

A.T.F.S.® Project planning document

One zone A.T.F.S.® system for Transfer station installation at:

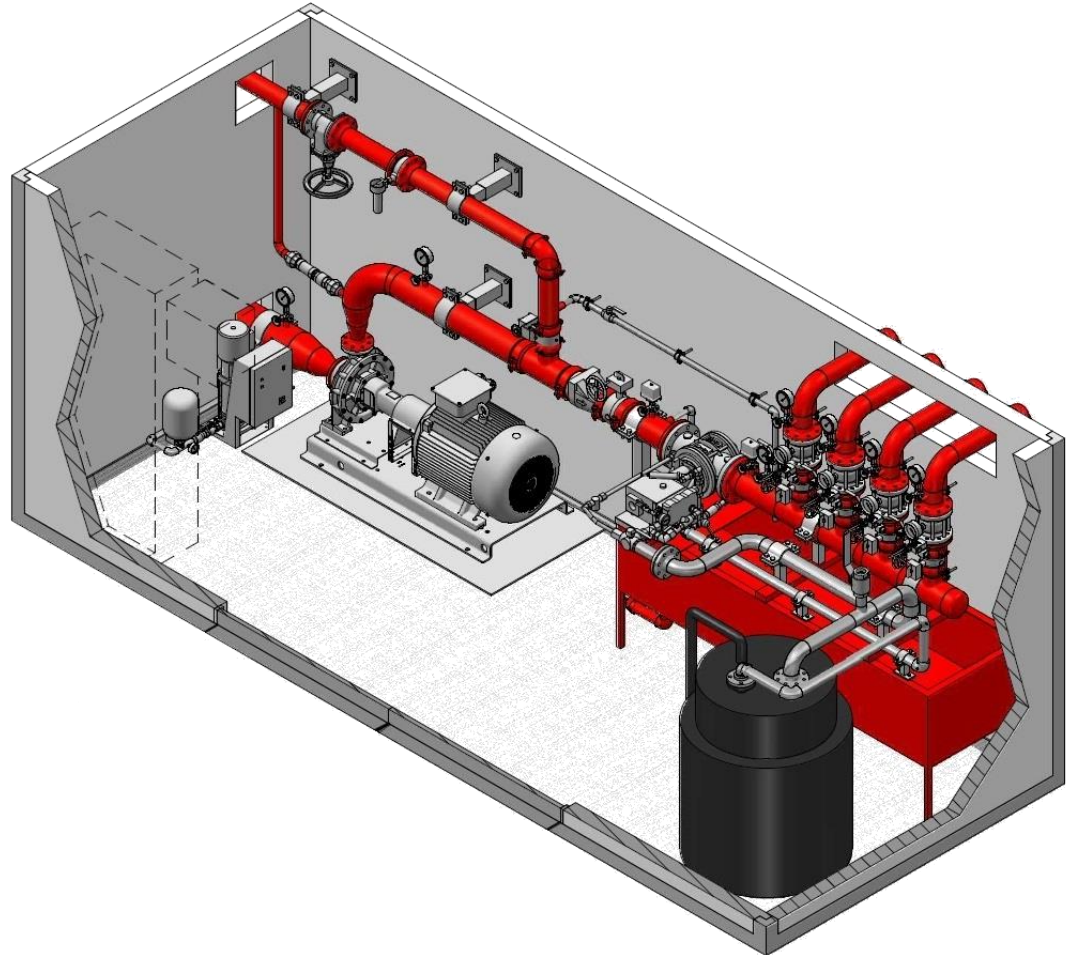


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FIRE SYSTEMS

Biffa

Burgess Hill.

Version 1:0 25th April 2024



Helios Fire Systems Ltd
The Tannery
Water Street
Portwood
Stockport
SK1 2BP
Tel:0161 503 1626

AUTOMATIC TARGETED FIRE SUPPRESSION SYSTEMS

Helios A.T.F.S.® Project operational layouts

Biffa (Burgess Hill) Single zone ATFS project

Helios A.T.F.S.® PYROsmart® Site layout



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Biffa (Burgess Hill) Single zone ATFS project

Helios A.T.F.S.® PYROsmart® Risk Building



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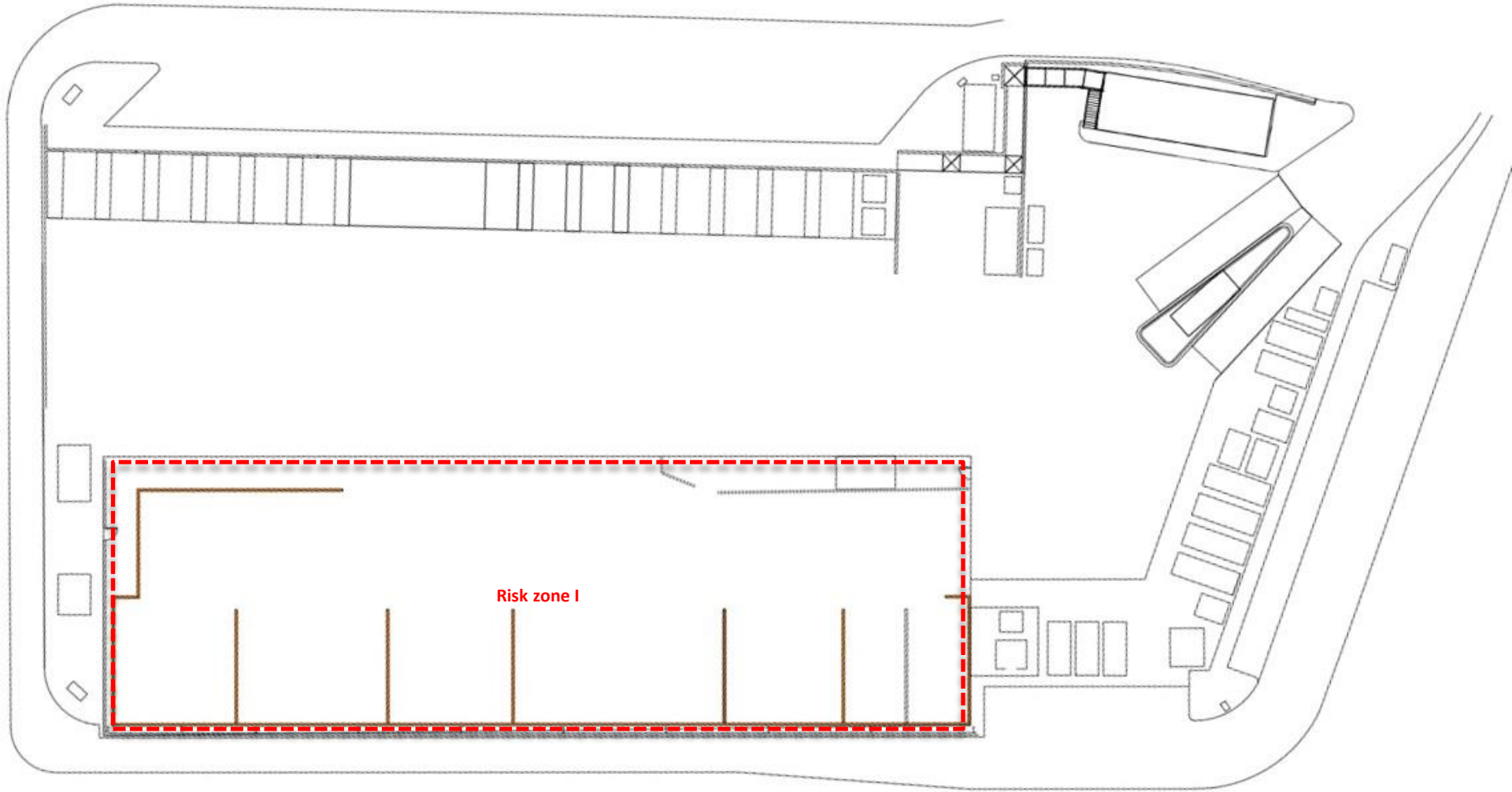


Biffa (Burgess Hill) Single zone ATFS project

Helios A.T.F.S.® PYROsmart® Risk zones



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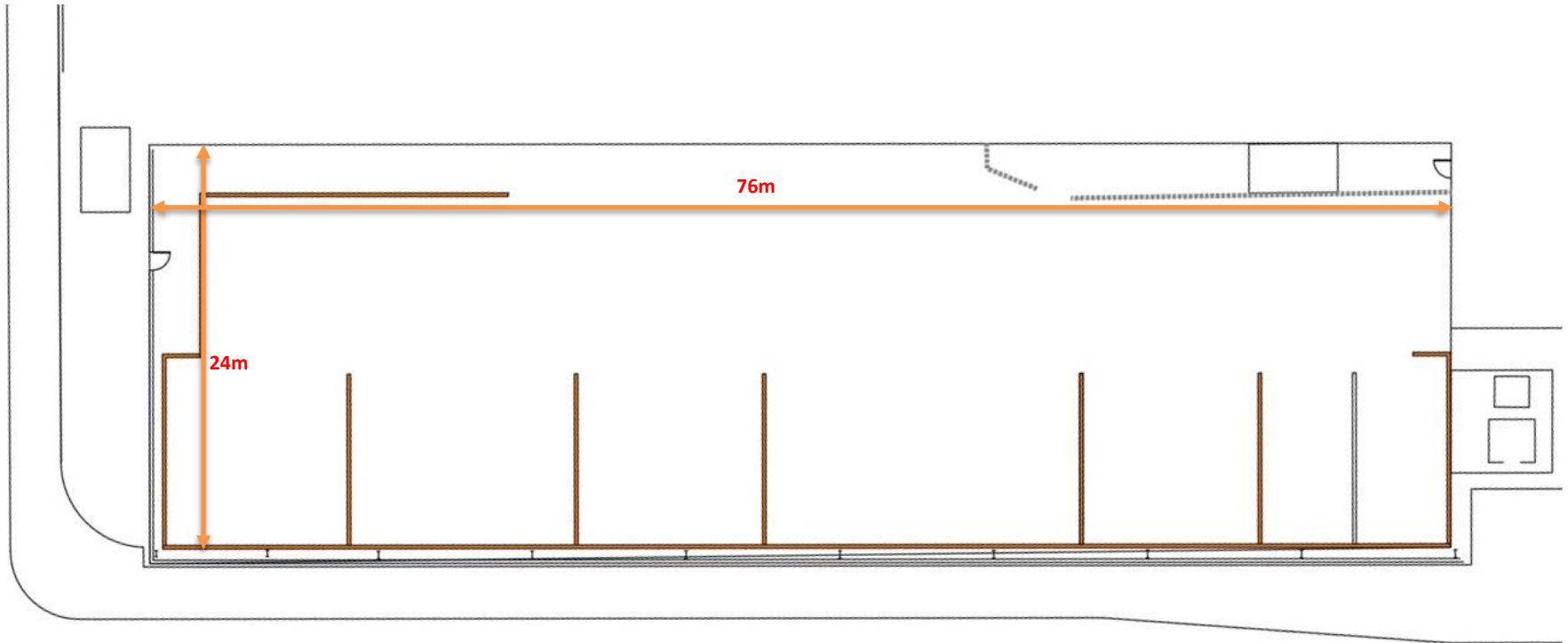


Biffa (Burgess Hill) Single zone ATFS project

Helios A.T.F.S.® PYROsmart® Risk zone dimensions



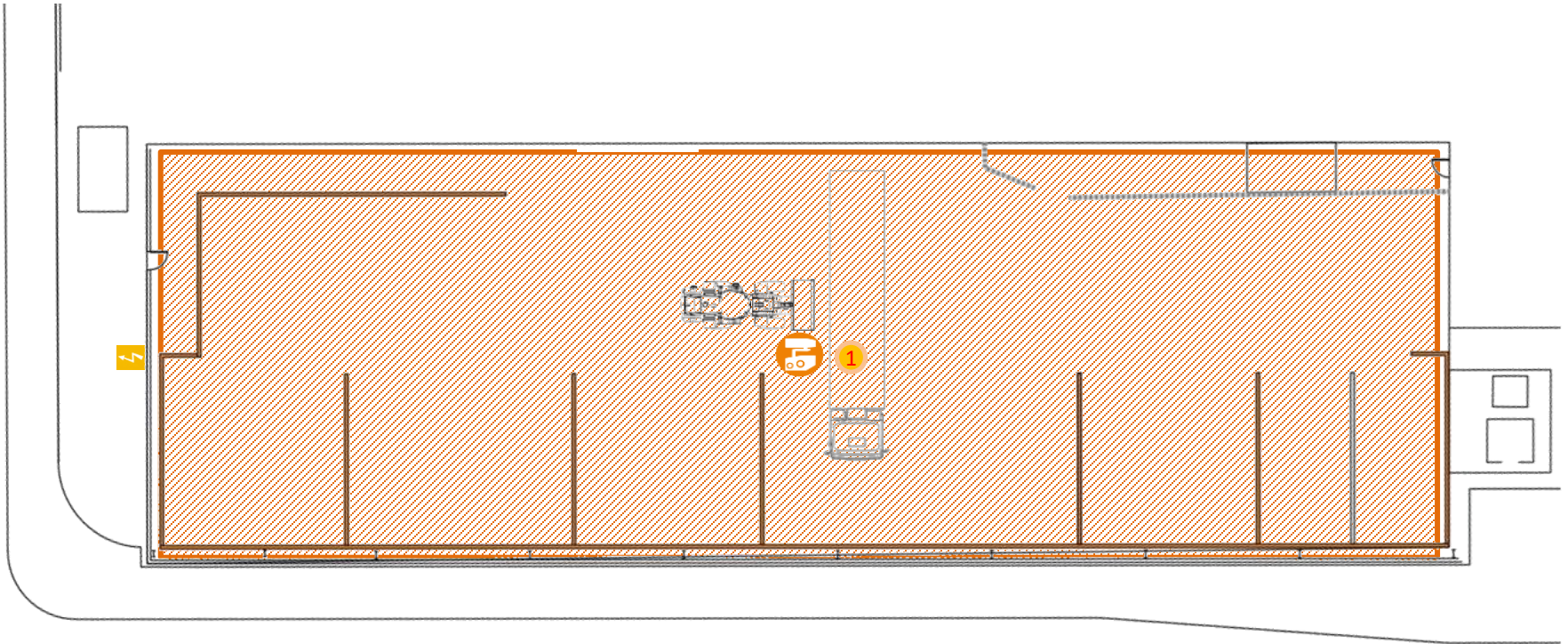
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Helios A.T.F.S.[®] PYROsmart install

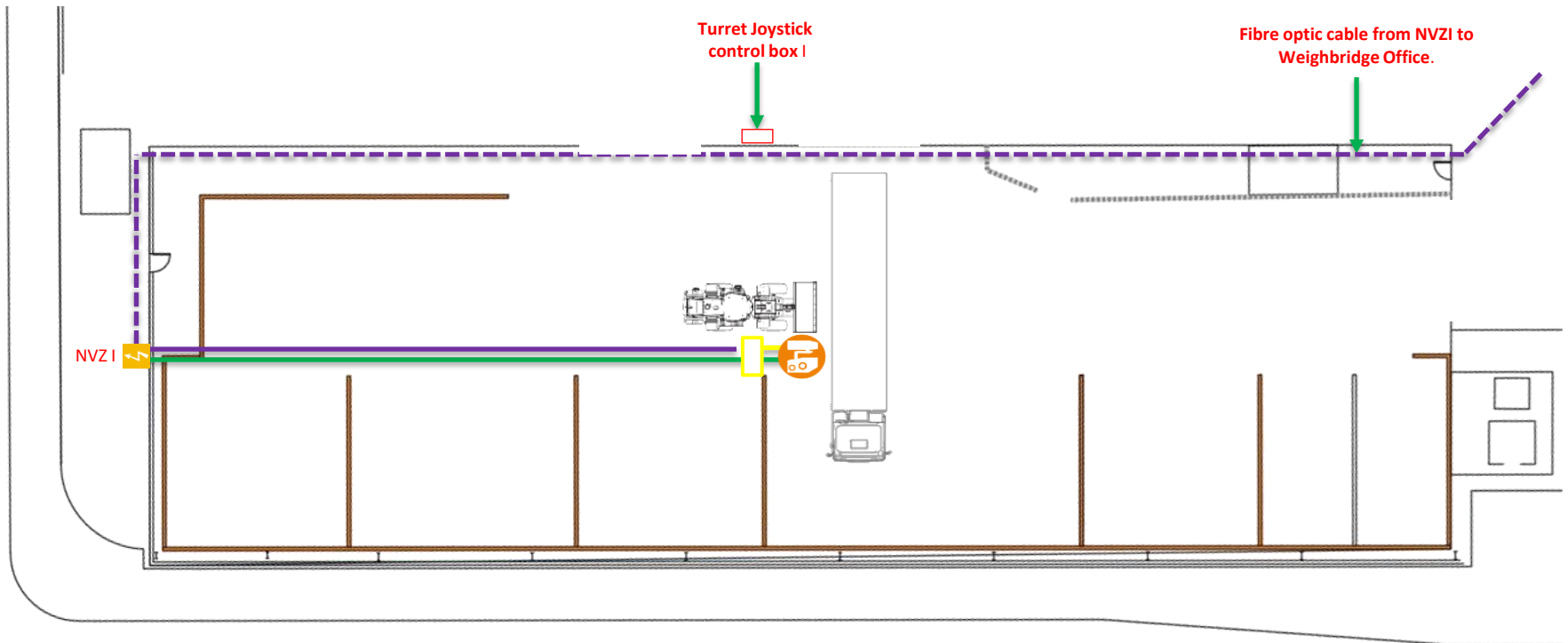
Biffa (Burgess Hill) Single zone ATFS project

Helios A.T.F.S.® PYROsmart® Early warning heat detection scope of detection



Biffa (Burgess Hill) Single zone ATFS project

Helios A.T.F.S.® PYROsmart® Cabling plan

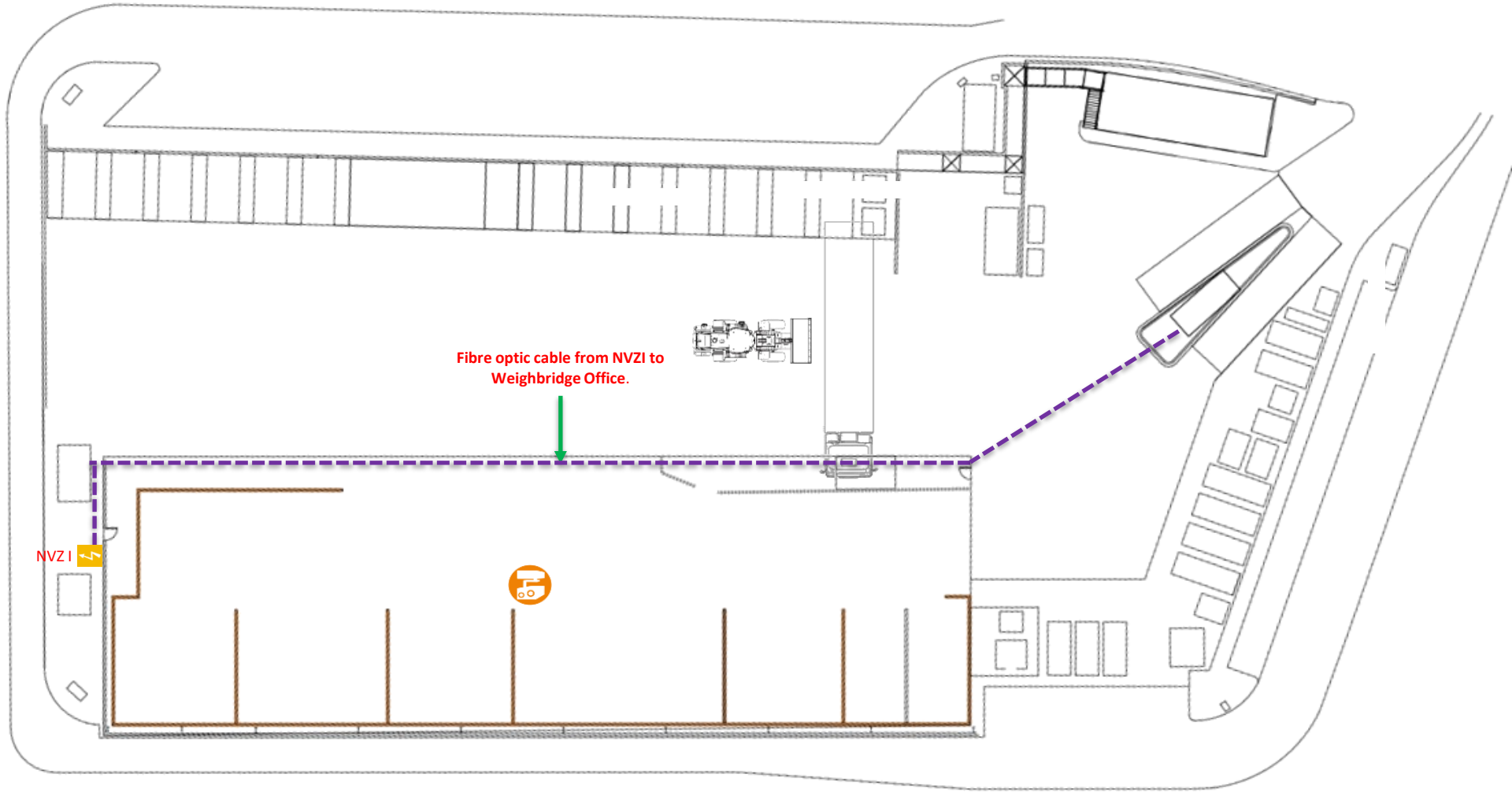


Biffa (Burgess Hill) Single zone ATFS project

Helios A.T.F.S.® PYROsmart® Fibre cable plan



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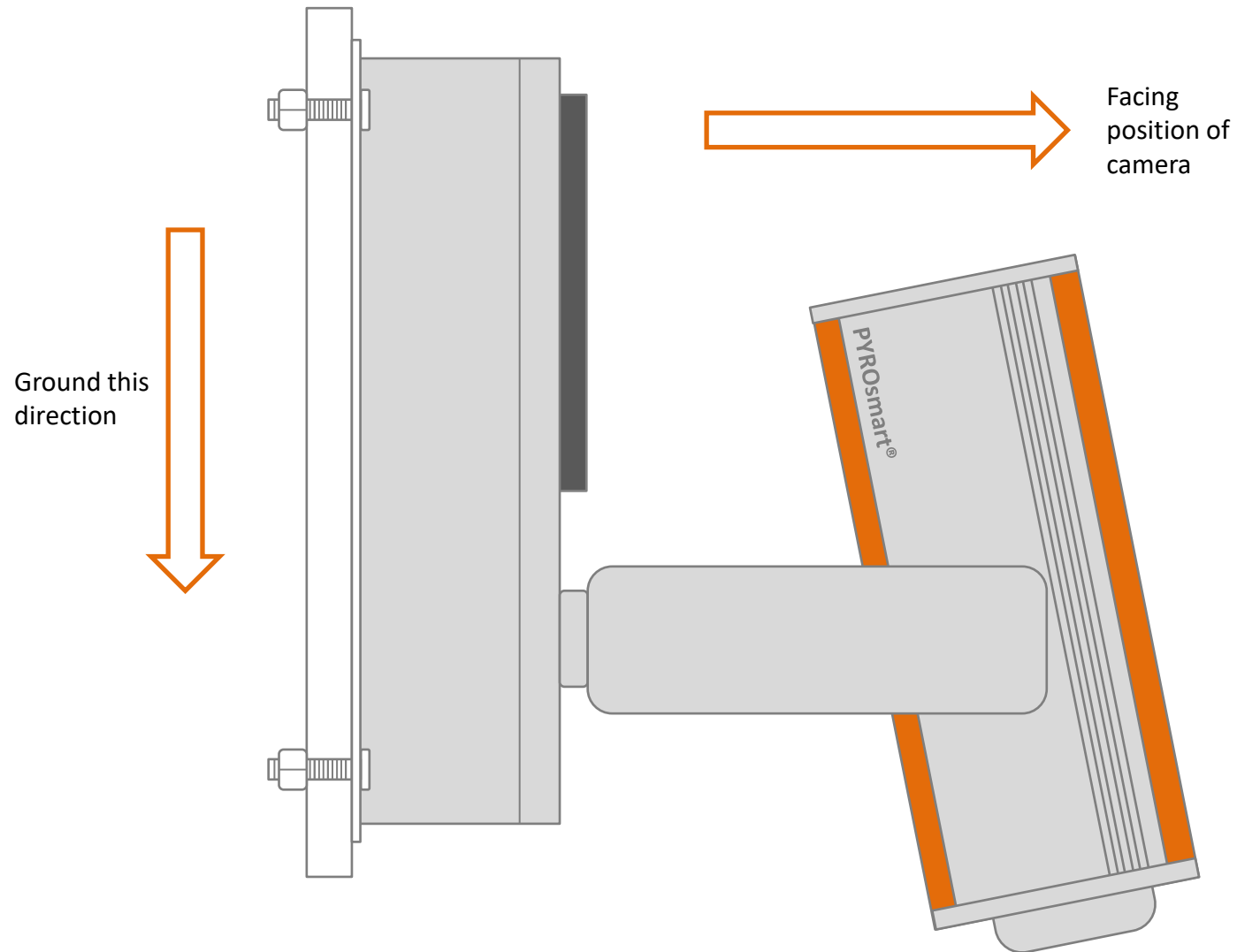


Biffa (Burgess Hill) Single zone ATFS project

Helios PYROsmart® Camera mounting and direction



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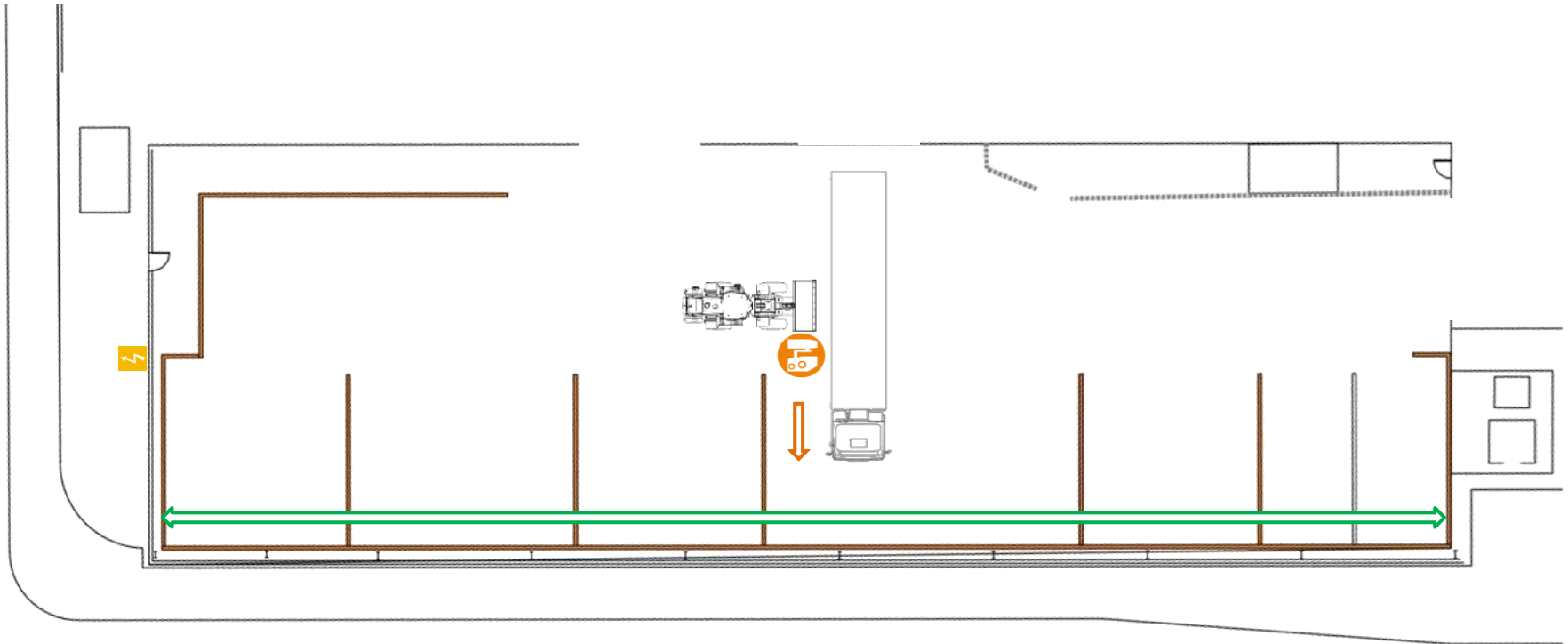


Biffa (Burgess Hill) Single zone ATFS project

Helios PYROsmart® Direction of camera and scan direction



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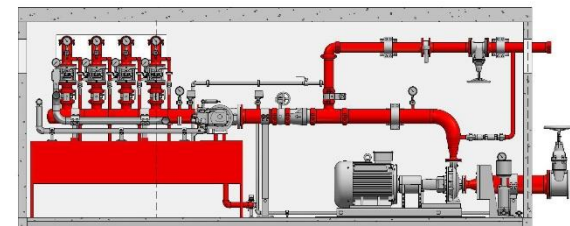
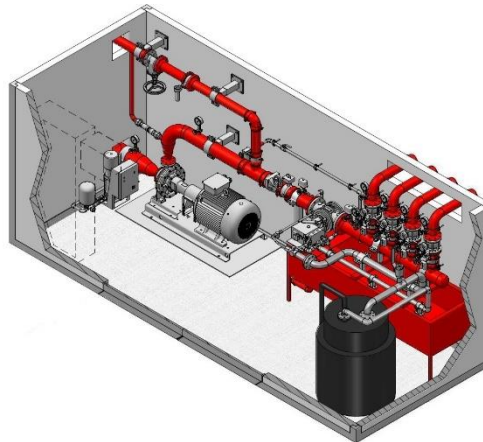
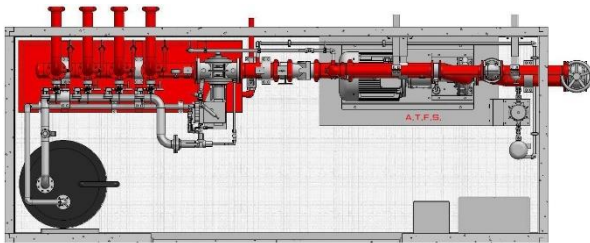


Facing position of camera



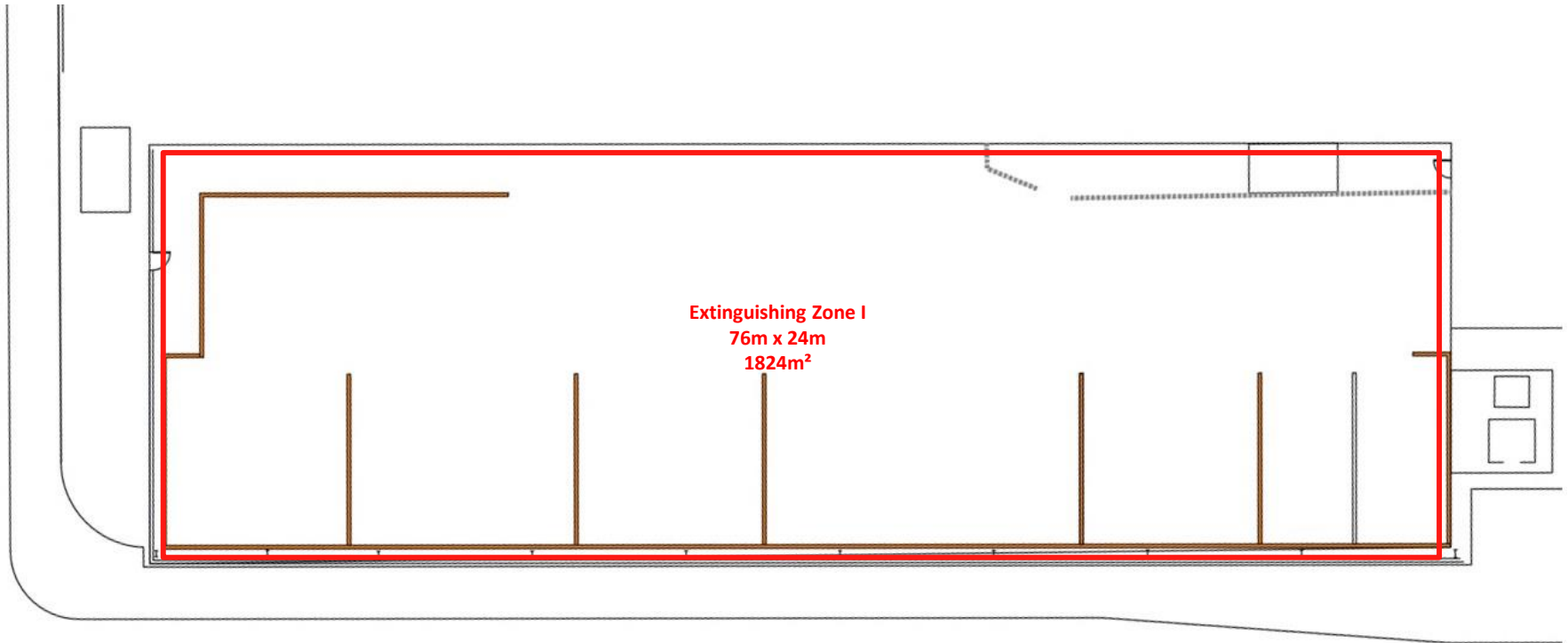
Scan direction of camera

Helios A.T.F.S.® Automatic targeted fire suppression



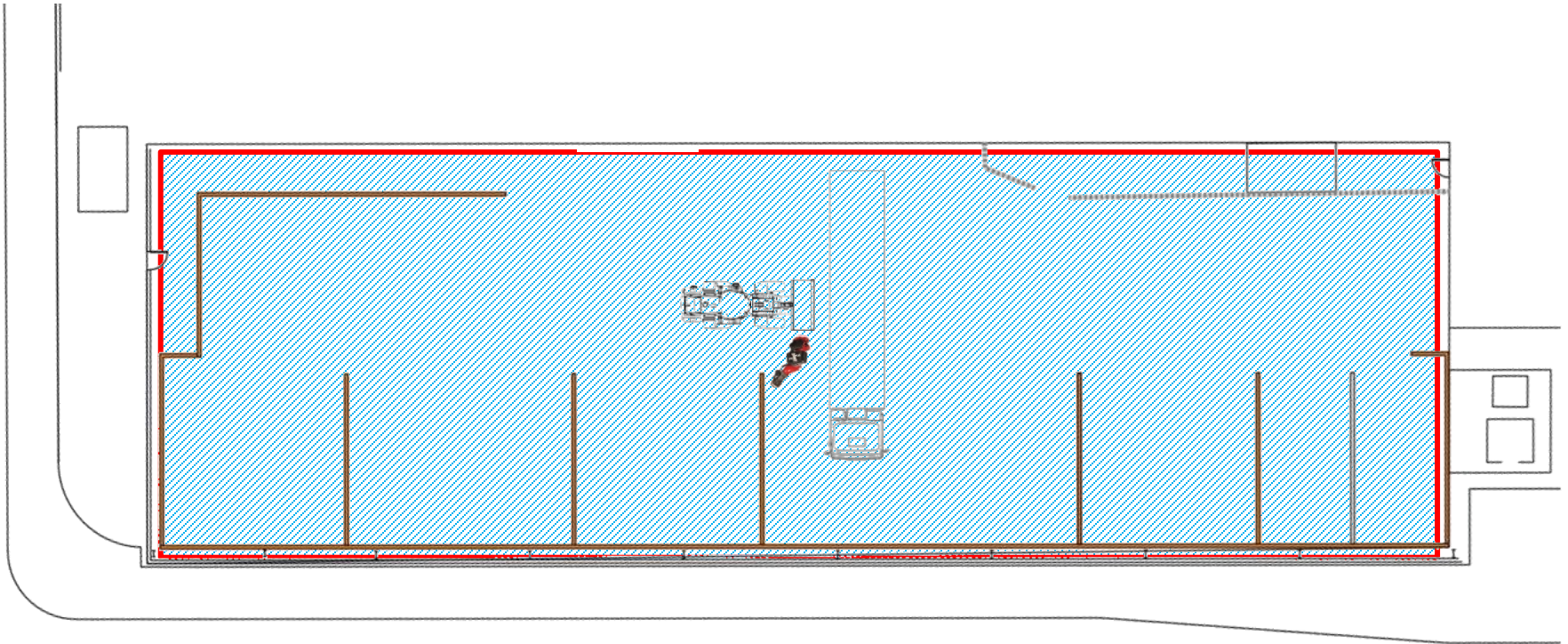
Biffa (Burgess Hill) Single zone ATFS project

Helios A.T.F.S.® Automatic suppression



Biffa (Burgess Hill) Single zone ATFS project

Helios A.T.F.S.® suppression attack zones



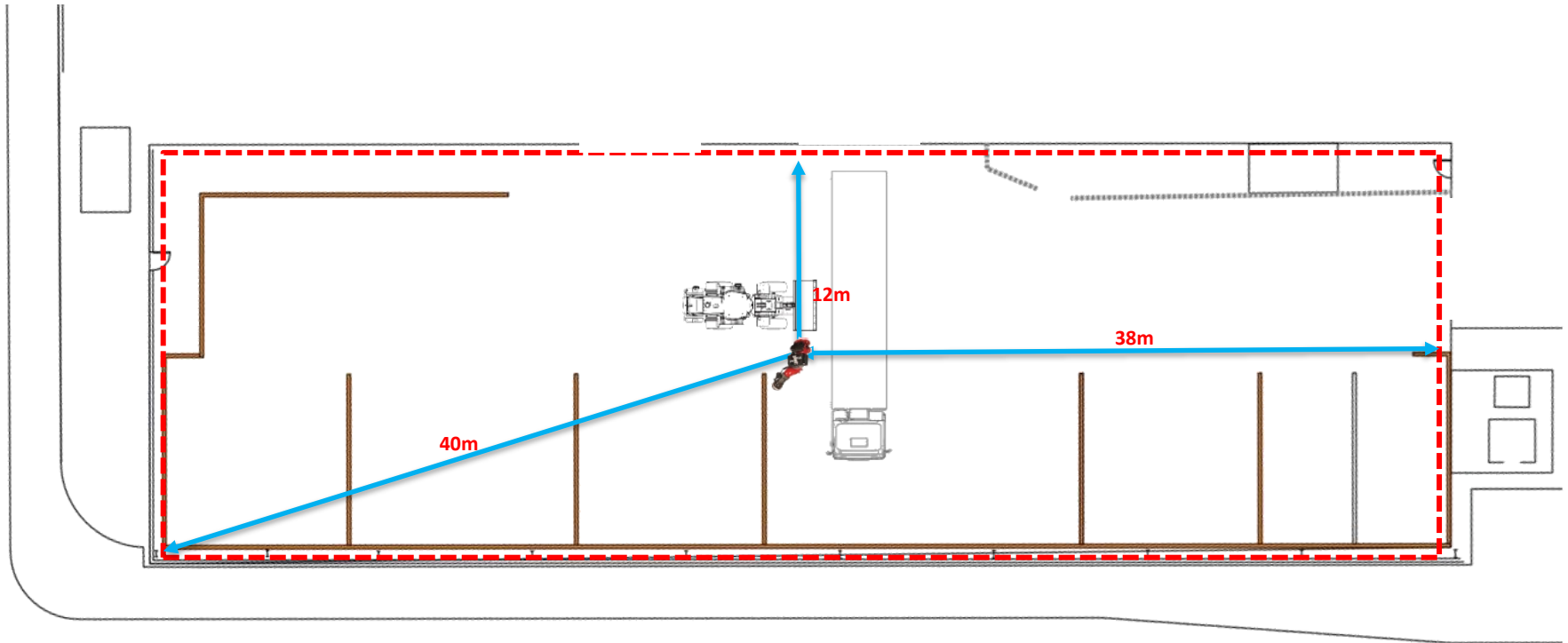
The ATFS centrally located at apex 12m above suppression area giving optimum scope of protection for all waste storage areas

Biffa (Burgess Hill) Single zone ATFS project

Helios A.T.F.S.® Zone max protection dimensions



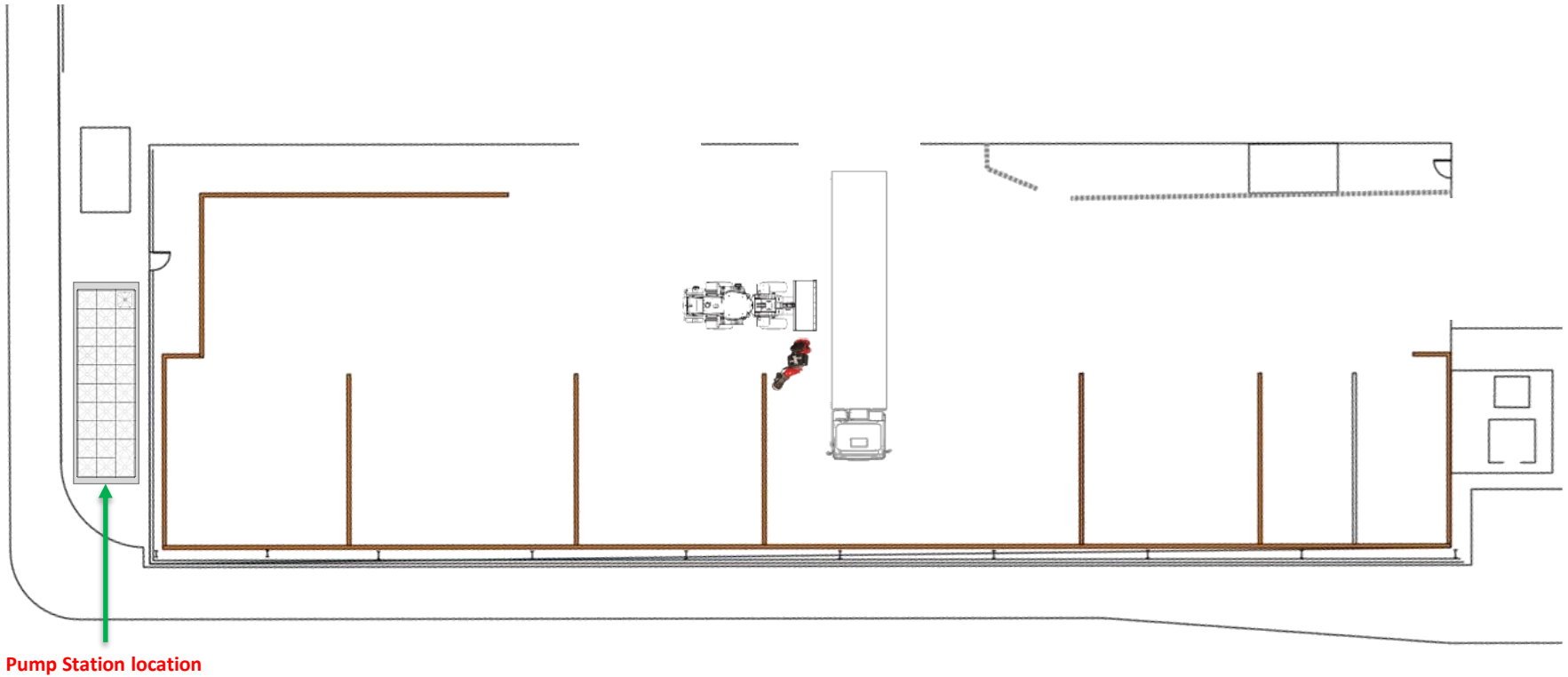
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Turrets maximum effective performance 64m @ 1500 L/min at 10bar

Biffa (Burgess Hill) Single zone ATFS project

Helios A.T.F.S.® system proposed pump station location



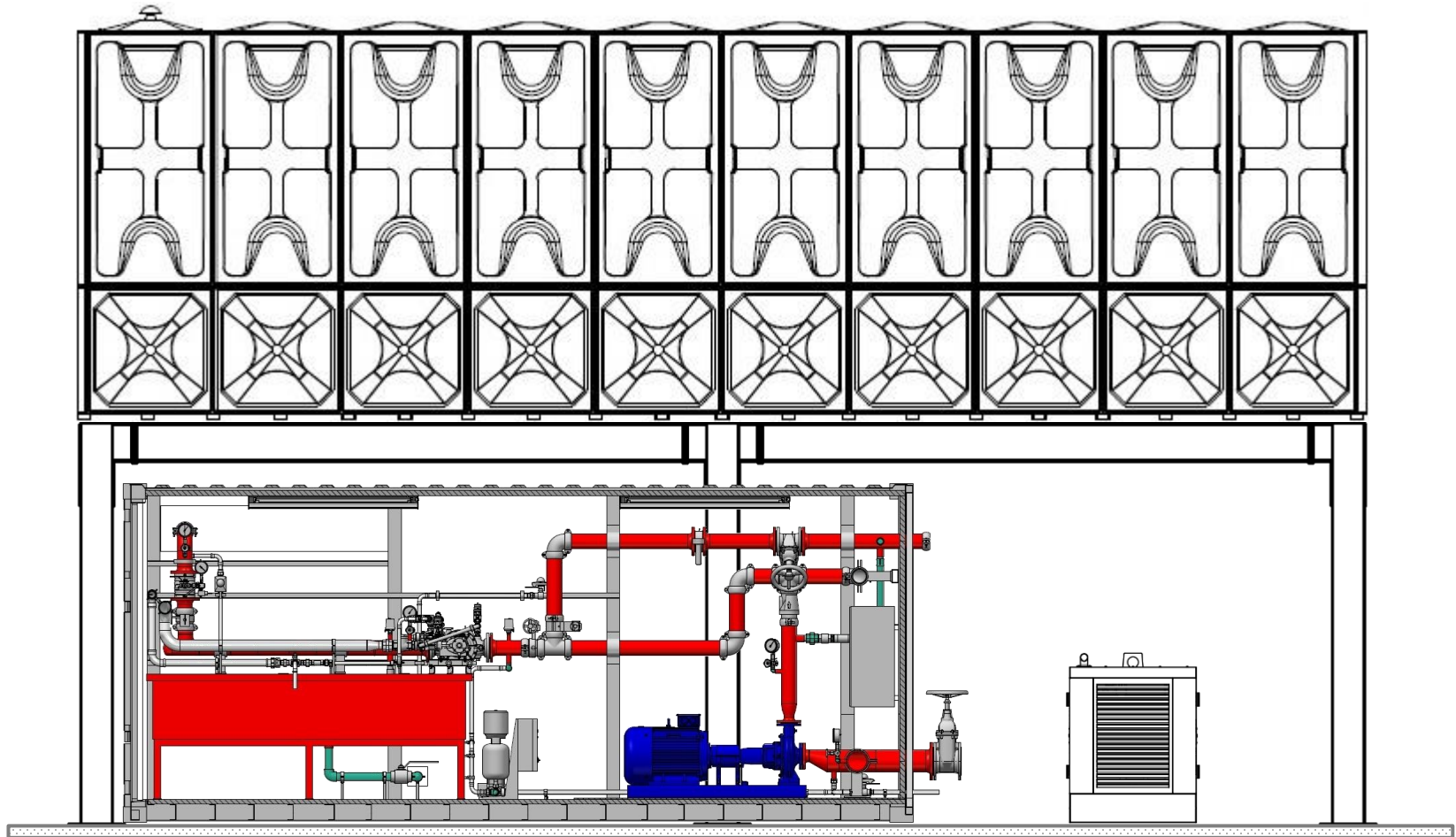
ATFS pump station to be locate at front of TS on concrete pad installed by HFS. ATFS pump station to be connected to 90,000 Ltr water tank

Biffa (Burgess Hill) Single zone ATFS project

Helios A.T.F.S.® system proposed pump station and watertank layout (Double stacked)



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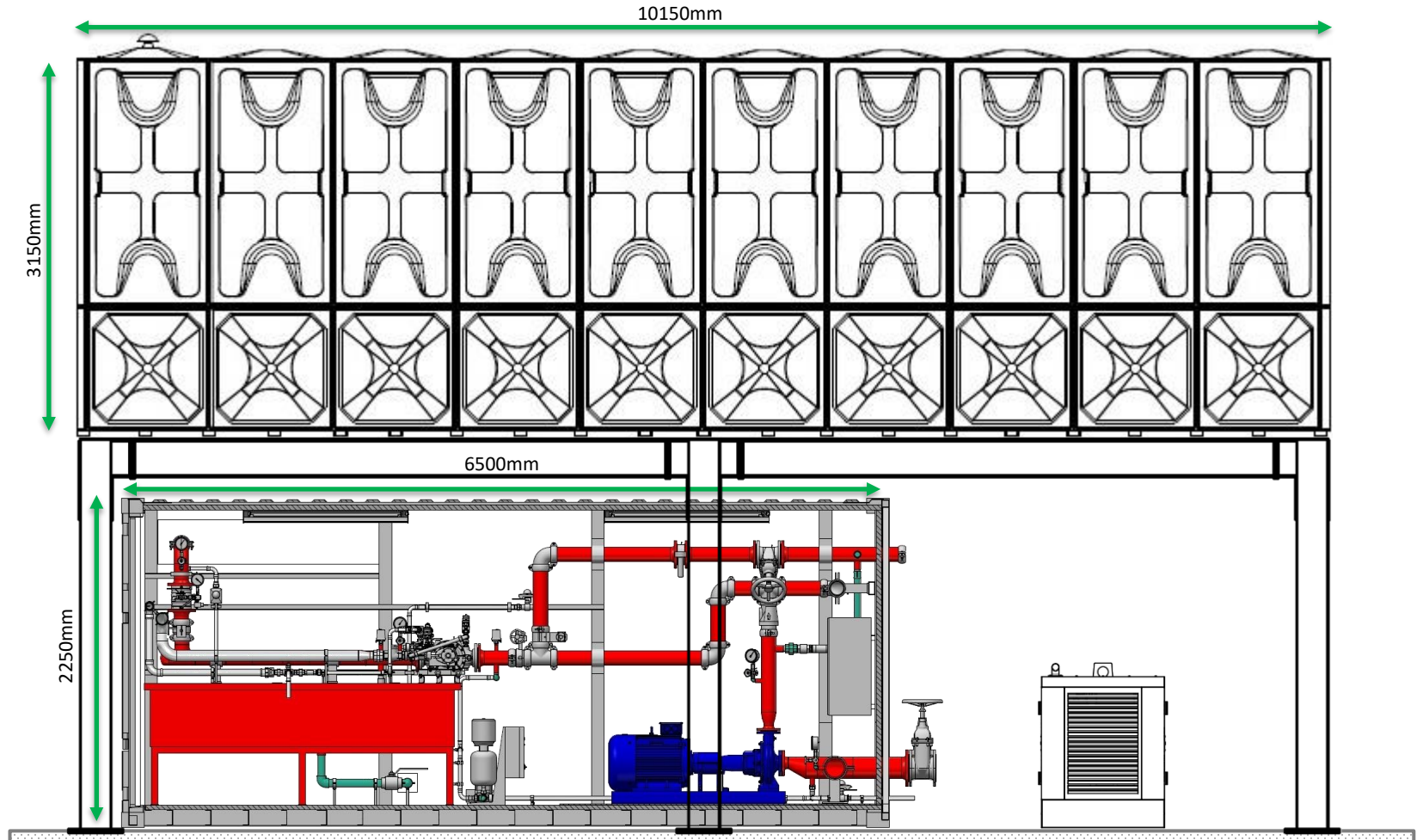
ATFS pump station to be located below steel frame mounted water tank

Biffa (Burgess Hill) Single zone ATFS project

Helios A.T.F.S.® system proposed pump station and watertank dimensions (Double Stacked)



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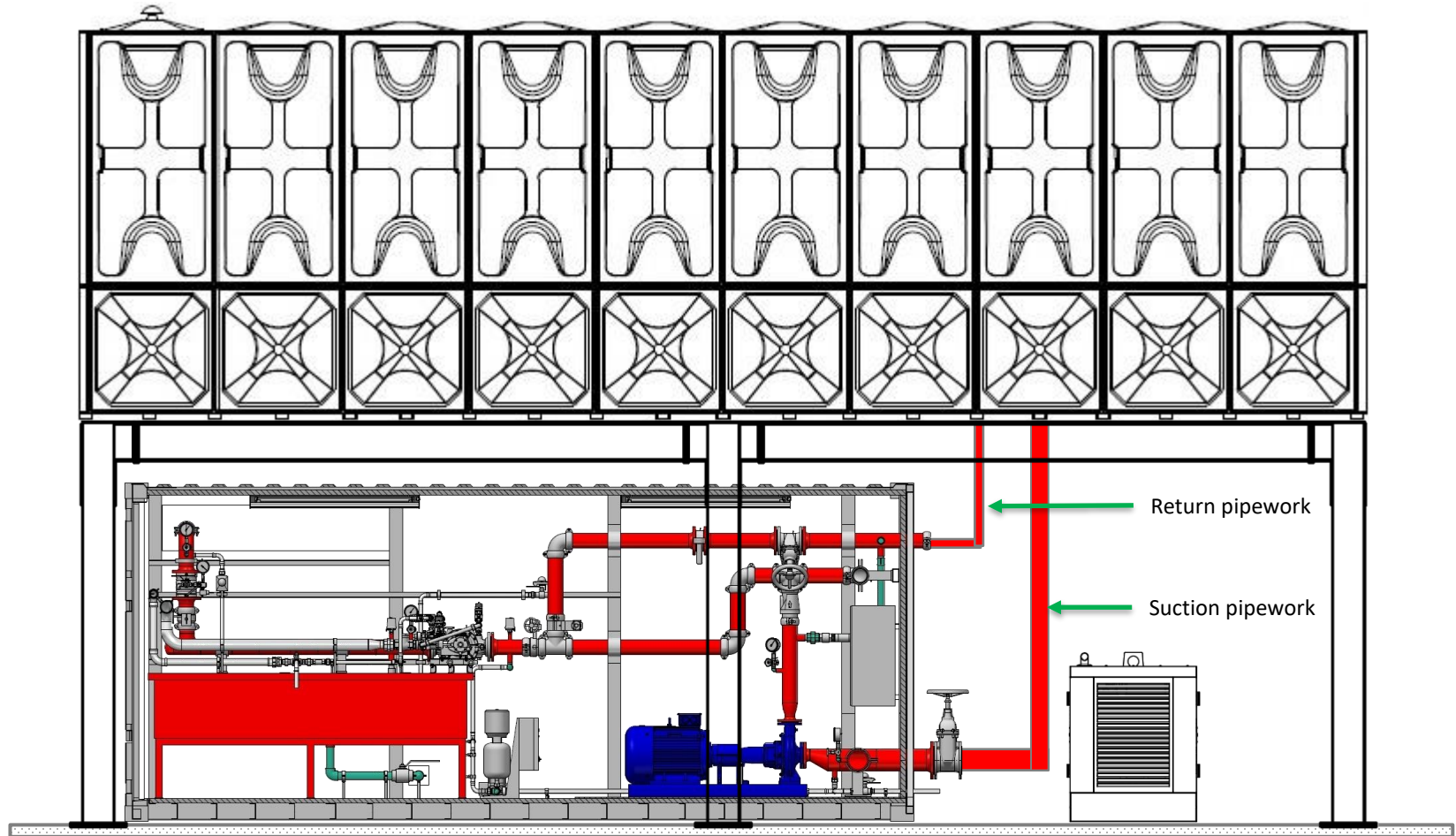
ATFS pump station to be located below steel frame mounted water tank

Biffa (Burgess Hill) Single zone ATFS project

Helios A.T.F.S.® system proposed pump station and watertank layout (Double Stacked)



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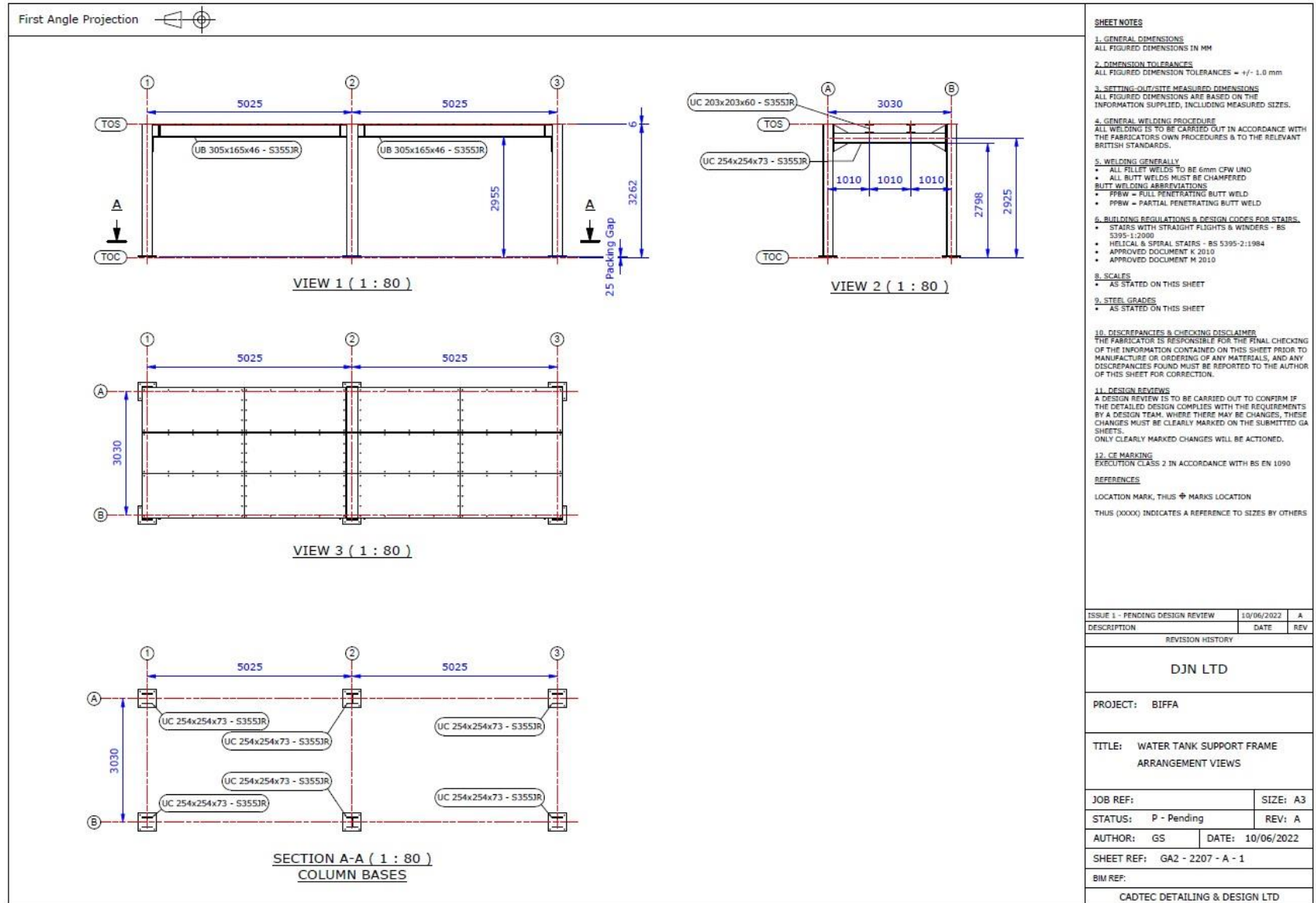
ATFS pump station to be located below steel frame mounted water tank

Biffa (Burgess Hill) Single zone ATFS project

Helios A.T.F.S.® system steel drawings to support double stacked water tank



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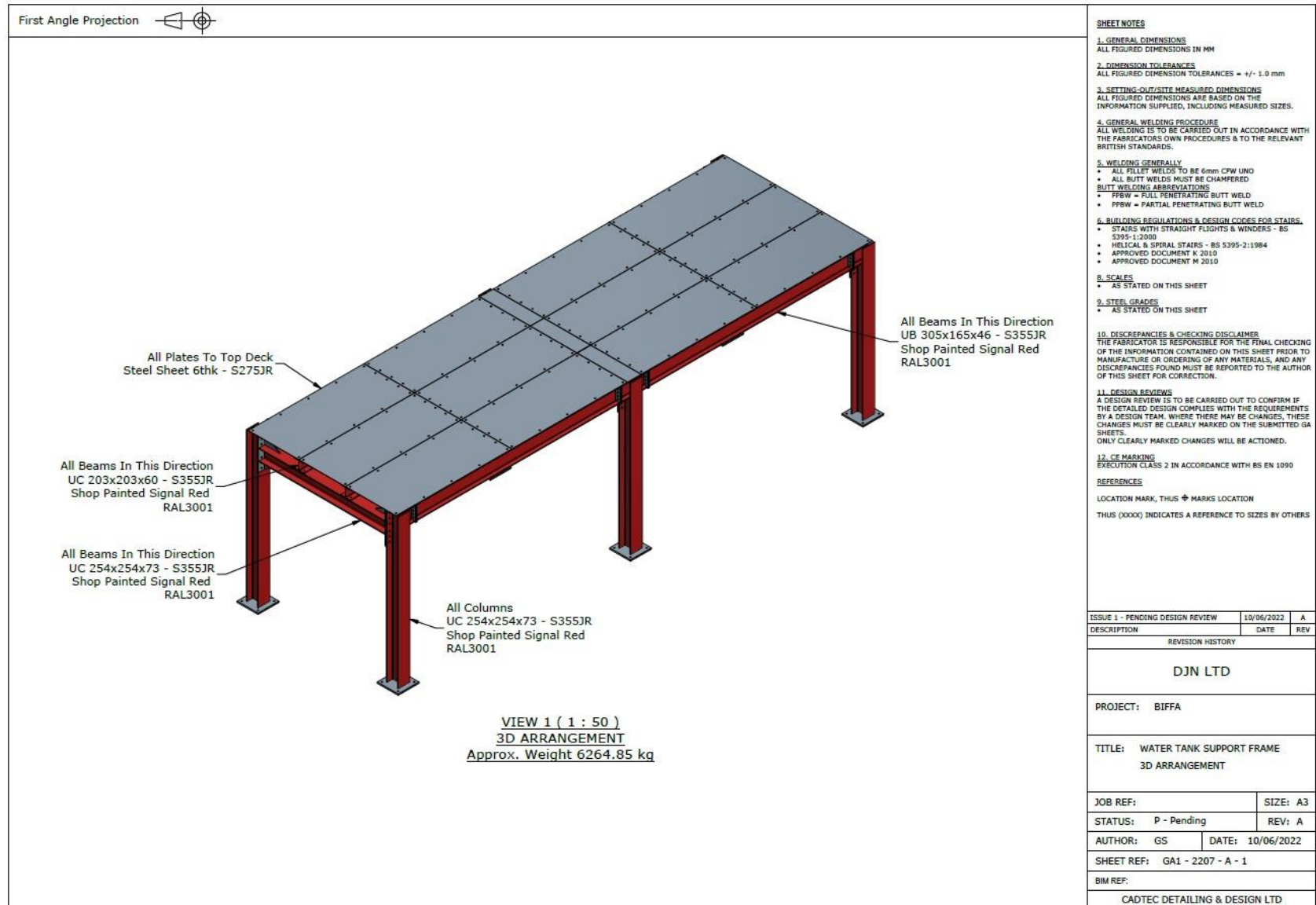


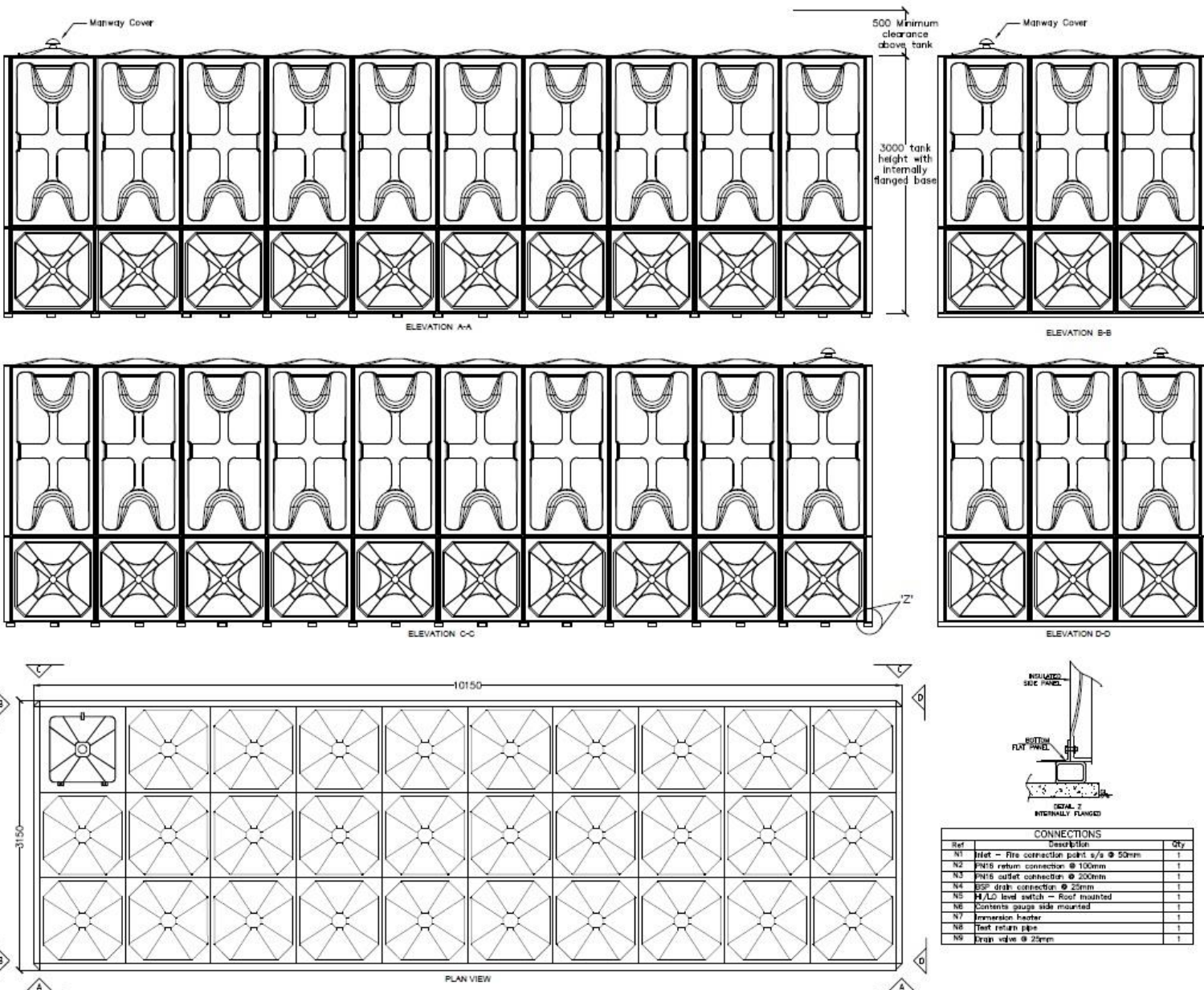
Biffa (Burgess Hill) Single zone ATFS project

Helios A.T.F.S.® system steel drawings to support double stacked water tank



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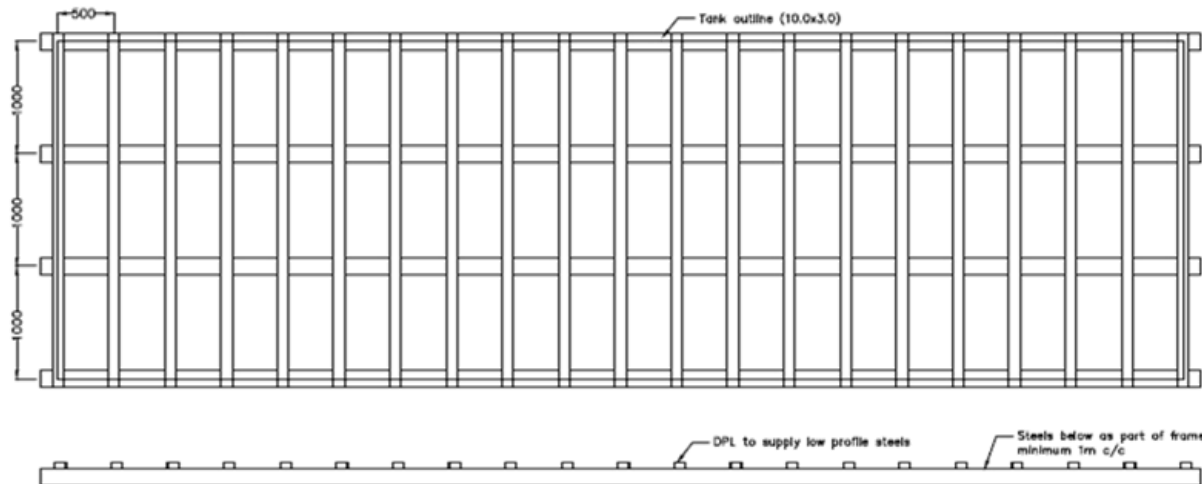


- NOTE:**
- Position & Size of tank connections can be altered according to customers requirements.
 - All GRP sectional tank foundations are to be leveled within a tolerance of 2mm in any 1m, or a total of 8mm in any 6m, measured laterally or diagonally as per BS EN 13280:2001
 - The foundation should be constructed so that when the tank is full, the combined deflections should not exceed 1/500th of the span as per BS EN 13280:2001.
 - Standard ball valve chamber heights are 200mm, 300mm & 500mm. This is in addition to the tank height shown. (Other non-standard chamber sizes available upon request)
 - We require 500mm min. working access around the tank walls for installation & future maintenance works, if access is not available then please contact our technical services department
 - If no concrete piers or plinths are available on site we do not take responsibility for the final positioning of the tank.
 - The maximum shim height of steel bases = 18mm H.
 - Lead times given are commence from date of receiving signed off design drawing from client.

A	DESIGN DRAWING SIGN OFF	10.02.22
REV	REASON	DATE
CLIENT		
Biffa Burgess Hill Double stacked tank		
PROJECT		
Biffa Burgess Hill 10000 x 3000 x 3000 IFB UN-INSULATED		
DWG No DP2202 - 31		DATE 10.02.22
SIGN		PRINT

NOTE:

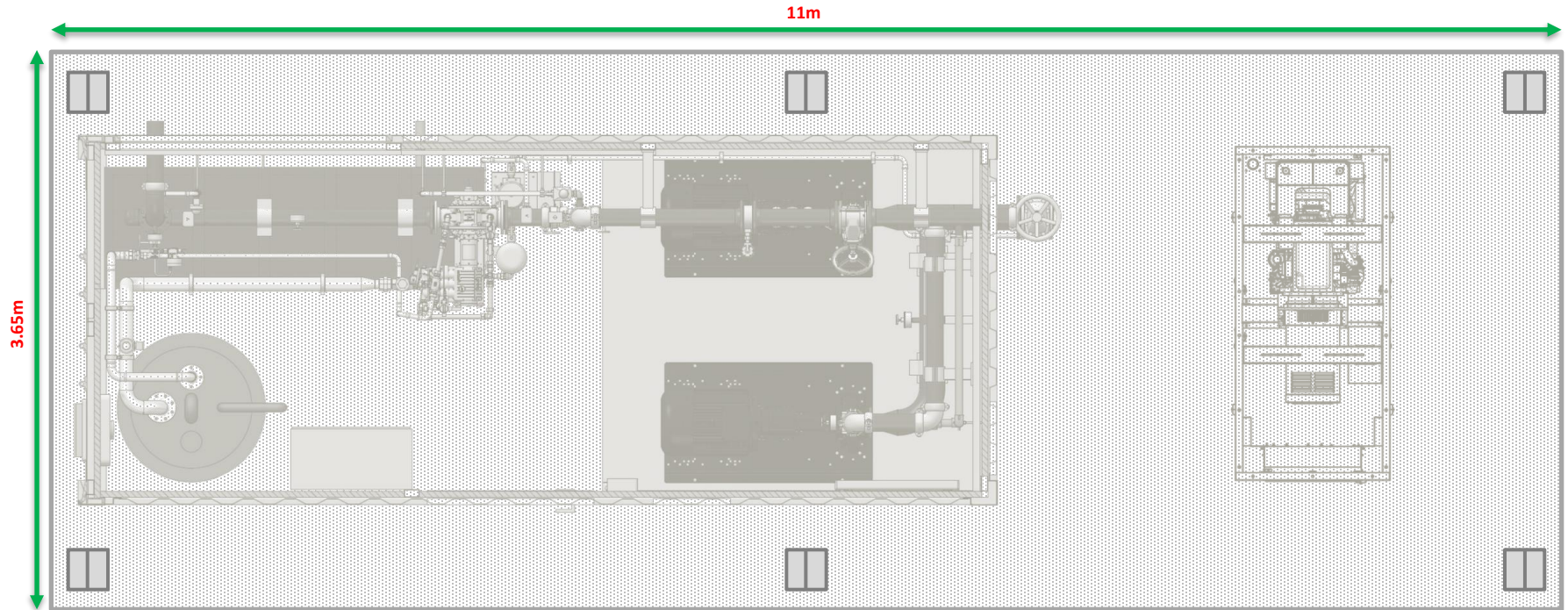
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A	DESIGN DRAWING SIGN OFF	10.02.22
REV	REASON	DATE
CLIENT		
Biffa Burgess Hill Double stacked tank		
PROJECT		
Steel layout 10000x3000x3000 IFB UN-INSULATED		
DWG No	DATE	
DP2202 - 31	10.02.22	
SIGN	PRINT	

Biffa (Burgess Hill) Single zone ATFS project

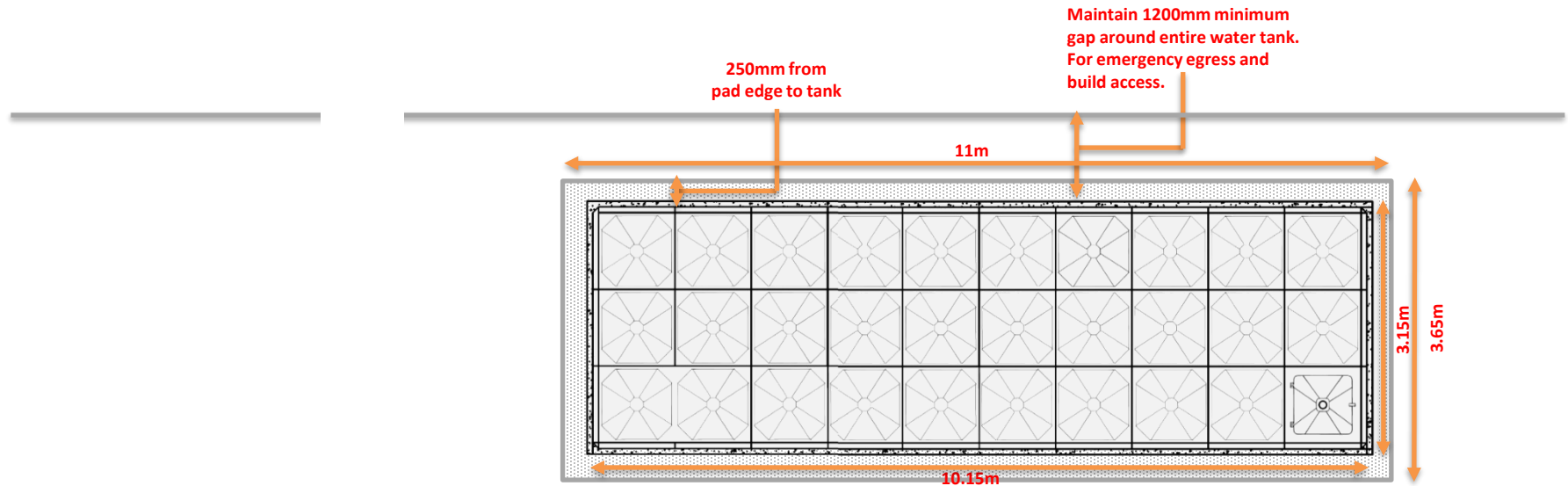
Helios A.T.F.S.® system proposed pump station pad dimensions



11m x 3.65m concrete pad to be installed on made up ground at rear of TS. Ground needs prepping in ready for concrete pad to be poured for install of the steel frame. Standard concrete pour tolerances required for surface levels tolerances and finish.

Biffa (Burgess Hill) Single zone ATFS project

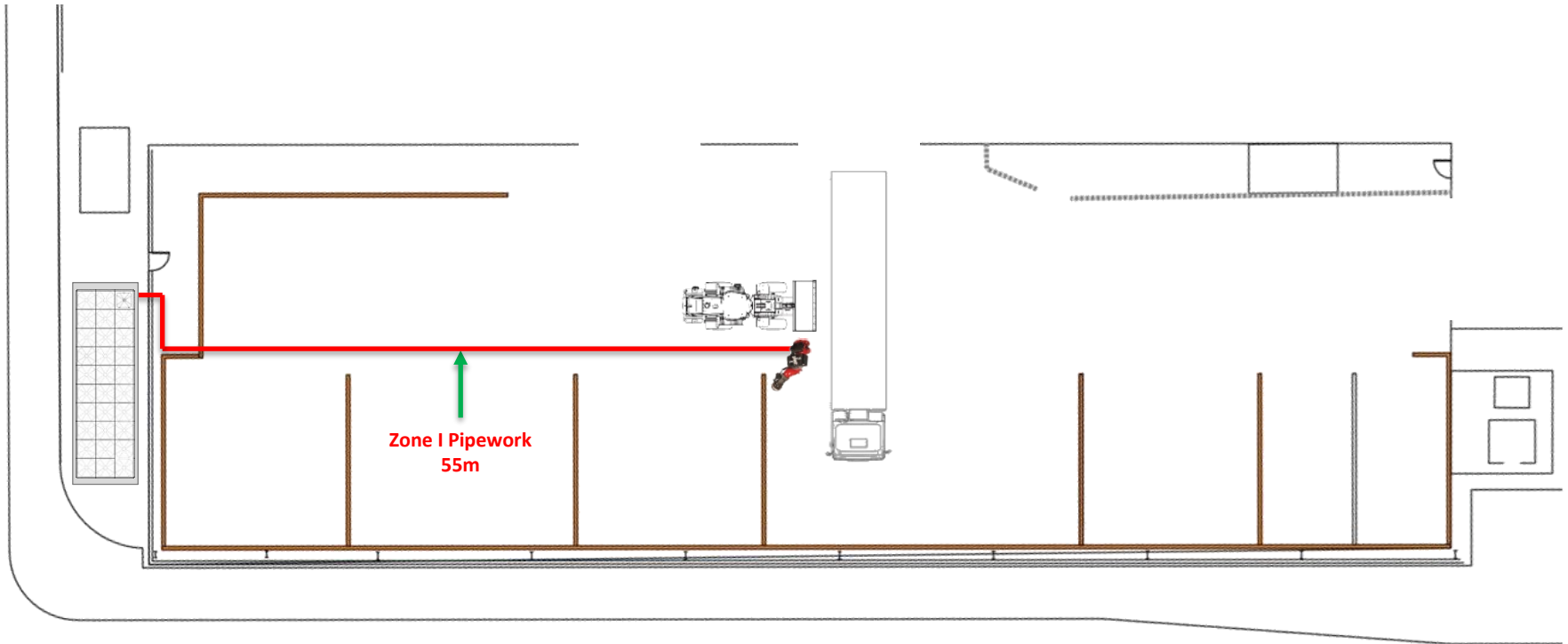
Helios A.T.F.S.® system pump station/water tank dimensions



ATFS pump station to be located at rear of TS on concrete pad installed by client. ATFS pump station to be connected to 90,000 Ltr water tank

Biffa (Burgess Hill) Single zone ATFS project

Helios A.T.F.S.® suppression system piperun plans



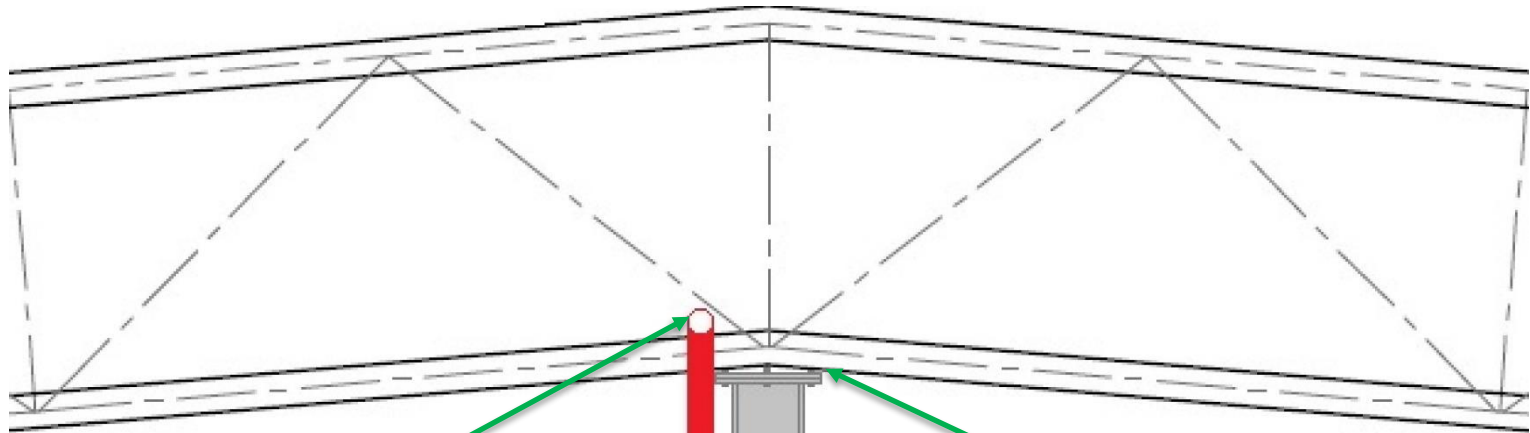
Total pipework required 60m (approx) including 1x 10m risers and water tank connections

Biffa (Burgess Hill) Single zone ATFS project

Helios A.T.F.S.® Zone I Turret mounting

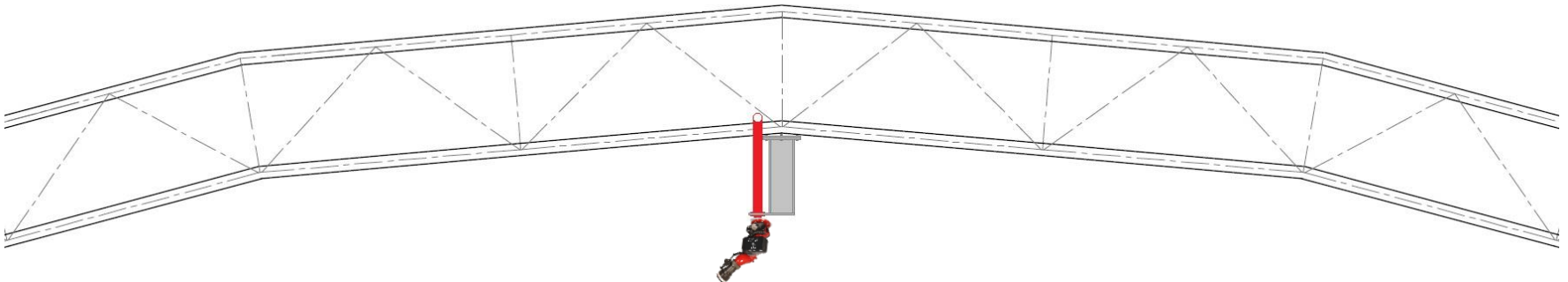


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100mm powder coated pipework to be mounted between spans of beams. Distance between spans 5 meters. Spans to take weight of pipework and water under operational conditions.

Mounting plate at apex for Helios supplied turret mounting bracket. Final design and bolt PCD to be discussed



Biffa (Burgess Hill) Single zone ATFS project

Helios A.T.F.S.® suppression system piperun (Example)

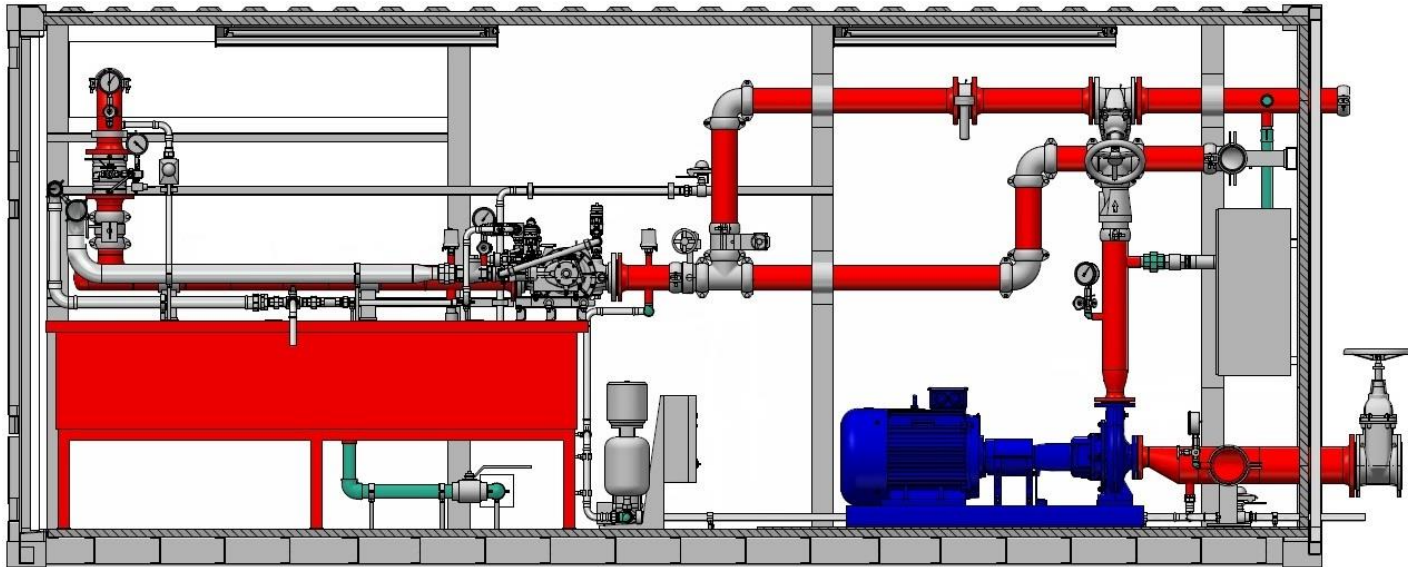


Biffa (Burgess Hill) Single zone ATFS project

Helios A.T.F.S.® system container layout



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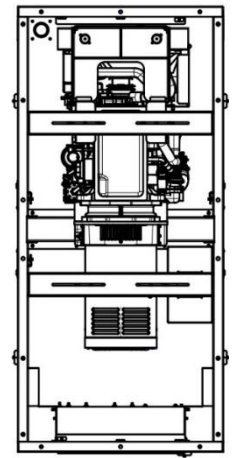
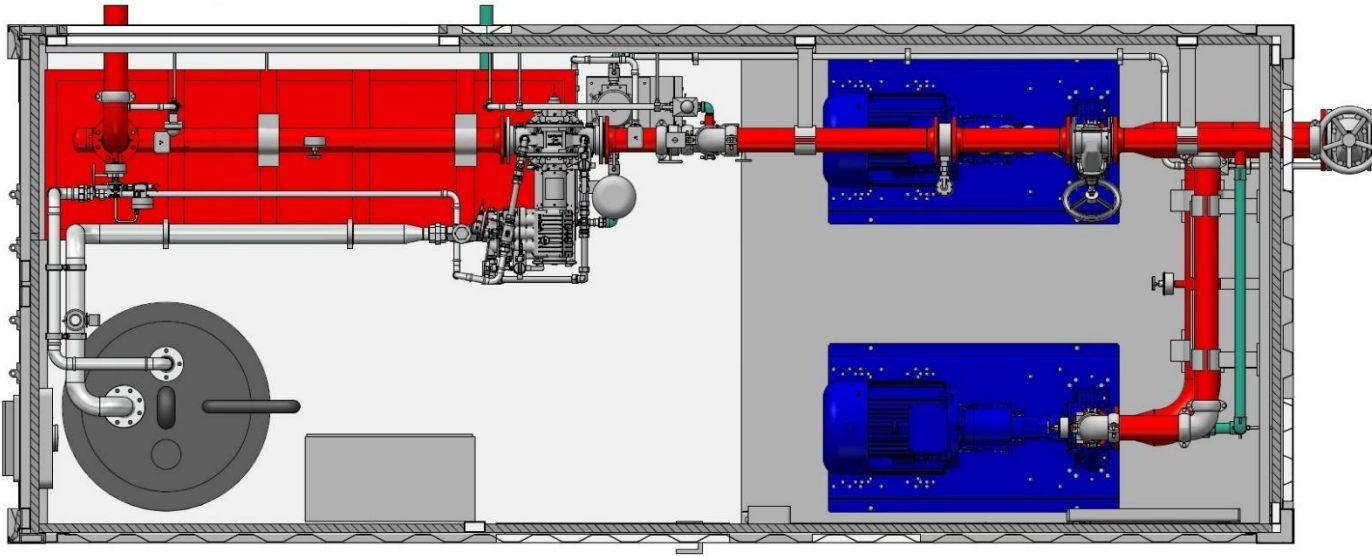
Side elevation of ATFS container

Biffa (Burgess Hill) Single zone ATFS project

Helios A.T.F.S.® system container layout 1+1 future



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Plan elevation of technical container and generator

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Helios A.T.F.S.® example system install



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Images of technical container installation

Biffa (Burgess Hill) Single zone ATFS project

Helios A.T.F.S.® System delivery and installation



- System components are delivered ex works. A schematic drawing of the agreed system layout/structure will be supplied to you to prepare for installation. All cabling/wiring between sub-distribution, control room, CIE and the system components is by the client.
- The operating terminal shall be situated in the office building. All cabling will be done in fiber-optic cables; the required fiber-optic data converters are part of the quote.
- Under very dusty and dirty conditions, compressed air is to be supplied by the client to keep the PYROsmart® clean and functional. Alternatively, we can offer to provide a reciprocating piston compressor or air dryer.
- Our specialist team of electrical engineers will complete all the containment/cabling/wiring of the entire ATFS PYROsmart® system.
- A suitable foundation base needs to be prepared prior to water tank being installed. A full detailed spec will be sent prior to client agreeing terms.
- It is the client's responsibility to supply a 2no 80amp and 1no 32amp electrical supply to the location of the Technical container. This is a pre-requisite and needs to be in place prior to installation of equipment. The power cables installed should be 4 core. 3 phases and neutral as a minimum.
- Once the mounting has been completed, we will commission the system and prepare it for test operation. This might take up to 2 weeks. The test operation will run for another 4 weeks.
- Remote access to the system via broadband or UMTS is a prerequisite for the commissioning of the system, and for the fast and cost-effective support of all alterations, maintenance issues or malfunctions.
- All drawings are indicative as a full site survey has not been completed. These preliminary plans are for indicative costing purposes. A full site survey will need to be carried out for both cabling and water supply for the fire suppression system.
- These drawings and proposals have been based on the visit by our Mr. Garry Adey who has assessed to the best of his ability and with limited access provided by the client. Full site/building drawings/plans will need to be provided to give full costings for the whole install this preliminary plan is used for indicative costing purposes only. Costs may change due to feasibility and accessibility in running cables and power to each point. These costs will be agreed once a site survey has been completed by our engineers. All cable and piping plans are subject to change dependent on the outcome of a full site survey.