

GENERAL NOTES: REFERENCE: CALIFORNIA CODE OF REGULATIONS, TITLE 25.

- DESIGN LOADS SHALL BE CONSISTENT WITH LOCAL REQUIREMENTS WHERE INSTALLED. WIND LOADS LISTED IN TABLE ARE PER 2007 CBC.
- FOOTINGS ARE TO BE SUPPORTED BY EITHER FIRM, UNSATURATED, UNDISTURBED SOIL OR COMPACTED FILL, ASPHALT OR CONCRETE. FOOTINGS ARE DESIGNED FOR 1000 PSF BEARING CAPACITY AND SHALL BE COMPATIBLE WITH LOCAL SOIL CONDITIONS. ALL FOOTINGS SHALL BE FOUNDED IN ACCORDANCE WITH H.C.D. GUIDELINES AND TITLE 25.
- STRUCTURAL STEEL:
 - SHALL CONFORM TO ASTM A36 F_y = 36 KSI MINIMUM.
 - SHALL BE FABRICATED ACCORDING TO AISC SPECIFICATIONS.
 - SHALL BE WELDED ACCORDING TO AWS SPECIFICATIONS:
 - ELECTRODES: E70
 - PLATES: ASTM A36
 - BOLTS: STANDARD ASTM A307
 - THREADED ROD: COLD DRAWN LOW CARBON WELDABLE
 - ALL METAL COMPONENTS INCLUDING NAILS & SCREWS ETC. ARE TO BE PROTECTIVE COATED.
- THE C.P. SEISMIC PIER SHALL BE LISTED & LABELED BY BSK ASSOCIATES FOR THESE ULTIMATE LOADS:
 - 7" THRU 18 INCH PIERS: 3203 LBS. (STRONG DIR), 2273 (WEAK DIR), 18,000 VERTICAL
 - 19 INCH X-LARGE PIER: 1553 LBS. (STRONG DIR), 1482 (WEAK DIR), 18,000 VERTICAL
- THIS TIEDOWN SYSTEM IS FOR PLACING MANUFACTURED HOMES CONSTRUCTED WITH LONGITUDINAL OR CROSS JOISTS.
- THIS TIEDOWN SYSTEM PLAN IS DESIGNED TO BE CONSTRUCTED ON A FAIRLY LEVEL SITE WITH NO EXISTING SOIL PROBLEMS. SEE TITLE 25 SECTION 1334.
- THE SIZE, TYPE & LOCATION OF STANDARD VERTICAL SUPPORT PIERS & FOOTINGS MUST BE INSTALLED PER MANUFACTURER'S INSTALLATION MANUAL THAT IS SHIPPED WITH HOME. WITHOUT MANUAL, SPACING OF STANDARD PIERS TO BE DETERMINED BY TITLE 25, SECTION 1335.5.

FOUNDATION PAD NOTES:

- TWO FOUNDATION PADS ARE AVAILABLE FOR USE WITH THIS SYSTEM. THE CUSTOMER MAY CHOOSE THE FOUNDATION PAD FOR THEIR HOME.
- FDTN PADS SHALL BE PLACED ON FIRM, LEVEL UNDISTURBED SOIL (SEE GEN. NOTE 2)
- THE FOUNDATION PADS SHALL BE ORIENTED AS SHOWN ON THE PLAN VIEW DRAWING WITH THE BOLT HOLES PERPENDICULAR TO THE CHASSIS BEAM. SEE PLAN VIEW.
- CONCRETE FOUNDATION PADS
 - 2500 PSI AT 28 DAYS AS TESTED AND MANUF. BY STARLITE WEIGHT CONCRETE.
- PRESSURE TREATED FOUNDATION PAD
 - 3/4 INCH A.P.A. 48/24 EXTERIOR P.S.I.-83 CC. PLUGGED, NER-QA397.PRP-108.
- ATTACHMENT TO EXISTING CONCRETE SLAB
THE C.P. SEISMIC PIER MAY BE ATTACHED TO AN EXISTING COMPETENT CONCRETE SLAB OR CONCRETE FOOTING ACCORDING TO THE FOLLOWING CRITERIA:
 - ATTACH WITH TWO 1/2" DIAM. ITW RAMSET/ REDHEAD TRIBOLT WEDGE ANCHORS
 - MINIMUM EMBEDMENT = 2.5"
 - MINIMUM CONCRETE THICKNESS = 3 3/4"
 - MINIMUM EDGE DISTANCE = 2"

HOME SIZE NOTES:

- UNLESS APPROVED BY ROCK SOLID ENGINEERING, INC., THE ROOF PITCH SHOULD NOT EXCEED SHOWN IN TABLE.
- FOR ANY COACH SIZE OTHER THAN AS SHOWN ON THIS PLAN OR REFERENCED ABOVE, LAYOUT SHALL BE REVIEWED AND APPROVED BY ROCK SOLID ENGINEERING, INC.

INSPECTION REQUIREMENTS:

- THE DESIGN OF THIS SYSTEM IS BASED ON STANDARD MANUFACTURED HOMES AS BUILT BY THE MANUFACTURER. SITE BUILT ADDITIONS SUCH AS GARAGES AND SECONDARY ROOFS HAVE NOT BEEN INCLUDED IN THIS DESIGN.
- ALL DIMENSIONS INCLUDED ON THIS PLAN, INCLUDING HOME SIZE, ROOF HEIGHT AND PIER HEIGHT, SHOULD BE FIELD VERIFIED BY THE LOCAL BUILDING OFFICIAL. ANY DISCREPANCIES SHOULD BE IMMEDIATELY BROUGHT TO THE ENGINEER'S ATTENTION.
- THE BUILDING PAD SHOULD BE INSPECTED TO ENSURE THAT PROPER LOT PREPARATION AND DRAINAGE PATTERNS HAVE BEEN ESTABLISHED IN ACCORDANCE WITH TITLE 25 & MANUFACTURER.

INSTALLATION INSTRUCTIONS:

- MARK CHASSIS BEAM ACCORDING TO REQUIRED SPACING.
- FOUNDATION FOR CHASSIS BEAM SUPPORTS SHALL BE LOCATED AND SIZED FOR THE LOADS AS SHOWN IN THE MANUFACTURED HOME INSTALLATION INSTRUCTIONS.
- ALL MANUFACTURER REQUIRED PIERS, EXCEPT MASONRY BLOCKS, MUST BE ATTACHED TO THE CHASSIS BEAM AND FOOTING PAD PER TITLE 25, SECTION 1334.1.
- LEVEL THE SOIL & PLACE THE FOUNDATION PAD BELOW MARKING AS PER LAYOUT, THIS SHEET.
- ASSEMBLE C.P. SEISMIC PIER TO ITS LOWEST SETTING. PLACE IT ON THE FOUNDATION PAD AND ATTACH IT PER THE CORRESPONDING DETAIL, THIS SHEET.
- RAISE TOP SECTION OF C.P. SEISMIC PIER UNTIL IT TOUCHES BOTTOM OF CHASSIS BEAM BY TURNING PIECE (FOUR TURNS EQUALS ONE INCH CHANGE IN HEIGHT) TIGHTEN 4 CLAMP BOLTS.
- CLAMP UPPER PLATE TO BOTTOM OF CHASSIS BEAM AS PER DETAIL THIS SHEET.

MAX. WIND LOAD(MPH,EXP)	HOME SIZE	15 psf or 85B		85C		100B		100C				
		# OF SEISMIC PIERS	# OF TIE DOWNS	# OF SEISMIC PIERS	# OF TIE DOWNS	# OF SEISMIC PIERS	# OF TIE DOWNS	# OF SEISMIC PIERS	# OF TIE DOWNS			
SINGLES 3:12	10'-16'	UP TO 48'	4	2 ROWS	4	4	2 ROWS	4	4	2 ROWS	10	
		48.5'-80'	4	2 ROWS	4	6	3 ROWS	6	6	3 ROWS	12	
		80.5'-78'	6	3 ROWS	6	6	3 ROWS	8	6	3 ROWS	14	
4:12	10'-16'	UP TO 48'	4	2 ROWS	4	4	2 ROWS	4	4	2 ROWS	10	
		48.5'-80'	4	2 ROWS	4	6	3 ROWS	6	6	3 ROWS	14	
		80.5'-78'	6	3 ROWS	6	6	3 ROWS	8	6	3 ROWS	16	
DOUBLE WIDES 3:12	20'-28'	38'-58'	4	2 ROWS	0	4	2 ROWS	4	4	2 ROWS	4	
		56.5'-86'	6	3 ROWS	0	6	3 ROWS	4	6	3 ROWS	6	
	28.5'-32'	66.5'-78'	8	4 ROWS	0	8	4 ROWS	4	8	4 ROWS	6	
		40'-53'	4	2 ROWS	0	4	2 ROWS	4	4	2 ROWS	4	
	4:12	20'-26'	57.5'-86'	6	3 ROWS	0	6	3 ROWS	4	6	3 ROWS	6
			66.5'-78'	8	4 ROWS	0	8	4 ROWS	4	8	4 ROWS	8
4:12	26.5'-32'	43'-50'	4	2 ROWS	0	4	2 ROWS	4	4	2 ROWS	6	
		50.5'-86'	6	3 ROWS	0	6	3 ROWS	4	6	3 ROWS	8	
	30'-36'	66.5'-78'	8	4 ROWS	0	8	4 ROWS	4	8	4 ROWS	8	
		41'-80'	8	2 ROWS	0	8	2 ROWS	0	8	2 ROWS	6	
4:12	36.5'-48'	60.5'-78'	12	3 ROWS	0	12	3 ROWS	4	12	3 ROWS	6	
		41'-80'	8	2 ROWS	0	8	2 ROWS	0	8	2 ROWS	6	
4:12	36.5'-48'	60.5'-78'	12	3 ROWS	0	12	3 ROWS	4	12	3 ROWS	8	
		41'-80'	8	2 ROWS	0	8	2 ROWS	0	8	2 ROWS	6	

FIND MAX ROOF PITCH THEN HOME SIZE. FOLLOW ROW ACROSS TO DESIGN LOAD. READ TOTAL NUMBER OF C.P. SEISMIC PIERS & TOTAL NUMBER OF TIEDOWNS REQUIRED. SEE PLAN ABOVE FOR PLACEMENT OF PIERS & TIEDOWNS. AUGER TIEDOWNS SHALL BE LISTED BY HCD & INSTALLATION INSTRUCTIONS SHALL BE ON SITE AT TIME OF INSPECTION. IF EXACT HOME SIZE IS NOT LISTED CHECK NEXT SMALLER & LARGER SIZE AND USE THE ONE THAT REQUIRES MORE PIERS & TIEDOWNS. IF HOME LENGTH IS LESS THAN THE SMALLEST LISTED, ADD 2 C.P. SEISMIC PIERS.

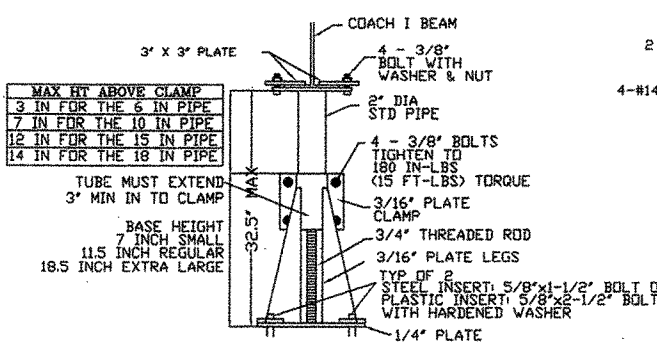
STATE APPROVAL

ENGINEERED TIEDOWN SYSTEM APPROVED
SUBJECT TO CORRECTIONS NOTED

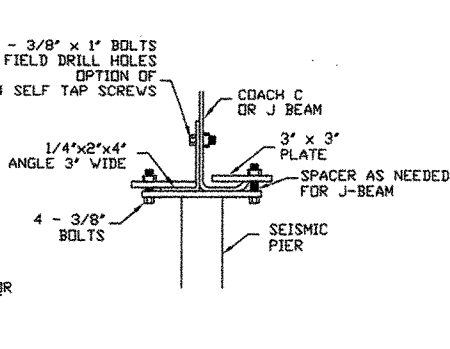
Approved does not authorize or approve any omission or deviation from requirements of applicable State laws and regulations.

State of California
Department of Housing and Community Development
DIVISION OF CODES AND STANDARDS

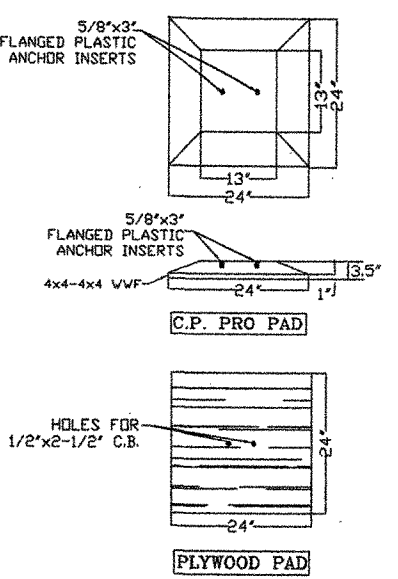
By *Andrew* Date *9/24/08*
(Signature)
SPA NO *ETS 107*
This Plan Approval Expires *10/27/2010*



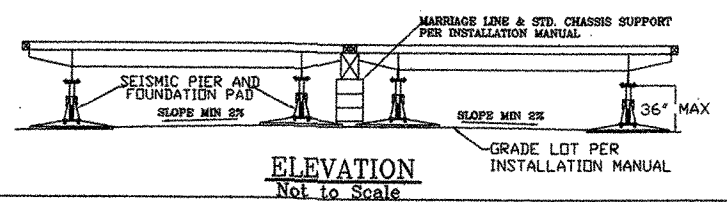
SEISMIC PIER Not to Scale
C.P. SEISMIC PIER#1-PATENT #5595366
LISTING #C03-044-60F BY BSK



TYP BEAM CONNECTION Not to Scale



FOUNDATION PADS Not to scale



ELEVATION Not to Scale

REVISIONS	BY
ROCK SOLID ENGINEERING, INC. CIVIL & GEOTECHNICAL CONSULTANTS Foundation Engineering • Site Assessments • Manufactured Home Foundations • Expert Witness	
FOR: CENTRAL PIERS, INC. 284 N. THORNE FRESNO, CA. 93706 (559) 268-0828	
ENGINEERED TIEDOWN SYSTEM (ETS-107)	
DATE:	08-26-08
SCALE:	AS SHOWN
DRAWN:	YMW
JOB #:	W03002
SHEET:	1
OF 1 SHEETS	

REGISTERED PROFESSIONAL ENGINEER
STATE OF CALIFORNIA
No. E0245
Exp. 12/31/10
Signed 8/27/08