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# **TECHNICAL BULLETIN**

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Date: May 23, 2013

TB2013.05.23

## **DOOR SYSTEMS**

In an effort to educate ourselves and our customers on large openings which U.S.A. often supplies the door framing and support thereof we have created the following parameters to describe the types of system available in various door systems.

### **STANDARD SLIDING DOOR SYSTEMS**

- 20' X 15' max door size (10' X 15' max leaf size up to 2 leafs)
- No bearing on ground – hung from trolley wheels and box rail top guide
- Not available in areas with wind loads greater than 90 mph (IBC 2009) / 110 mph (2010 and beyond)
- Typically used in agricultural and storage buildings
- All cold form framing
- Manually operated

### **HEAVY DUTY SLIDING DOOR SYSTEMS**

- 40' X 18' max door size (20' X 18' max leaf size up to 2 leafs)
- No bearing on ground – hung from I-beam trolley and structural I-beam top guide
- Not available in areas with wind loads greater than 90 mph (IBC 2009) / 110 mph (2010 and beyond)
- Typically used in agricultural and storage buildings
- Structural steel and cold form framing members
- Manually operated

## LIGHT DUTY BOTTOM ROLLING DOOR SYSTEMS

- 90' X 15' max door size (15' X 15' max leaf size with up to 6 leaves)
- 6" - 9" vee-groove wheels (bottom guide angle typically supplied by U.S.A.)
- Single angle top guide
- Not available in areas with wind loads greater than 90 mph (IBC 2009) / 110 mph (2010 and beyond)
- Commonly used in small hangars, T-hangars, and partitions
- All cold form framing
- Manually operated

## STANDARD DUTY BOTTOM ROLLING DOOR SYSTEMS

- 120' X 20' max door size (20' X 20' max leaf size with up to 6 leaves)
- 9" - 12" bottom rolling wheel (20# - 30# bottom guide rail typically supplied by U.S.A.)
- **Fixed** I-beam top guides designed to accommodate deflection in design
- No restriction on wind load
- Commonly used in commercial and private hangars
- Manually operated *or* motorized wheels
- Combination of hot rolled channel and/or cold form framing

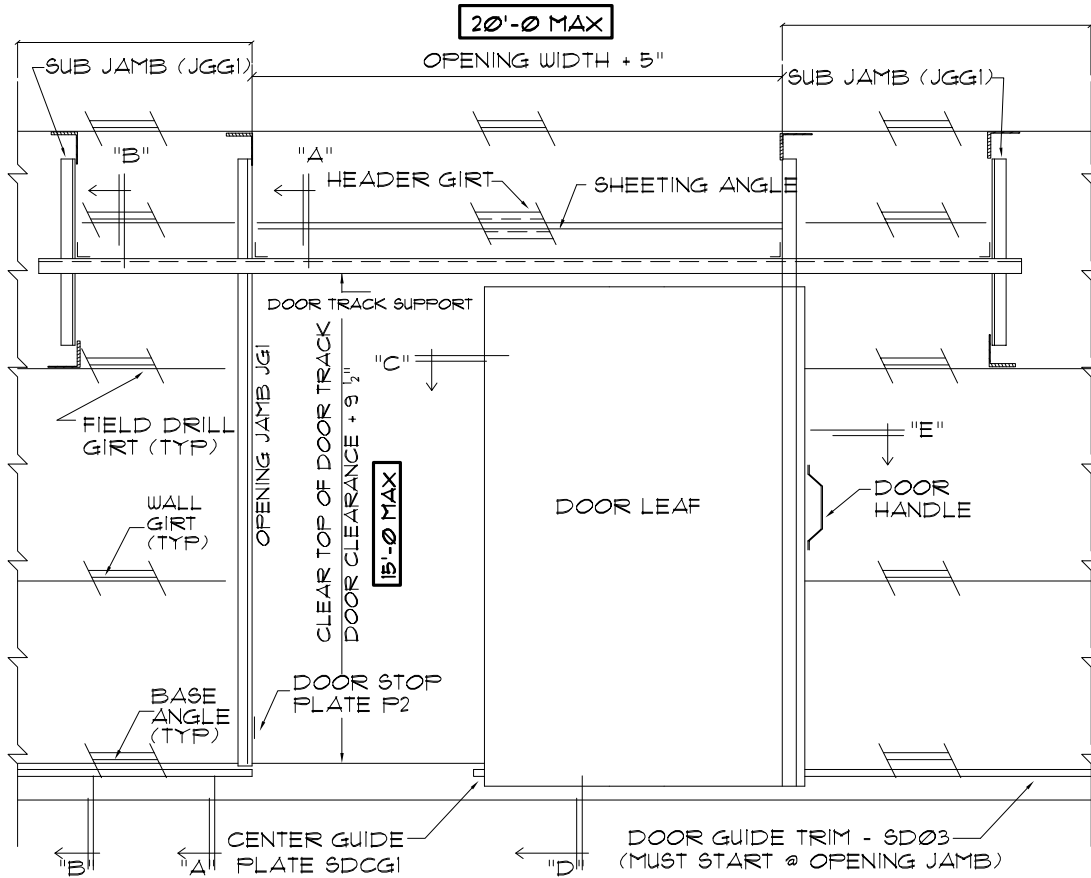
## HEAVY DUTY BOTTOM ROLLING DOOR SYSTEMS

- Doors which do not fit within parameters above and typically required a heavy duty door system design
- Little to no restriction on door height and/or width
- 12" - 24" bottom rolling wheel (20# - 100# bottom guide rail typically supplied by U.S.A.)
- Designed to accommodate any wind load
- **Fixed or telescoping** top guide system per U.S.A.'s option
- Manually operated or motorized wheels
- Combination of hot roll channel, wide flange beam, and/or cold form framing

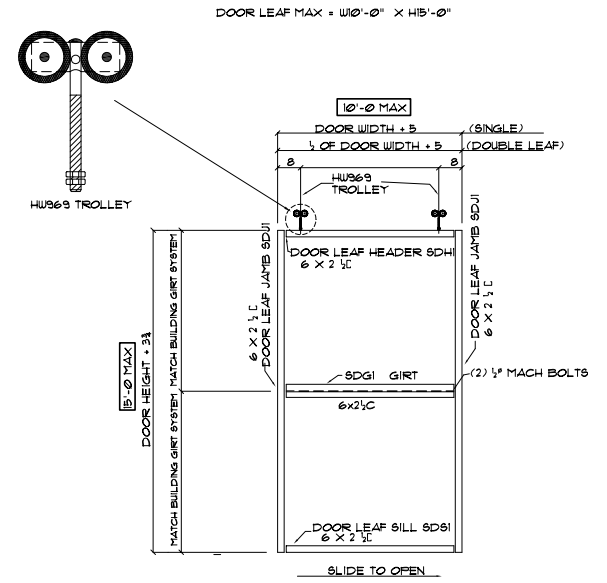
To help further explain how each system operates U.S.A. has created the a few simplified drawings of each system. These drawings should be used to assist in sales, estimating, design, and detailing of each system. Both U.S.A. and our customer must understand the door system that best fits each particular project. These systems are at the heart of our door system designs, but as with any project, there may be alternate ways to accommodate customer needs. U.S.A. asks that you review the attached information and utilize this to help us remain competitive in buildings requiring any of these door systems.

## KNOW YOUR PRODUCT

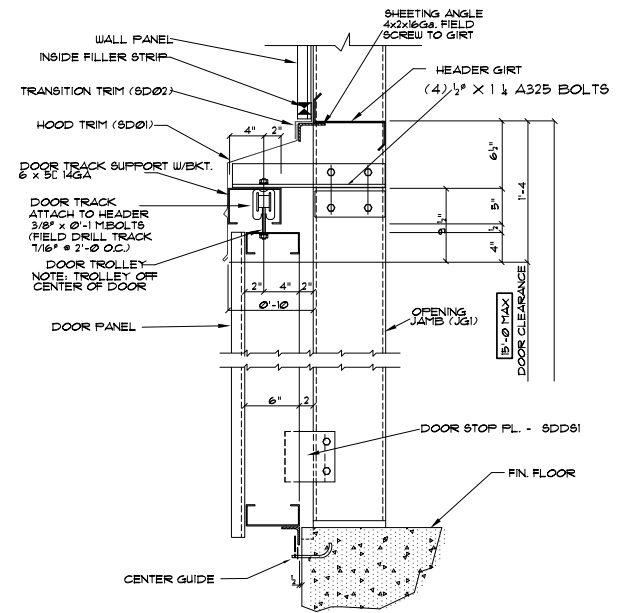
# STANDARD SLIDING DOOR SYSTEMS



**WALL FRAMING ELEVATION @ SLIDE DOOR**

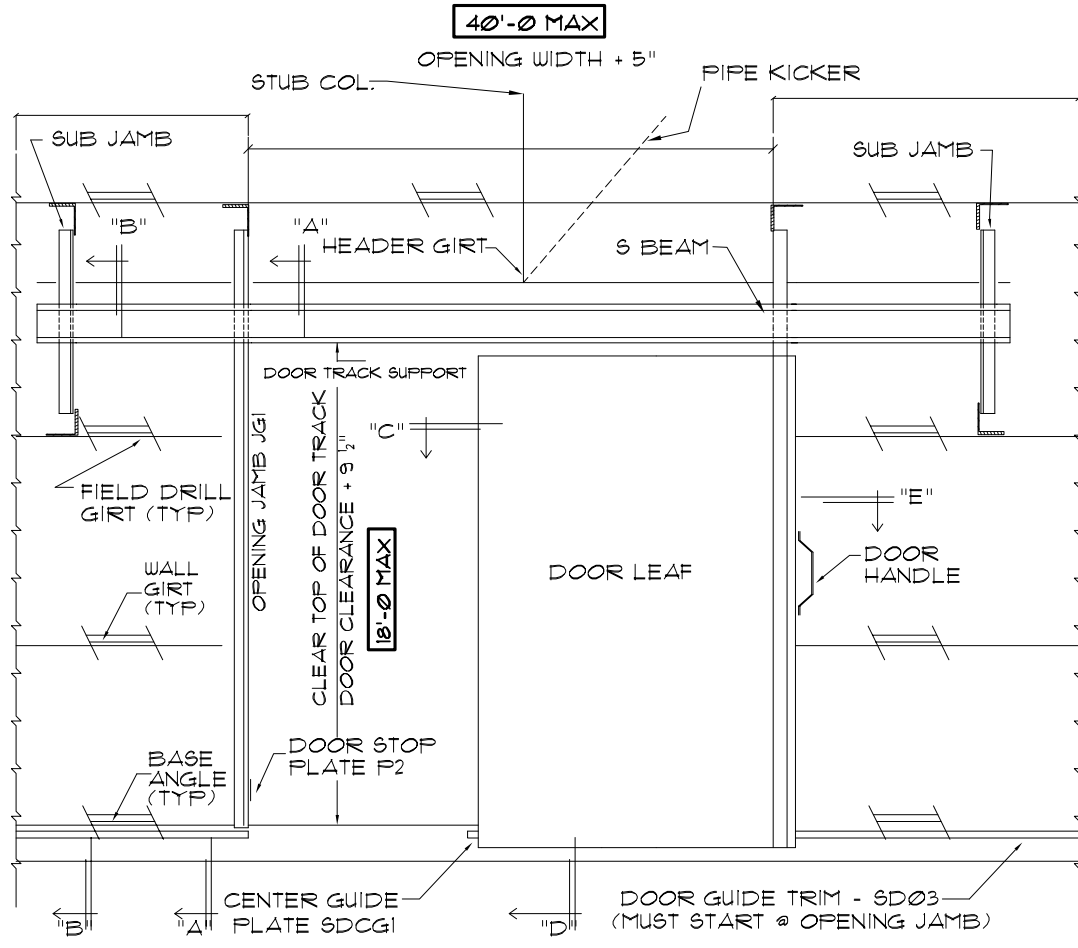


**DOOR LEAF FRAMING**

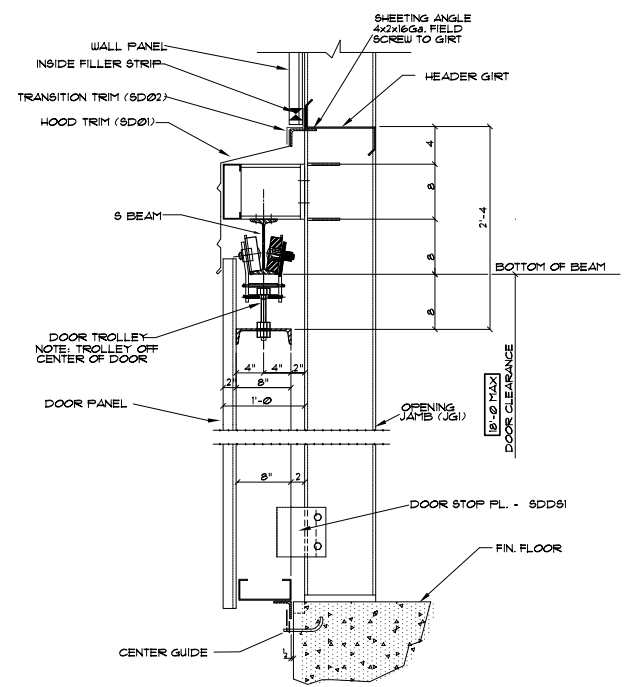
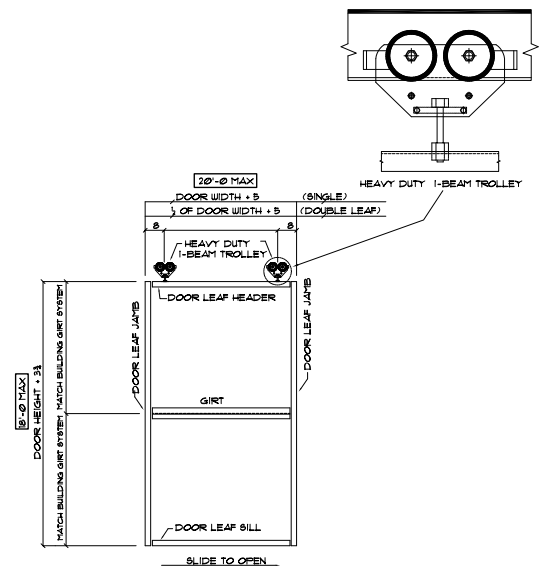


**SECTION THRU OPENING @ JAMB SECTION D**

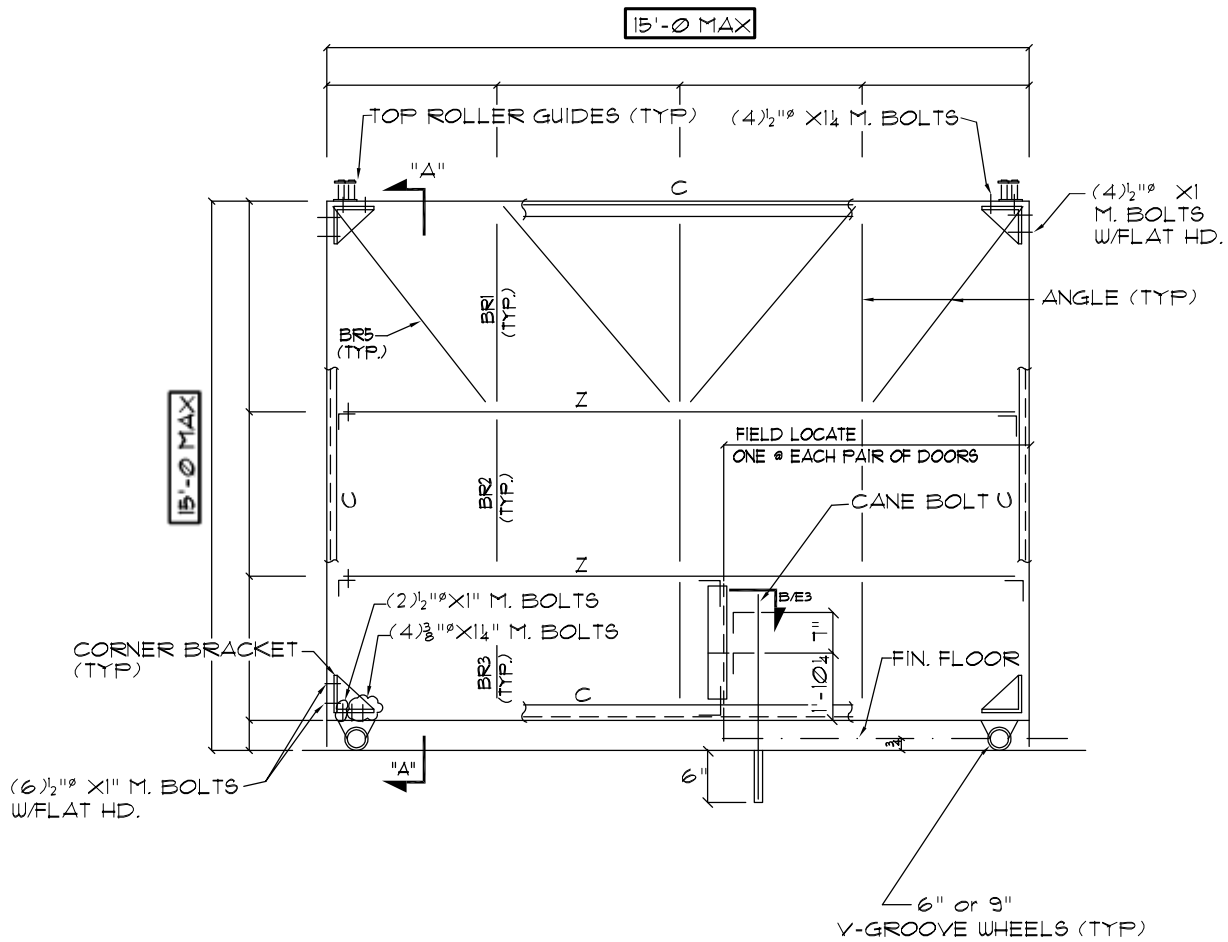
# HEAVY DUTY SLIDING DOOR SYSTEMS



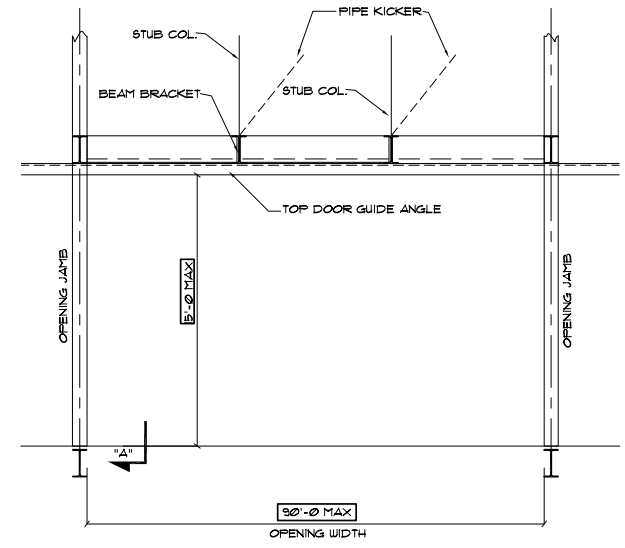
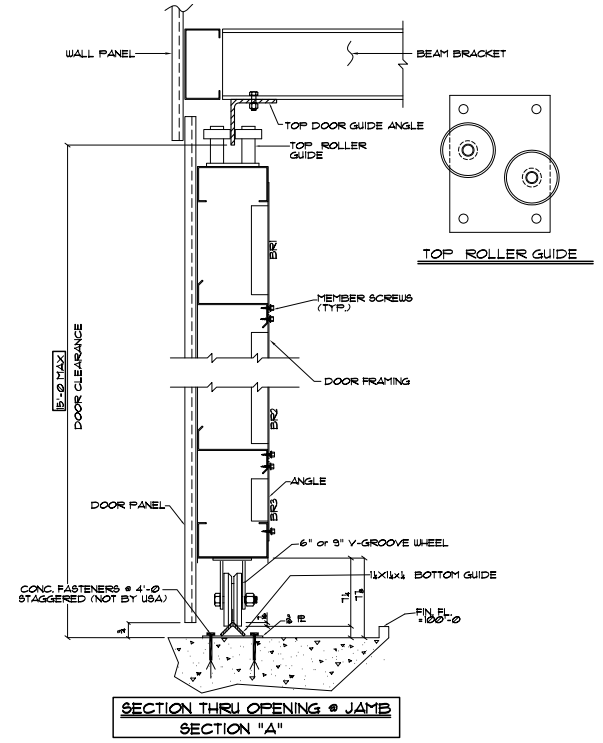
**WALL FRAMING ELEVATION @ SLIDE DOOR**



# LIGHT DUTY BOTTOM ROLLING DOOR SYSTEMS

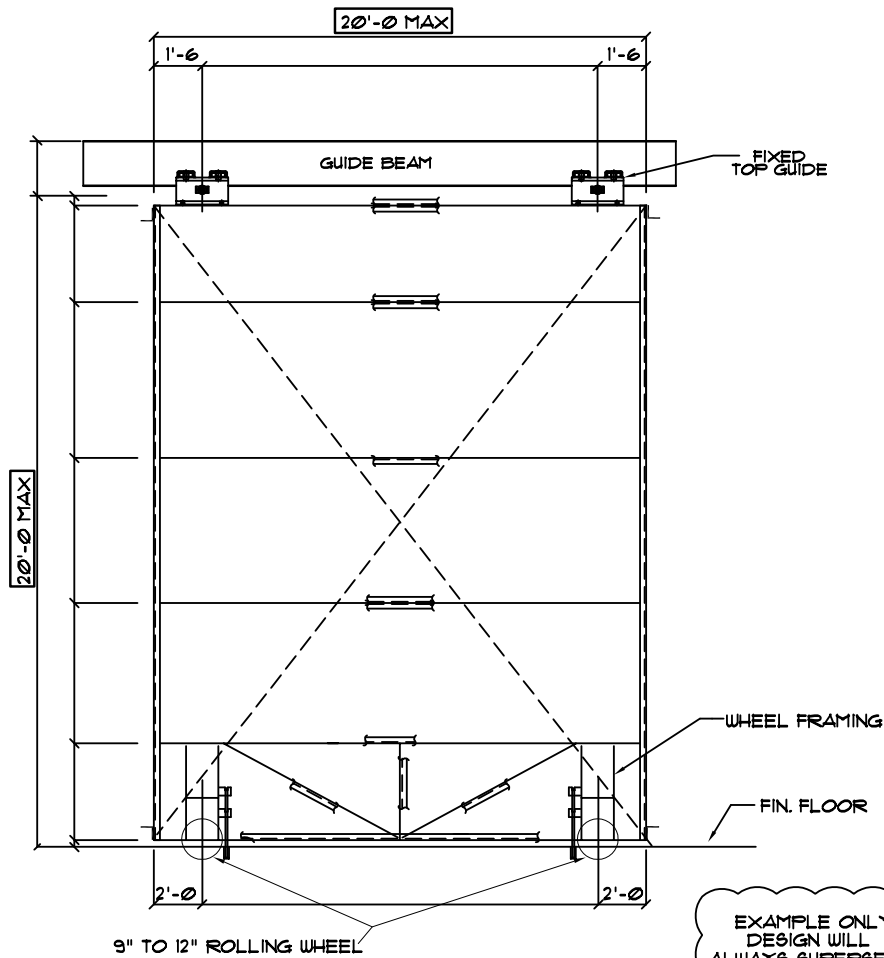


**LIGHT DUTY DOOR FRAMING**

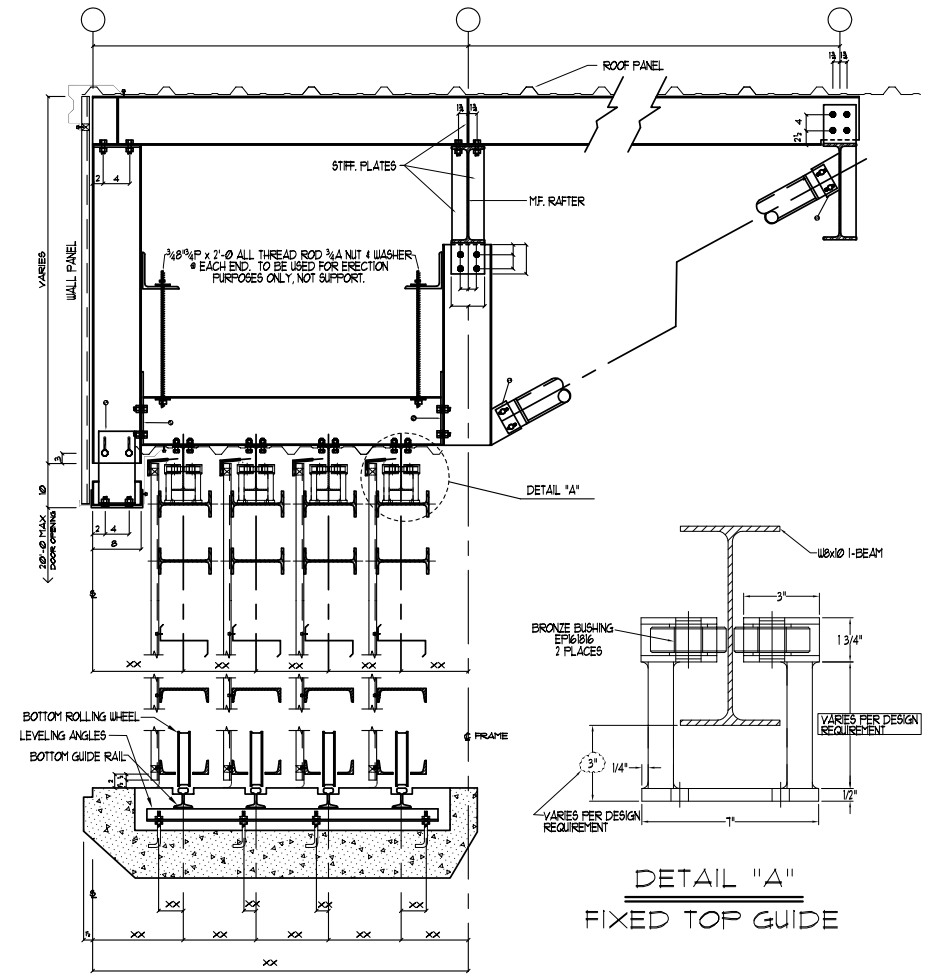


**WALL FRAMING ELEVATION AT LIGHT DUTY ROLLING DOOR**

# STANDARD DUTY BOTTOM ROLLING DOOR SYSTEMS

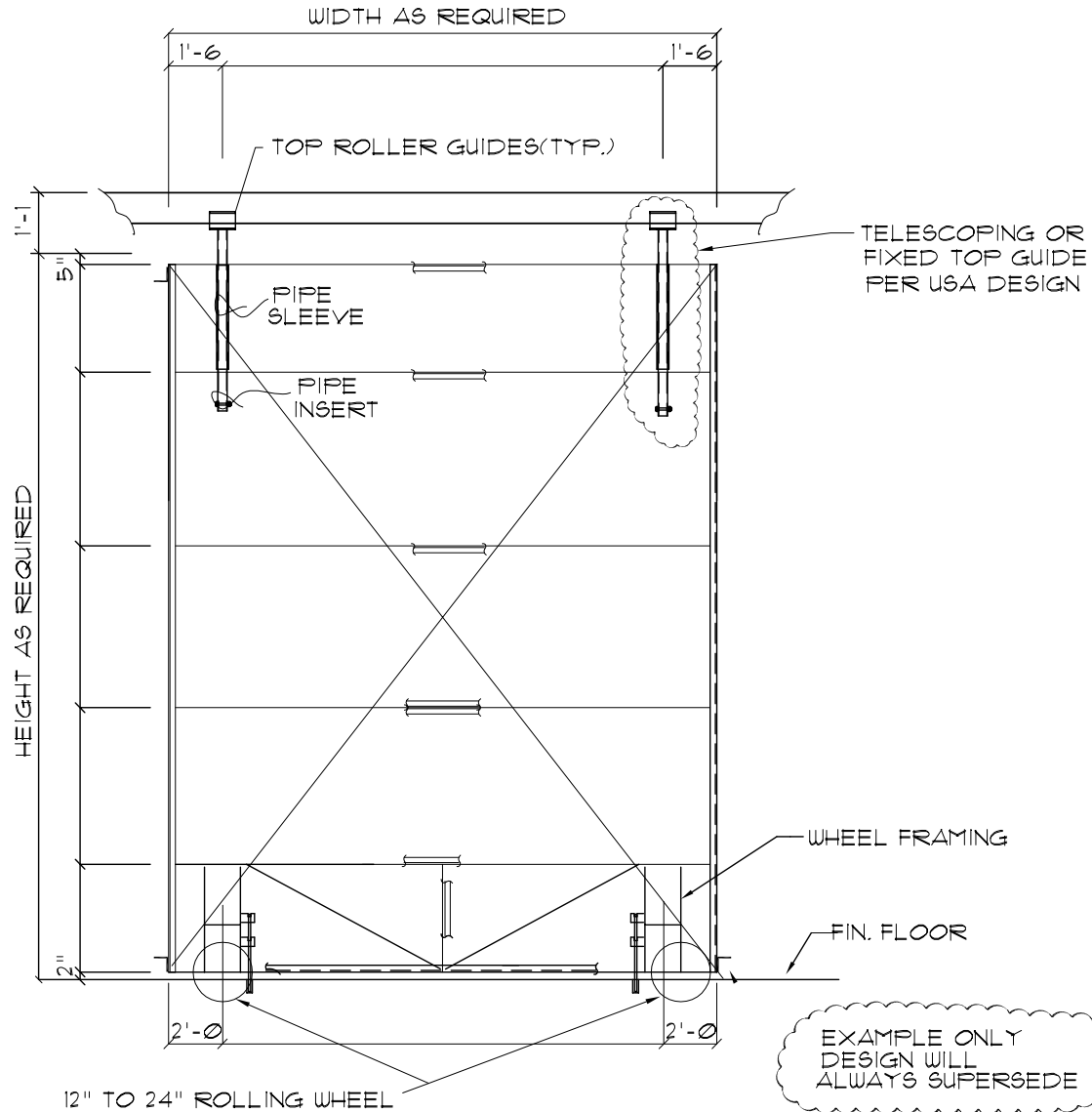


**STANDARD DUTY HANGAR DOOR LEAF**



**STANDARD HANGAR DOOR SECTION**

# HEAVY DUTY BOTTOM ROLING DOOR SYSTEMS



**HEAVY DUTY HANGAR DOOR LEAF**