

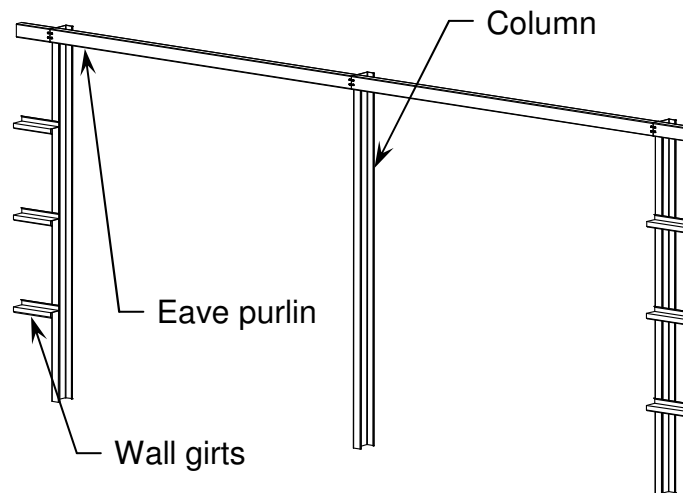
Appendix A – Door and Window Framing

Last updated 7/16/2009

1. First complete all previous framing for bay.

Install all applicable columns, rafters, and/or eave purlins for the bay in which you are going to install framing. Ensure that all components are plumb and level before continuing with door framing.

Note that the illustration below depicts two sidewall bays side by side, each of which has doors. In this typical illustration, wall girts from surrounding bays are also shown. On your building, components will vary depending on bay location and whether door is being installed on the sidewall or endwall. Please see engineering plans for exact details and location of framing components.



2. Install header girt and bottom girt (if installing window).

If installing door, start by installing header girt, which is simply a wall girt to which the door jamb connects. For specific instructions on installing wall girts please see Appendix B. Exact location can be found on engineering plans.

Note that in most cases, doors jambs will extend from the slab to the next wall girt above where the top of the door will be. However, per engineering plans, door jambs cannot be connected to the eave purlin. In some cases, door height will be above the highest wall girt and, to ensure that the door jamb does not connect to the eave purlin, an extra wall girt must be added in the bay just below the eave purlin. For a typical illustration of this, please see the illustration on page Appendix A – 3.

Note that some header girts are to be installed as double header girts (as specified on the door schedule, located on the engineering plans). A double header girt simply consists of installing two interlocked ZEE sections together where there would normally only be a single ZEE.

If installing a window, install header girt and, if necessary, also install a bottom girt, the wall girt to which the window jamb connects on its bottom end. If two wall girts cannot span the entire bay due to window size, both header girt and bottom girt need to be installed as double girts. Also, install all wall girts that are to be installed above the header girt and below the bottom girt. For exact details on installation of wall girts, see wall girts section in Appendix B.

3. Install door jambs.

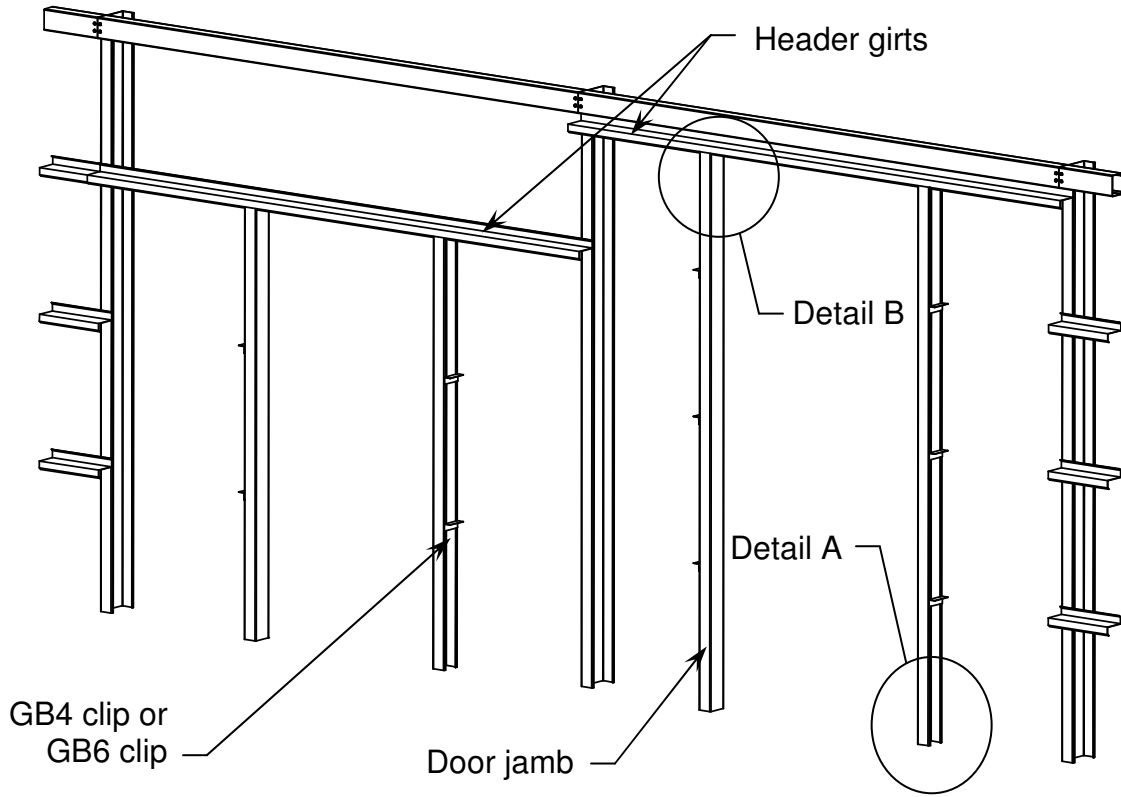
Before installing door jambs, install wall girt clips to door jamb, which will be used to install wall girts after door framing is installed. Install GB4 clips if connecting to a 4” door jamb and GB6 clips if connecting to a 6” door jamb. Clips are installed at same height as wall girts. Exact location of clips and wall girts can be found on engineering plans. See engineering plans and part 5 (“Install Remaining Wall Girts”) of door and window framing section for more information on installing girt clips.

Next, mark the location of the door jambs and the exact location of the anchor bolt. The distance between the two jambs is typically the actual width of the door, which is found on the engineering plans. However, depending on your door type, this opening width between the two door jambs can vary. Please consult any instructions that come from your door manufacturer as well as the engineering plans to establish the exact opening width between door jambs. The door jamb must also be installed against the edge of the slab.

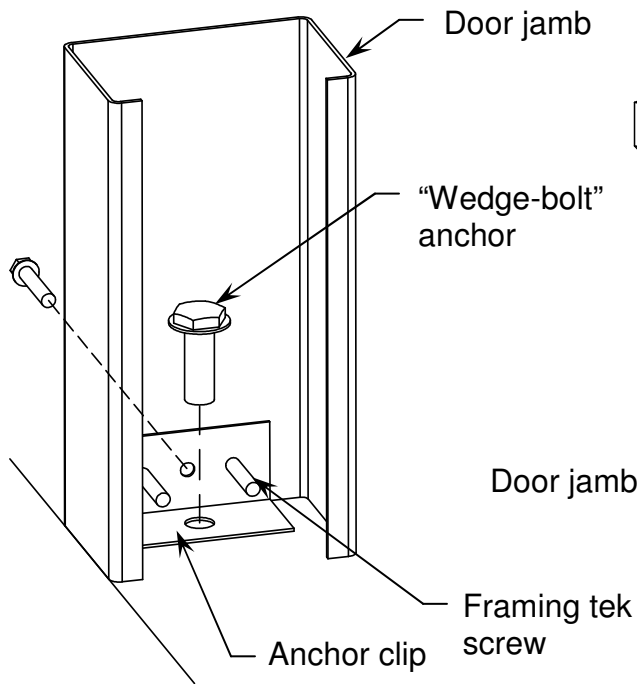
After exact locations are determined, drill the anchor bolt hole. Note that when installing a Powers “wedge-bolt” anchor to secure the base of the door jamb to the slab, a hole must first be drilled through the correct sized girt clip and into the concrete. Note that you must drill the hole in the concrete with a Powers “wedge-bit” the same size as the bolt. This bolt hole should be 1” deeper than the bolt is long so the bolt securely attaches to the slab. Before inserting the bolt, clear the hole of concrete dust by using compressed air. If no water is present in the hole, using an air puffer to clean the hole of dust will suffice.

Once the bolt hole is drilled, install the door jamb anchor clip to the slab. This must be installed before the door job due to size constraints. Before tightening anchor clip, ensure that it is perpendicular to the slab edge and that the upper leg of the clip is toward the opening. Then, install the door jambs, fitting the door jamb into place and connecting the installed anchor clip and the header girt. Note that the anchor clip must attach to the web of the door jamb. For detailed typical views on these connections, please see Detail A and Detail B on the following page. For exact installation details, please see the engineering plans. Before securing door jambs, ensure that both door jambs are plumb when they are installed.

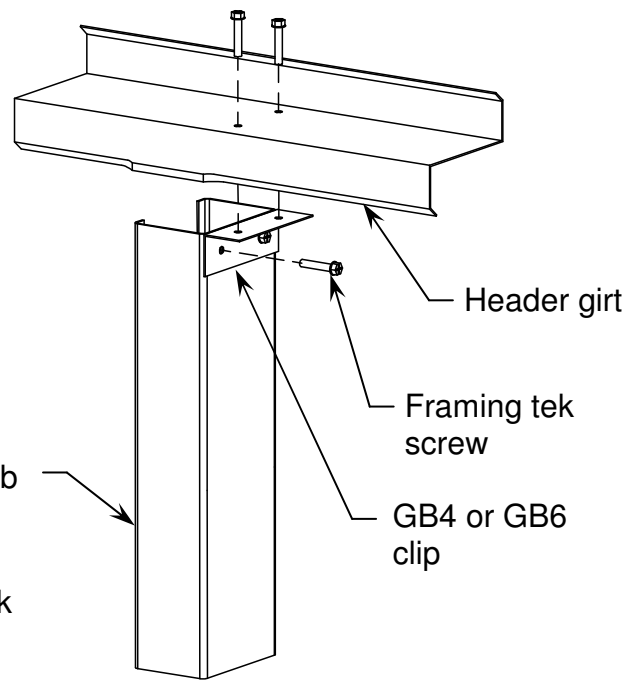
Also note that it is recommended that the stiffener lip of the header girt be bent out where the door jamb meets the header so that the door jamb is plumb. This bend is illustrated in Detail B on the following page.



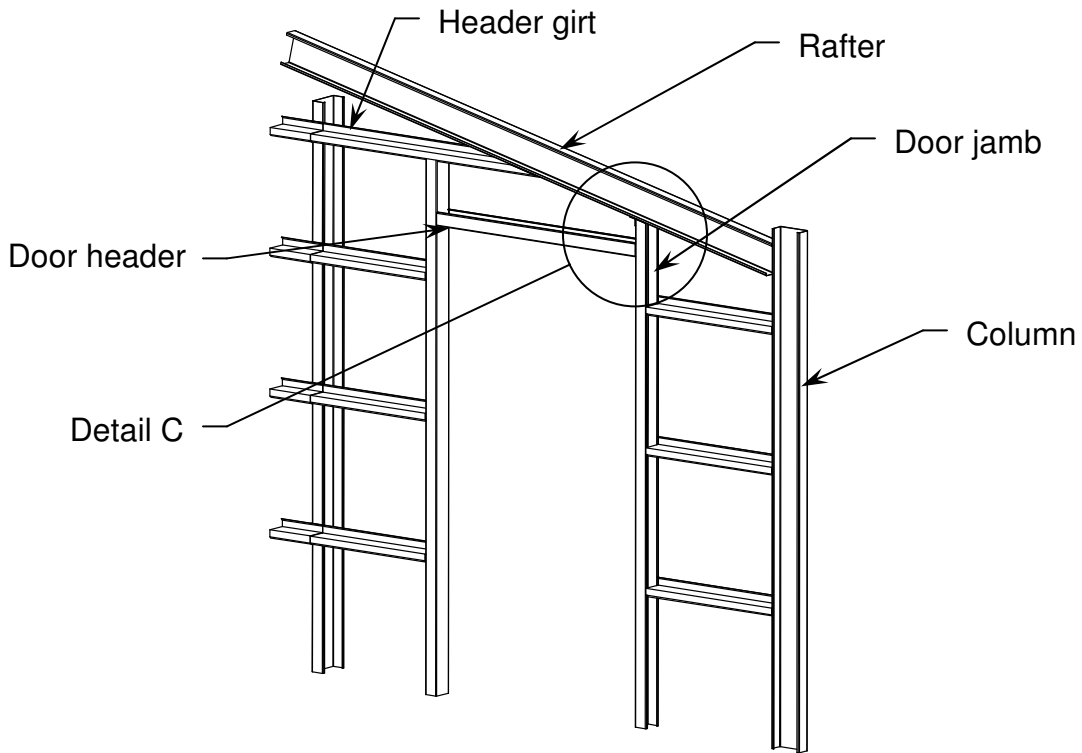
Detail A



Detail B

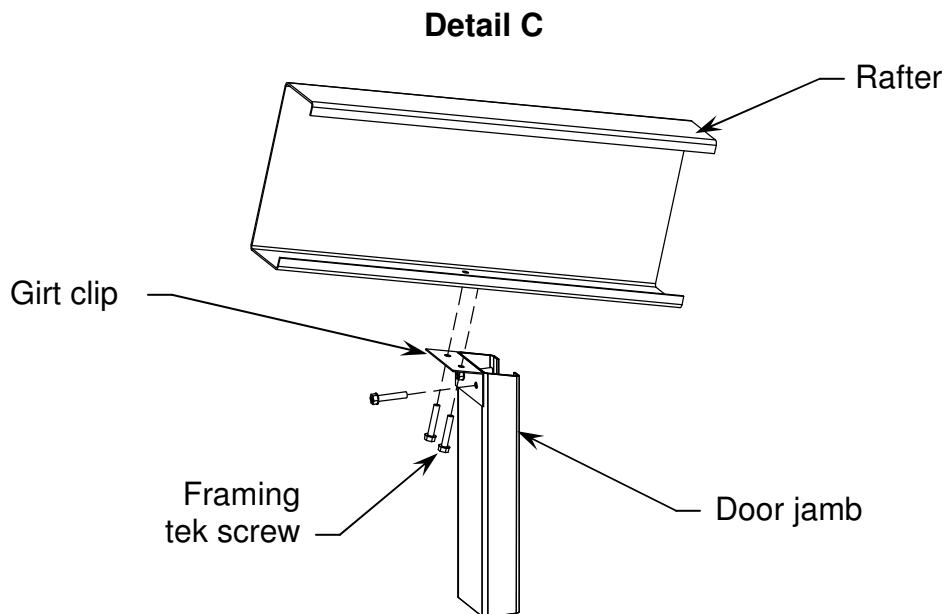


The only variation in the installation of the door jamb will occur in some instances where door framing is installed on the endwall. In some cases, the door jamb has no header girt to attach to and must attach directly to the rafter. This is illustrated below.

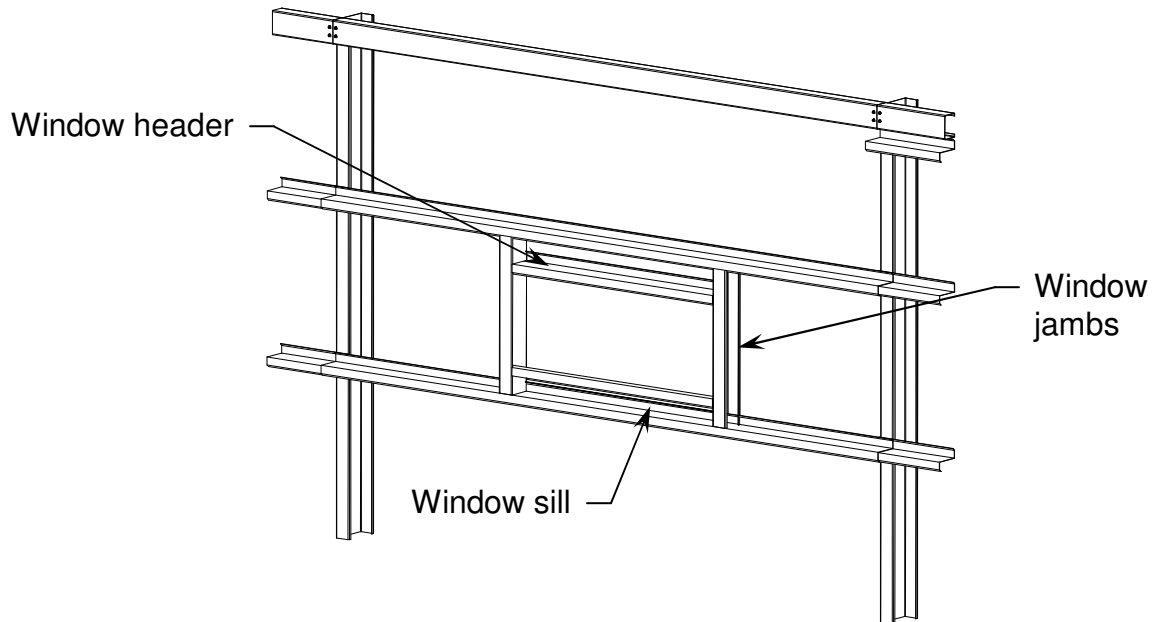


When this is the case, the door jamb will be installed as shown below in Detail C. Note that the top of the door jamb will need to be coped to fit the bottom of the rafter, and the correct sized girt clip that connects the door jamb to the rafter will need to be bent to fit as well.

Note that the door jamb base will be installed as shown and described above, as per engineering plans.



When installing jambs for a window opening, the procedure is almost exactly the same. However, in some cases the jamb will extend all the way down to the slab, while in others the jamb will connect to a lower girt. The latter method is illustrated below. In this case, the jamb connects to the lower girt in the exact same method as it is connected to the header girt. This connection is shown in Detail B on page Appendix A – 3. For exact details on your door and window jambs, please see the engineering plans.

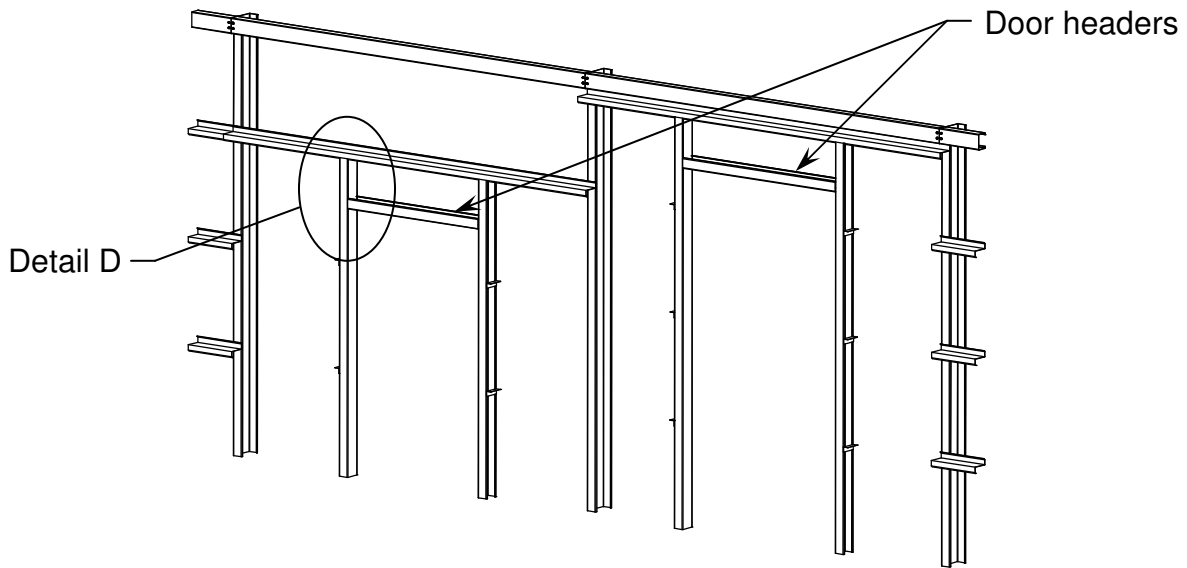


4. Install door header and window sill (if installing window).

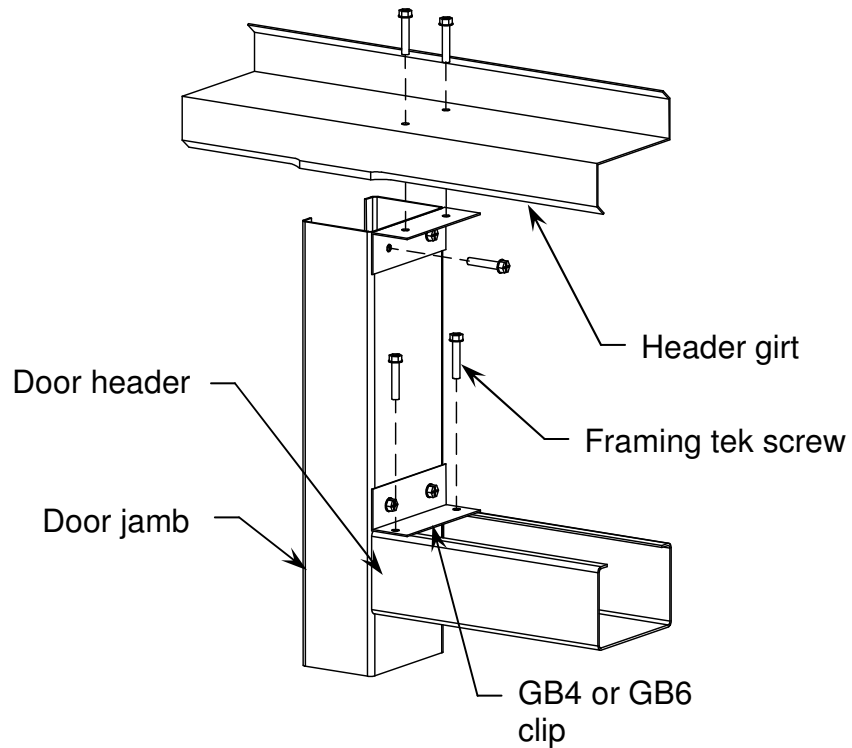
After installing the door jambs, install the door header. This will be installed using GB4 or GB6 clips (depending on the width of the door header) and faming tek screws. Please see the Detail D below and the engineering plans for exact details on installing door header.

Please note that a CEE section header is shown in Detail D, however, ZEE girt material can be used instead of CEE sections for PA doors and windows (if no CEE headers were provided). They should be installed using clips as you would install a girt, with the flange of the ZEE pointed towards the opening so trim can be installed as close to the opening as possible. This is illustrated for the installation of a window above.

Before securing a header or sill, make sure it is installed at the correct height. Note that the engineering plans show the actual size of the door. Most doors need the header installed at this height. However, for some doors this height will vary. Please consult any instructions that come from your door manufacturer as well as the engineering plans to establish the exact height of the door header. Finally, before installing door header, ensure the header is level.



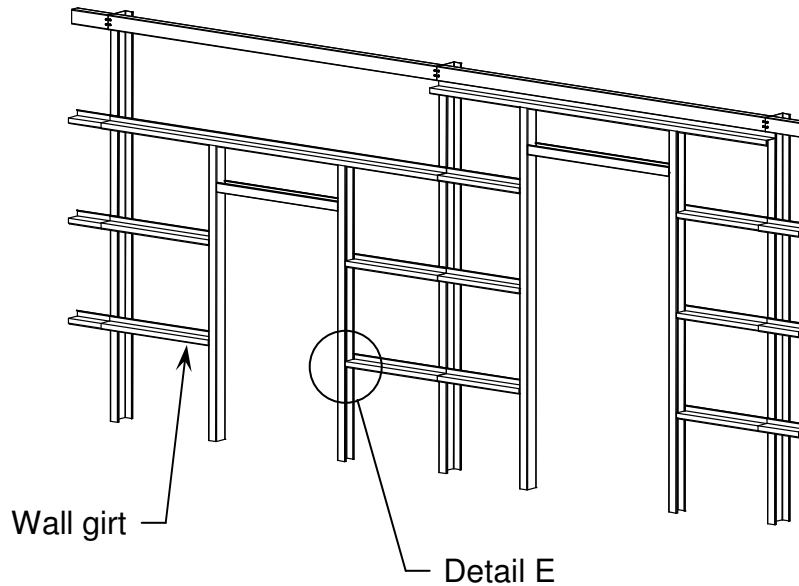
Detail D



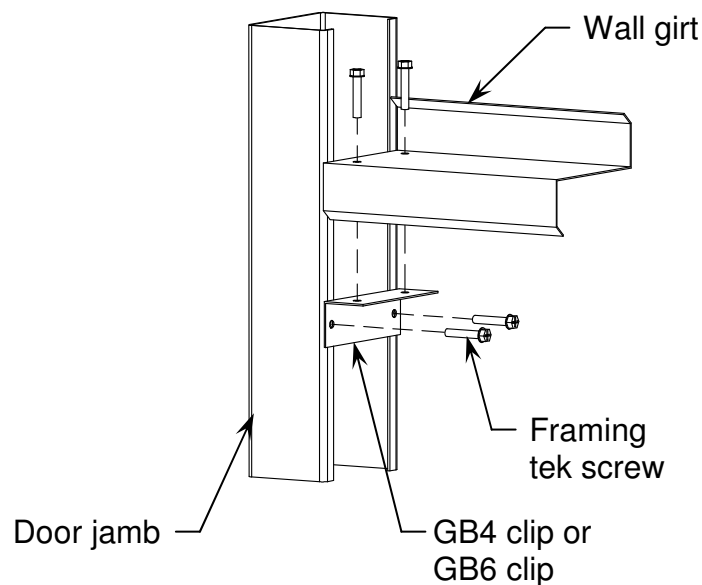
If installing a window, you will need to install not only a window header but also a window sill. This is exactly like the header except it is installed at the bottom of where the window will be. This is illustrated on the two previous pages. Note that the installation of the window sill is exactly the same as the window header, except upside down. Please follow all installation notes on the previous page for the installation of the window sill.

5. Install remaining wall girts.

Once you are done with the door jambs and headers, install all remaining wall girts. See Detail E below and the engineering plans for information on how to install walls girts to the door jamb. Girts will be attached to jamb using a GB4 clip if connecting to a 4" door jamb, and GB6 clip if connecting to a 6" door jamb. For further information on installation of wall girts, see wall girts section in Appendix B.



Detail E



6. Install roller door mounts, if applicable

If a roller door is being installed, roller door mounts must be installed next to the door jambs, between the header girt and the girt just below that. Roller door mounts are made of CEE section, and are listed on the bill of materials.

Before installing, the flanges and stiffener lips of the roller door mount will need to be coped so that the CEE section will fit between both wall girts, and so that the web of the roller door mount can be installed to the inside flanges of the girts. Once coped and placed in position, connect using four framing tek screws at each end of each roller door mount. This is illustrated below.

