

**Cerebro**  
Strategy Limited

# 2024 Construction Industry Council - Mobile Plant Monitoring System and Safety Measures of Lifting Operation

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# 1. Introduction

Recently, the government has emphasised the importance of **smart site safety** due to the frequency of accidents on construction sites. At Build King, we are committed to **advancing safety through innovative smart site systems**. Today, we would like to present a success case that highlights the effectiveness of these technologies.

## 2. Case Study

Our **Smart Site System** was successfully implemented in **Contract 1733 for the Siu Ho Wan Depot Property Development**. We will now show you a video demonstrating how our system was used on-site, showcasing its integration and the safety improvements it brought to the project.

*Video of SHD 1733 - Digitalisation (SSSS) on Site (for Special Sub-Category 4)*



# 3. Unsafe Acts & Dangerous Situations Alerts

For mobile plant operations, our system provides immediate alerts when a worker is detected within the danger zone. These alerts are sent to the plant operator, site personnel, or designated individuals through various channels, such as audible alarms, visual notifications, or mobile device alerts.


The system allows for quick action—either halting the operation or warning the worker to move out of the danger zone. Our system is broad-reaching, ensuring not only the operator is informed but also other site personnel, like supervisors, are alerted so they can review the situation and prevent future incidents.



# 4. Expanding Beyond Mobile Plant Safety

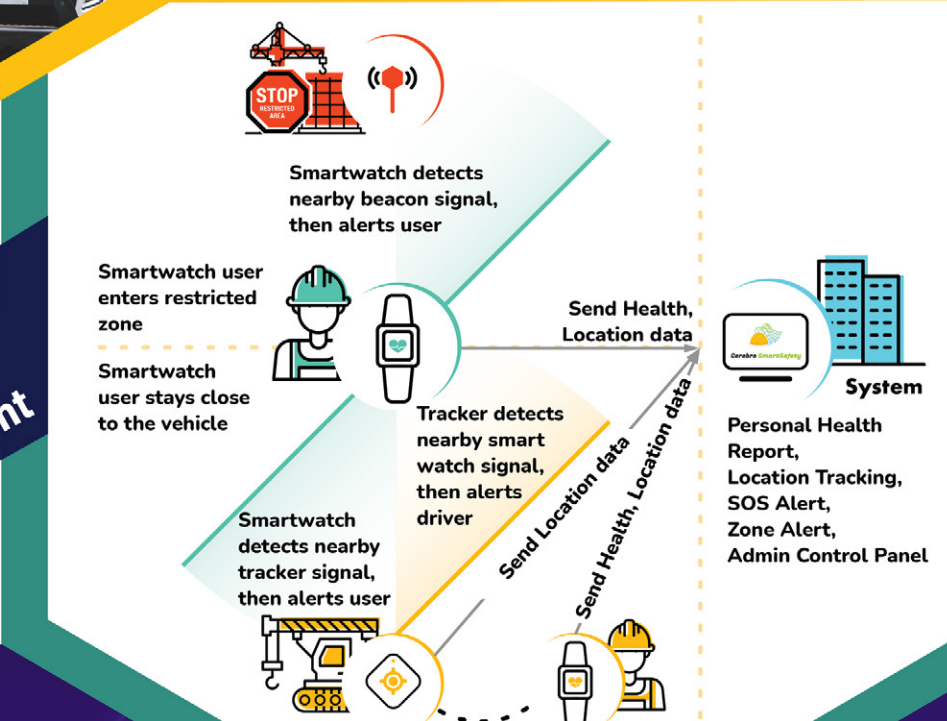
While **mobile plant safety** is a key component of our Smart Site initiative, it is just one part of the bigger picture. Other heavy machinery, like cranes, also require advanced safety measures.

At Build King, in collaboration with Cerebro, we have expanded our smart site projects. For example, our **Digitized System Tracking** uses **tracker, beacons and smartwatches** to **monitor and restrict access to certain zones**. When workers enter restricted areas, they **receive alerts**. We also place beacons on heavy machinery to **alert workers** when they are too close.



## Digitized System Tracking

With the help of a digitized tracking system, overall insight can be increased, enhancing site productivity by instantly locating the tools, facilities, and equipment required. It acts as a protective layer against any risks that could impact the functioning of a worksite through real-time monitoring.



**Smartwatch detects nearby beacon signal, then alerts user**

**Smartwatch user enters restricted zone**

**Smartwatch user stays close to the vehicle**

**Tracker detects nearby smart watch signal, then alerts driver**

**Smartwatch detects nearby tracker signal, then alerts user**

**Send Health, Location data**

**Send Location data**

**Send Health, Location data**

**System**

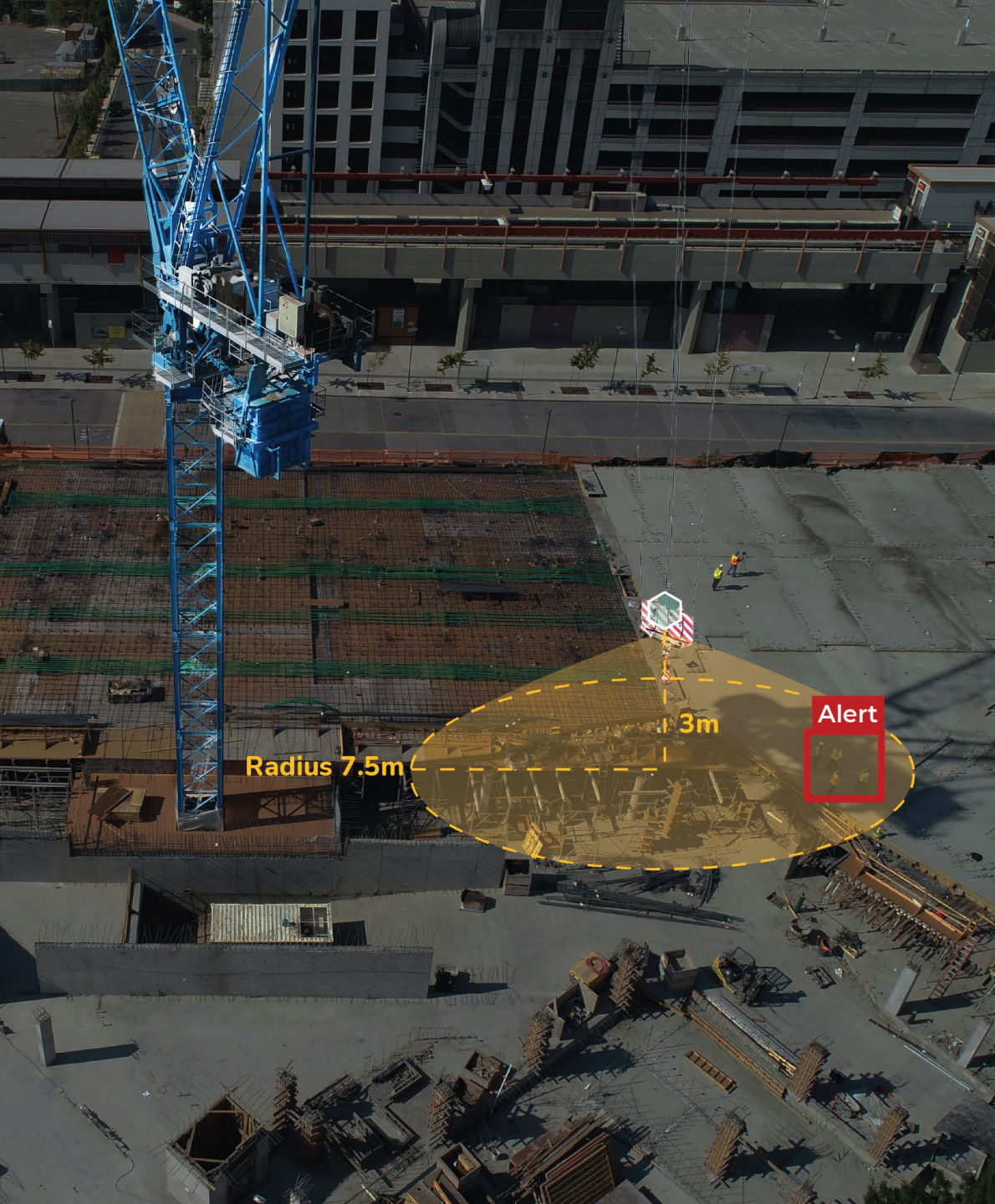
**Personal Health Report, Location Tracking, SOS Alert, Zone Alert, Admin Control Panel**

**Paired up**

**Cost Savings**

**Enhanced Inventory Management**

**Improved Efficiency**



## 5. Unsafe Acts & Dangerous Situations Alerts for Tower Crane Lifting Zone

When a worker is detected within the danger zone, the system generates an **immediate alert**. This alert can be sent to the operator, site personnel, or other designated individuals through various means, such as **audible alarms**, **visual notifications**, or **mobile device notifications**. The prompt alert allows for quick action to be taken, such as stopping the operation or warning the worker to move out of the danger zone.

# 6. Benefits of Smart Site Systems

- **Before Implementation:**
  - Heavy reliance on manual monitoring, with the risk of human error still leading to accidents.
- **After Implementation:**
  - Reduction in manual labour and increased accuracy.
  - Prevention-focused safety, identifying potential risks before accidents happen.
  - Efficient monitoring systems enhance overall site safety and operational precision.



## Enhanced Safety

Real-time alerts reduce accidents and provide proactive prevention



## Increased Efficiency

Automated monitoring minimizes the need for manual oversight.



## Accurate Data Collection

Systems provide detailed records that help in analyzing risks and making informed decisions.



## Cost-Effective

Reducing accidents leads to fewer delays and lower costs associated with injuries or damages.

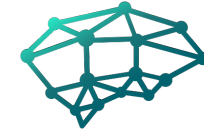


## Improved Compliance

Ensures adherence to safety standards and regulations.







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# Thank You



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