ADVANTAGES OF STEEL IN NON-LOAD BEARING WALLS

**FAST**
Installs in ½ the time! Pre-punched for wiring.

**EASY**
Lightweight studs snap and lock into place quickly with easy clean up – No saw dust! Easy to transport and handle.

**DURABLE**
Will not rot, support mould, or feed insects and vermin.

**QUALITY**
Consistent dimensions, manufactured precision in every piece.

**WALLS STAY STRAIGHT**
No warping, shrinking, twisting or nail pops!

**SAFETY**
100% Non-combustible.

**ECONOMICAL**
One of the most economical ways to frame your basement.

**SOUND**
Better room-to-room sound control.

**ENVIRONMENTALLY FRIENDLY**
100% recyclable.

**POLLUTION CONTROL**
Steel resists mould spores that can lead to chronic illness.

- No pesticides or toxins are required to protect steel framing from termites or vermin.
- No emissions from resins, adhesives or chemicals normally used for wood construction occurs with steel.
- In 2003, the Asthma Society of Canada recognized that steel framing, made with certified steel, is part of a healthy indoor air environment.

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**ESTIMATION GUIDE**

<table>
<thead>
<tr>
<th>Steel Stud</th>
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<tbody>
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Bailey Steel Studs are basically the same dimensionally as wood studs. Measure your project and make a drawing (floor plan) with dimensions showing walls, ceiling joists, window bulkheads, columns, stairwells, beams, doorways, electrical outlets and switches. Your material supplier can assist you with code requirements, material estimating and ordering.

**Steel Stud Application**
Bailey Studs are “C” shaped channels installed vertically, usually 16 inches on centre. Flanges securely grab screws and factory made holes simplify installation of wiring and piping services. Use 3 5/8” or 2 1/2” studs for wall framing and 1 5/8” studs for framing around columns and bulkheads.

**Steel Stud Quantity**
Allow one (1) piece of stud for every lineal foot of wall. This covers typical studies plus extras required at corners and doors. Please refer to door and window manufacturer’s installation instructions for rough opening sizes.

**Steel Track Application**
Bailey Tracks are “U” shaped channels installed to ceilings and floors to hold studs in place. Tracks may also be used to make door and window headers and sills. Bailey tracks feature snug fit for studs and continuous stiffening ribs along their flanges, for added strength.

**Steel Track Quantity**
Allow (2) lineal feet of track for every lineal foot of wall plus 10% extra for cuts. Allow extra track for each door header, window header and window sill.

**Gypsum Drywall Board**

- Typically 4 foot x 8 foot with longer panels available. Allow one (1) panel for every 4 foot length of 8 foot high wall plus 5% to 10% extra. Please refer to suppliers’ recommendations.
- 44 lbs. (20 kg) of compound.

- 5% to 10% extra. Please refer to suppliers’ recommendations.

**Tools Required**
- Sheet metal snips, plumb-bob, level, square, reversible screw gun or drill and C-clamps.
- Is approximately 100 feet (30 meters) of tape and 44 lbs. (20 kg) of compound.
- Allow extra track for each door header, window header and window sill.

**Steel Stud Steel Stud Steel Stud**

- Bailey Steel Stud
- Bailey Steel Track

**Framing A Basement?**

- Non Load Bearing Steel Stud
- Non Load Bearing Steel Track
- Channel 12"
- U Flex Track
- Grommets & Electrical Box

**Fasteners**

- 1 ½” Drywall Screw
- Concrete Fastener or Nail Drive Anchor
- 3/16” Wafer Head Framing Screw or 3/16” Pan Head Framing Screw
- Trim Head Screw

**Application**

- Ceiling Track to Joists
- Floor Track to Wood Floor
- Gyroscopic Board to Wall Framing
- Gypsum Board to Ceiling Framing
- Corner Bead to Gypsum Board
- Track to Stud
- Casing and Base Trim to Study and Tracks

**Quantity**

- 1 1/2”, 2/2”, 1 ½”, 1 5/8”, 6”
- 30 to 40 screws required per 4’ x 8’ gyspum board
- 1 every 2 ft. + 10% (44 lbs. 20 kg) of compound
- 4 per stud or 2 per stud against exterior walls
- 1 per ft

**Controls**

- 1/2” OR 3/8” X 10’
- 1/2” OR 5/8” X 10’
- 1” X 2” X 10’ - 90˚
- 7’ X 8’, 10’, 12’, 14’ - 90˚ OR 130˚
- 2 1/2” OR 3 5/8” X 8’
- U Flex Track

**Pollution Control**

- Steel resists mould spores that can lead to chronic illness.

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INSTALLATION STEPS

SAFETY FIRST: STEEL EDGES CAN BE SHARP, SO PLEASE BE CAREFUL. ALWAYS FOLLOW GOOD SAFETY PRACTICES INCLUDING WEARING WORK CLOTHES AND SAFETY GLASSES. CONSULT WITH MATERIAL SUPPLIER ON CODE REQUIREMENTS.

Preparation

LOCATE WALL PARTITIONS according to your drawing and mark positions of track at floor and ceiling. Check alignment with a plumb bob. Omit bottom tracks at door openings. Before working on existing basement walls ensure they are dry. Cover all concrete walls with tarpaper.

Installing Track

INSTALL TRACK AT CEILING by measuring and cutting to length then securing to ceiling joists with 1 1/4" screws. Where track runs parallel to and between ceiling joists, make a cross member from a track piece and install between joists every 24 inches and fasten ceiling track to them.

INSTALL TRACK AT FLOOR by measuring and cutting to length and secure to floor every 24 inches and 2 inches from cut ends. Please see the important details section for the how-to's of installing inside walls that need strengthening use reinforcing channel (See Picture C on front).

INSTALL THE STUDS

BUILDING THE WALLS

INSTALL THE STUDS by trimming the studs 1/2" shorter than the distance between the top and bottom tracks to allow for movement of the structure above. Spacing studs 16 inches on centre ensuring all flanges face the same direction. Twist studs into tracks for friction fit and using a level make sure they are straight. Connect studs to tracks using framing screws. For partition walls that need strengthening use reinforcing channel (Picture C).

Please see the important details section for the how-to's of installing inside corners, outside corners, and an intersection. Make sure that there is a 1/4" space between the tracks and concrete wall and the bottom and top tracks are aligned.

Building the Walls

INSTALL THE STUDS by trimming the studs 1/2" shorter than the distance between the top and bottom tracks to allow for movement of the structure above. Spacing studs 16 inches on centre ensuring all flanges face the same direction. Twist studs into tracks for friction fit and using a level make sure they are straight. Connect studs to tracks using framing screws. For partition walls that need strengthening use reinforcing channel (See Picture C). Please see the important details section for the how-to's of installing inside corners, outside corners, and an intersection.

Framing Door & Window Openings

ON EITHER SIDE OF THE DOORWAY EDGE, place two studs face to face (See important details for two versions). Cut track the width of the opening and allow 6-8" extra to attach as header to the studs. Cut and bend pieces of track as shown to make header and sill members. Reinforce the header with center stud and secure to stud with screws.

Drywall Panels

INSTALL DRYWALL WALL PANELS to manufacturer’s recommendations. Typically start at a corner or intersection. Cut panels 3/8" less than the measurement from the floor to the underside of the joists (or existing ceiling). Position panels either vertically or horizontally, whichever gives fewer joints. Locate joints over studs. Avoid joints on both sides of the same stud. Avoid joints directly above or below openings for doors and windows.

At floor, support the panel at its centre on a 3/8" shim. Advance panels in the direction shown and keep panels plumb. Secure panels to studs with drywall screws. Drive screws until panel is tight against framing and screw is just below board surface without breaking the finish paper.

Bulkheads

CREATE A MINI-FRAMED WALL to box in ductwork and columns. Attach 1 x 2" x 7-1/2" angle against wall section under ductwork for underside drywall to be fastened to. Fasten as required.

Important Details

INTERSECTION

INSTALL track on the floor and ceiling. Leave 1/2" or 5/8" gap for drywall to run through. Secure the intersecting stud centered with adjoining stud and secure with a drywall screw (as shown).

INSIDE CORNER

INSTALL tracks on the floors and ceilings 90° to each other leaving 1/2" or 5/8" gap for drywall to run through. Form right angle with studs to create inside corner.

OUTSIDE CORNER

INSTALL tracks on the floors and ceilings perpendicular to each other. Three studs are required to complete an outside corner. Place one stud at outside edge of track intersection and two on either side of inside intersection.

DOOR FRAME A

• Install double steel studs at the door frame.
• Ensure studs are facing each other as shown above.
• Secure each stud using drywall screws.

DOOR FRAME B

• Install frame using one wood and one steel stud as shown.
• Butt steel stud against wood stud and fasten both to drywall.

TRIM

FasTrack to base of wall with trimhead screws. Construction adhesive can also be applied to the back of trim prior to fastening.

Electrical Details

INSTALL CSA APPROVED grommets, electrical boxes and stand-offs. Plastic grommets (A) are installed into pre-punched holes in studs to allow for non-metallic sheathed wiring to run through to electrical outlets.

Levelling Ceilings

INSTALL BAILEY D-1001 FURRING CHANNELS where desired. Ideal for furring out and around exposed services. Install perpendicular to joist in rows spaced 16" or 24" on centre and within 6" of perimeter.

Quieter living at no extra cost!

INSTALL BAILEY RC PLUS RESILIENT CHANNEL to improve the reduction of room to room sound transmission obtaining a STC 51 or greater. Install RC Plus perpendicular to framing in rows spaced 16' or 24' on centre and within 6' of perimeter. Install to one side of wall framing and to underside of ceiling joists. Seal openings to prevent sound leaks. Ensure that screws used to attach gypsum panels to resilient channels do not touch the framing.

Installing Metal Trims

D-100 - 1 1/4" DRYWALL CORNER BEAD 90° & 130° protects the outside corners. Allow one 8" piece per corner. Press corner bead firmly onto the board surface and secure with drywall screws through the small holes along the edge of the bead. Fasten on alternate sides every 6". Ensure fastener head is driven in below the nose of the corner bead.

D-200 DRYWALL L TRIM protects the edge of drywall panels when buttting up to concrete or other materials and at door and window openings when moulding is not being used. Available for both 1/2" and 5/8" drywall. Attach with drywall screws and finish with joint compound.

D-400 METAL L TRIM provides edge protection at door and window openings and where drywall butts against concrete or other surfaces. Available for both 1/2” and 5/8” drywall. Finish by painting.

D-700 ANGLE FRAMING TRIM is an optional component used in framing around ductwork and columns.

Installing Paper Trims

PAPER-FACED METAL DRYWALL BEADS AND TRIMS as an alternative to metal trims. Installation is comparable to that of metal trims except no mechanical fasteners are required. PLATINUM paper-based trims are quickly installed by embedding into standard drywall joint compound.