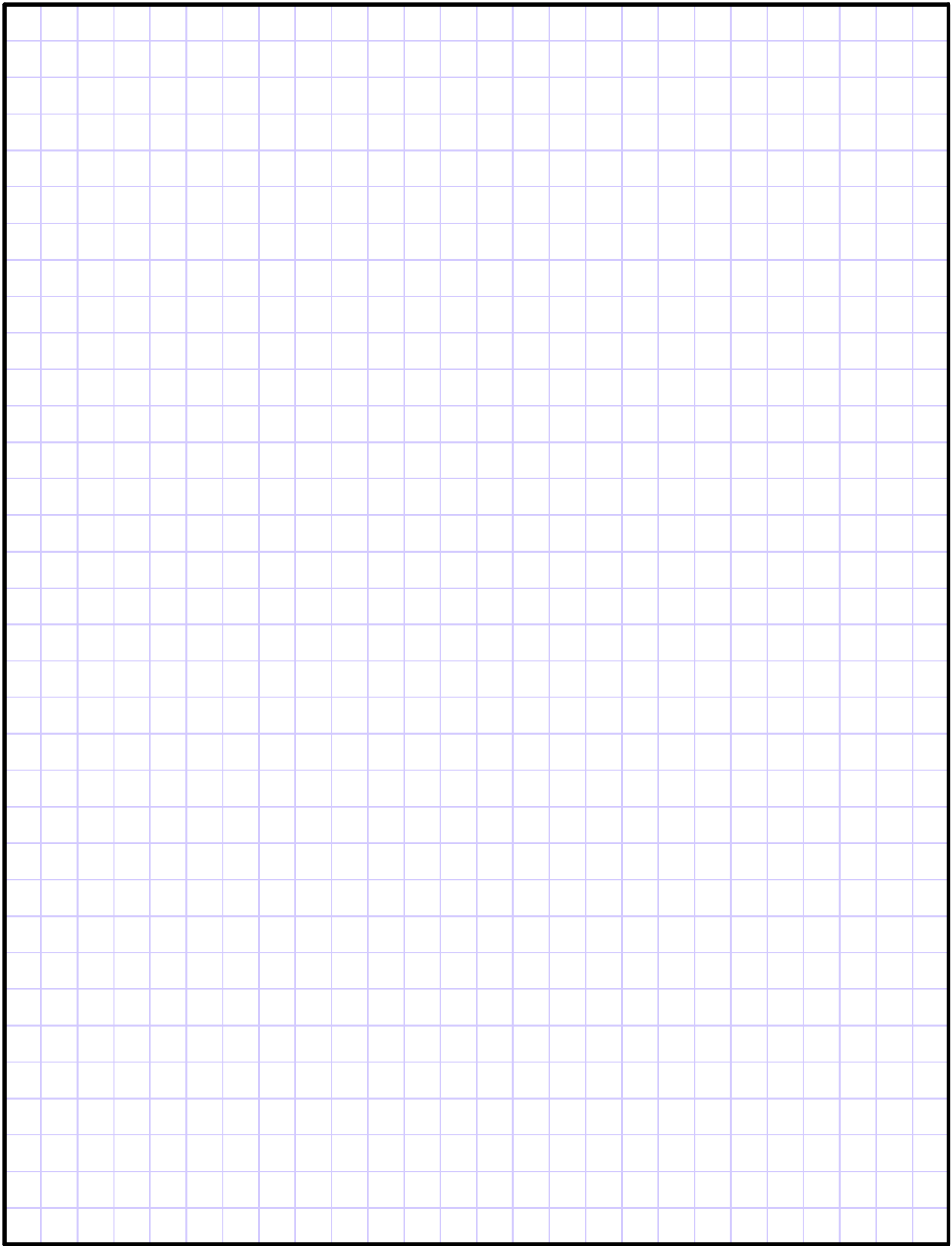
This warranty and all implied warranties including the implied warranties of merchantability and fitness for a particular purpose, for this product are limited to a period of two years from the time this product is first installed.

Some states do not allow limitations on how long an implied warranty lasts, so the above limitation may not apply to you.

The manufacturer is not responsible for consequential damages resulting from the use of this product, including labor charges for removal and reinstallation of parts. The manufacturer's liability for any damages resulting from use of this product or breach of this or any implied warranties is limited solely to parts, repair or replacement in accordance with the terms set forth above and these are the exclusive remedies available to purchasers of this product.

Some states do not allow the exclusion or limitation of incidental or consequential damages, so the above limitation or exclusion may not apply to you.





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