

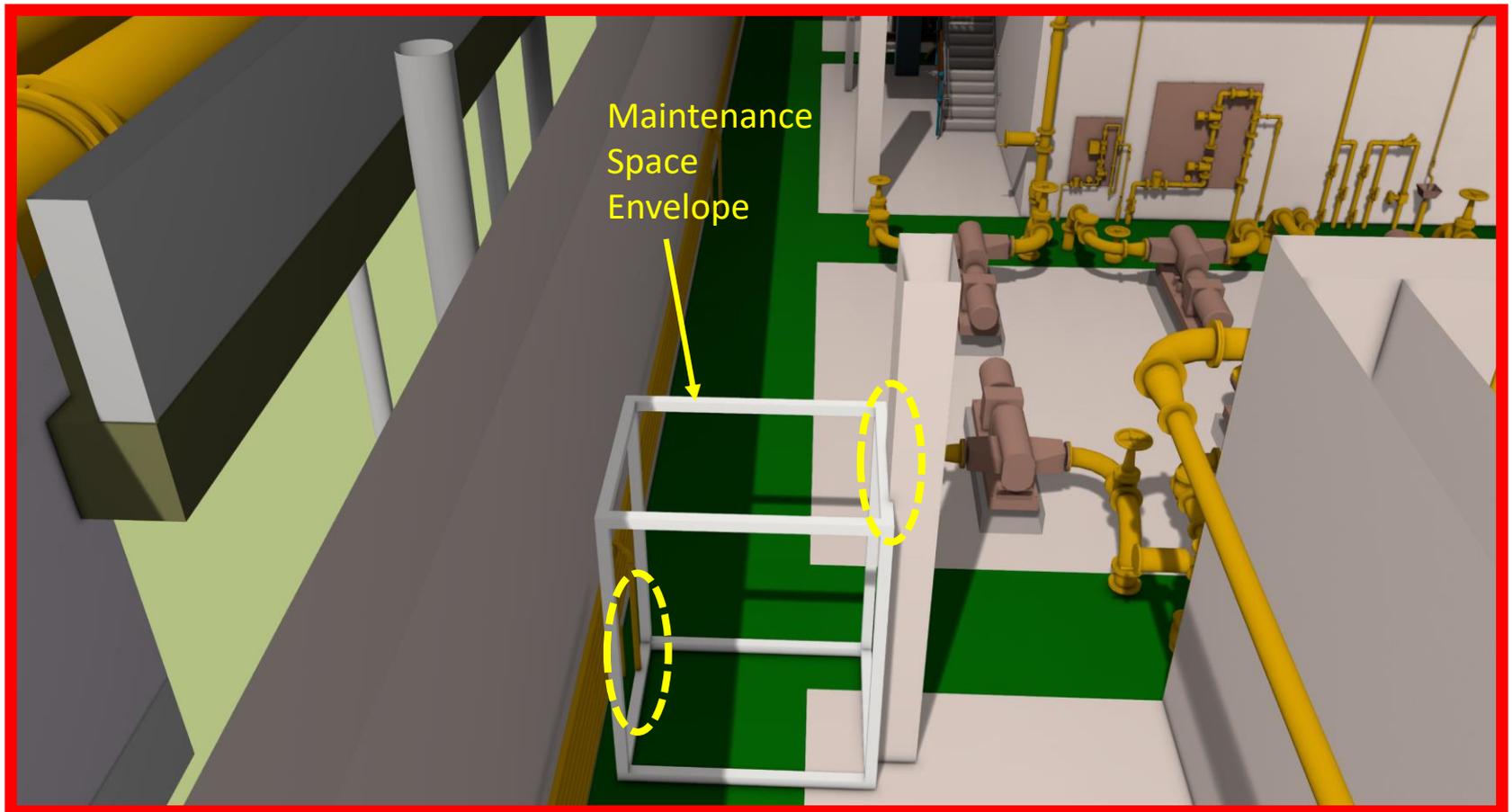
Use of BIM in Design Stage

**Working with Future Operator on Safety Issue for
O&M Activities**

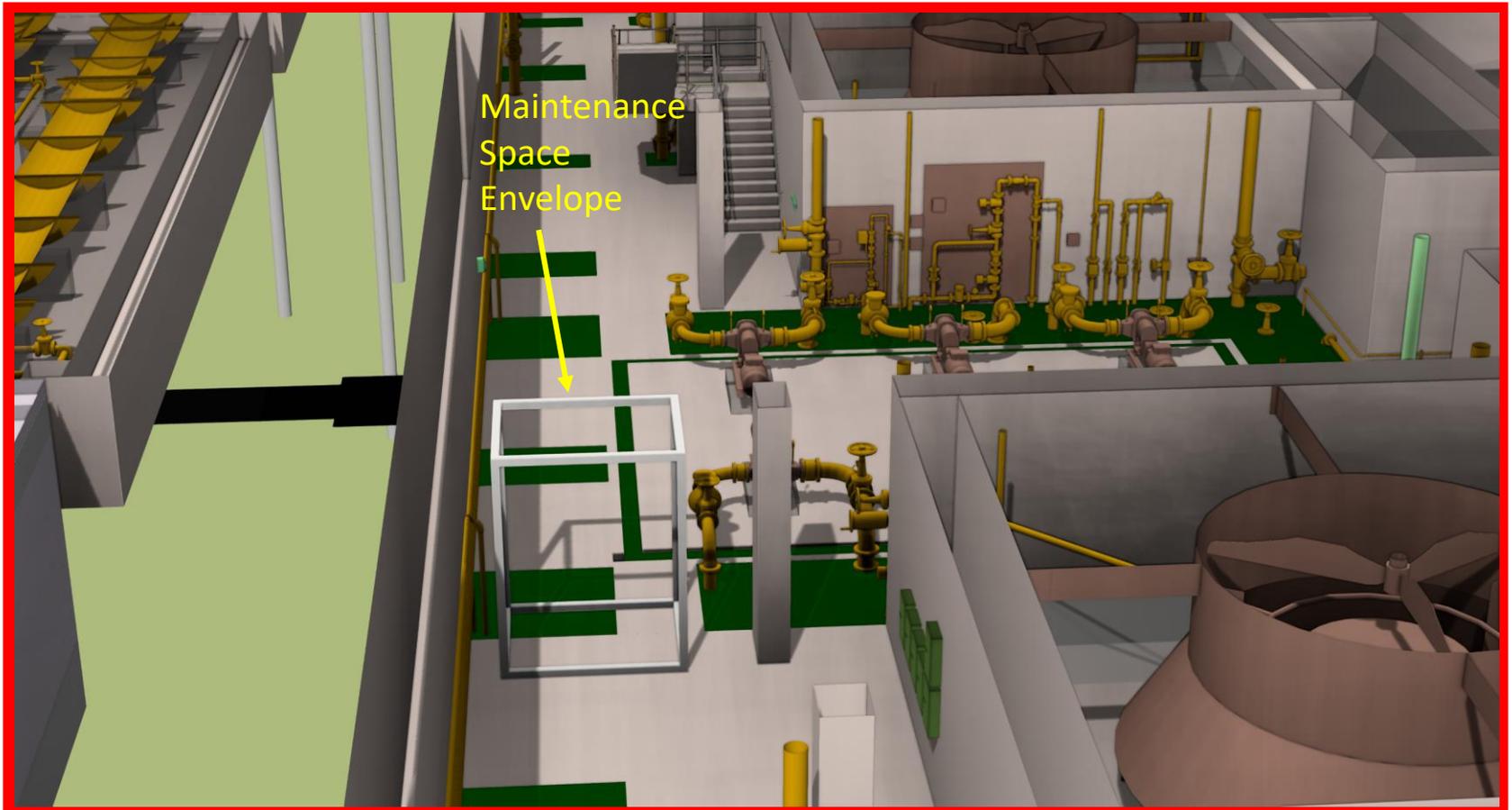
BIM Model User: Future operator

Findings: Narrow passageway for safe delivery of equipment for maintenance/replacement

Necessary Action: Modify general arrangement and structural design



View of BIM Model after Revision of Design



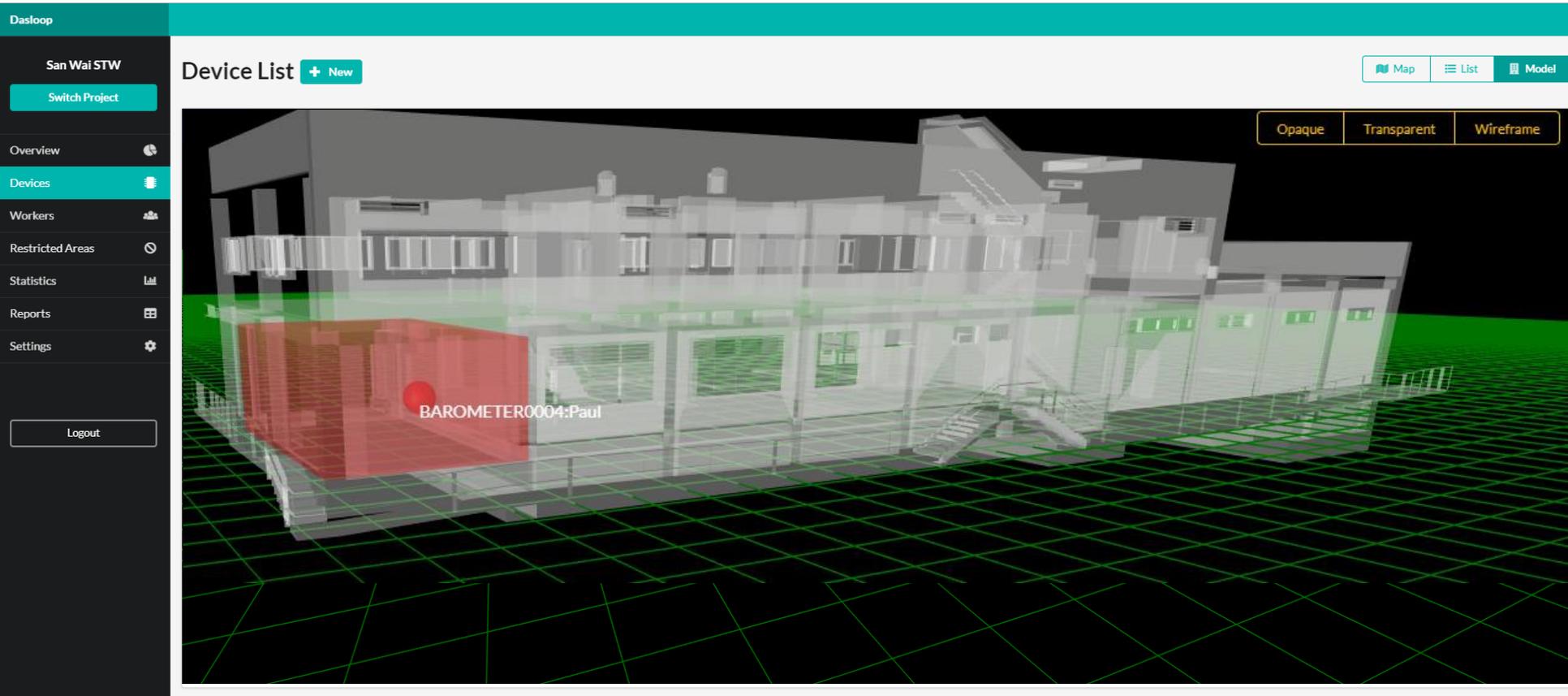
Construction Stage

IOT Safety Helmets and BIM Model for Enhancing Safety of Confined Space Works

Project: San Wai Sewage Treatment Works – Phase 1
Location: Water Tank Inside Administration Building Structure
Confined Space Works: Removal of Falsework/Formwork



Utilization of BIM Model to Locate and Monitor Workers Working Inside Water Tank (a Confined Space)



Dasloop
Product Website

Contact Us
support@beeinventor.com

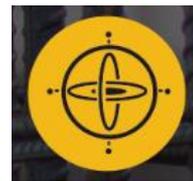
Monitoring

1. Operational, Health and Safety Monitoring

- 1) Body temperature;
- 2) Heart rate;
- 3) Detect fall of person.

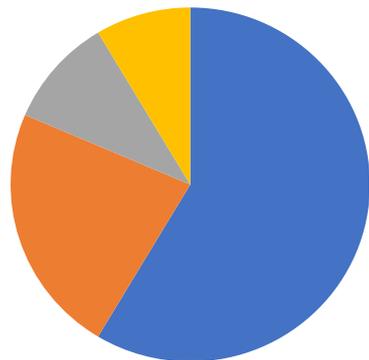
2. Site/ Plant Access Management

- 1) Detect position of staff;
- 2) Log working time of staff;
- 3) Control restricted area.



Management Portal

- Data transferred to cloud based management portal
- Location shown in BIM model
- Alerts issued when abnormal conditions detected



Statistics



Alerts:

- SMS
- Warning on computer

**Monitored by
designated staff**

Target VR User:

Site Video of IoT Safety Helmet x BIM Model

Site:

San Wai Sewage Treatment Works – Phase 1



Operation Stage Example

Fire Drill with Aid of Virtual Reality (under development)

Target VR User: **Future Operators**

Location: **Basement of Chemically Enhanced Primary Treatment Facilities**

Purpose: **Train a lone operator to escape via nearest escape route**



Target VR User:

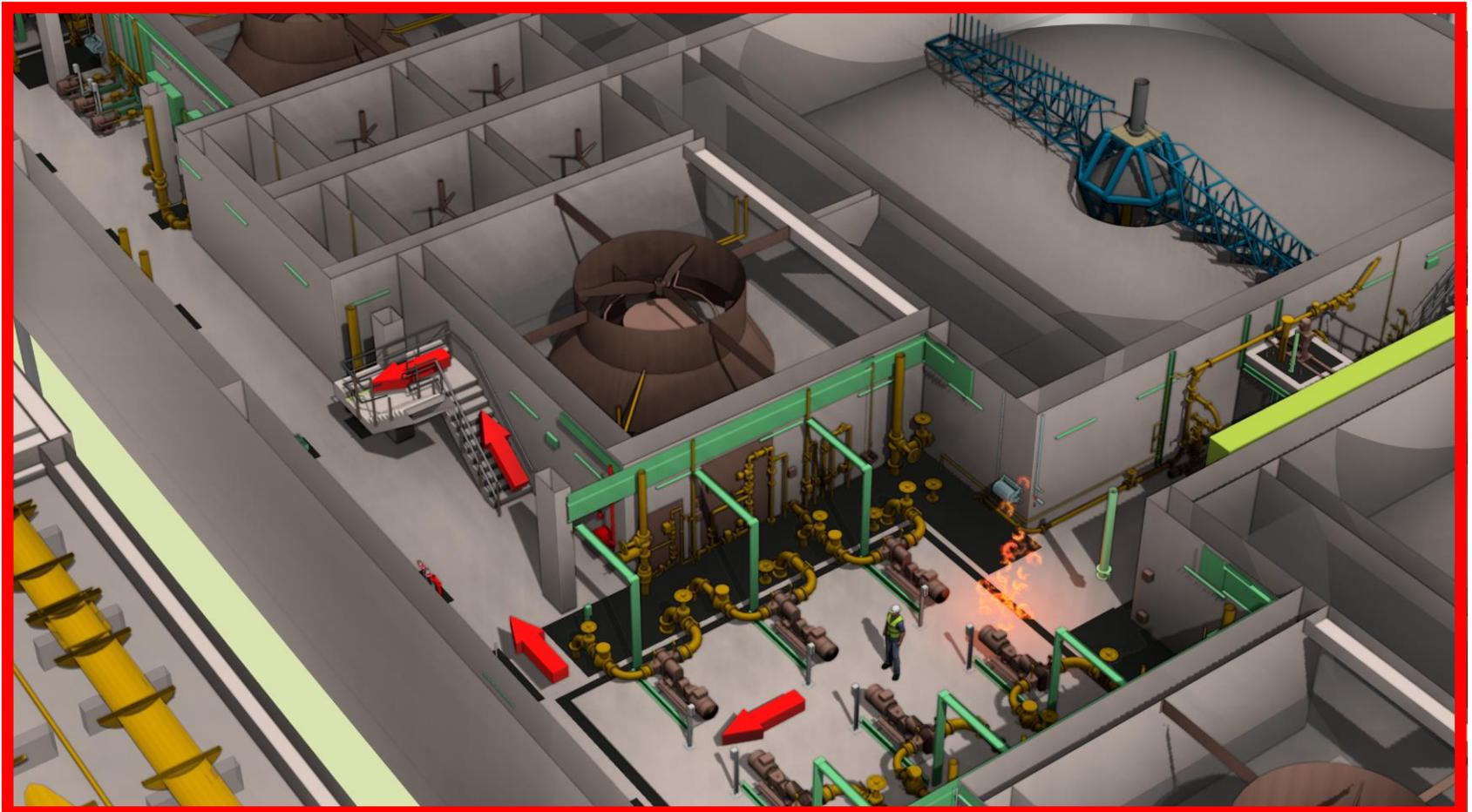
Future Operators

Location:

Basement of Chemically Enhanced Primary Treatment Facilities

Purpose:

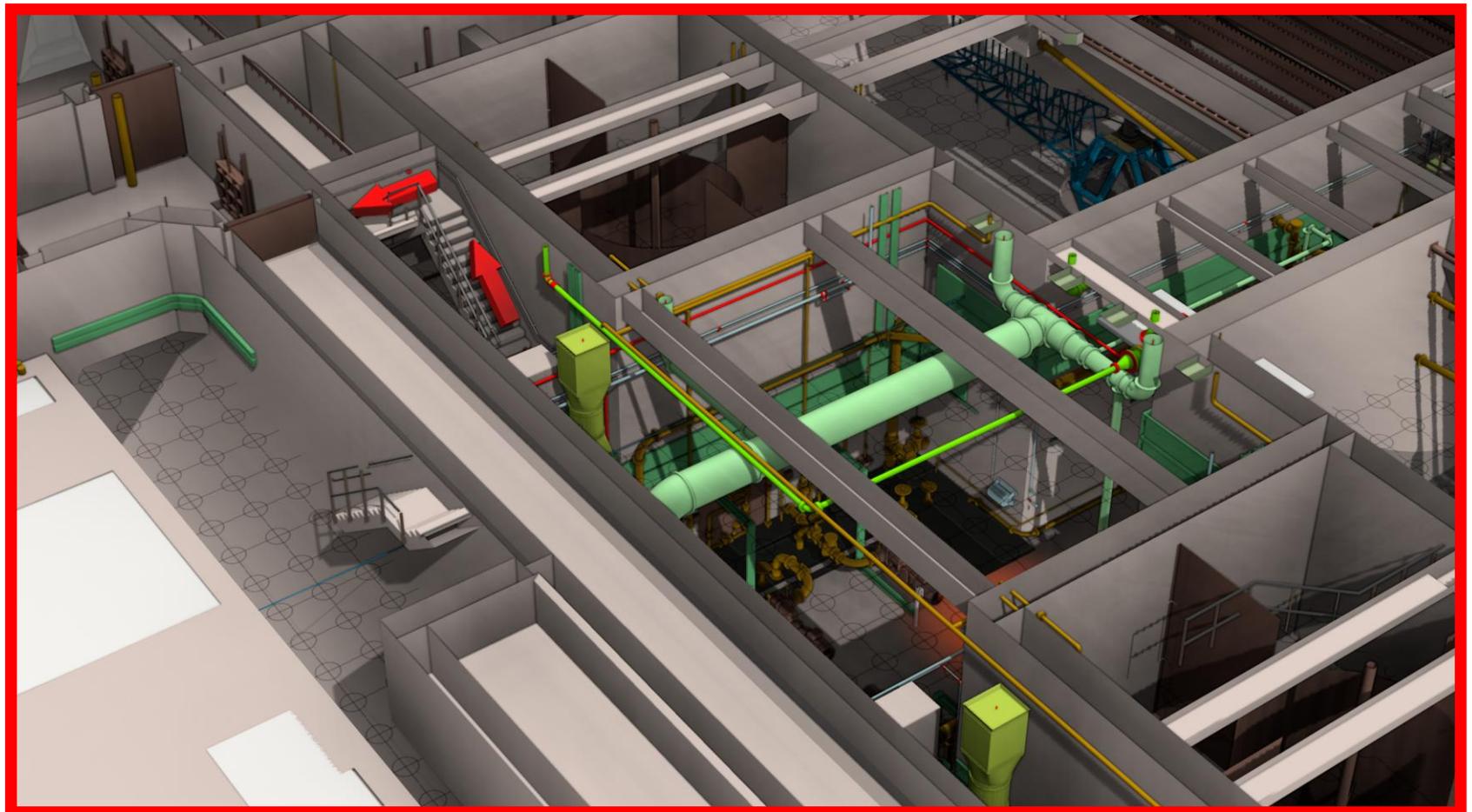
Train a lone operator to escape via nearest escape route



Target VR User: Future Operators

Location: Basement of Chemically Enhanced Primary Treatment Facilities

Purpose: Train a lone operator to escape via nearest escape route



Target VR User: **Future Operators**

Location: **Basement of Chemically Enhanced Primary Treatment Facilities**

Purpose: **Train a lone operator to escape via nearest escape route**



Thank You