

# PERMIT AND PLAN SUBMITTAL REQUIREMENTS FOR FIREWORK, PYROTECHNIC AND FLAME EFFECT PRODUCTIONS

**EAST GRAND FIRE PROTECTION DISTRICT #4**  
Fire Prevention Bureau



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

**East Grand Fire Protection District #4**  
**Fire Prevention Bureau**  
**77601 U.S. Highway 40, P.O. Box 2967**  
**Winter Park, Colorado 80482**  
**Tel: (970) 726-5824**  
**Fax: (970) 726-5938**

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## **PURPOSE**

To provide permitting and plan submittal requirements for the use of fireworks, pyrotechnics, flame effects and other similar effect productions.

## **SCOPE**

This document pertains to the approved use and required permitting of fireworks, proximate audience displays, flame effects and pyrotechnic special effects in motion picture, television, theatrical, and group entertainment productions as required by the East Grand Fire Protection District #4.

## **DEFINITIONS**

**Fireworks.** Any composition or device for the purpose of producing a visible or an audible effect for entertainment purposes by combustion, deflagration or detonation that meets the definition of 1.4G fireworks or 1.3G fireworks as set forth herein.

**Fireworks, 1.4G. (Formerly known as Class C, Common Fireworks.)** Small fireworks devices containing restricted amounts of pyrotechnic composition designed primarily to produce visible or audible effects by combustion.

**Fireworks, 1.3G. (Formerly Class B, Special Fireworks.)** Large fireworks devices, which are explosive materials, intended for use in fireworks displays and designed to produce audible or visible effects by combustion, deflagration or detonation. Such 1.3G fireworks include, but are not limited to, firecrackers containing more than 130 milligrams (2 grains) of explosive composition, aerial shells containing more than 40 grams of pyrotechnic composition, and other display pieces which exceed the limits for classification as 1.4G fireworks. Such 1.3G fireworks, are also described as Fire-works, UN0335 by the DOTn.

**Fireworks Display.** A presentation of fireworks for a public or private gathering. (See also definitions in NFPA 1123 - *Code for Fireworks Display*)

**Flame Effect.** The combustion of flammable solids, liquids or gases to produce thermal, physical, visual or audible phenomena before an audience. (See also definitions in NFPA 160, *Standard on the Use of Flame Effects Before an Audience.*)

**Pyrotechnic Special Effect.** A visible or audible effect for entertainment created through the use of pyrotechnic materials and devices. (See also definitions in NFPA 1126 - *Standard for the Use of Pyrotechnics Before a Proximate Audience.*)

## **GUIDELINES**

### **I. Permitting and Fees**

A provisional permit from the Fire Prevention Bureau is required prior to the use of any approved firework or pyrotechnic production. Once a permit application has been submitted and approved, set up of the display may begin. The permit will be issued at the time of inspection and must remain on site of the display at all times until after the dismantling of the production. Fees are required for permits and subsequent inspections. The fee amount is based on the current approved Fire Prevention Bureau Fee Schedule.

### **II. Plan Submittal Requirements**

In order for a permit to be issued, construction plans must be submitted to the Fire Prevention Bureau and subsequently reviewed and approved. The applicant must submit for approval a detailed drawing of the site and/or production area, its layout, location, separations from other structures, purpose (e.g., retail use, public assembly), and the permit application (See Attachments for examples). 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 firework, pyrotechnic and/or flame effect production must consist of the following documents.

This submittal package must be received by the Fire Prevention Bureau no later than ten (10) business days prior to the production. Incomplete submittals will be disapproved or not accepted. Submittal requirements include, but are not limited to:

1. Completed permit application
2. Name of person, group, or organization sponsoring the production.
3. Date and time of day of the production.
4. Exact location of the production.
5. Name of the person actually in charge of firing the pyrotechnics.
6. Number, names, and ages of ALL assistants who are to be present.
7. Qualifications of the pyrotechnic operator.
8. Pyrotechnic experience of the operator.
9. Confirmation of any applicable state and federal licenses held by the operator and/or assistant(s).
10. Evidence of the permittee's insurance carrier or financial responsibility. (See Section IV - Insurance)
11. Number and types of fireworks, pyrotechnic devices and/or flame effects and materials to be used, the operators experience with those devices and effects, and a definition of the general responsibilities of the assistant(s).
12. Detailed, to scale, site or facility diagram of the grounds or facilities where the production is to be held. This diagram shall show the point at which the pyrotechnic devices are to be fired, the fallout radius for each pyrotechnic device used in the performance, and the lines behind which the audience shall be restrained; distances shall be measured in feet and all exposures identified in feet from point of display.
13. Point of on-site assembly of pyrotechnic devices. (If assembly on site is required)
14. Manner and place of storage of the pyrotechnic materials and devices.
15. Material Safety Data Sheets (MSDS) for EACH of the pyrotechnic material(s) to be used.
16. Certification that the costumes, set, scenery, and rigging materials are inherently flame-retardant or have been treated to achieve flame retardancy.
17. A shot queue list/timeline for each shot during the performance.
18. Signed installer certification
19. Installer/User Certification
20. Flammability certification(s) for the fabric/membrane of the temporary structure. And/or costumes, clothing, scenery, stages, etc.

Once the plan submittal has been approved, a permit will be generated. However the permit will not be issued until fire final inspection and approval. Only then is the production allowed to commence. All plans must be in accordance with the following applicable national codes and standards:

- ☐ IFC Chapter 33 – Explosives & Fireworks.
- ☐ NFPA 160 - *Standard on the Use of Flame Effects Before and Audience.*
- ☐ NFPA 1123 - *Code for Fireworks Display*
- ☐ NFPA 1126 - *Standard for the Use of Pyrotechnics Before a Proximate Audience.*

### III. Inspections

A Fire Inspector from the Fire Prevention Bureau is required to conduct an inspection for the approval of the firework, pyrotechnic and/or flame effect production installation and permit application prior to the production occurring. Fire inspections are scheduled by calling the Fire Prevention Bureau and making an appointment after the submittal package has been approved. Inspection scheduling is subject to personnel availability. A minimum of three (3) business days is needed between the inspection scheduling and inspection date. Although it is strongly recommended that inspections be scheduled as far in advance as possible to ensure any desired inspection date. The firework/pyrotechnic installer and/or operator shall be present on site for the duration of the fire inspection and remain on-site through the production. For fireworks productions, the installer/operator shall remain on-site after the production as required per NFPA 1123. Prior to the Fire Inspector's arrival for the inspection, the production shall be installed completely and compliant with all applicable fire codes and standards as well as plan review comments. A copy of the permit submittal package shall be available to the inspector. Fire Inspectors may require the "shooter" to demonstrate any or all of the items used within a production to verify what the effect will be or look like (span/extent of effects, amount of sparks produced, height of flames, etc.) as well as adequate clearances from adjacent hazards. Any deficiencies found by the Fire Inspector must be corrected prior to issuance of the permit. The Fire Prevention Bureau is authorized to delay, cease or modify the production based on fire and life safety concerns noted during the plan review and/or during final site inspection. Once the installation has been approved by the inspector, the inspector will issue the permit which then allows the production to commence.

#### **IV. Insurance**

With the exception of government entities, the permit holder shall furnish a bond or certificate of insurance in an amount deemed adequate by the fire code official for the payment of all potential damages to a person or persons or to property by reason of the permitted display, and arising from any acts of the permit holder, the agent, employees or subcontractors. This bond or certificate shall include:

1. \$2,000,000 general aggregate.
2. \$1,000,000 products and completed operative aggregate.
3. \$1,000,000 each occurrence.
4. Comprehensive automobile liability with minimum limits of \$1,000,000 per occurrence.
5. Workers compensation and employers liability as required by statute. Employers' liability coverage is to be carried for a minimum of \$100,000.
6. The insurance shall cover all operations involving fireworks and any vehicles used for the transportation or storage of fireworks, bodily injury liability and property liability for the purpose of payment of any damages to persons or properties which arise from, or are caused by, the conduct of an act authorized by the permit upon which a judicial judgment results. The insurance shall also provide protection for underground property damage and property damage resulting from fireworks or explosion. The certificate of insurance shall guarantee 30 days written notice to the chief of the fire department in the event of policy cancellation for any reason. The chief is authorized to specify a greater or lesser amount when, in the chief's opinion, conditions at the location of use indicate the need for modification.

## **ATTACHMENTS**

Blasting/Fireworks/Flame Effects/Pyrotechnics Permit Application

Outdoor Display Site Plan Example

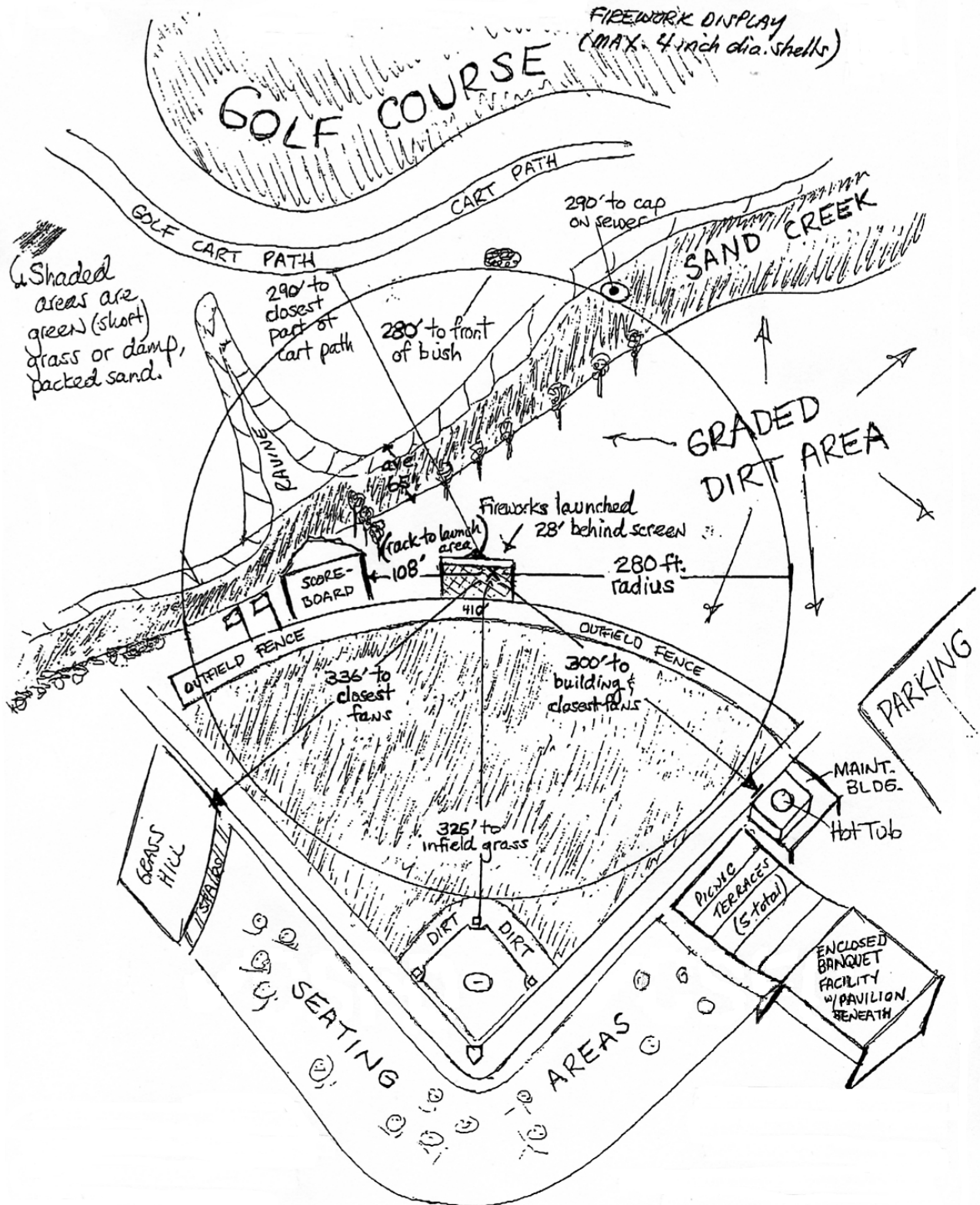
Indoor Display Site Plan Example

## Blasting/Fireworks/Flame Effects/Pyrotechnics Display Permit Application

Return this application and site plan to the East Grand Fire Protection District #4, Fire Prevention Bureau at  
77601 U.S. Highway 40 / P.o. Box 2967, Winter Park, Colorado, 80482. (p) 970-726-5824 (f) 970-726-5938

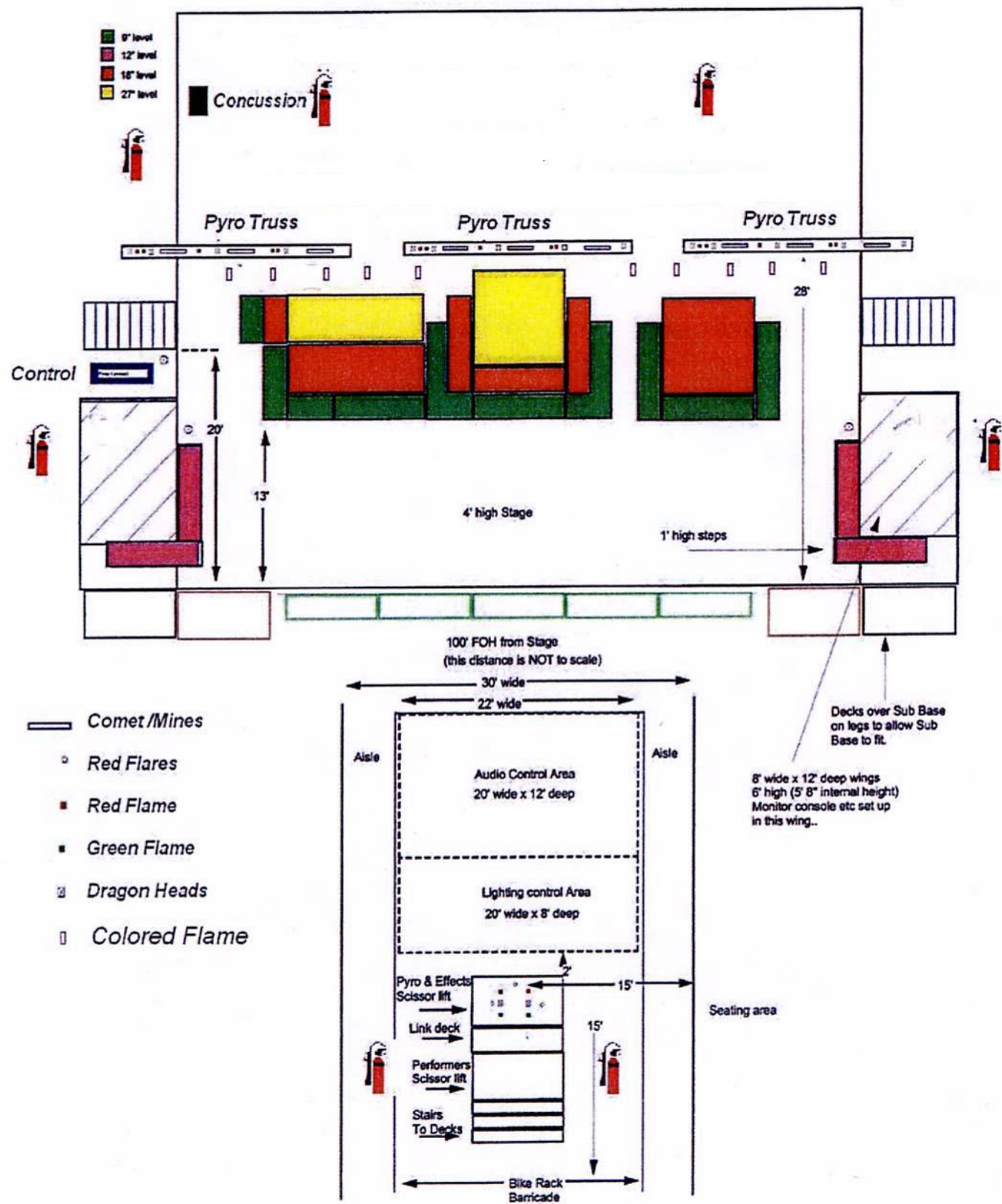
<b>APPLICANT</b>	Name of Firm, Corporation , or Individual		Tele #		Fax #	
	Street Address			Email		
	City, State, Zip			Applicant Signature		
	State Cert #			Applicant Printed Name		
<b>CLIENT</b>	Name		Tele #		Fax #	
	Street Address			Point of Contact		
	City, State, Zip			Email		
	Reason for Display					
<b>INSURANCE</b>	Name of Carrier					
	Street Address					
	City, State, Zip			Tele #		Fax #
	Policy #			Email		
	Limits of Liability					
<b>EVENT INFO</b>	Site Address of Display			Grand County, CO		Zip
	Exact Location of Display on Site					
	Date of Display/Shoot			Time(s) of Display/Shoot		
	Rain Date for Display/Shoot					
	What is the event name and event date/dates?					
<b>OFFICE USE ONLY</b>	EGFD FPB Review <input type="checkbox"/> Approved <input type="checkbox"/> Denied <input type="checkbox"/> N/A			Date of Review		
	Plan Review #					
	Date of FPB Inspection			Inspector		
	Permit Fee		Receipt #	Expiration		Permit #

Example of Outdoor Display Site Map





Example of Indoor Display Site Map



## Permit and Plan Submittal Requirements for Firework, Pyrotechnic and Flame Effect Productions