



CITY OF
LOMPOC

TEMPORARY TENTS AND MEMBRANE STRUCTURES

STAKING AND ANCHORING

The purpose of this handout is to aid the tent installer in the anchoring of pipe, frame-supported tents.

There are a variety of anchoring devices available to the installer. This handout also covers basic staking theory and should be read and studied prior to attempting to install any tent. Please refer to it for further detail on types of anchors. The single-most important point to remember is that it is necessary to anchor a frame tent. A common misconception within the industry, particularly among novice installers, is that because a frame tent can temporarily stand on its own without guy ropes, minimal or no anchoring is required. That is not true. A frame tent, regardless of size, is subject to the same wind loading and uplifts characteristics as a pole-supported tent of similar size. Therefore, it is imperative that it be anchored with the same consideration given to any other tent style.

Another commonly held misconception is that frame tents can be properly secured by only staking straight down and tying off at the base of the leg. Although it is true there is some lateral stability inherent to a pipe frame-supported tent, it does not have enough strength to withstand any significant lateral force. Therefore, appropriately angled guys must be used to provide additional lateral support, after the frame has been assembled and the top fabric has been installed.

These stakes should be placed at a distance from the base of the leg no less than 1/2 the height of the upright and no greater than the height of the upright. As always, manufacturers' specifications should be met or exceeded at all times. Some manufacturers cut holes in the base plate of the upright as an additional anchoring point. However, these base plate holes should never be used as the sole anchoring point of the frame. Driving a spike (or pin, bolt, screw, etc.) through this hole decreases the chances that the upright will lift and move, creating a condition that could lead to failure of the upright.

Once the stakes (or alternate anchoring devices) are in place, the frame is ready to be raised and the uprights installed. Remember to attach the guy ropes to the frame prior to rising. In windy conditions, it is advisable to loosely tie off the guy rope to the stake prior to raising the frame, leaving only enough slack in the rope for the upright to be inserted.

Once all the uprights are installed and the tent is in place, adjust the guy ropes as taut as possible, checking to make sure the knots are secure. Prior to raising the structure) the stakes should be put in place. The stakes should be placed at the corner uprights and at each of the intermediate uprights

General information is requested and self-explanatory. Stake data requires the recording of parameters listed where projection is the distance from the ground to the top of the installed stake, and the stake angle is the acute angle measured from the vertical.

Guying data - the pull angle is the acute angle measured from the horizontal.

The accumulation of ground data may often require that the installing crew rely on their best judgment as to soil type, moisture content, etc. A reasonable amount of research may be necessary, including a few telephone calls, to establish the identity of the soil type, for example.

The Fire Department Clearance fee is **\$100.40**

Electrical permit fee may also be required, based on the amount of electrical work to take place.

A clearance from the Planning. Division will also be required; the fee and requirements can be obtained by calling the Planning Division at 875-8288 or 875-8277

SITE PLAN HANDOUT (SAMPLE)

INFORMATION REQUIRED ON SITE PLAN

Name, Address and Telephone
Number of Property Owner or Agent.

Dimension of Lot {Lot size & Sq. Ft.}

Dimension from property lines and
all other structures with roofs from
tent

Show location of ALL OVERHEAD Utilities.
Show location and # of parking spaces available

Show handicap access to tent.
Show Fire Department access to tent &

ALL existing structures on lot.

Provide Certificate of Flame Resistance for tent

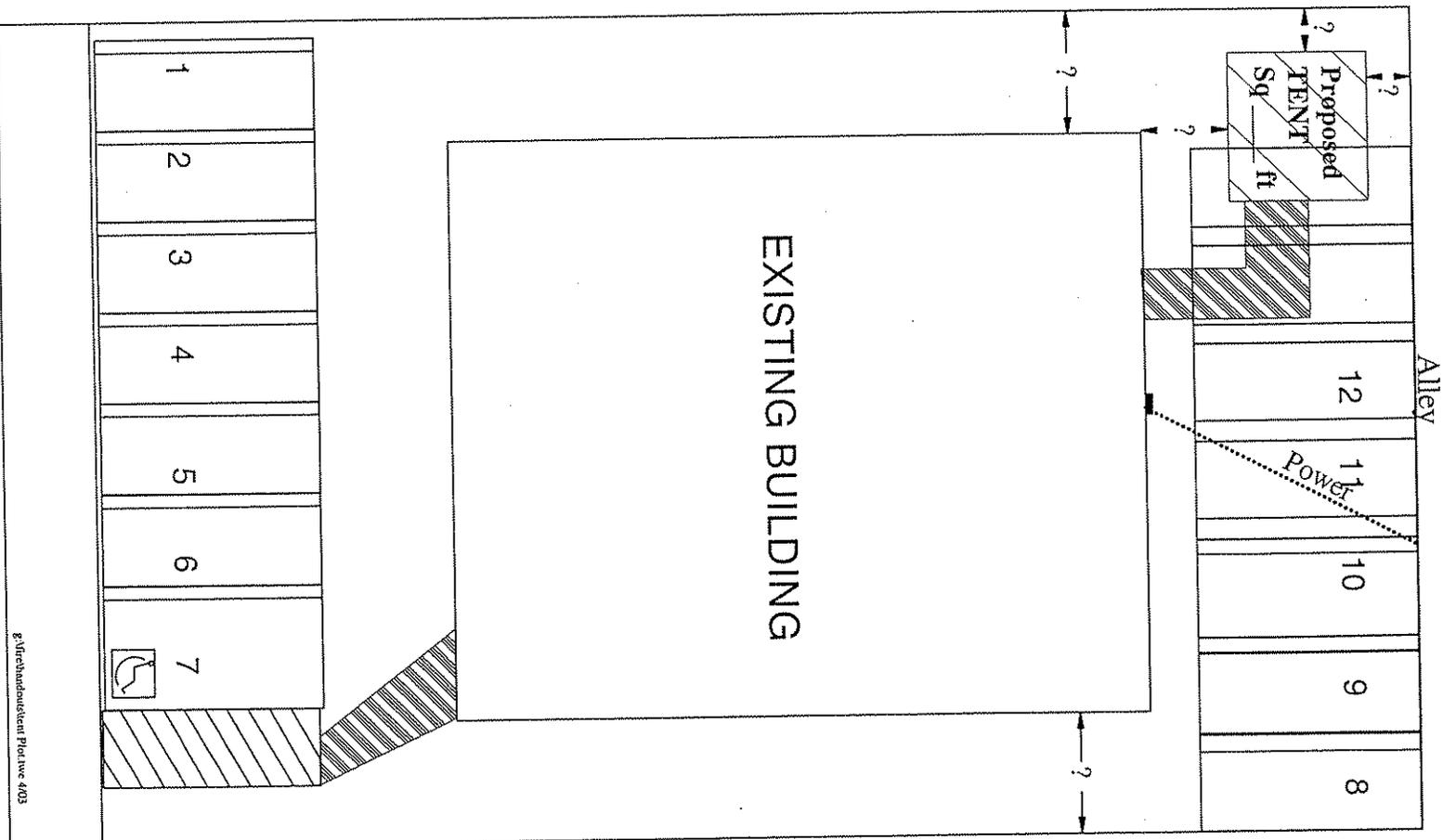
Provide a floor plan of the tent, which shows
location of exits, location of required fire extinguishers,
seating or table lay out. Show any cooking or electrical
within the tent.

Note ***

Call 1-800-227-2600 2 working days
before you begin "Dig Alert" This could save
you costly expensive repairs.

Special care shall be taken to location
of underground utilities (I.E gas & electrical
and water and sewer lines).

Combustible materials shall be removed
from area of structure and from area within
30' of proposed structure.



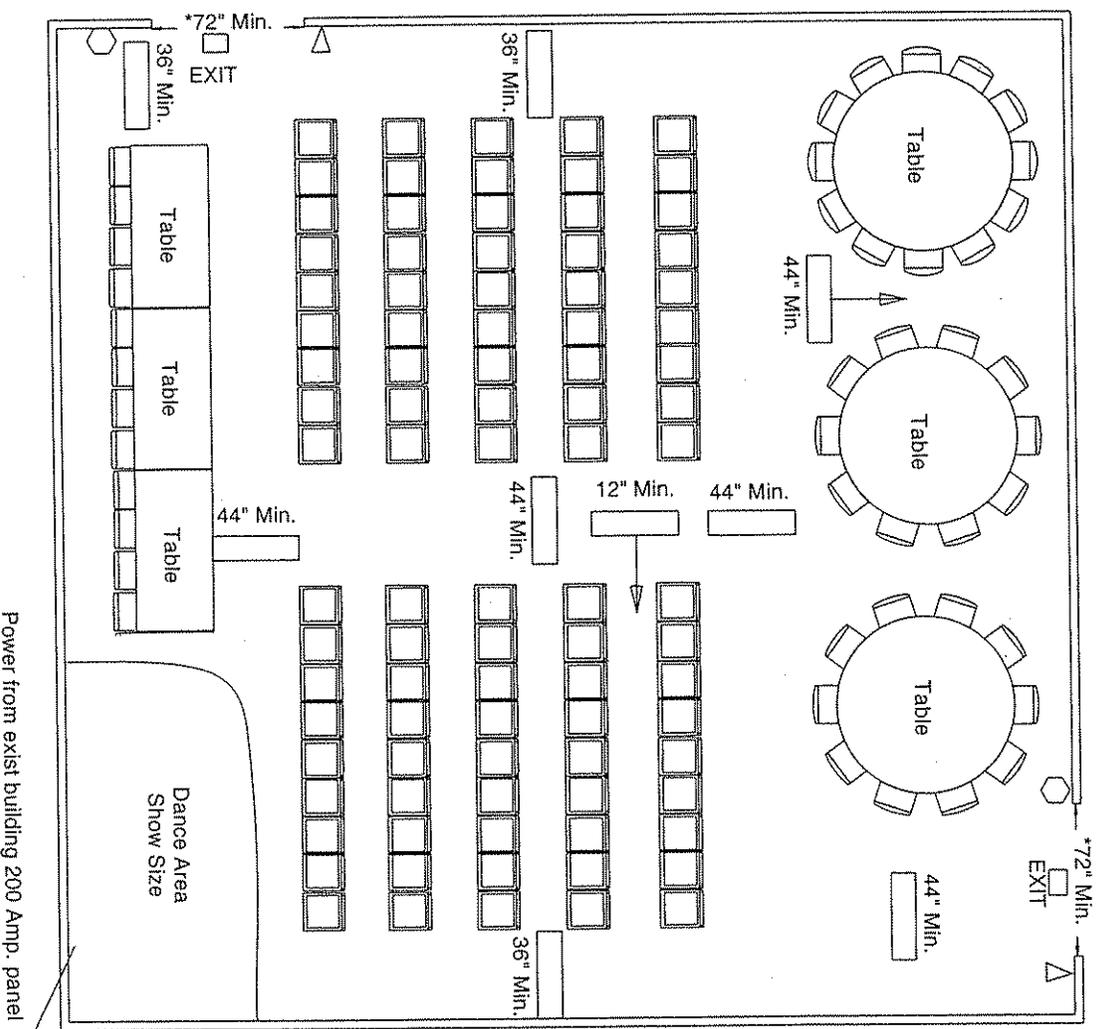
Property Line

TENT FLOOR PLAN (SAMPLE)

All Extinguisher must have current State Certification
 2A10BC general fire extinguisher.
 (40BC- of Class K within 30' of cooking.)
 Should be MOUNTED at or near Exits
 Shall be mounted in plan view not more than 48" off floor
 Show all electrical on floor plan. Note all plugs to be
 Provided with GFCI protection.
 Show source of power
 (existing electrical panel, Generator etc.)

Tent Size	#of exits	# of ext.	Occ load
10X12	1	1	8
12X12	1	1	10
14X14	1	1	13
16X16	1	1	17
18X18	1	1	22
20X20	1	1	27
22X22	1	1	32
24X24	1	1	39
26X26	1	1	45
28X28	2	2	52
30X30	2	2	60
32X32	2	2	68
34X34	2	2	77
36X36	2	2	86
38X38	2	2	96
40X40	2	2	107

Engineering AND / OR
 manufactures specifications
 will be required on
 all tent over 40'x40'

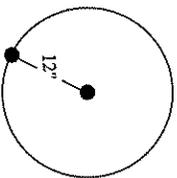
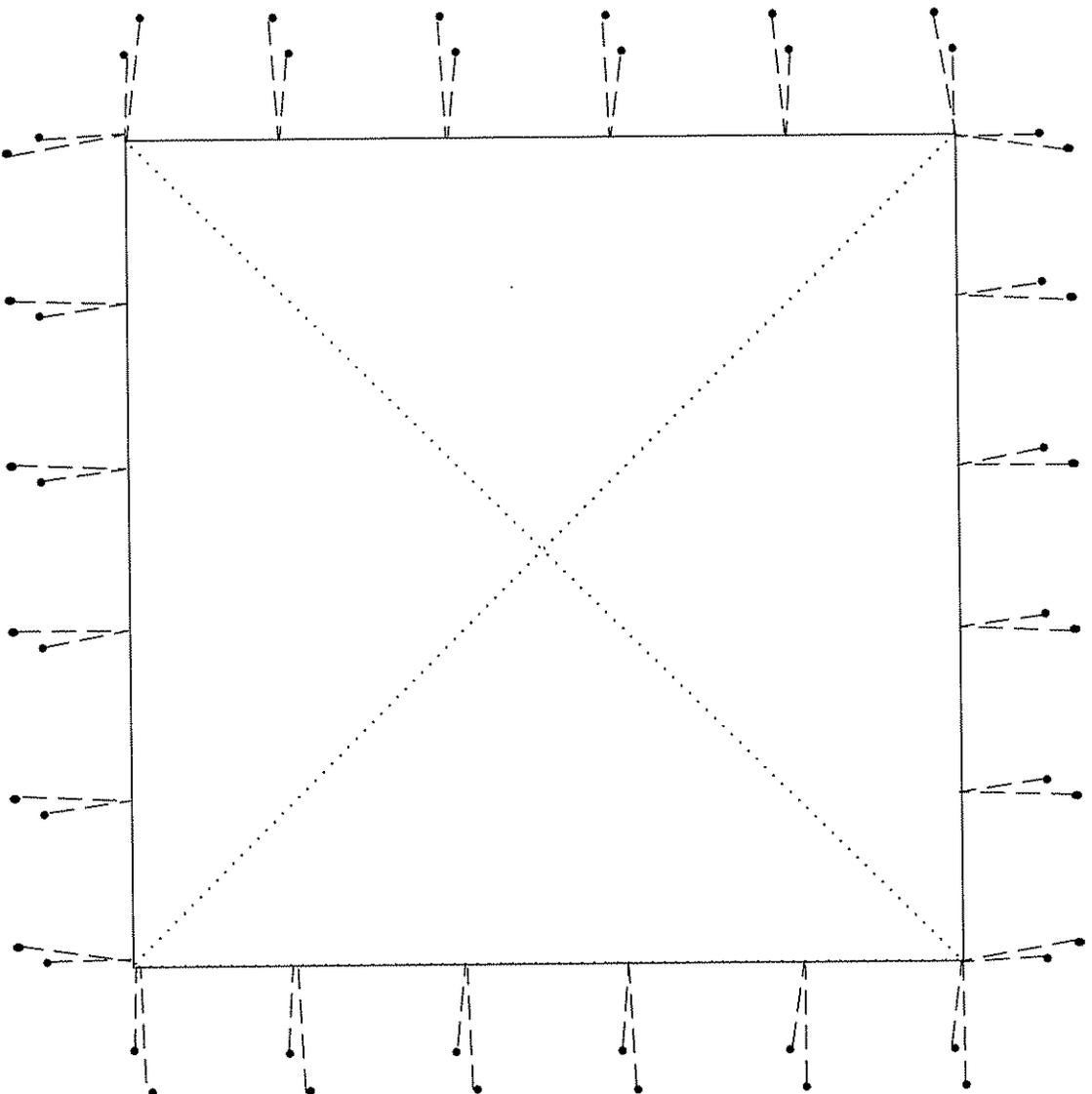
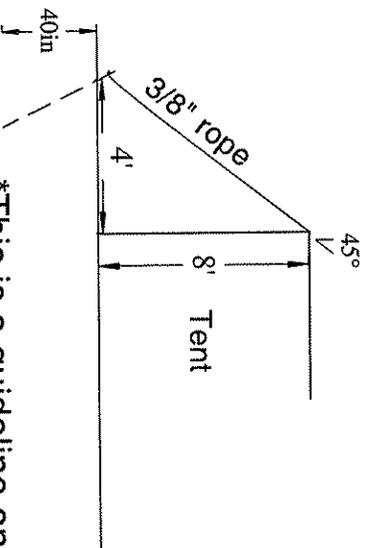


- Show all aisle widths
- △ 2A10BC Fire Extinguisher
- No Smoking Sign
- Exit Signs
- *72" min. exit for tents, 36" min. for membrane structures.
- Occupancy loads exceeding 100 SHALL use self-illumination or illuminated exit signs (with battery backup)
- Means of egress illumination SHALL be provided while structure is occupied.

TYPICAL TIEDOWN OF TENTS

Size of tent	Stakes	# of
		Stakes
10	12	8
12	12	8
14	14	8
16	16	8
18	18	10
20	20	12
22	22	15
24	24	17
26	26	20
28	28	24
30	30	27
32	32	29
34	34	32
36	36	36
38	38	43
40	40	48

Provide stakes at each corner and each way. Stakes to be 1" steel by 40" long. Use 3/8" or better approved rope. All knots to be tied according to industry standards



If Double stakes required provide 12" min. apart.

*This is a guideline only, manufacturer, or engineer may require additional holddowns or requirements