



THE STRENGTH WITHIN

# LIGHTWEIGHT STEEL FRAMING DETAILS GENERAL & AXIAL LOADBEARING



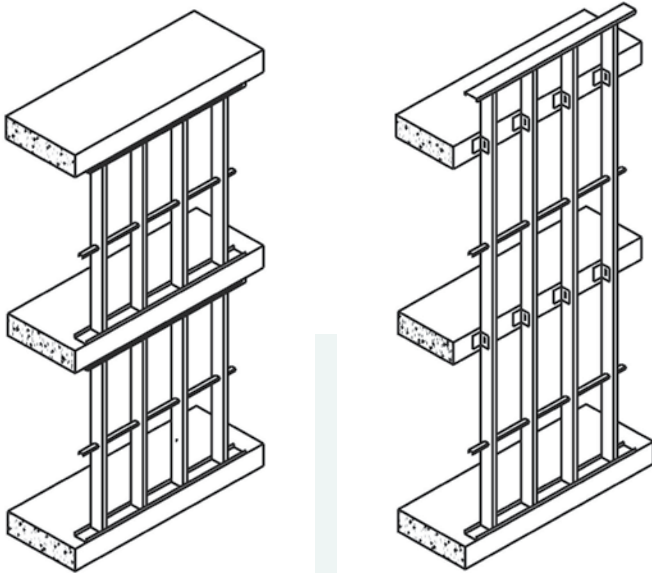
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**BAILEY**<sup>®</sup>  
METAL PRODUCTS LIMITED



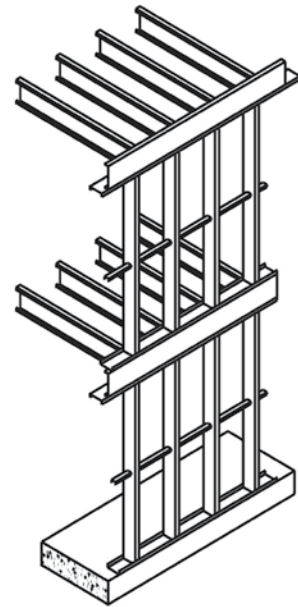
## WALL ELEVATIONS

**Bailey Wind Bearing Walls (BWB)** Lightweight Steel Framing (LSF) provides economical structural support for finishes under lateral wind loads on buildings where other structural components carry axial loads. BWB walls can be designed for a variety of deflection limits for finishes such as EIFS, Stucco, Metal Panel and Brick Veneer. Wind-Bearing LSF may be used in buildings of any height.



EXTERIOR INFILL WALLS /  
CONTINUOUS EXTERIOR CURTAIN WALLS

**Bailey Axial Loadbearing Walls (BAB)** Lightweight Steel Framing (LSF) supports the combined axial and wind loads on interior and exterior walls. Buildings up to six stories in height can be framed using LSF. LSF works with a variety of floors including LSF Joists, ComSlab<sup>®</sup> composite flooring systems, OWSJ's and hollow precast concrete.

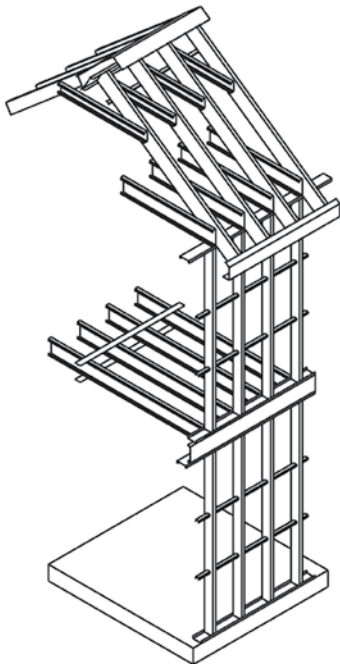


AXIAL LOAD BEARING WALLS



### **Bailey Joists for Floors & Roofs**

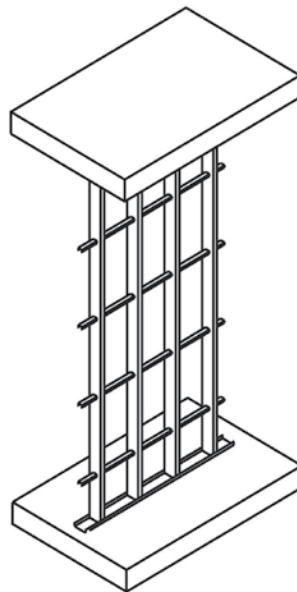
Lightweight Steel Framing (LSF) Joists offer a wide range of span and load capabilities for commercial and residential floor systems and mezzanines. LSF ceiling Joist members can also be utilized for pitched, mansard and flat roofs. The use of Bailey LSF Joist members will provide support for interior drywall ceilings where long clear spans are required.



JOISTS FOR FLOORS & ROOFS

### **Bailey Non-Loadbearing Walls (BNLB)**

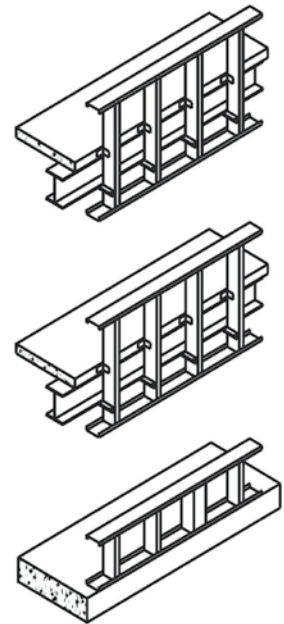
Lightweight Steel Framing (LSF) provides an effective solution for interior non-load bearing walls and partitions. When combined with top track deflection members, bulkheads will resist buckling caused by deflection of floor and roof assemblies. Non-load bearing LSF provides a stable framework for drywall or other finished wall surface applications.



TALL INTERIOR PARTITIONS

### **Bailey Spandrel Walls**

Lightweight Steel Framing (LSF) accommodates a variety of spans for continuous strip window applications. LSF provides a stable, square platform in which glazing units and frames can be effectively installed.



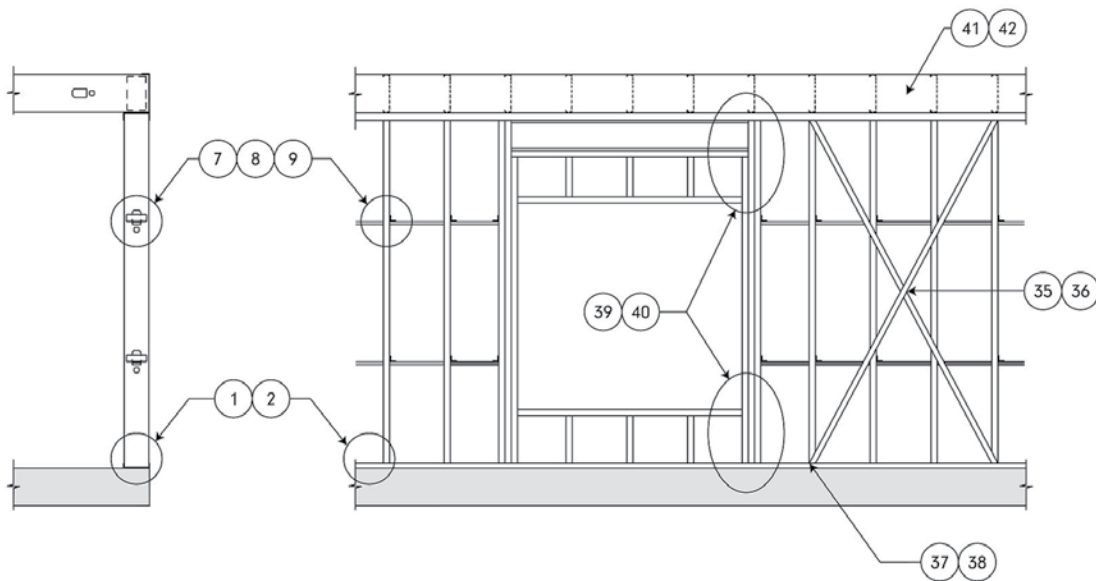
SPANDREL WALLS FOR CONTINUOUS STRIP WINDOWS



## WALL ELEVATIONS

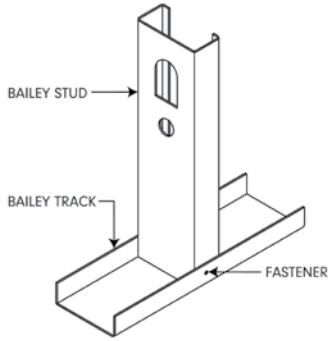
### AXIAL LOADBEARING WALL

In axial loadbearing construction, some form of bracing is required to resist wind, seismic and sway effects produced by vertical loads acting on the structure (the P-delta effect). Diagonal tension straps are normally the most economical means of providing this bracing. Diagonal straps are typically installed in pairs to form the X pattern over the face of the studs. Strap end connections must be engineered to transfer the full design load and account for horizontal and vertical strap reactions.

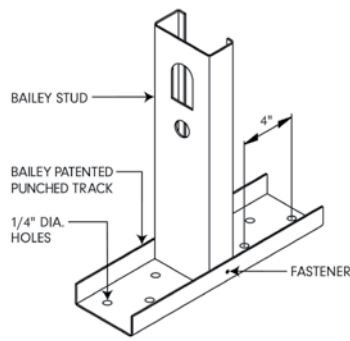


# GENERAL DETAILS

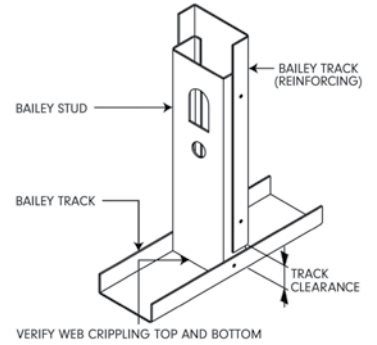
**1** BAILEY STUD TO BAILEY TRACK



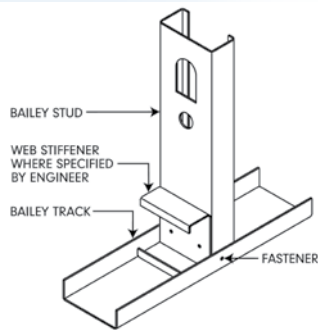
**2** BAILEY STUD TO BAILEY PATENTED PUNCHED TRACK



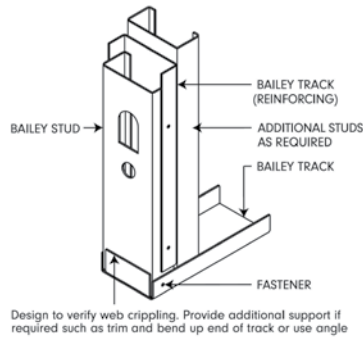
**3** BAILEY STUD REINFORCED WITH BAILEY TRACK



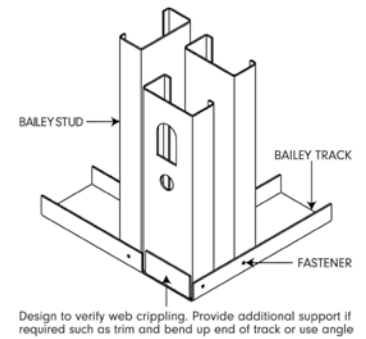
**4** BAILEY STUD WITH WEB STIFFENER REINFORCING



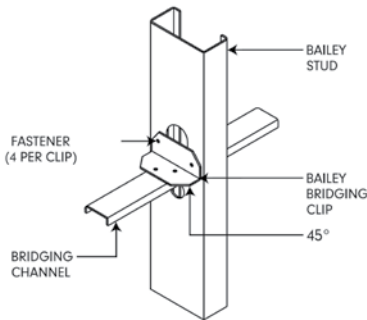
**5** JAMB STUD AT DOOR OPENING



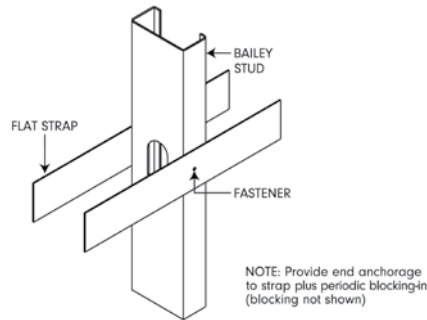
**6** BAILEY STUD TO BAILEY TRACK AT CORNERS



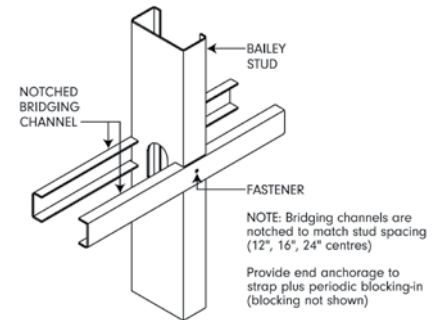
**7** THROUGH-THE-STUD BRIDGING



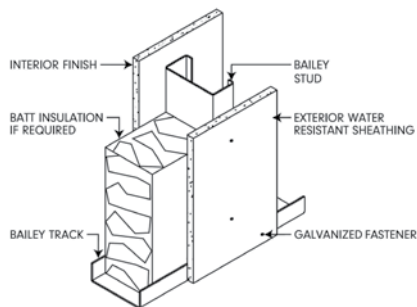
**8** FLAT STRAP BRIDGING



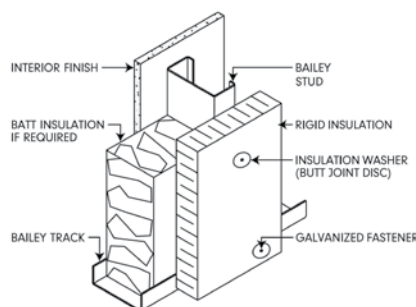
**9** NOTCHED CHANNEL BRIDGING



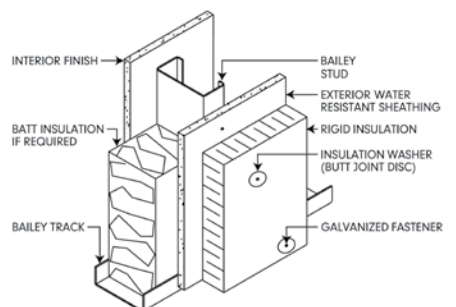
**10** EXTERIOR SHEATHING



**11** EXTERIOR RIGID INSULATION



**12** EXTERIOR SHEATHING AND RIGID INSULATION

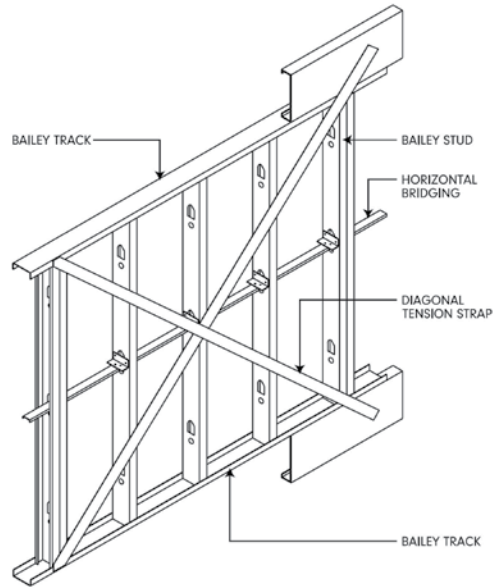




## AXIAL LOADBEARING WALLS

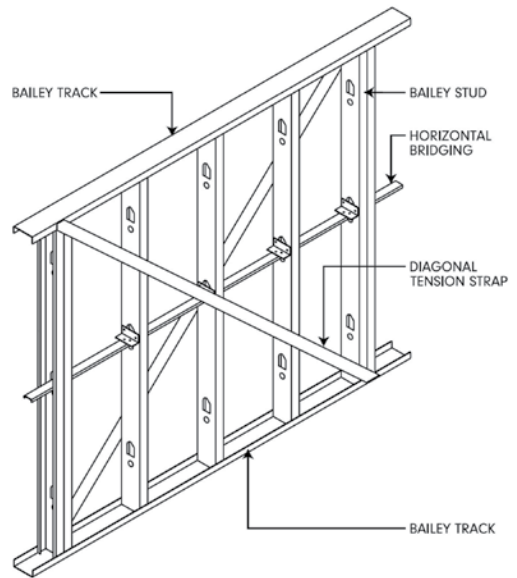
35

DIAGONAL TENSION STRAPS ONE SIDE



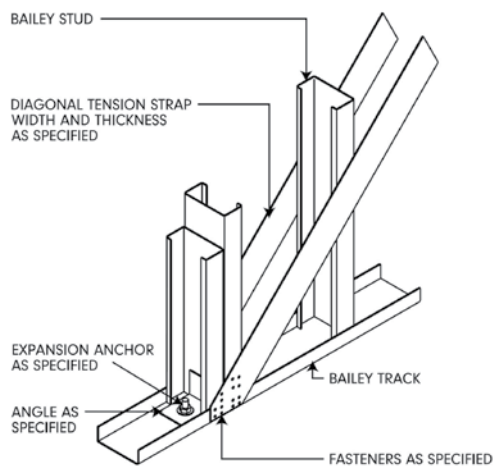
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DIAGONAL TENSION STRAPS BOTH SIDES



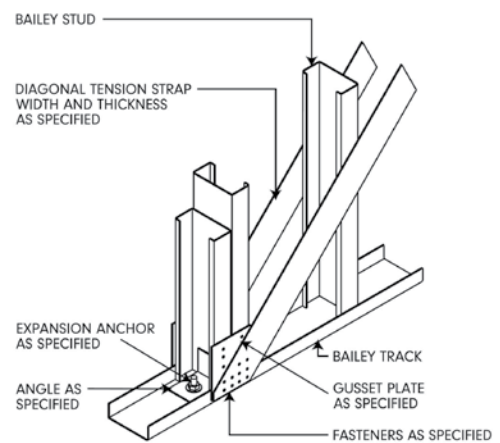
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TENSION STRAP CONNECTION



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TENSION STRAP CONNECTION WITH GUSSET PLATES

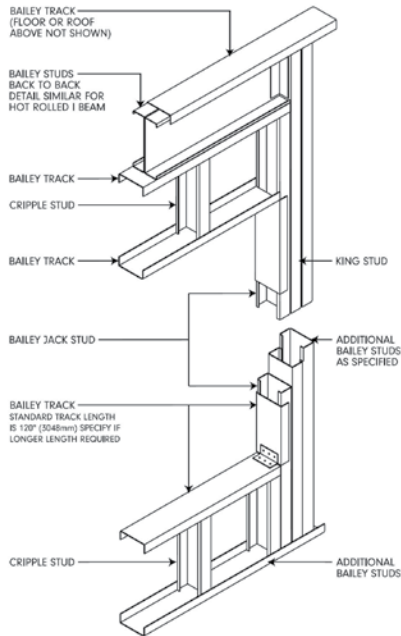




## AXIAL LOADBEARING WALLS

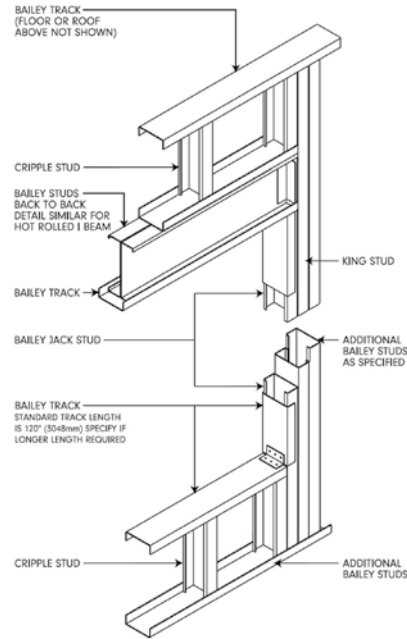
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WALL OPENING WITH  
UPPER LINTEL



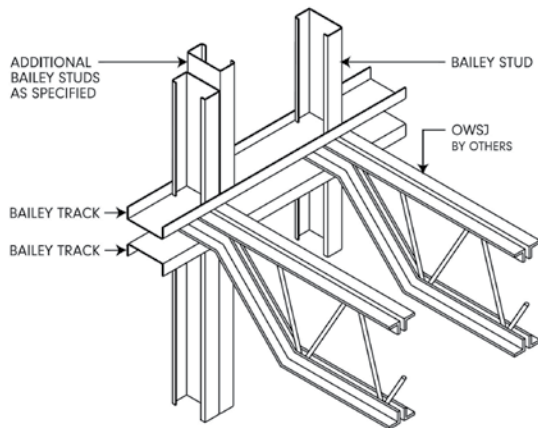
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WALL OPENING WITH  
LOWER LINTEL



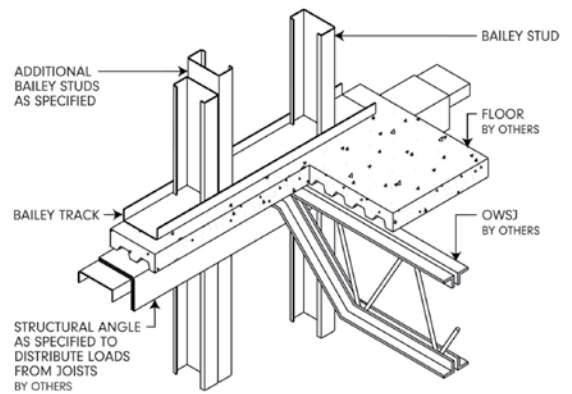
41

OPEN WEB STEEL JOISTS IN LINE WITH  
AXIAL LOADBEARING STEEL STUDS



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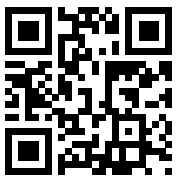
OPEN WEB STEEL JOISTS OFFSET TO  
AXIAL LOADBEARING STEEL STUDS





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## LIGHTWEIGHT STEEL FRAMING DETAILS GENERAL & AXIAL LOADBearing

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