

GENERAL NOTES TUF-1

CODE 2022 CRC; SITE CLASS D-2.

1. DESIGN LOADS:

ROOF LIVE LOAD - 30 LB. TO 100 LB. SNOW
FLOOR LIVE LOAD - 40 PSF
WIND LOAD - 110 MPH EXPOSURE "C" & 130 MPH EX. "D"
SEISMIC ZONE - $S_s=1.5$ $F_a=1.4$ $S_{ps}=1.41$ SITE CLASS "D"
*** SNOW LOAD** (SEE NOTE #15)

2. THIS FOUNDATION SYSTEM IS DESIGNED TO BE CONSTRUCTED ON A FAIRLY LEVEL SITE WITH NO EXISTING SOIL PROBLEMS.
3. CHASSIS BEAM SUPPORTS SHALL BE LOCATED AND SIZED FOR THE LOADS AS SHOWN IN THE "MOBILE HOME INSTALLATION INSTRUCTIONS".
4. IN AREAS WHERE DIFFERENTIAL SETTLEMENT (D.S.) CAN OCCUR, MANUFACTURED HOME SHALL BE READJUSTED WHEN DS EXCEEDS 1/4", OR WHEN IT WILL ADVERSELY AFFECT MOBILE HOME UNIT.
5. CARRY ALL CONCRETE FOOTINGS DOWN TO FIRM, UNDISTURBED SOIL. FOOTINGS ARE DESIGNED FOR 1,500 PSF TOTAL LOAD SOIL PRESSURE, AND SHALL BE COMPATIBLE WITH LOCAL SOIL CONDITIONS. COMPACTED SAND MAY BE USED TO FILL LOCAL VOIDS UNDER PADS.
6. STRUCTURAL STEEL: FABRICATED ACCORDING TO AISC SPECIFICATION. WELD ACCORDING TO AWS SPECIFICATIONS. ELECTRODES-370 PLATES-ASTM A36 BOLTS-SAE GR 5=ASTM A449=ASTM A3725.
7. THE ASSEMBLIES SHOWN ON THIS PAGE SHALL BE LISTED AND LABELED BY BSK AND ASSOCIATES FOR THE FOLLOWING LOADS:

ALLOWABLE LOADS:	HORIZONTAL	VERTICAL
TUF-1	2200#	6000#
E-Z TIE PAD	2200#	6000#

8. DURING PRELIMINARY INSPECTION, THE ESTIMATOR SHALL ENSURE THAT MOBILE HOME CHASSIS BEAMS ARE OF STANDARD SECTION.
9. EXISTING COACHES MAY BE RETROFITTED TO RESIST SEISMIC FORCES BY INSTALLING ABESCO TUF-1 UNITS AS SHOWN ON THIS PAGE OF TYPICAL FOUNDATION PLANS.
10. THE TUF-1 SYSTEMS ARE SAFE FOR INSTALLATION IN FLOOD PLAIN AREAS WHERE DEPTH OF FLOODING DOES NOT EXCEED THE HEIGHT OF THREE FEET.
11. MULTIPLE UNIT INSTALLATION IS ACCEPTABLE PROVIDED THE NUMBER OF TUF-1 UNITS UNDER EACH UNIT IS THE SAME AS SHOWN REQUIRED PER EACH UNIT.
12. SINGLE WIDE UNITS REQUIRE 4 E-Z TIE PADS-ONE ON EACH CORNER OF THE HOME. (SEE SHEET #4). HOMES WITH 2 OR MORE MODULE UNITS DO NOT REQUIRE THE E-Z TIE PADS.
13. ALL METAL COMPONENTS AND ATTACHMENT ITEMS SHALL BE PROTECTIVE COATED. EXISTING CONCRETE SLAB TO BE MIN. 3 1/2" THICK AND MIN. 4'x4' IN SIZE.
14. WHEN CONCRETE SLAB IS IN EXISTENCE, PAD IS NOT REQUIRED. ANCHOR STAND TO CONCRETE SLAB WITH FOUR (4) 1/2"x 3 1/2" EXPANSION ANCHORS.
15. TUF-1 FOUNDATION SYSTEM PROVIDES ALLOWABLE SNOW LOAD TO 100 PSF WHEN INSTALLED WITH EXISTING STANDARDS REQUIRED BY COACH MANUFACTURER & REQUIRED VERTICAL SUPPORTS MAY BE REPLACED w/ A TUF-1 STANCHION.

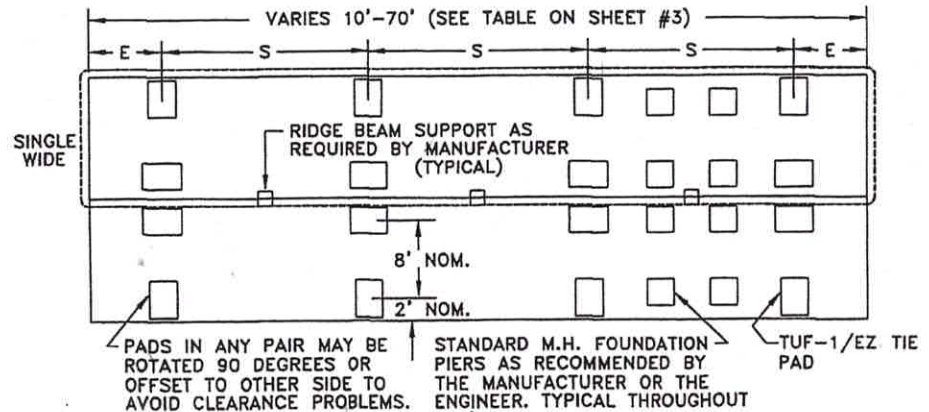
NOTE:

THE FOUNDATION SYSTEM IS DESIGNED FOR THE TUF-1 STANCHIONS TO BE PLACED ON THE OUTSIDE CHASSIS BEAMS OF THE MULTI-WIDE HOMES. THE TOTAL NUMBER OF TUF-1 STANCHIONS REQUIRED, CAN BE PLACED ON THE OUTSIDE OF THE INNER CHASSIS BEAMS AT EACH MODULE, SO LONG AS THE MAXIMUM SPACINGS SHOWN THIS SHEET ARE NOT EXCEEDED

LEGEND:
E=END DISTANCE
S=SPACING OF THE TUF-1's

SINGLE WIDE HOMES.
E= 2' MIN. / 8' MAX.
S= 6' MIN. / 22' MAX.

DOUBLE/MULTIPLE HOMES.
E= 2' MIN. / 11' MAX.
S= 6' MIN. / 22' MAX.



TUF-1 PERMANENT FOUNDATION SYSTEM

ABESCO
5851 FLORIN-PERKINS ROAD
SACRAMENTO, CA 95828
PH: (800)382-8831 Toll Free
FAX: (916)383-5207

REV. DATE 2-22-10

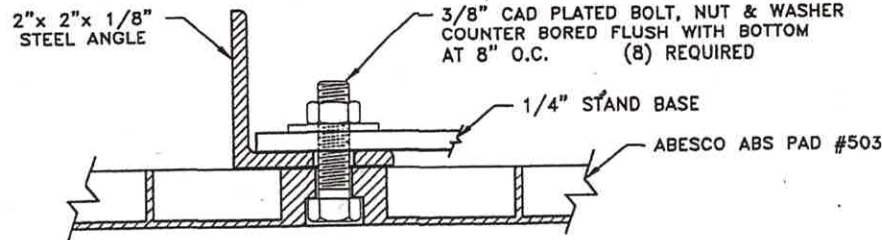
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MANUFACTURED HOME/MOBILE HOME
FOUNDATION SYSTEM
HEALTH AND SAFETY CODE, SECTION 18551
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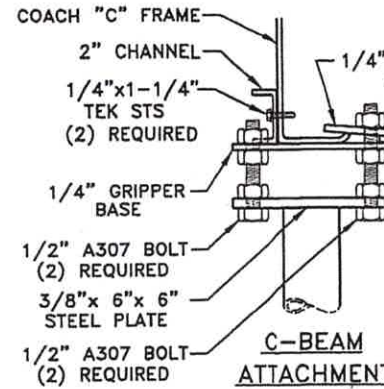
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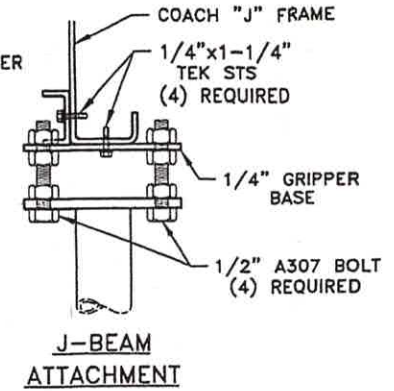
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BY: [Signature] DATE: 4/12/24
SPA NO. 40-6P (signature)
This Plan Approval Expires: 5/15/26



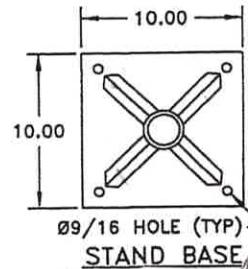
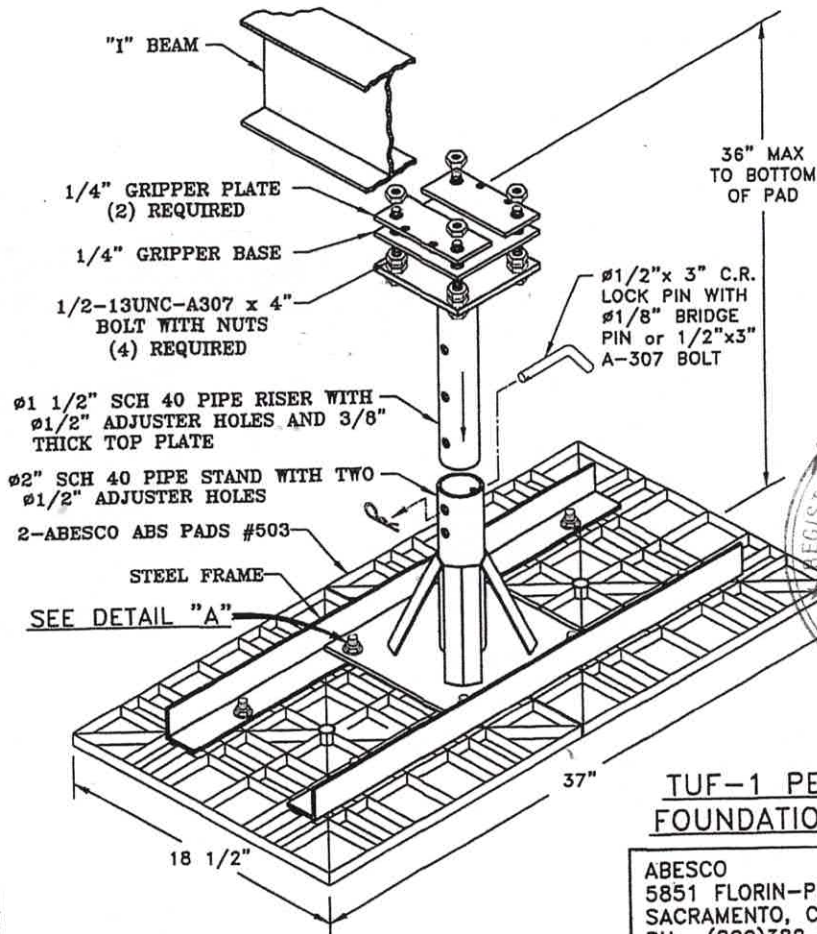
DETAIL "A"



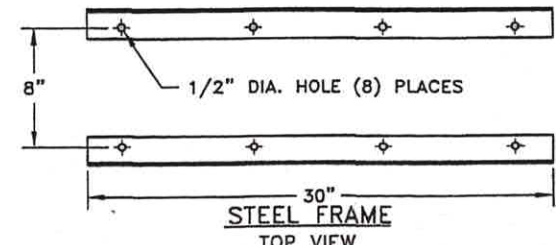
C-BEAM
ATTACHMENT



J-BEAM
ATTACHMENT



STAND BASE



STEEL FRAME
TOP VIEW

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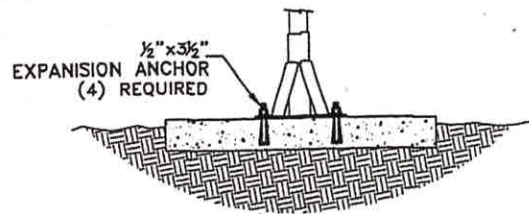
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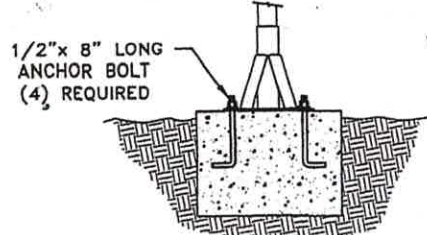
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TUF-1 PERMANENT FOUNDATION SYSTEM

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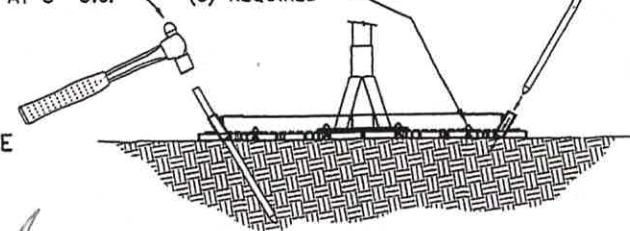
EXISTING CONCRETE SLAB
SEE NOTE 14 SHEET 1:



POURED IN PLACE 16x16x18 CONCRETE
FOUNDATION INSTALLATION

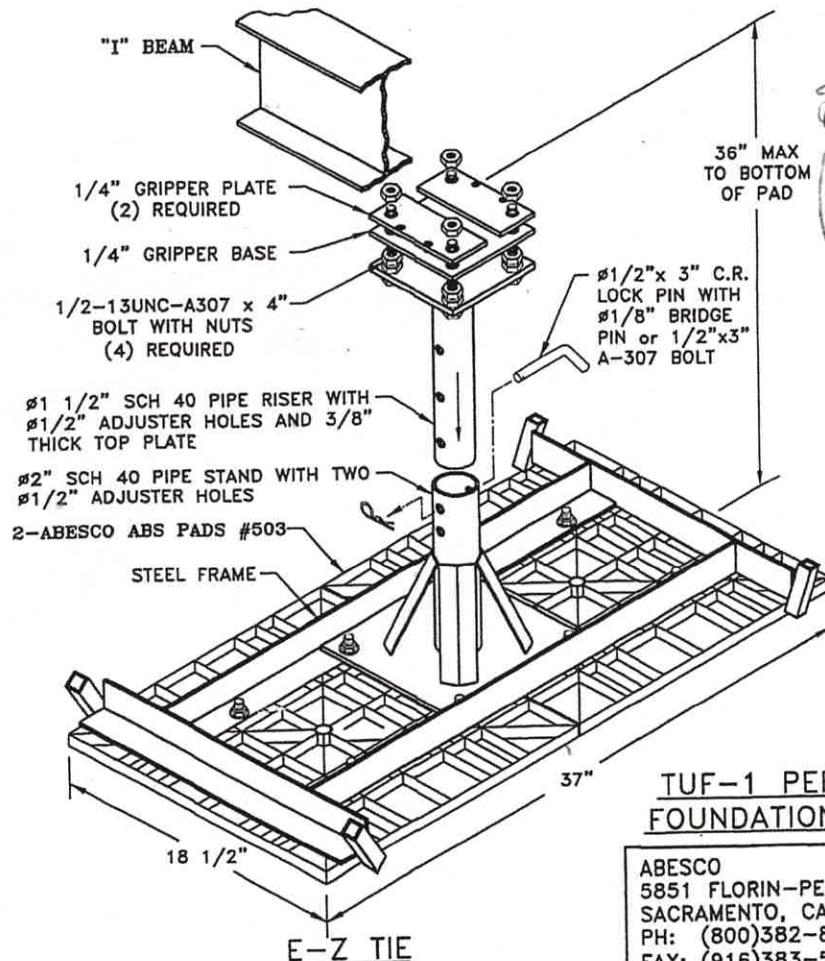
18"x 11/16" STEEL RODS or 3/4" FOUNDATION STAKES
w/3/16" HOLES @ 1 1/2" C.C.. HOLES ARE OFFSET 90°

3/8" CAD PLATED BOLT, NUT & WASHER
COUNTER BORED FLUSH WITH BOTTOM
AT 8" O.C. (8) REQUIRED



E-Z TIE PAD
INSTALLATION

FOR SINGLE WIDE APPLICATIONS OF THE
E-Z TIE PAD, SEE NOTE #12, PAGE 1



4-8-24

MANUFACTURED HOME REV DATE 2-22-10

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SINGLE WIDE HOME WITH ROOF LOADS TO 60 PSF AND WINDS TO 130 MPH EXP. C

LENGTH OF HOME	NUMBER OF TUF-1's REQUIRED FOR HOMES TO 16' WIDE
UP TO 38'	4
38'-1" to 60'	6
60'-1" to 80'	8

SINGLE WIDE HOMES REQUIRE 4 - EZ TIE PADS 1 AT EACH CORNER

SINGLE WIDE HOME WITH A ROOF SNOW LOAD TO 100 PSF AND WINDS TO 130 MPH EXP. C

LENGTH OF HOME	NUMBER OF TUF-1's REQUIRED FOR HOMES TO 16' WIDE
UP TO 38'	6
38'-1" to 60'	8
60'-1" to 80'	10

MULTI WIDE HOME WITH ROOF LOADS TO 30 PSF AND WINDS TO 110 MPH EXP. C

LENGTH OF HOME	TOTAL NUMBER OF TUF-1's REQUIRED FOR GIVEN WIDTH OF HOME				
	24'	26'	28'	34'	44'
UP TO 44'	4	6	6	6	8
44'-1" to 66'	6	8	8	8	12
66'-1" to 80'	8	8	10	10	14

MULTI WIDE HOME WITH ROOF SNOW LOAD TO 30 PSF AND WINDS TO 130 MPH EXP. C

LENGTH OF HOME	TOTAL NUMBER OF TUF-1's REQUIRED FOR GIVEN WIDTH OF HOME				
	24'	26'	28'	34'	44'
UP TO 44'	6	6	6	6	8
44'-1" to 66'	8	8	8	8	12
66'-1" to 80'	10	10	10	10	14

MULTI WIDE HOME WITH ROOF SNOW LOAD OF 60 PSF AND WINDS TO 130 MPH EXP. C

LENGTH OF HOME	TOTAL NUMBER OF TUF-1's REQUIRED FOR GIVEN WIDTH OF HOME				
	24'	26'	28'	34'	44'
UP TO 44'	6	6	6	8	10
44'-1" to 66'	8	10	10	10	14
66'-1" to 80'	10	12	12	14	18

MULTI WIDE HOME WITH ROOF SNOW LOAD OF 100 PSF AND WINDS TO 130 MPH EXP. C

LENGTH OF HOME	TOTAL NUMBER OF TUF-1's REQUIRED FOR GIVEN WIDTH OF HOME				
	24'	26'	28'	34'	44'
UP TO 44'	8	8	8	10	12
44'-1" to 66'	10	10	12	14	18
66'-1" to 80'	12	14	14	16	22

NOTE:

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4-8-24

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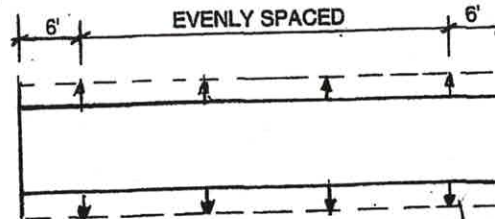
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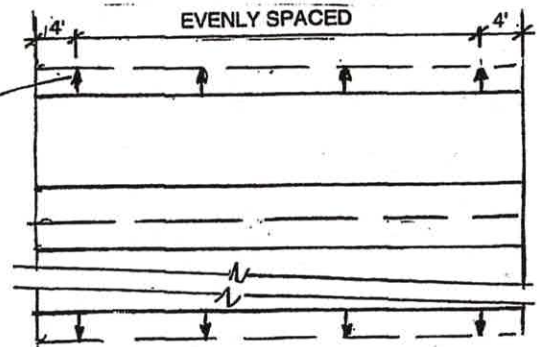
FOR INSTALLATIONS IN FLOOD HAZZARD ZONES A, AE & AH
INSTALL MIN 3150 LB. TIE DOWN STRAPS AND MIN 48" EARTH AUGERS

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

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 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



4-8-24

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CAPITOL ENGINEERING INC.-LISTING No. CEL-5911-TUF-1

SHEET 5 of 5