

Report

Design and Access Statement IBAT Fire Rig Building

For the attention of the Planning Department, HBBC.
2025-002-FE



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Date:

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Revision History

Date	Revision No.	Raised By	Description
17/04/2025	1	M. Robinson	Initial issue for comment
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1 Introduction

This Design and Access Statement is prepared on behalf of HORIBA-MIRA Ltd (herein referred to as MIRA) the freehold owners of the MIRA Technology Park site. The Statement supports the application for the construction of a new Fire Rig Test Building intended to slightly expand on the existing battery abuse testing area.

The site is characterised by automotive engineering research and development facilities, with the immediate surrounding area dedicated to battery abuse testing. Due to the nature of these tests, they are typically conducted within sacrificial shipping containers.

The tests conducted on the fire rig currently face challenges in achieving consistency, as they are exposed to the elements, with wind often disrupting the testing process. MIRA intends to construct a permanent building enclosing the fire rig, which will serve as a wind barrier and significantly improve testing accuracy.

The application site itself showing the make-up of ground in the immediate area is shown in Figure 1.

Figure 1

Indication of the proposed building footprint outlined in red encompassing the fire rig.



This statement should be read in conjunction with the other documentation submitted as part of the Application.

2 Design

2.1 Vehicular Access

Vehicular access to the site will be provided via the A5 road, using the existing internal road network. The area will not be open to the public, access will be restricted to MIRA employees only. Adequate existing car parking facilities at the battery abuse testing site is available. Figure 2 shows the access route, highlighted in pink.

Figure 2

Access route to the proposed facility from the A5 road.



2.2 Use

The building will support enhanced accuracy in battery abuse testing by providing a physical barrier that eliminates the impact of unwanted wind interference during tests. The building is not expected to be subject to dangerous levels of exposure to fire under standard testing procedures. However, due to the nature of the tests conducted, the likelihood of a dangerous fire occurring in the event of a catastrophic failure is higher compared to other test facilities on site. As such, the building is deemed a sacrificial building. Its location has been carefully selected in a secluded area of the site, well away from other buildings not associated with battery abuse testing, to minimize risk.

2.3 Floor Areas

The facility will be supported by evenly spaced excavated concrete pads positioned around the perimeter, aligned with the placement of the structural steel columns. There is no provision for a full span floor slab, as the building will be constructed around the existing, already installed fire rig. The total floor area for the building footprint is 150m².

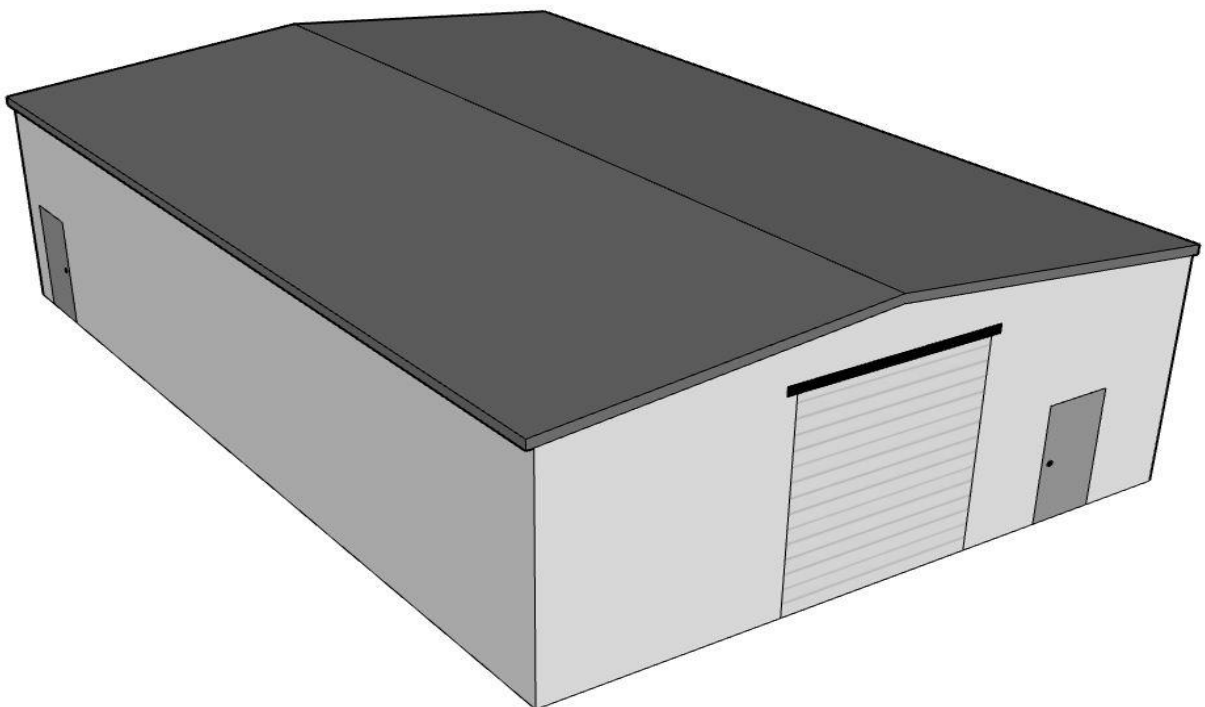
2.4 Layout

Due to the specific requirement of the building, there will be no provision for electrical connections. Additionally, the structure will not include insulation to the walls or roof. The building will be constructed using structural steelwork, with purlins and bracing finished with single-skin roof and wall cladding. Suitable rainwater good are going to be incorporated within the design of the building.

Provision is made for two personnel access doors, and one manually operated (hand chain driven), single-skin roller shutter door, located on the front elevation of the facility as shown in Figure 3. The roller shutter door will measure 3.5 meters in height and 3 meters in width.

Figure 3

Concept 3D Sketch of Building Design – As the design evolves, selected sections of the roof are planned for removal to facilitate smoke dispersion from within the building. This approach will also allow natural light to enter the space.



2.5 Scale

The Fire Rig Building will be 4m in height to the eaves. The finished level to the ridge will be roughly 4.52m. The building's dimensions will be 10 meters in width and 15 meters in length.

2.6 Landscaping

The surrounding area of the application site features an earth mound acting as a bund. The landscape immediately surrounding the building's side and rear elevations will consist of chippings. Additionally, there is an existing stone area to the front elevation of the proposed facility, currently used to access the fire rig, which will be maintained to ensure continuous access through the roller shutter door to the building once construction is completed.

2.7 Appearance

The building will utilise single skin metal sheeting in light grey. The chosen design and colour scheme will complement the existing buildings across the MIRA Technology Park.

The primary colour of the building will be goosewing grey, with anthracite grey doors and rainwater goods.

3 Access Statement

Access has been designed to be as straightforward as possible for both employees and visitors, with a level approach to the facility and smooth circulation within.

No new disabled or standard parking spaces will be created as part of the proposed works. The addition of the building will not alter operations or impact the current personnel access and egress requirements for the battery abuse team.

If required, bicycle access to the site is available via the existing cycleway.

The addition of a second personnel door at the rear of the facility meets the requirements of Part B, providing multiple escape route options. This ensures that the travel distance to each escape door is adequate, particularly in potentially hazardous environments.