USG STRUCTURAL PANEL CONCRETE FOUNDATION WALL
CONTACT INFORMATION

PRODUCT INFORMATION
See usg.com/concretefoundationwall

Reference Concrete Foundation Wall (SCP45) submittal sheet for product characteristics, technical, and material and storage handling.

CUSTOMER SERVICE
800 621-9523

TECHNICAL SERVICE
800 USG.4YOU (874-4968)

USG STRUCTURAL SOLUTIONS CONTACTS

<table>
<thead>
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</tr>
</thead>
<tbody>
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</tbody>
</table>
Steel or wood stud framing must be designed to meet the strength and deflection criteria specified in the contract documents or appropriate building code.

Follow these steps to ensure proper panel application:
1. Panels must be installed vertically with the long direction parallel to studs.
2. Must span from the footing to the top of the foundation wall.
   — If using cold-formed steel framing, concrete footing must be used.
3. Panels must be butted tightly together.

Note: Please see code PER-15092 Table 2 at www.per15092.com for recommended fasteners. Reference SCP45 for additional technical information and requirements for safely working with USG Structural Panel Concrete Foundation Wall.

A qualified architect or engineer should review and approve calculations, footing, and framing and fastener spacing for all projects.
USG STRUCTURAL PANEL CONCRETE FOUNDATION WALL
FASTENER LAYOUT

Follow these steps to ensure proper panel application:
1. Apply the panel with the print markings facing inward toward the stud framing.
2. Fasten one corner of the panel, and then fan out over the panel.
3. No fastener shall be installed within 2” (50.8 mm) of the corner of a panel.
   — Minimum distance from panel edges indicated in Table 2 of PER-15092 (also found in table below).
4. In no case shall the edge distance be less than 1/2” (12.7 mm).

<table>
<thead>
<tr>
<th>Framing Type</th>
<th>Minimum Edge Distance</th>
<th>Manufacturer</th>
<th>Part No.</th>
<th>Type</th>
</tr>
</thead>
<tbody>
<tr>
<td>16 ga. (54 mil) Cold-Formed Steel</td>
<td>1/2” (13 mm)</td>
<td>Grabber Construction Products, Inc.</td>
<td>CGH8158LG</td>
<td>#8 x 1-5/8” winged self-drilling screw</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Simpson Strong-Tie Company, Inc.</td>
<td>CBSDG158S</td>
<td>#8 x 1-5/8” winged self-drilling screw</td>
</tr>
<tr>
<td>SPF Lumber (Min. S.G. = 0.42)</td>
<td>5/8” (16 mm)</td>
<td>Grabber Construction Products, Inc.</td>
<td>C8200L2M</td>
<td>#8 x 2”, flat head, type 17, nubs, GrabberGard</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Simpson Strong-Tie Company, Inc.</td>
<td>WSNTLG2S</td>
<td>#8 x 2”, flat head, twin threads, nubs</td>
</tr>
<tr>
<td></td>
<td>1/2” (13 mm)</td>
<td>Senco1</td>
<td>GL24AABF</td>
<td>8d ring shank nails</td>
</tr>
<tr>
<td>1/4” A36 Hot-Rolled Steel</td>
<td>5/4” (19 mm)</td>
<td>Simpson Strong-Tie Company, Inc.</td>
<td>TBGI260S</td>
<td>#12 x 2-3/8”, flat head, Strong-Drive® TB wood-to-steel screw</td>
</tr>
</tbody>
</table>

Note: Fastener pull-through capacity of 581-lb. (2,584 N) may be applied to all listed fasteners. Capacity is based upon the minimum average ultimate tested capacity for all tabulated fasteners. The engineer or designer of record shall apply an appropriate safety factor (ASD) or resistance factor (LRFD).

1. Senco 8d ring shank nails are manufactured with a length of 2-3/8” (60 mm), a head diameter of 0.266” (6.8 mm), and a shank diameter of 0.113” (2.9 mm). Equivalent 8d ring shank nails meeting these dimensional requirements may be utilized when approved by the engineer or designer of record.
USG STRUCTURAL PANEL CONCRETE FOUNDATION WALL PANEL ORIENTATION

- Mount the foundation wall panel in vertical orientation.
- Must span a minimum of 4 stud supports (3-span condition).
- Mount panels vertically.
USG STRUCTURAL PANEL CONCRETE FOUNDATION WALL PANEL END BEARING

Panel end bearing min. 3/4” on stud flange

Min. 16 ga. steel stud blocking to ensure min. 3/4” panel end bearing

Panel end bearing min. 3/4” on stud flange

Square Edge
3/4” Thick Panels

Fastening to Studs

Sister Stud to Ensure Proper Bearing and Proper Fastening

CORRECT Screw Head

INCORRECT Sharp Screw Head Protruding

Panels Must Bear 3/4” min. on Stud Flange

If Panels Bear < 3/4” Then a Second Full Height Stud Equal Gauge in Size to Foundation Wall Framing Must be Added

- Fasteners shall be flush or slightly below the surface, and care must be taken to not strip out in the steel framing.
- Steel or wood stud framing must be designed to meet the strength and deflection criteria specified in the contract documents.

1. The framing stud flange must be a minimum width of 1-5/8” (41 mm), with 2” (50.8 mm) preferred.
2. Panels must bear minimum 3/4” (19 mm) on each stud flange.
USG STRUCTURAL PANEL CONCRETE FOUNDATION WALL
CORNER FRAMING LAYOUT

- Print on panel must face studs.
- Extra stud must be added to ensure 3-span condition (span 4 studs).
USG STRUCTURAL PANEL CONCRETE FOUNDATION WALL
CORNER DETAILS

Round the corner edge of wall with rasp

Fill corner with Durock™ Brand EXG™ Concrete Repair Patch and round with rasp

Method 1
Treatment of Sharp Corner Edges to Prevent Cutting Foundation Membrane
USG STRUCTURAL PANEL CONCRETE FOUNDATION WALL

Panel Layout for Taller Than 8’ Wall

- Where foundation wall depth exceeds 8’ (2,440 mm) high, a full-length panel shall be installed on the footing, with a second, smaller panel installed on the exposed studs above the full-height panel.
- The horizontal joint between the 8’ (2,440 mm) and 2’ (609.6 mm) tall panel sections must be backed by blocking. A qualified architect or engineer should review and approve calculations, framing and spacing for all projects.

Note: Cut with a circular saw with a standard carbide-tipped blade and a dust collection system to protect from silica.
USG STRUCTURAL PANEL CONCRETE FOUNDATION WALL BACKFILL RECOMMENDATION

Compaction shall be 12” max. at a time

**INCORRECT**
Do Not Use Jumping Jack

6” min. from wall

First floor framing and sheathing must be installed before backfilling

Finished Grade Line

Section Grade

Backfill shall be in 12” max. increments

Structural flooring must be installed before backfilling

It is recommended that granular drainage material be used as backfill so that the backfill may be drained free of standing moisture, all as per applicable codes.

- All backfill material placed in uniform lifts of no more than 12” (305 mm) around the foundation wall shall be free of debris, frozen clumps, and boulders larger than 6” (152 mm).

**Note:** Refer to Backfill Material and Backfilling Protection in SCP45 for safely working in the backfill.
USG STRUCTURAL PANEL CONCRETE FOUNDATION WALL
STORING PANELS

• Ensure unit covers are secure.
• Use shovel with a plastic edge for snow removal.
• Freezing may result in panels sticking together.
• Allow panels to thaw naturally if frozen.
• **Only use sand when iced over. Do not use salt, fertilizer or ice melt.**

**Note:** For additional storage and maintenance information, refer to SCP45.
PRODUCT INFORMATION
See usg.com for the most up-to-date product information.

CUSTOMER SERVICE
800 USG.4YOU (874-4968)

EMAIL
usgstructural@usg.com

WEBSITE
usg.com/structural

MANUFACTURED BY
United States Gypsum Company
550 West Adams Street
Chicago, IL 60661

MSRP based upon full truckload delivered to jobsite:
Foundation Wall SD: $4.90/sf
Foundation Wall XD: $7.50/sf

DANGER
Causes skin irritation. Causes serious eye damage. May cause an allergic skin reaction. May cause respiratory irritation. May cause cancer by inhalation of respirable crystalline silica. Do not handle until all safety precautions have been read and understood. Avoid breathing dust. Use only in a well-ventilated area and wear a NIOSH/MSHA-approved respirator. Wear protective gloves/protective clothing/eye protection. If in eyes: Rinse cautiously with water for several minutes. Remove contact lenses and continue rinsing. Immediately call a poison center/doctor. If on skin: Wash with plenty of water. Take off contaminated clothing and wash before reuse. Contaminated work clothing should not be allowed out of the workplace. If skin irritation or rash occurs, or otherwise exposed or concerned: Get medical attention. Store locked up. Dispose of in accordance with local, state and federal regulations.

For more information call Product Safety: 800 507-8899 or see the SDS at usg.com.

KEEP OUT OF REACH OF CHILDREN.

NOTICE
We shall not be liable for incidental and consequential damages, directly or indirectly sustained, nor for any loss caused by applications of these goods not in accordance with current printed instructions or for other than the intended use. Our liability is expressly limited to replacement of defective goods. Any claim shall be deemed waived unless made in writing to us within 30 days from the date it was or reasonably should have been discovered.

SAFETY FIRST!
Follow good safety/industrial hygiene practices during installation. Wear appropriate personal protective equipment. Read SDS and literature before specification and installation.

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