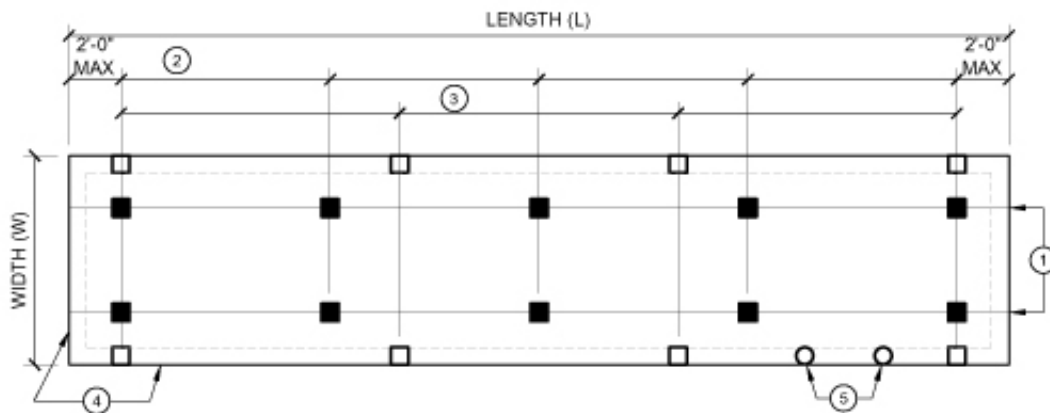


MAINFRAME SUPPORT PIER: DETAIL 1.2

KEYED NOTES:

1. MAINFRAME SUPPORT BEAM. I BEAM, STEEL CHANNEL, OR WOOD.
2. SAFETY JACK CONNECTOR. SELECT PRODUCT # TO ACCOMMODATE BEAM SHAPE.
3. "SEDCO" LOAD TESTED COATED STEEL BUTTRESS™ PIER. (4) LEGS, L 1¼" X 1¼" X ⅝".
4. SURE@FORM GEOTEXTILE BAG WITH DRAWSTRING AT OPENING. TIE TIGHT TO PIER LEGS AT HEIGHT SHOWN. PUMP FULL WITH 2500 PSI @ 28 DAYS, ⅜" DIA. GRAVEL CONCRETE. PREPARED FINISHED GRADE
5. 10" HEIGHT OF CONCRETE FILLED BAG.
6. HANG SAFETY JACK AND PIER OFF MAINFRAME WITH BOTTOM OF PIER 5" - 7" ABOVE GRADE.
7. PIER HEIGHTS AVAILABLE FROM 8" TO 36"
8. TOP OF PIER TO BOTTOM CAN VARY FROM 2" - 5" MAX. BOLT MUST NOT EXTEND MORE THAN 4" ABOVE THE NUT.
9. BOTTOM OF FRAME TO GRADE CAN VARY FROM 15" TO A MAX. 47".



TYPICAL SINGLE WIDE FOUNDATION PLAN

PIER LEGEND

- MAINFRAME SUPPORT PIERS
- MATE LINE SUPPORTS AT OPENINGS
- PERIMETER BLOCKING SUPPORTS
- EXTERIOR OPENING SUPPORTS

KEYED NOTES:

1. MAINFRAMES.
2. MAINFRAME SUPPORT PIERS, SEE SITE SPECIFIC CALCULATION SUMMARY FOR MAXIMUM SPACING AND SIZE OF SURE FORM BAG REQUIRED.
3. PERIMETER BLOCKING. REFER TO CALCULATIONS FOR REQUIREMENT AND SPACING.
4. PERIMETER ENCLOSURE WALL AND FOOTING WHEN REQUIRED FOR HUD COMPLIANT INSTALLATIONS.
5. BLOCKING AT DOORS AND OTHER WIDE EXTERIOR OPENINGS. REFER TO CALCULATIONS FOR REQUIREMENT AND LOCATIONS.

HUD SINGLE WIDE PLAN & DETAIL 1.2

SURE SAFE® DESIGN

HUD COMPLIANT SINGLE WIDE INSTALLATION MANUAL & DETAILS

CERTIFICATIONS/GENERAL CONDITIONS

A. CONDITIONS FOR USE:

The SURE SAFE® STEEL BUTTRESS™ SYSTEM is custom designed for each and every installation and must be accompanied by a set of site specific calculations obtained from SURE SAFE® DESIGN. Each design is sealed by a professional engineer, registered in the state where the system is to be installed. The engineer assumes responsibility only for the site specific designs presented in those calculations and in this manual.

B. PRODUCTS REQUIRED FOR THIS

INSTALLATION: Refer to the site specific calculations. Products generally include;

- Mainframe (Chassis) support piers
- Perimeter blocking when required
- Perimeter enclosure wall
- Approved strap tie manufacturer

C. INSTALLER RESPONSIBILITIES: The installer shall insure that all components used are SURE SAFE® INDUSTRIES INTERNATIONAL, U. S. Patented products, labeled with the patent number or as follows;

- SURE® FORM BAGS, #5664377
- SAFETY JACKS: #4886797
- PIERS: as manufactured by SEDCO
- CONCRETE: F'c = 2500 psi @ 28 days. Min.

Insure that all frost depth and other requirements are met with the installation of the system.

Install all products and components as required by the calculation set and this manual.

D. SOIL CONDITIONS AND PREPARATION:

a. All concrete footings must be placed on undisturbed soil (organic matter and sod removed), or engineered fill that has been compacted to a minimum density of 95% to achieve a minimum bearing pressure of 1000PSF.

b. Any existing ground vapor barrier must be cut and removed from below each new support pier.

c. The engineer cannot be responsible for the ultimate performance of the SURE SAFE® support system on a site having expansive clay, fill or other adverse conditions, when a site specific soils report has not been provided to the engineer, prior to the design.

E. RESPONSIBILITIES OF OTHERS:

a. General delivery and installation of the building, including temporary supports, floor leveling, and insuring proper height clearances.

b. Site conditions and improvements, and utilities compliance with local zoning regulations and building codes.

c. Site is properly graded to drain water away from the building foundations.

d. When finished grade level beneath the building is not above the required 100 year return frequency flood elevation level, site specific engineering provided by SURE SAFE® DESIGN for foundation systems use in a flood zone is required.

e. Hitch and running gear (wheels and axle) removal.

f. Perimeter enclosure wall, when the design is not provided by SURE SAFE® DESIGN.

g. Removal of temporary supporting piers, if desired, after the concrete in the SURE SAFE® support system has cured a minimum of 28 days.

INSTALLATION INSTRUCTIONS

1. MAINFRAME SUPPORT PIERS: Mainframe support piers must be spaced not further apart than the maximum spacing indicated in the site specific calculation summary. *However, the distance between any two adjacent piers may deviate from the maximum spacing by 10%, provided the overall average distance between piers does not exceed the maximum spacing.* An equal number of supports must be installed under each mainframe.

1.1 LOCATIONS: Using the maximum spacing and the maximum dimension from the end to the first support, mark the bottom of the mainframes where each pier is to be installed. Measure from the bottom of the mainframe to the ground at each pier location. Refer to Table 1, for required pier height.

1.2 ASSEMBLY and INSTALLATION:

Assemble the appropriate safety jack to a pier as per the instructions and details.

1.2.1 Refer to Detail 1. 2. Attach the safety jack and pier assembly to the mainframe at proper locations. Tighten the nuts on the (2) 3/8" bolts, to secure the safety jack to the mainframe. Adjust the top and bottom nuts on the safety jacks 1" stud bolt, up or down as required for proper clearances at top and bottom.

Place the proper size Sure® Form bag over the bottom of the steel pier. Tighten and knot the drawstring around the steel pier so that the top of the bag is 10" above the ground. Fill the bag with concrete to the top of the bag. The concrete should be fluid enough to fill the entire bag easily.

Bottom of mainframe to ground dimension	SURE SAFE® Pier height required
15" - 19"	8"
19" - 23"	12"
23" - 27"	16"
27" - 31"	20"
31" - 35"	24"
35" - 39"	28"
39" - 43"	32"
43" - 47"	36"

2. SURE® FORM BAGS for all mainframe support piers. Use a 30" x 30" x 10", or 42" x 42" x 10" bag as noted in the design calculations. One bag will hold approximately the following cubic feet of concrete; 30 x 30 x 10 = 3.5 CF, 42 x 42 x 10 = 10 CF. *Refer to detail 1.2*

3. PERIMETER BLOCKING: When the Manufacturer of the home requires perimeter blocking. Refer to calculations for spacing and loading conditions. Perimeter blocking should be supported on the perimeter enclosure wall.

4. PERIMETER ENCLOSURE WALL:

The SURE SAFE® support system does not require a perimeter enclosure wall to carry any vertical or lateral loads, except when the manufacturer requires perimeter blocking.

However, to fully comply with HUD/FHA/VA requirements, as a permanent foundation system, a perimeter enclosure wall, whether load bearing or non- load bearing, must be installed in addition to the SURE SAFE ® STEEL BUTTRESS™ support system.

WHERE THERE IS A FROST DEPTH REQUIREMENT, the enclosure wall must have a continuous concrete

footing supporting that wall. This enclosure wall assembly and footing must be insulated from the underside of the floor down to the bottom of the footing. The insulation is to be placed on the exterior face of the wall and footing.

The enclosure wall must have a min. 32" access panel, screened ventilation (1sf. of ventilation for each 150sf. of floor area) and keep out vermin and water.

Details of the perimeter enclosure wall, if requested from SURE SAFE® DESIGN are included with the calculation design documents. *When the perimeter enclosure wall details are to be provided by a third party, they must be attached to the calculation design documents.*

5. ANCHORING: Generally, in wind zone I, the SURE SAFE® STEEL BUTTRESS SUPPORT system provides all required anchoring to the ground. However, in wind zones II and III additional strap anchors are needed to prevent overturning and uplift. *Refer to Wind zone II & III Anchoring Detail ANC1.*

5.1 MATERIALS: STRAP ANCHORS AND COMPONENTS:

When required for additional anchoring, shall be purchased from an approved manufacturer of these devices. Strapping and components shall be Type 1, Finish B, Grade 1, 1¼" x 0.035" zinc coated (.03 oz. Per sq. ft., conforming to ASTM Standard Specification D3953 (1991) or newer). The minimum working load must be at least 3150 lbs., and capable of withstanding a 50% overload (4725 lbs. Total).

5.2 LOCATION OF ANCHORS: The manufacturer of the home, factory installs brackets to attach vertical sidewall, diagonal and end of home anchor straps. All of these brackets must be used for anchoring.

Refer to detail ANC1

Install the double headed concrete anchor into the wet concrete, directly below each supplied manufacturers bracket. When concrete has set, install straps, both vertically and diagonally as required. Installation of all straps and components must be in accordance with the requirements of the manufacturer of those products.