TEMPORARY MEMBRANE STRUCTURES, TENTS AND CANOPIES

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ROCHESTER FIRE DEPARTMENT

Fire Marshal's Office



If you have any questions or comments regarding the information contained within, or if you need assistance interpreting these requirements, please contact:

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TABLE OF CONTENTS

Purpose	3
Scope	3
Definitions	3
Guidelines	3
I. Permitting	3
II. Plan Submittal Requirements	4
III. Inspections	4
IV. General Installation Requirements	5
Attachments	9

PURPOSE

To provide plan submittal and other general requirements regarding the temporary use of tents, canopies and other similar structures.

SCOPE

Tents and membrane structures having an area in excess of 200 square feet(19 m²) and canopies in excess of 400 square feet (37 m²) shall not be erected, operated or maintained for any purpose without first obtaining a permit and approval from the Rochester Fire Department. For the purpose of this document, the term "Structure" shall apply to tents, canopies or other similar structures.

DEFINITIONS

Air-Supported Structure A structure wherein the shape of the structure is attained by air pressure, and occupants of the structure are with the elevated pressure area.

Tent A tent is a temporary structure, enclosure or shelter constructed of fabric or pliable material supported by any manner except by air or the contents it protects.

Canopy A canopy is a temporary structure, enclosure or shelter constructed of fabric or pliable materials supported by any manner, except by air or the contents it protects, and is open without side walls or drops on 75 percent or more of the perimeter.

Membrane Structure A membrane structure is an air-inflated, air-supported, cable, or frame-covered structure as defined by the *International Building Code* and not otherwise defined as a tent or canopy. See Chapter 31 of the *International Building Code*.

Temporary Use A period of not more than 180 days within a 12-month period on a single premise.

GUIDELINES

I. Permitting and Fees

A revocable permit from the Rochester Fire Marshal's Office is required prior to the assembly of tents and membrane structures having an area in excess of 200 square feet (19 m2) and canopies in excess of 400 square feet (37 m2).

Once a permit has been issued, set up of the structures may begin. The permit must remain on site with the temporary structure at all times until after the dismantling of the structure.

Fees are required for permits and subsequent inspections. The fee amount is based on the current approved RFD Fee Schedule.

City Special Event Applications. The RFD charges a fee for applicable city special event applications in addition to temporary structure applications. If a temporary structure application is part of a City special event application, and all information required within this document for the temporary structure is submitted to the City along with the special events application, only the RFD special event fee will be charged. The RFD temporary structure fee will not be charged for the permit. However, if a temporary structure application is part of a City Special Event application and both applications (temporary structure and City Special Event) are submitted separately, both the RFD Special Events and the RFD temporary structure fees will be charged. An inspection of the temporary structure will still be required, and a permit issued upon inspection. If there are any questions regarding this, please contact the Rochester Fire Marshal's Office prior to any submissions.

All information for the City Special Event Permit Applications in addition to all information for the RFD Temporary Structures Permit Application must be submitted together, at the same time as the City Special Events Application submittal in order to receive discounted fees.

Permit responsibility. When temporary structure applications are submitted together with City special event applications, the responsibility for the temporary structure permit falls upon the applicant of the City Special Event. If these applications are submitted separately, then the applicant of the temporary structure, not the applicant of the special event, is responsible for the temporary structure permit.

II. Plan Submittal Requirements

In order for a permit to be issued, construction plans must be submitted to the Fire Marshal's Office and subsequently reviewed and approved. The applicant must submit for approval a detailed drawing of the structure, its layout, location, separations from other structures, purpose (e.g., retail use, public assembly), and the permit application. When the submittal has been approved, the required fees will be collected and an inspection may be scheduled. Permits are issued upon inspection approval.

The submittal package for a temporary structure must consist of the documents:

- 1. Completed permit application
- 2. Signed installer certification
- 3. Installer/User Certification
- 4. Flammability certification(s) for the fabric/membrane of the temporary structure.
- 5. Site maps/diagrams including (minimum site plan size is 8½-x 11-inches):
 - a. Overall site plan showing entire site and general locations of all temporary structures
 - b. Detailed site plan to include the following: i. Locations and dimensions of all temporary structures
 - ii. Locations and dimensions of lot lines within 50 feet of all sides of the temporary structure
 - iii. Uses within all temporary structures
 - iv. Proposed locations of any furniture (tables, chairs, stages, etc.) or related items
 - v. Locations of all fire extinguishers
 - vi. Locations and dimensions of all required aisles and exits
 - vii. Locations and distances to all permanent structures within 50 feet of all sides of the temporary structures
 - viii. Locations of all adjacent vegetation and/or other combustible materials
 - ix. Locations of fire lanes/fire department access roads
 - x. Locations, sizes and types of any flammable/combustible liquid/gas tanks
 - xi. Locations and types of any/all heating equipment
 - xii. Locations and types of all electrical equipment

The permit for the use of tents or temporary membrane structures on a single premise shall not exceed a period of 180 days within a 12-month period. All temporary structures shall be removed prior to the expiration date documented on the issued permit.

III. Inspections

A Fire Inspector from the Fire Marshal's Office is required to conduct an inspection for the approval of the temporary structure installation and permit application prior to the structure being used. Fire inspections are not required for tents that do not require a permit; however, you may still request a Fire Inspector to perform a fire safety inspection for smaller temporary structure installations. Associated fees may apply. Fire inspections are scheduled by calling the Rochester Fire Marshal's Office at 507-328-2800 and scheduling an appointment. Inspection scheduling is subject to personnel availability. A minimum of three (3) business days is needed between the inspection scheduling and inspection date. It is strongly recommended that inspections be scheduled as far in advance as possible to ensure any desired inspection date, and subsequent use by the applicant of the temporary structure.

The temporary structure installer as well as a representative of the noted structure user may be asked to be present on site for the duration of the fire inspection. This is to ensure that all stakeholders are able to communicate necessary information at the same time.

Prior to the Fire Inspector's arrival for the inspection, the temporary structure shall be installed completely and shall be compliant with all applicable fire code requirements and plan review comments. A copy of the permit submittal package shall be shall be available to the inspector.

Once the installation has been approved by the inspector, the inspector will sign the permit which then allows the temporary structure to be used.

IV. General Installation Requirements

Locations, separations and clearances. Other than as excepted by Section 2403.8.2 of the 2009 IFC, temporary structures shall not be located within 20 feet of property lines, buildings, other tents, parked vehicles, or other internal combustion engines. Support ropes and guy wires are considered to be part of the structure when determining required separations. Multiple structures may be connected or adjacent to each other provided the entire tent assembly is provided with sufficient exits to meet both the individual tent requirements and as a single large tent.

Heating and cooking equipment which produces sparks or grease laden vapors is not allowed inside, or within 20 feet of temporary structures. The installation of approved heating and cooking equipment inside shall not be within 10 feet of exits or combustible materials and shall be vented to the outside by approved means. Structures where cooking is performed shall be separated from other structures by a minimum of 20 feet.

LP gas cylinders shall not be stored or used inside or within 10 to 25 feet of the temporary structure depending on tank size. Cylinders shall be secured in a manner to prevent movement or damage.

Flammable and combustible liquids shall not be used within temporary structures and shall be stored a minimum of 50 feet from temporary structures. Refueling of internal combustion engines such as generators shall not occur within 20 feet of the structure.

Three feet minimum clearances shall be maintained between the fabric of the structure and all contents located within the structure.

Flame resistance. A label shall be permanently affixed to the structure identifying the flame-retardant properties of the material.

Before a permit is granted, the tent contractor, owner or agent shall file with the Division of the Fire Marshal a certificate executed by an approved testing laboratory, certifying that all portions of the structure, as well as any tarpaulins, floor coverings (including sawdust), bunting, combustible decorative materials and effects are composed of flame-resistant materials or are treated with a flame retardant and meet the requirements of NFPA 701, and that such flame resistance is effective for the period specified by the permit.

Open or exposed flames and fireworks. Open flame sources including any/all cooking appliances, candles, "sterno" canisters, any/all heating appliances, flame effects and similar items may not be located inside or within 20 feet of structures unless specifically approved by the Division of the Fire Marshal. Fireworks, pyrotechnics and other similar effects are not allowed inside or within 100 feet of any temporary structure.

Smoking. No smoking signs shall be posted throughout the temporary structure. No smoking signs shall include the wording "NO SMOKING BY ORDER OF THE FIRE DEPARTMENT" The lettering of "NO SMOKING" shall be block letters at least 1-½-inches in height with a ¼-inch stroke. "BY ORDER OF THE FIRE DEPARTMENT" shall be in block letters ¾-inches tall with a ¼-inch stroke. All letters shall be red on a white background. An example of a typical no smoking sign is shown in Figure 1.



Figure 1 - No Smoking Sign Example

Occupant load. The following table shall be used to determine the occupant load:

Table 1 - Occupant Load Factors

Use/Occupancy of Temporary Structure	Occupant Load Factor (Floor area in sq. ft per occupant)
Assembly – Concentrated Use (Chairs only-not fixed)	7
Assembly – <i>Unconcentrated Use</i> (With tables and chairs)	15
Assembly – Standing space only ¹	5
Retail / Mercantile	30

¹When this factor is used, the entire space within the walls of the temporary structure must be free of tables, chairs, other furniture and related obstructions.

Occupant loads shall be posted in a conspicuous place, near the main exit. Signs shall be of an approved legible permanent design.

Exits. The minimum number of and width of exits shall be as follows:

Table 2 - Minimum Exit Requirements

Capacity	Min. # of Exits	Min Width per Exit for Tents	Min Width per Exit for Membrane Structures
10 to 199	2	72	36
200 to 499	3	72	72
500 to 999	4	96	72
1000 to 1999	5	120	96
2000 to 2999	6	120	96
Over 3000 ²	7 ²	120 ²	96 ²

²The total width of all exits shall not be less than the total occupant load multiplied by 0.2 inches per person. Exiting through other nearby tents is an unacceptable configuration.

Exit distribution. Exits shall be spaced at equal intervals around the perimeter and located so no point within the tent is over 100 feet from an exit. This measurement is determined by the path of travel a person would be required to follow to reach the exit. Exiting from one tent into or through an adjacent tent is not an acceptable configuration.

Exit covers. Openings in the structure shall remain open unless covered by a flame-resistant curtain. Curtains are to be free sliding on a metal support, and when open, shall not obstruct the exit width. Curtains shall be a color that contrasts with the tent.

Aisles. The minimum width of any public aisle is 44 inches. Aisles for employees only, may be 24 inches wide, but not less than the width required by the number of employees served. Aisles in seating areas

shall progressively increase in width to provide, at all points, not less than 1 foot of width for each 50 persons served by such aisle at that point.

Exit signs and illumination. An exit sign shall be provided for each exit when the occupant load exceeds 50. Exit signs shall be illuminated by either an approved self-luminous type or shall be internally or externally illuminated by fixtures supplied in an approved manner. Means of egress shall be illuminated in an approved manner, with light having not less than 1 foot-candle at the floor level while the structure is occupied.

Maintenance of exits. The required clear width of all exits, aisles, and passageways to a public way shall be maintained from any obstacles at all times. Support ropes, guy wires and other support members shall not cross a means of egress at a height of less than 8 feet over the entire clear width of the exit.

Portable Fire Extinguishers. Fire extinguishers and other fire-protection appliances shall be provided in every tent, canopy, and temporary membrane structure as follows. Fire extinguishers may not be removed from adjacent businesses to provide protection for the structure.

Table 3 - Minimum Fire Extinguisher Quantities

From	То	Quantity							
(square feet)	(square feet)	(each)							
1	200	1							
201	500	2							
501	1000	3							
1001	3000	4							
3001	5000	5							
5001	7000	6							
7001	9000	7							
9001	11000	8							
For each additional 20	For each additional 2000 square feet or fraction thereof add one								
addition	onal 2A:10BC extinguishe	er.							

A least one 40BC rated fire extinguisher shall be provided for each kitchen, mess hall, power generator, or transformer and at locations where flammable or combustible liquids are used, stored, or dispensed.

The locations of these hazards shall be in accordance with location guidance found elsewhere in this document as well as applicable codes and standards. Fire extinguishers shall be located no closer than 10 feet to a hazard and no further than 50 feet from the hazard. All fire extinguishers shall be mounted at approximately waist high. Final locations and heights will be determined by the fire inspector.

Housekeeping. Weeds, combustible vegetation and other combustible waste shall be removed from and kept free from inside and within 30 feet of the structure. Such waste shall be stored in approved containers until removed from the premises. If the structures are placed over grasses, the grasses shall be watered and live and cut to a length of no more than 4 inches in height.

Hay, straw, trash, and other combustible materials shall not be stored within 30 feet of the tent unless being used for the care and daily feeding of animals. Sawdust/shavings utilized for public performance or exhibits shall not be used within structures unless the sawdust/shavings are kept damp.

ATTACHMENTS

Tent and Canopies Permit Application

Installer and User Certification

Temporary Structure Setup and Daily Checklist

Temporary Structure Worksheet

Site Plan Example

Blank Site Plan

PIE DEPT	Rochester Fire Department TENTS & CANOPIES PERMIT APPLICATION									
	USER INFORM			William Control						
Business Name		Daytime	e Phon	e						
Business Address		After Ho	ours Ph	none						
City, State, Zip		Fax								
Email Address										
	INSTALLER INFO	RMATION								
Business Name		Daytime	e Phon	e						
Business Address		After Ho	ours Ph	none						
City, State, Zip		Fax								
Email Address										
TEN	IT OR CANOPY INSTALLATION	LOCATIO	N INFO	ORMATION						
Business Name										
Business Address										
City, State, Zip										
Location on Property										
Is this tent/canopy app	olication part of a City of Roches	ter Specia	l Even	ts Application? ☐ YES ☐ NO						
If yes, what is the even	nt name and event date?									
What are the daily hou	irs of operation for the tent?	AM/PM	to	AM/PM						
INSTALLATION	/USE/REMOVAL DATES		END							
Dates planned for Tent	/Canopy INSTALLATION:		and							
Dates planned for Tent	/Canopy USE:		and							
Dates planned for Tent	/Canopy REMOVAL:		and							
Responsible Party (Ple	ease Print)	Title								
OFFI	CE USE ONLY	Date								
Permit										
Permit Fee										
Pocontion No :										

A COPY OF THIS APPLICATION SHALL REMAIN ON SITE ALONG WITH THE PERMIT

INSTALLER CERTIFICATION OF COMPLIANCE

	I will install the tent in full conformance with the installation requirements as outlined in the RFD Temporary Membrane Structures, Tents and Canopies document and the 2009 International Fire Code.
Initial	I will instruct the User of the tent or canopy in the daily use of the Tent Installation Checklist. I will document this instruction by obtaining a duly executed User Certification of Compliance form as outlined in the Temporary Membrane Structures, Tents and Canopies document. A copy of this sign formed will be posted with the Rochester Fire Department Permit. I will explain each of the checklist requirements
 Initial	and the appropriate corrective actions.
	I have submitted certifications executed by approved testing laboratories validating the fire resistive properties in accordance with NFPA 701 of all elements of the structure, as well as of any floor coverings, tarps and combustible decorative
Initial	I understand that this certification is being made in conformance with the 2009 International Fire Code and related RFD amendments.
Initial	I understand that installation of a tent or canopy that does not comply with the requirements as outlined in the Minnesota Temporary Membrane Structures, Tents and Canopies document and the 2009 International Fire Code is a violation of local law.
Initial	iaw.
Signed: _	Official of Installing Company
Printed N	lame:
	USER CERTIFICATION OF COMPLIANCE
 Initial	I have read and understand the installation and periodic surveillance requirements as outlined in the Temporary Membrane Structures, Tents and Canopies document as
 Initial	I agree to abide by codes, standards and polices as outlined in the Temporary Membrane Structures, Tents and Canopies document and the 2009 International
	I agree to conduct, or have conducted by a designated employee, a daily self- inspection of the tent installation utilizing the Tent Installation Checklist provided in the Temporary Membrane Structures, Tents and Canopies document.
Initial	I agree not to occupy or use the tent unless it fully meets the requirements for installation and passes the Tent Installation Checklist without exception.
Initial	
Signed: _	Date Pate Representative of User
Printed N	
. milea N	lame: Page 10 of 14

TEMPORARY STRUCTURE SETUP AND DAILY CHECKLIST

CORRECTIVE ACTION

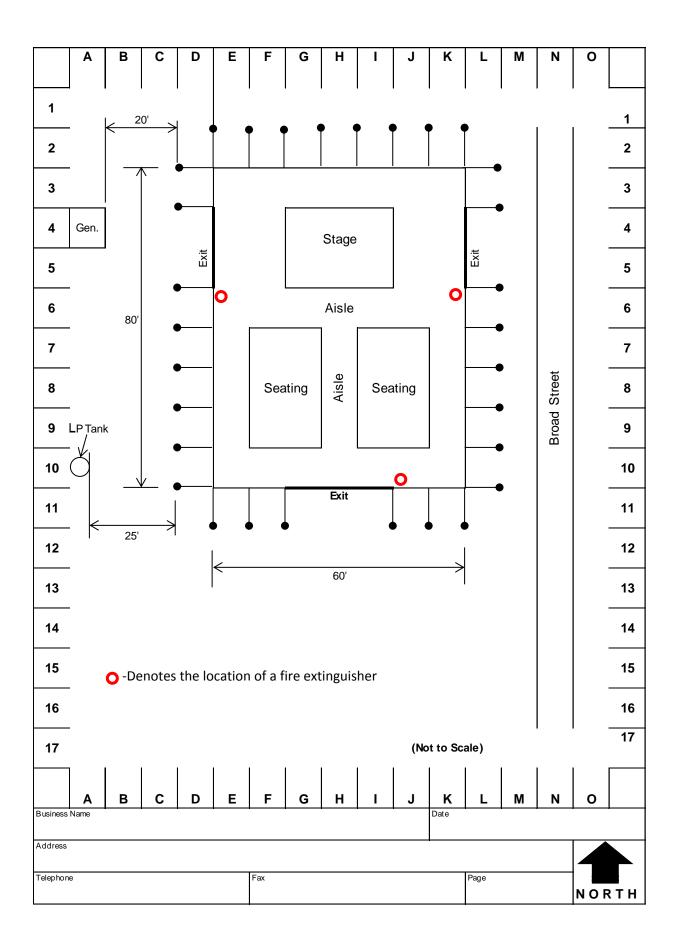
YES

NO

ITEM TO VERIFY

	11211110 1211111	 00111271011011
	Is structure at least 20 feet from any property lines?	Do not occupy or use structure. Structure needs to be relocated a minimum of 20 feet from any property lines.
	Is structure within 20 feet of any building?	Do not occupy or use structure. Structure needs to be relocated a minimum of 20 feet from any building.
	Is structure within 20 feet of another structure?	Evaluate all structures within 20 feet of each other as a single structure meeting all applicable requirements.
	Is structure within 20 feet of parking?	Restrict parking or relocate structure at least 20 feet from parking.
	ls structure within 20 feet of any internal combustion engines?	Do not use internal combustion engine until relocated at least 20 feet from structure.
	Are "No Smoking" signs posted inside and outside?	Do not occupy or use structure unless no smoking signs are posted and enforced.
	Are fireworks and unapproved open flames prohibited inside and outside the structure?	Do not occupy or use structure unless fire works and all unapproved open flames are prohibited in the structure and within 20 feet of exterior of structure.
	Are all points in the structure within 100 feet of an exit?	Do not occupy or use structure unless sufficient nearby exits are provided.
	Are exits open and uncovered?	Do not occupy or use structure unless all required exits are functional.
	Are all aisles at least 44 inches wide? Do aisles increase in width where required?	Do not occupy or use structure unless proper aisle widths are maintained.
	Is the Occupant Load posted appropriately?	Do not occupy or use structure unless the correct occupant load is posted appropriately.
	Ensure "Exit" signs are posted and clearly visible.	Do not occupy or use structure unless required "Exit" signs are provided.
	Ensure "Exit" signs are illuminated.	Do not use or occupy structure unless illuminated exits are provided.
	Ensure emergency lighting is provided.	Do not use or occupy structure unless emergency lighting is provided.
	Is a label permanently affixed to the structure bearing the identification of size and material type?	Do not use or occupy structure unless label is present.
	Ensure that exit signs have either two separate circuits or two sources of power depending on occupant load.	Do not use or occupy structure until a minimum of two circuits or sources of power are provided as required. Typically this is accomplished through the use of AC Powered Exit signs with internal battery backup.
	2A:10BC Fire extinguishers are provided (see information packet for minimum number required).	Do not use or occupy structure until sufficient, properly sized, fire extinguishers are provided.
	At least one 40BC rated fire extinguisher shall be provided for each kitchen, mess hall, power generator, or transformer and at locations where flammable or combustible liquids are used, stored, or dispensed.	Do not use or operate any of these hazards unless appropriate fire extinguishers are provided as described in Temporary Membrane Structures, Tents and Canopies document and applicable codes.
	Weeds and other combustible vegetation shall be removed from within 30 feet of the structure area.	Do not use or occupy the structure unless combustible vegetation has been removed from the specified area.
	The floor surface inside, including the grounds adjacent to or within 30 feet outside of temporary tents, canopies, and membrane structures, shall be kept free of combustible waste.	Do not use or occupy the structure unless combustible waste is removed or stored in proper containers.
	Such waste shall be stored in approved containers until removed from the premises.	Do not use or occupy the structure unless trash containers have been emptied from the previous day.
Insp	pection performed by:	Date:

STEP	TEMPO	RARY STRUCTURE	WORKSHEE	Т							
1	USE and OCCUPANT LOA (OLF). Use this OLF in the appro		of use for each tent and circle in the corresponding Occupant Load Factor								
	TENT	USE	OCCUPANT LOA	AD FACTOR (OLF) (Se	q. ft/person)						
		airs only, not fixed, no furniture)		7	· · ·						
	Unconcentrated assemb	ly use (tables and chairs)		15							
	Standing space only assembly	use (no obstructions permitted)		5							
	Retail and a	Il other uses.		30							
2	OCCUPANT LOAD Enter the square footage for each tent. Div	length and width of each tent in tide the total square footage by the									
	Tent 1	x =		/	=						
	Length	Width	Area	Div. OLF	Occupant Load						
	Tent 2	X =		/	=						
	Length	Width	Area	Div. OLF	Occupant Load						
	Tent 3	X =		/	=						
	Length	Width	Area	Div. OLF	Occupant Load						
	M embrane Structure utilizes trad Occupant Load (From Step 2)	Required Number of Exits	T	Minimum width of each exit	(inches)						
					/I embrane						
	1- 9	1		72 72	#						
	10 - 199	2		#							
	200 - 499	3		72	72						
	500 - 999	4		96	72						
	1000 - 1999	5		120	#						
	2000 - 2999	6		120	# 96*						
	Over 3000* *The total width of all exits shall nearby tents is an unacceptable of	not be less than the total occupan	7 120* than the total occupant load multiplied by 0.2 inches per person. Exitin n.								
4	EXITING SUMMARY Using the occupant loads calculated in Step 2, use the Table in Step 3 to determine the corresponding Required Number of Exits and Minimum Width of each Exit Provide the summary of this information below.										
	Tent 1										
	Required Number of Exits		Width of Each Exit								
	Tent 2										
	Required Number of Exits		Width of Each Exit								
	Tent 3										
	Required Number of Exits		Width of Each Exit								
5	FIRE EXTINGUISHERS Uti	izing the square footage of each	tent indicate the appro	priate number of fire exting	juishers for each tent.						
	Size of Tent (Sq. Ft.)	Minimum required number of	f fire extinguishers	Fire Exting	uisher Summary						
	1- 200	1		Tent 1							
	201- 500	2									
	501 - 1000	3	Total Number of Fire Extinguisher								
	1001- 3000	4		Tent 2							
	3001- 5000	5	5								
	5001- 7000	6	Total Number of Fire Extinguishers								
	7001- 9000	7	7 Tent 3								
	9001- 11000	8									
	Add 1 additional 2A:10BC exting	uisher for each additional 2000 s	sq. ft or fraction thereo	f. Total Number of	Fire Extinguishers						



	Α	В	С	D	E	F	G	Н	I	J	K	L	M	N	0	
1																1
2																2
3																3
4																4
5																5
6																6
7																7
8																8
9																9
10																10
11																11
12																12
13																13
14																14
15																15
16																16
17																17
Business	A Name	В	С	D	E	F	G	Н	ı	J	K Date	L	М	N	0	
Address																
Telephon	ne					Fax						Page				
															N O F	T H