

REGULATIONS

OF THE ARCHITECTONAL COMPETITION

„24-HOURS SUNDIAL”

Attachment No. 1.

Sundials have accompanied us for thousands of years, but they only showed the time from sunrise to sunset, only when the sun was shining. Imagine a sundial that works despite cloud cover. One that shows the time even after dusk. But what do we need to make this possible? - A source of light that can imitate the movement of the Sun along the ecliptic when the sky is covered by clouds or at night.

It is the intention of the Organiser that the "24-hour Sundial" is a mobile "sculpture/architectural installation", which is not permanently fixed to the ground and whose functionality includes the display of time in the 24-hour system, taking into account both solar and world time. The "24-hour Sundial" shall indicate the solar time between sunset and sunrise, corresponding to the time in the exact opposite place on the globe. The functionality of the architectural installation should therefore include information on the simulation of the Sun's movement along the ecliptic by means of an artificial light source.

TECHNICAL REQUIREMENTS FOR THE 24-HOUR SUNDIAL

AND SCOPE OF DESIGN OF THE SUNDIAL MECHANISM in the Competition for the development of the author's design of a small/medium architectural form, the "24-hour Sundial":

1. "24 Hour Sundial" - a "sculpture/architectural installation" not permanently fixed to the ground, the design of which provides for resistance to atmospheric conditions and mechanical damage, while preserving safety conditions for viewers.
2. The object should be stable, with no foundation or anchoring to the ground required.
3. The "24-Hour Sundial" should be mobile (the Competition Organiser plans to exhibit the object in the most prestigious locations of the largest Polish and European cities). The design must allow for easy disassembly of the elements.
4. Maximum dimensions of the whole object (with respect to road gauge): width up to 2.4 m, depth up to 5 m, height up to 2.2 m. The facility may exceed these dimensions, but then the oversized elements must be easily dismantled for transport. The size of the '24 Hour Sun Clock' must comply with the restrictions imposed by transport regulations.
5. The total weight of the "24-hour Sundial" - up to 1.5 tonnes.
6. The design shall provide for the storage of solar energy in batteries. It is acceptable for the photovoltaic panel to be a part unrelated to the sculpture. It can be a separate element - free standing, with regard to a uniform, coherent arrangement, at the same time not interfering with its architectural dimension.
7. The project should provide for elements of illumination of the sculpture, not interfering with the indications of the Sundial.

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8. The following features of the "24-Hour Sundial" should be included in the Competition Project:
- a form of sunlight simulation (automatically activated after sunset or during cloudy days), imitating the movement of the Sun along the ecliptic,
 - indication of the difference between world and solar time for a given location of the sculpture (place of display in the mobile system),
 - a form of emphasising/imaging the concept of the pointer's movement after sunset (imitation of the Sun's movement along the ecliptic) by means of the real solar time at the opposite geographical point of the globe.

When preparing your project, don't worry about technical issues. Present your vision of a modern 21st century sundial. All technical details of the sundial mechanism itself (listed in Chapter II, paragraph 2.5 of these rules and regulations) will be developed during its construction by our experts in the field of astronomy and mechanics, with the participation of the author of the winning concept, so that the idea of the creator of the architectural and sculptural vision is always superior.

Remember about a very important fact: this is not one of thousands of competitions, in which, after being awarded, the winning projects end up in drawers or archives, and one has to wait many years or even decades for their implementation. In the case of this competition, the "24 Hour Sundial" will be promptly built on the basis of your winning design and will embellish the square at Powiśle 11 Street in Krakow (at the foot of the Royal Castle).