E-Z TIE DOWN SYSTEM

DESIGN LOADS:

*** WIND – 15 PSF (70 MPH EXPOSURE "C") CAC T-25 and COMPLIES WITH THE 2016 CBC Vult = 110 MPH EXP "C" AND THE 2015 IBC, Vult = 115 MPH EXP "C"**

SEISMIC.....Ss = 1.5 Fa =1.4 Simplified Design Method

1. THIS TIE DOWN SYSTEM IS DESIGNED TO BE CONSTRUCTED ON A FAIRLY LEVEL SITE WITH NO EXISTING SOIL PROBLEMS. MINIMUM SOIL PARAMETERS: TYPE 5 COHESIVE SOIL, WITH MINIMUM SOIL BEARING CAPACITY OF 1500 PSF.

2. CHASSIS BEAM SUPPORTS SHALL BE LOCATED AND SIZED FOR THE LOADS AS SHOWN IN THE "MANUFACTURED HOME INSTALLATION INSTRUCTIONS".

3. IN AREAS WHERE DIFFERENTIAL SETTLEMENT (DS) CAN OCCUR, MANUFACTURED HOME SHALL BE READJUSTED WHEN DS EXCEEDS 1/4", OR WHEN IT WILL ADVERSELY AFFECT MOBILE HOME UNIT.

4. THIS PLAN IS INTENDED TO BE USED FOR MANUFACTURED HOMES UP TO (3) SECTIONS IN WIDTH. CONTACT THE DESIGN ENGINEER FOR DESIGNS OF MANUFACTURED HOMES OVER (3) SECTIONS WIDE.

5. STRUCTURAL STEEL: FABRICATED ACCORDING TO AISC SPECIFICATION. WELD ACCORDING TO AWS SPECIFICATIONS. ELECTRODES–370 PLATED–ASTM A36. BOLTS=ASTM A307.

6. THE E–Z TIE ASSEMBLIES ARE CAPABLE OF THE FOLLOWING LOADS:

HEIGHT	HORIZONTAL	VERTICAL	UPLIFT
18"	2010 (lb)	6000 (lb)	891 (lb)
21"	1825 (lb)	6000 (lb)	801 (lb)
25"	1510 (lb)	6000 (lb)	664 (lb)
28"	1419 (lb)	6000 (lb)	629 (lb)
36"	867 (lb)	6000 (lb)	385 (lb)

7. ALL METAL COMPONENTS AND ATTACHMENT ITEMS SHALL BE PROTECTIVE COATED.

8. **WHERE THE STANCHION IS PLACED ON A CONCRETE SLAB, USE 1 / 2" X 4" CONCRETE EXPANSION ANCHORS TO SECURE THE STANCHION TO THE SLAB. THE STEEL FRAME AND PLASTIC PADS ARE NOT REQUIRED.**

9. **ATTACHMENT METHODS FOR "C" & "J" BEAMS SHOWN ON SHT. #2.**

10. **THE LONG DIRECTION OF THE E–Z TIE PAD (37") MUST BE INSTALLED PERPENDICULAR TO THE CHASSIS BEAM.**

EXCEPTION: AT 10' WIDE MODULES WITH 100" CHASSIS BEAM CENTERS, THE E-Z TIE PAD MAY BE PLACED PARALLEL WITH THE CHASSIS BEAM

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EXP 12-31-19

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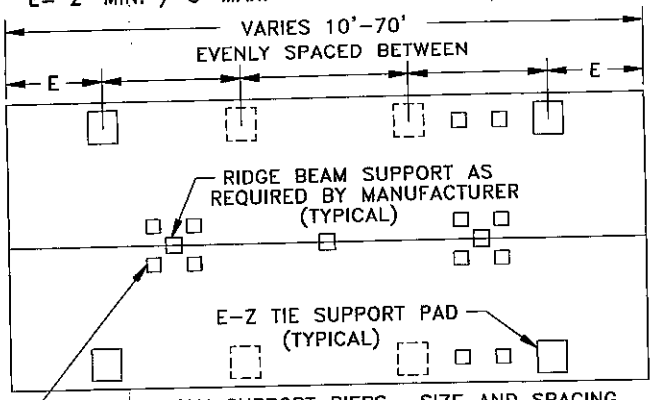
SINGLE WIDE COACHES E= 2' MIN. / 8' MAX.

DOUBLE/MULTIPLE COACHES E= 2' MIN. / 11' MAX.



LENGTH OF HOME	NUMBER OF E–Z TIES				
	18" HT	21" HT	25" HT	28" HT	36" HT
40'	4	4	4	4	6
50'	4	4	4	4	6
60'	4	4	4	6	8
66'	4	4	4	6	8
70'	4	6	6	6	10
80'	4	6	6	6	10

STATE APPROVAL

THIS TIE DOWN SYSTEM MEETS THE REQUIREMENTS OF SECTION 1336.3 SUBSECTION (a).

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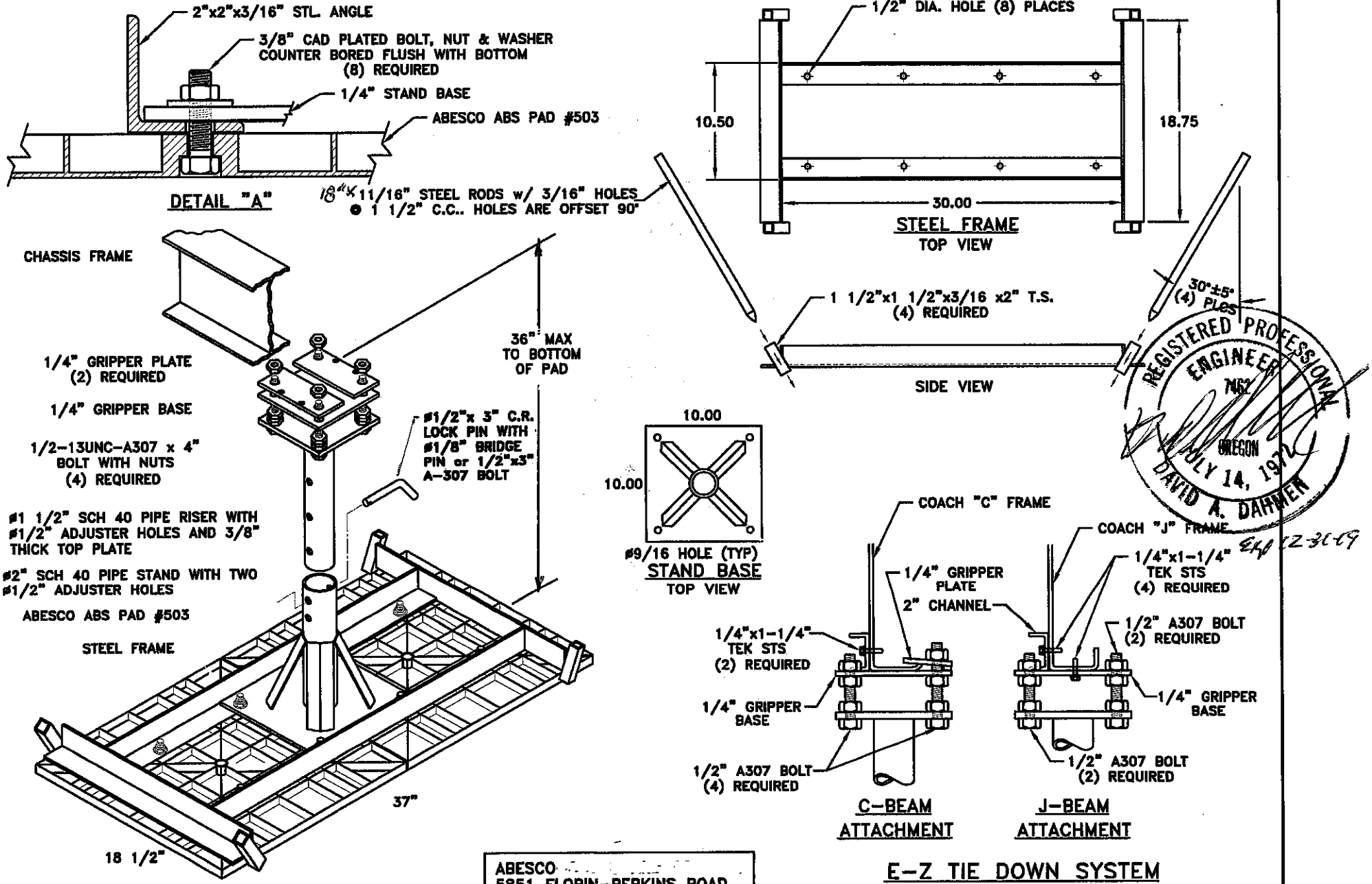

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E-Z TIE DOWN SYSTEM

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INSTALLATION INSTRUCTIONS
E-Z TIE DOWN SYSTEM

1. PIERS MUST BE PLACED ON BEAM WITHIN 24" OF AN OUTRIGGER OR CROSS MEMBER, OTHERWISE INSTALL WEB STIFFENER ON CHASSIS BEAM.
2. MAKE LEVEL THE PLACE WHERE THE PAD WILL SET, DOWN TO UNDISTURBED SOIL.
3. THE PAD MUST BE CENTERED BELOW THE CHASSIS BEAM.
4. REMOVE THE FOUR (4) NUTS AND WASHERS FROM THE STUD BOLTS IN THE PAD AND PLACE THE PIER. THE HOLES IN THE BASE PLATE WILL LINE UP WITH THE STUD BOLTS. REPLACE THE NUTS AND WASHERS AND TIGHTEN DOWN.

I-BEAM

5. REMOVE THE TWO (2) GRIPPER PLATES ON THE TOP OF THE PIER. START THE HEIGHT ADJUSTMENT BY REMOVING THE BOLT / NUT OR COTTER PIN. PIERS CAN THEN TELESCOPE. RAISE THE TOP OF THE PIER UNTIL THE PLATE IS AS CLOSE TO THE BOTTOM OF THE CHASSIS BEAM AS POSSIBLE. PLACE ADJUSTMENT PIN THRU ADJUSTMENT HOLE AND SECURE WITH THE COTTER PIN.
6. RAISE THE TOP PLATE USING THE ADJUSTMENT NUTS UNTIL THE PIER TOP IS TIGHT AGAINST THE BOTTOM OF THE CHASSIS BEAM.
7. PLACE THE GRIPPER PLATES OVER THE FLANGE OF THE BEAM AND TIGHTEN DOWN FIRMLY WITH THE TOP NUTS.

C-BEAMS AND J-BEAMS

8. HEAD OF PIERS REQUIRES THAT TWO (2) TEK SCREWS BE PLACED THRU THE SIDE OF THE BEAM IN ADDITION TO ONE GRIPPER PLATE.
9. FOUR (4) STEEL STAKES (SUPPLIED) ARE TO BE DRIVEN THRU GUIDES INTO SOIL UNTIL STOPS ARE FLUSH WITH THE GUIDE.

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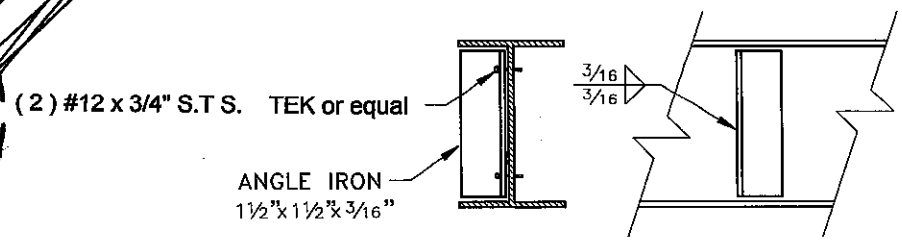
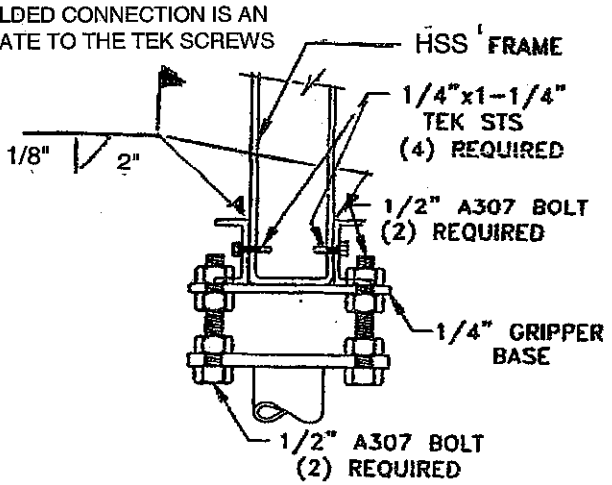


NOTE: USE STIFFNER IF OUTRIGGER OR CROSS MEMBER DO NOT OCCUR WITHIN 24" OF STANCHION (TYP)

WEB STIFFENER DETAIL



HSS -BEAM ATTACHMENT

THE E-Z TIE DOWN SYSTEM CAN BE USED IN FLOOD PLAIN SETS WITH THE APPROPRIATE BOUYANCY STABILIZATION ANCHORAGE

THE E-Z TIE DOWN SYSTEM CAN BE USED IN EXPANSIVE SOIL CONDITIONS PER THE LOCAL BUILDING DEPT.'S REQUIREMENTS

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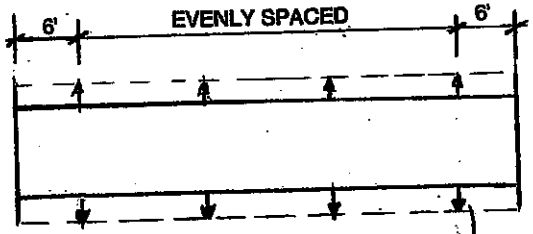
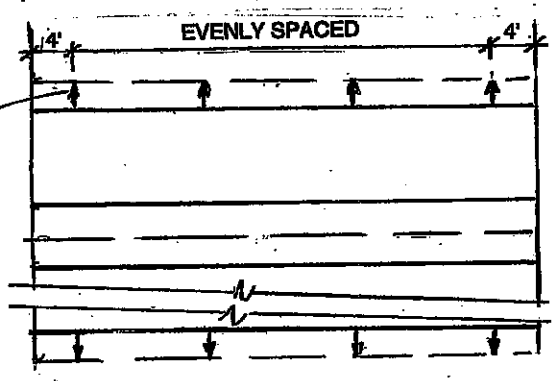
SINGLE WIDES	
MFG'D HOME SIZE	No. OF TIE DOWNS EACH SIDE
12' to 56'	3
12' to 57' / 70'	4
14' to 74'	4
16' to 74'	4

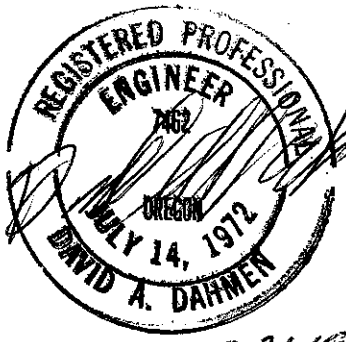


MULTI - WIDES	
MFG'D HOME SIZE	No. OF TIE DOWNS EACH SIDE
20' to 50'	3
20' to 51' / 60'	4
24' to 50'	3
24' to 51' / 66'	5
28' to 60'	5
28' to 61' / 74'	6
40' to 60'	7
40' to 61' / 66'	8
40' to 67' / 74'	9



FOR INSTALLATIONS IN FLOOD HAZZARD ZONES A, AE & AH
INSTALL MIN 3150 LB. TIE DOWN STRAPS AND MIN 48" EARTH AUGERS

ABESCO #603 48" T.D.A. AS SHOWN
ON THE ABESCO ETS 106C



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FOR PLACEMENT IN FLOOD HAZZARD AREAS

WHEN PERIMETER SKIRTING IS INSTALLED, PLACE THE UNDERFLOOR VENTS SO THE BOTTOM OF THE VENT IS MAX 12" ABOVE THE UNDERFLOOR GROUND SURFACE

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