Circus

Building Infrastructure

arts council chomhairle ealaíon

Technical Specification



Technical Specification for the Development of Circus Buildings

This is an extract from the Art's Council's Circus Building Infrastructure Research Initiative report. For detailed survey results, national and international case studies, and more, please see the full report, which is available at: https://www.artscouncil.ie/Arts-in-Ireland/Circus/

1. Overview

This information is designed to guide local authorities with regards to circus building infrastructure needs. It is based on extensive consultation with the circus sector in Ireland regarding their needs through this research study and comparison of well-designed examples of circus creation and training spaces in Europe.

There needs to be detailed consideration of physical, health and safety and aesthetic requirements in order to create the best possible functioning space. Atmosphere conducive to creativity is very important and a balance between function and aesthetics are also critical considerations so that spaces are not overly sterile.

This Technical Appendix is not designed as a standalone document and any development of buildings needs to be in careful collaboration with the circus community in the identified local authority region from the beginning and through the development process. Some members of the circus community also emphasised the potential of partnerships in developing new spaces, that might host a number of other related fields such as community social enterprise organisations, street arts/spectacle and/or urban sports groups.

In addition to an architect and other specialised building personnel, using an established and industry recognised company specialising in circus rigging as a consultant throughout the process would be essential.¹

2. The Site

Site area

Site size is an important consideration, to allow for both room sizes of sufficient scale and to factor in where further building development and other facilities may be required.

- Based on La Central del Circ, La Grainerie and 101 Greenham Outdoor Arts an internal building size of between 2000 3000 square metres would allow for optimum multiple spaces and facilities as indicated in section 10.5.iv
- La Grainerie has a site area of 11,500sqm including its building of 3200sqm

Essential needs

- Sufficient outside space to build further infrastructure, particularly for phased building developments in time, e.g later installation of onsite cabin accommodation or accommodate a temporary tent structure such as a big top
- Sufficient outside space for an outdoors practice/performance area, for example, fire based shows, to include a hard ground area within this
- Sufficient outside space for on-site parking for cars and larger vehicles such as trucks
- Artist able to bring caravans/mobile homes to sleep in overnight, where onsite or nearby accommodation not provided
- Accessible to vehicles that need a loading bay, including large trucks

¹ Example specialist rigging company http://highperformanceproductions.net/index.html)

- Secure bicycle parking

3. Location considerations

Essential needs

- Good public transport links nearby, ideally with some transport links to other towns/cities
- Good street lighting
- In a safe area for staff, artists and members of the public, particularly when leaving at night time
- At a reasonable distance to domestic properties so they have not impacted by any noise regarding vehicles or outdoors practice

Desirable needs

Near enough to shops/other amenities such as cafes

4. General Building Considerations

Building infrastructure/design

Essential needs

- Efficient, quickly responsive and eco-friendly HVAC system that can be controlled locally to maintain a temperature of 21°C and not exceed between 18.3- 24°C is recommended by Equity and One Dance UK²
- High levels of thermal insulation and sound insulation both externally, to minimise noise from neighbouring businesses and internally between different spaces
- Rooms need to be acoustically treated to reduce the echo and reverb of large scales
- Ease of access for get-in and get out of equipment
- Adequate storage for regular artists attending classes or training
- Adequate storage for visiting companies/artists
- Lift in buildings more than one storey that is large enough for circus apparatus
- Available Wifi/broadband in all areas
- Security: comprehensive CCTV and an alarm system with panic stations and 24 hour monitoring. CCTV should be high resolution digital recording. All public areas which
- lead to backstage areas should have high grade keypad locks (or swipe-card entry systems)³

Desirable needs

- Lockers

Systems and facilities

Essential needs

- Ease of booking and available hours to use
- Experienced and trained venue staff

Desirable needs

- 24 hour access for members

https://www.artscouncil.ie/uploadedFiles/wwwartscouncilie/Content/Arts in Ireland/Venues/Building issues/ TheatreForum guidelines arts venues.pdf

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² https://www.equity.org.uk/media/3067/fit to dance space charter.pdf

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5. Creation and training facilities

Circus facilities need to be a specially adapted or purpose built building designed specifically for circus training and creation, bearing in mind the different circus disciplines and types of activities it will need to cater for.

All circus and rigging equipment needs to be in good condition, rigged correctly and easy to access, for example, pulley points. All equipment should be regularly maintained, inspected and annually certified with proper inductions and good safety protocols. For example, Lunge belts and safety lines for when learning or performing dynamic, swinging or flying aerial arts.

Essential facilities for training

If only one training space is possible then it needs to be flexible with aerial, wall and ground rigging points. Ideally circus buildings need to have multiple rooms for regular training activities and masterclasses, properly separated to allow sound proofing. These would be one for aerial and wall work and another for more floor based activities such as acrobatics, Cyr Wheel and trampoline. The following facilities are recommended:

- The suggested optimum room size would be between 300 600 square metres and with unobstructed aerial rigging points at least 10m high
- The floor would ideally be a sprung wooden floor covered with a Marley dance floor
- In addition dedicated acrobatic mats and crash mats should be available for this space
- Plenty of options for different anchor points, for example, flexible ground anchors to support different acro forms and funambulism
- Sufficient space for trampoline (sunk into the floor), Teeterboard and Cyr Wheel
- Foam pits for training dynamics and different circus arts
- Mirrors along one wall with access to changing rooms and showers
- The space should have access to natural light and have the ability to be blacked out
- The design of lighting in these spaces should ensure that users are not affected by glare
- Storage rooms for equipment and other apparatus
- If space allows, enough clear height for swinging trapeze

Essential facilities for creation activities

This space would primarily be for getting shows production ready and to share with test audiences but would also need to be flexible to allow it to be used for training.

- The room should be 300 400 sqm to allow for a stage area of 20m wide and 10m deep with space for a motorized retractable seating rake and a technical control area
- The seating rake should be able to accommodate 100 200 people and be retractable to free up more space when not needed
- The space should be at least 10m high
- Separate entrances for an audience to access the seating and performers to access the stage from dressing rooms should be provided. The number of audience entrances will be determined by the capacity of the seating.
- The stage area flooring should be a sprung wooden floor which can continue under the seating system with the appropriate reinforcement under the wheel runs
- In addition dedicated acrobatic mats, crash mats and Marley dance floor for this space should be available
- All floors must be to able to take the weight of any access equipment required for work at height
- To allow for full technical rehearsals of a circus work prior to touring to theatres, a minimum of 4 motorized lighting bars would be required over the 'stage' and a further 2 bars would be needed over the 'seating area'
- A stock of both fixed and moving LED theatre lights, a theatre quality sound system and a high quality laser video projector with adequate lumens for the space would need to be supplied

- 2 x Dressing rooms with showers and capacity for large casts, and allowing separation according to age/sex of cast members, should be accessed at the back of the stage area⁴
- The room should be sound proofed, have access to daylight and the ability to be fully blacked out
- The design of the working light in these spaces should ensure that users are not affected by glare
- The acoustics of the space should be designed to offset the effects of the size of the room
- Storage rooms for technical and company set and equipment should be adjacent to this space
- In addition to the permanent electrical supply for the spaces lighting and sound systems, a 125amp 3phase power supply for lighting and a separate 63amp single phase supply for incoming sound equipment should be installed
- Access for large equipment and sets would be required

Essential facilities for rehearsals, residencies and masterclasses

These would be studio space type rooms that can be used for rehearsals, circus development activities such as smaller residencies and masterclasses. It is recommended that at least one studio space should be included in the plans.

- A space in the region of 70 90 square metres with a height of 7.5m
- The floor should be a sprung wooden floor
- In addition dedicated acrobatic mats, crash mats and Marley dance floor for this space should be available
- The space(s) should be equipped with aerial and ground rigging points, mirrored wall and an integrated sound system
- Sound proofing and access to daylight, with the ability to create a blackout should be included
- The acoustic design of the space should offset any effects of the size of the room
- Access to the studios should allow reasonably large equipment to be brought in and storage for crash mats and other equipment should adjoin each studio
- A dedicated technical store room should also be provided for equipment and consumables

Essential storage considerations

To cater for the wide range of circus based practice a large amount of technical equipment is required, such as crash mats, tight wire apparatus, trampolines and access equipment.

- Adequate storage with good access to the relevant spaces is essential and will need to be designed with consultation with the circus community
- This should factor in potential expansion of numbers of users and breadth of practice
- In addition to a technical storeroom, general storage for individual members equipment and resident and visiting companies will need to be provided
- The size and location of these spaces will be determined by the users' requirements but again expansion of these requirements should be factored into the initial design

Desirable facilities

Workshop/fabrication room:

- A space for the creation and maintenance of sets and equipment
- This should be a minimum of 300sqm floor area with 6m high ceiling
- It should house both wood and metal working equipment, have sufficient power for these tools, good lighting and adequate heating/ventilation
- Large doors to a parking area/loading bay should allow access for raw materials and finished pieces

https://www.artscouncil.ie/uploadedFiles/wwwartscouncilie/Content/Arts in Ireland/Venues/Building issues/TheatreForum guidelines arts venues.pdf

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- It would be beneficial if an outdoor space was adjacent to allow fabrication of larger pieces

Outdoor practice area:

- Possibly doubling as additional car parking space this space would ideally accommodate a touring big top and be used for outdoors specific performance based work, for example, using fire
- To install sunken rigging points in multiple areas for flexible rigging of equipment/smaller circus tents/big tops

Costume room:

 A space for washing, drying and storing costumes, the space should have sufficient power, access to daylight and good working light

Additional support services

- Small side rooms or booths for physiotherapy, weight training, gym etc

Other changing rooms/showers for rehearsal /studio spaces

Green Room

- This room is for artists to relax with lounge type facilities, e.g. comfy chairs and a table

6. Front of house, foyer and public spaces

The design of the front of house, foyer and public spaces are crucial to creating a welcoming atmosphere, conducive to people being able to meet others and feel included.

Essential facilities

- Male, female and unisex toilets
 - o Should be fully accessible
 - Should include baby changing facilities
- Community kitchen with microwave and communal dining facilities for large groups
- Changing rooms and showers for others using training and studio facilities

Desirable facilities

- Hot desks
- Circus library of resources

Facilities for children and young people. This is especially if Young People, Children and Education activities are a considerable part of a centre's building. If space permits it is recommended there should be:

- Additional dedicated changing rooms for children and young people
- A child friendly hang out space

Otherwise, careful programme scheduling can minimise between adults and children.

7. Access

Any newly developed circus training and creation centre should be fully accessible for people of all abilities.

Wheelchair users and people with limited mobility should be easily able to access all areas of the centre and enjoy easy access to all services

- This includes any seating areas for audiences, stages, back of house and control rooms
- Hearing loops installed in various locations, including foyer, creation space, training space and studios
- To aid the vision impaired the building should be designed with good colour contrast in choice of materials particularly relating to floors, steps ramps and signage
- Clear signage of sufficient size incorporating Braille should be provided in all areas
- The capability to provide audio description of all performances should be available⁵
- A designated sensory rooms or quiet space where people with autism can use to stim or retreat to when feeling overstimulated
- This can be either in a dedicated room or in a particular corner of a room and should be low light rooms with comfortable chairs and objects for calming, distraction⁶

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⁵ https://www.cairns.qld.gov.au/ data/assets/pdf file/0006/74193/appendix 3 Threatre-Brief.pdf

⁶ https://asiam.ie/about-autism/sensory-space/#:~:text=Sensory%20rooms%20or%20quiet%20spaces,%2Dorganization%20and%20sensory%2Dmanagement



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