

The Fire House Design event challenges competitors to conceptualize and present a modern fire facility. Participants will showcase their designs through 3D models and tri-fold poster boards, articulating their vision to a panel of judges.

Entry Requirements

- Teams must be composed of a minimum of 1 and a maximum of 2 member(s).
- Chapters can only register 3 teams to compete.

Materials

Competitors can/should provide the following materials. Competitors are only permitted to bring in the below materials to the competition. TPSA does not provide the below materials.

Competitor Provided Materials

- **Tri-Fold Poster Board:** Board must be white and measure 36" x 48"
- **Aerial Blueprints of Facility**
- **Physical 3D model:** Physical 3D replica of the vehicle bay that matches the aerial blueprint.
- **2-Pocket Folder:** 2-pocket folder with brads containing photographs of the group carrying out each phase of the design process
- **Photo Identification:** Reference the rulebook (<https://tpsa.info/rulebook>) for details

Procedures and Timeline

- **Check In (10 min Time Limit):** Competitors must check in to their event at their designated **check-in time**. Competitors that arrive **ten (10) minutes** after their designated check-in time will be marked as no-shows and not be allowed to compete out of respect for the time commitment made by our judges and volunteers.
- **Pre-Event Briefing (5 min Time Limit):** After check-in, competitors will be guided to the designated event area. Once there, the moderator will provide a comprehensive briefing, detailing the event's instructions, rules, and procedures. This briefing ensures that each competitor is well-informed and prepared for the subsequent stages of the competition.
- **Presentation (10 min Time Limit):** The competitors will have 10 minutes to explain their tri-fold information and present their model to the judges.
- **Judge's Questions (5 min Time Limit):** Judges will have 5 minutes to ask clarifying questions about the presentation/model.
- **Evaluation and Scoring (5 min Time Limit):** After the completion of the event, the judges will convene to assess each competitor's/team's performance based on a standardized rubric. This stage is conducted without the presence of the competitors. Judges will evaluate the criteria outlined in the rubric to ensure a fair and objective scoring process. Once all assessments are finalized, scores will be recorded for each competitor/team.

Rules

- **Project Submission:** The tri-fold, 2-pocket folder, and model will remain in the judging room until the end of the entire competitive event. The competitors will be notified at the end of the competitive event where and when to collect their items.
- **2-Pocket Folder Criteria:** Both competitors must be included in all photographs contained in the binder to demonstrate their work on the project.
The 2-pocket folder must include the following:
 1. Title page with: Name of Facility, name and picture of both team members, and the school name
 2. "e2 (4" x 6 ") photographs showing team members throughout Development/Brainstorming/ Researching
 3. "e2 (4" x 6") photographs showing team members throughout Blueprint design
 4. "e2 (4" x 6") photographs showing team members throughout 3D Model Design
 5. "e2 (4" x 6") photographs showing team members throughout Tri-Fold poster design
 6. Photographs must be affixed to white card stock paper (no more than 2 photographs per page)
 7. Card Stock with photographs placed within clear protective sleeves
 8. Each photograph has a description (time, date, location, individuals pictured, details of activity taking place) located underneath the photograph on the page
 9. Phases are divided with tabbed divider pages appropriately labeled with Phase name
- **Design Requirements**
 1. The facility must not violate the United States Constitution.

2. Designs and demonstrative items may not be used for more than one year of competition
- **Tri-Fold Poster Board Requirements**
 1. White 36" x 48" tri-fold poster board
 2. May use back of board but it must be white
 3. Nothing adhered to the tri-fold may extend more than 1/4 inch from the surface of the board
 - **Department Procedures - Fire**
 1. Daily schedule for firefighters
 2. Fire Class-A uniforms/shoulder patch/badge
 3. Equipment maintenance procedures
 4. Public request procedures
 5. Firefighter training procedures (perform/receive training, training for promotions)

These are the minimum required items for Department Procedures, additional items can be added
 - **Aerial Blueprints - Fire:** The aerial blueprint(s) is a "bird's eye" view of the inside and outside of the facility and must include all of the areas listed below and depict items that would be contained within the space:
 1. Captain's office space
 2. Sleeping quarters
 3. Locker/bath/shower/dressing rooms
 4. Kitchen/Dining area
 5. Day room
 6. Fire alert system
 7. Mechanical room
 8. Communication room
 9. Vehicle bay
 10. Laundry area

The blueprint(s) may include other areas of the facility not listed above but are not required. The blueprint(s) may include more than one building/section to accommodate all required areas.
 - **3D Model ("24"x24") - Fire:** The model should be a replica of the Vehicle Bay Area matching the aerial blueprints competitors designed.
 1. The design may not be larger than 24" x 24"
 2. The model may contain electrical components such as lighting or electronically controlled doors, but it is not required, and does not add to or take away from the score
 3. All items are reasonably scaled to the overall size of model
 4. Model matches design of bay area created by students
 5. Model must contain a minimum of fire apparatus, air refill station, bunker gear racks and laundry, tool storage, ventilation system, electrical, and floor drains
 6. Number of staff on shift

Professional Dress Guidelines

To secure professionalism points, competitors should dress in attire that accurately reflects what professionals in the respective public safety careers would wear while performing the tasks associated with the event. Competitors are also expected to consult and follow the professional dress guidelines in the rulebook to qualify for points. Additionally, participation is contingent upon meeting all prescribed safety protocols.

Judge Qualifications

- Firefighter that has knowledge of the fire house designs contained within the rubric

Criteria	Unattempted	Unsatisfactory	Satisfactory	Proficient	Exemplary	Points
Professionalism						
Professionalism This criterion evaluates the appropriateness of attire and the level of professional behavior displayed, considering industry standards relevant to the event.	0 No professionalism demonstrated. Attire and behavior are entirely inappropriate or unacceptable.	1 2 Attire is inappropriate for the event and does not meet industry standards. Professional behavior is inconsistent.	3 4 5 Attire is mostly appropriate but may not fully meet industry standards. Professional behavior is generally acceptable.	6 7 8 Attire meets industry standards and is appropriate for the event. Professional behavior is consistent.	9 10 Attire meets industry standards and is appropriate for the event. Professional behavior is outstanding and goes above and beyond expectations. Attire quality is not a factor between Proficient and Exemplary.	
2 Pocket Folder						
Contents The 2 pocket folder must contain at least 2 photos from each phase of creation. 1. Development/Brainstorming/Researching 2. Blueprint Design 3. 3D Model Design 4. Tri-Fold Poster Design	0 No 2 pocket folder included	1 2 Pocket Folder included but contained less than 50% of required content	2 2 Pocket Folder included and contained at least 50% of required content	3 2 Pocket Folder included and contained at least 75% of required content	5 2 Pocket Folder included and contained 100% of required content	
Overall 2 pocket folder includes the following: 1. Title page 2. Photos affixed to card stock 3. Pages in clear sheet protectors 4. Descriptions for each photo 5. Divided with labelled, tabbed divider pages	0 2 Pocket Folder not included	1 2 Pocket Folder included but contained less than 50% of the necessary items.	2 2 Pocket Folder included and contained at least 50% of the necessary items.	3 2 Pocket Folder included and contained at least 75% of the necessary items.	5 2 Pocket Folder included and contained 100% of the necessary items.	

Criteria	Unattempted	Unsatisfactory	Satisfactory	Proficient	Exemplary	Points
3D Model of Vehicle Bay						
Rooms Physical 3D model of a vehicle bay within the fire facility ("d 24"x24") 1. Model must contain a minimum of fire apparatus, air refill station, bunker gear racks and laundry, tool storage, ventilation system, electrical, and floor drains 2. Number of staff on shift	0 No 3D model submitted or model did not include rooms	2 Less than 50% of the required items are in the 3D model	3 4 At least 50% of the required items are in the 3D model	5 At least 75% of the required items are in the 3D model	6 100% of the required items are in the 3D model	
Overall Requirements The 3D Model must meet the following requirements: 1. No larger than 24" x 24" 2. All items are reasonably scaled to model 3. Model matches design of facility created by students 4. Dimensions displayed on model	0 No 3D model submitted	2 3D model submitted with less than 50% of requirements met	3 4 3D model submitted and met at least 50% of the requirements	5 3D model submitted and met at least 75% of the requirements	6 3D model submitted and met 100% of the requirements	
Neatness Model is neat and well put together. Walls are sturdy and everything is firmly attached.	0 No model submitted	2 Model is submitted but is messy and not constructed to be sturdy	3 Model is submitted and is not sturdy, but construction is neat.	5 Model is submitted and is sturdy, but construction is messy.	6 Model is submitted and is constructed neat and sturdy	
Tri-fold Poster Board Organization and Design						
Attention to Detail All information on the tri-fold board should be grammatically correct and properly spelled	0 No tri-fold board	1 Information on the tri-fold board has more than four grammatical or spelling errors	2 The information on the tri-fold board has less than 4 grammatical or spelling errors	3 ALL information on the tri-fold board is grammatically correct and properly spelled		

Criteria	Unattempted	Unsatisfactory	Satisfactory	Proficient	Exemplary	Points
Fire House Name Name for the Fire House that is (1) original, (2) neatly centered on the board, and (3) large enough to be read from 6 ft away.	0 No tri-fold board or board does not contain a facility name	1 Fire House name meets 1 of the requirements	2 Fire House name meets at least 2 of the requirements	3 Fire House name meets all 3 requirements		
Formatting Each required element of the design must have a section label that can be read from 6 ft away. All text unless otherwise specified, can be read from 3 ft away and is in a font that is easy to read. Information is neatly and appropriately placed/spaced to create a logical flow of reading.	0 Less than 50% of the required elements are demonstrated on the poster.	1 At least 50% of the required elements are demonstrated on the tri-fold poster.	2 At least 75% of the required elements are demonstrated on the tri-fold poster.	3 100% of the required elements are demonstrated on the tri-fold poster.		
Aerial Blueprint(s)						
Captain's Office Office is included and the type, size and location of these spaces are adequate for a police department layout	0 No office included	1 Office included, but not adequate for a fire house layout	2 Office is included but one of the type or size or location of these spaces is not adequate for a fire house layout	3 Office is included and the type, size and location of these spaces are adequate for a fire house layout		
Sleeping Quarters	0 No sleeping quarters are included	1 Sleeping quarters included, but not adequate for a fire house layout	2 Sleeping quarters included, but not adequate for a fire house layout Sleeping quarters included and the type, size and location of these spaces are adequate for a fire house layout			

Criteria	Unattempted	Unsatisfactory	Satisfactory	Proficient	Exemplary	Points
Locker/Bath/Shower/Dressing Rooms Locker/bath/shower/dressing areas include 1)male and female restrooms, showers and lockers and 2) are large enough to accommodate number of firefighters on shift	0 No Locker/dressing included	1 Locker/dressing areas included, but only 1 required element included	2 Locker/dressing areas included with both required elements			
Kitchen/Dining Area Kitchen/dining area is included and is large enough to accommodate all firefighters on shift	0 No Kitchen/Dining Area included	1 Kitchen or Dining area included, but not both	2 Kitchen/Dining area included but is not large enough for all firefighters on shift	3 Kitchen/Dining area included and large enough for all firefighters on shift		
Day Room Day room to include TV and enough seating for all firefighters on shift	0 No Day Room included	1 Day room included but does not include TV and enough seating for all firefighters on shift	2 Day room included and includes either a TV or enough seating for all firefighters on shift	3 Day room included and includes both a TV and enough seating for all firefighters on shift		
Fire Alert System Fire alert system to include alert systems throughout building to notify of emergencies.	0 No Fire Alert System included	1 Fire Alert System present and sufficiently represented in less than 50% of the building	2 Fire Alert System present and sufficiently represented in 50% or more of the building	3 Fire Alert System present and sufficiently represented in 100% of the building		
Mechanical Room Water heater, electric panel, A/C system, generator/propane hookups	0 No mechanical room included	1 Mechanical room included, but one missing element	2 Mechanical room included with all required elements			

Criteria	Unattempted	Unsatisfactory	Satisfactory	Proficient	Exemplary	Points
Communication Room Communication room is present and contains necessary communication equipment (radios, computers, telecommunication equipment, security/surveillance cameras)	0 No Communication Room is included	1 Communication room is included but does not contain all required items	2 Communication room is included and contains all required items.			
Vehicle Bay Vehicle bay is included and the size and location of this spaces is adequate for size of the fire house	0 No Vehicle bay is included	1 Vehicle bay is included, but not adequate in size or locations for fire hall size	2 Vehicle bay is included but either the size or location of this space is not adequate for fire hall size	3 Vehicle bay is included and the size and location is adequate for fire hall size		
Laundry Area Adequate number and type of laundry machines for fire house size	0 No laundry machines included	1 Laundry machines included but not adequate size or type for size of fire house	2 Adequate number and type of laundry machines included for size of fire house			
Department Procedures						
Daily Schedule Daily schedule/activities of the firefighters. The schedule should be for the entire day. There may be a need for multiple schedules depending on the total number officers/staff.	0 No schedule provided	1 Includes a partial schedule	2 Includes a schedule that is not consistent with facility design	4 Includes a detailed schedule that is consistent with facility design		
Fire Class-A Uniform Fire Class-A uniform design The Class-A uniforms worn by the firefighters in your department includes 1) fire uniform, 2) shoulder patch and 3) badge.	0 No fire uniform design used	1 Includes a partial uniform design with only 1 required element	2 Includes a partial uniform design with only 2 required elements	4 Includes a uniform design with all 3 required elements		

Criteria	Unattempted	Unsatisfactory	Satisfactory	Proficient	Exemplary	Points
Equipment Maintenance Equipment maintenance procedures - 1. SCBA Maintenance 2. Hose Maintenance 3. Fire Extinguisher Maintenance 4. Washing trucks and 5. Checking truck maintenance/inventory	0 No equipment maintenance procedures included	1 Includes a partial procedures	2 Includes procedures that are not consistent with facility design	4 Includes detailed procedures that is consistent with facility design		
Firefighter Training Firefighter training procedures must include: 1) general training for the current position 2) training required for promotion to specialist(s) (driver, lieutenant, etc) and 3) training required for promotion to captain	0 No officer training procedures used	1 No officer training procedures used	2 Includes only 2 training procedures	4 Includes all 3 training procedures		
Public Request Procedures Procedures for handling an Open Records Request	0 No public request procedures included	1 Includes partial procedures	2 3 Includes procedures that are not consistent with facility design	4 Includes detailed procedures that is consistent with facility design		
Presentation						
Presentation Speech and body language is exceptionally effective in communicating information to audience	0 No presentation given	2 Speech and body language is not effective in communicating information to audience	4 Speech and body language is somewhat effective in communicating information to audience	6 Speech and body language is adequately effective in communicating information to audience	8 Speech and body language is exceptionally effective in communicating information to audience	
Total Score: _____ / 100 pts						