



# Site Monitoring Trailers

*February 6, 2024*

# AI Monitoring Service

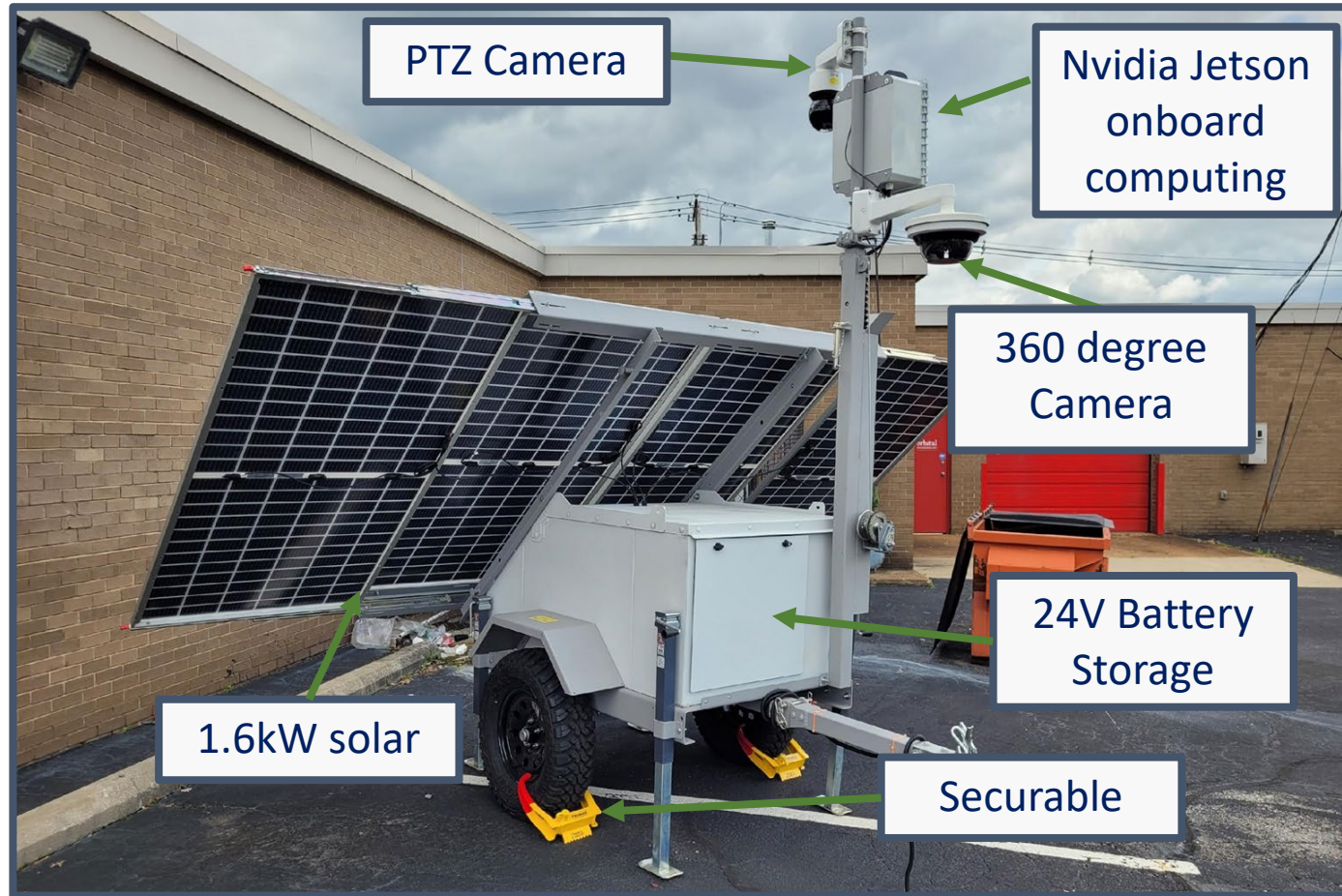
**Brian Bub**  
Client Director

**Dylan Gessinger**  
Director of Strategic Partnerships

Safety

Security

# Current Solution



# Intelligent Cameras



## Capabilities:

- ✓ 24 hour, 360° operation
- ✓ Custom Exclusion / High Security Zones and Schedule by Camera
- ✓ Scheduled Operation Times for Safety and Security

## Detections:

- ✓ Active Person
- ✓ Active Vehicle
- ✓ Approx Vehicle Speed
- ✓ Vehicle Spotter
- ✓ Vehicle Types: (e.g. Bucket Truck, Lull, Excavator, Pickup Truck, Skid steer, JLG)
- ✓ PPE (Hard Hat, Safety Vest, Eyewear)
- ✓ Critters
- ✓ New detections implemented upon customer request

## Distance Measurements:

Measured from the **center** of detections

- ✓ Proximity (any detection within a defined distance of another detection)
- ✓ Improved Speed Accuracy

# Site Monitoring

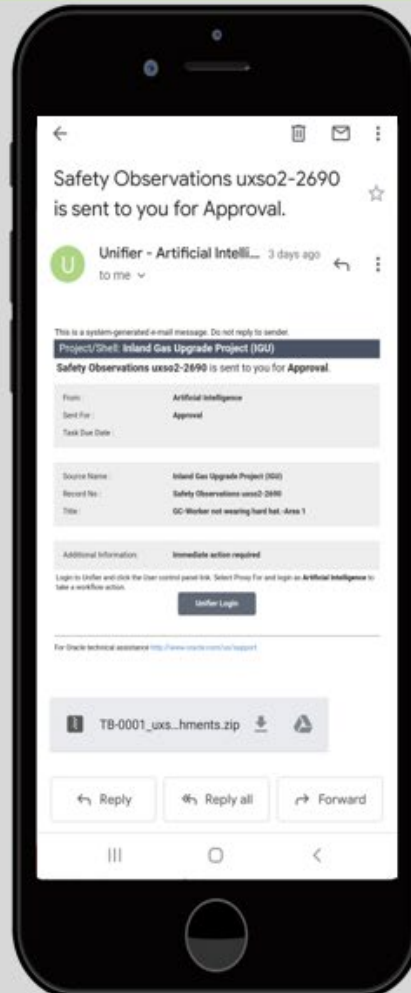
## OBSERVE



## IDENTIFY



## ACTION



## DECISION



# PPE Detections

## OBSERVE



Vest



Helmet



Eyewear

# Site Monitoring

## OBSERVE



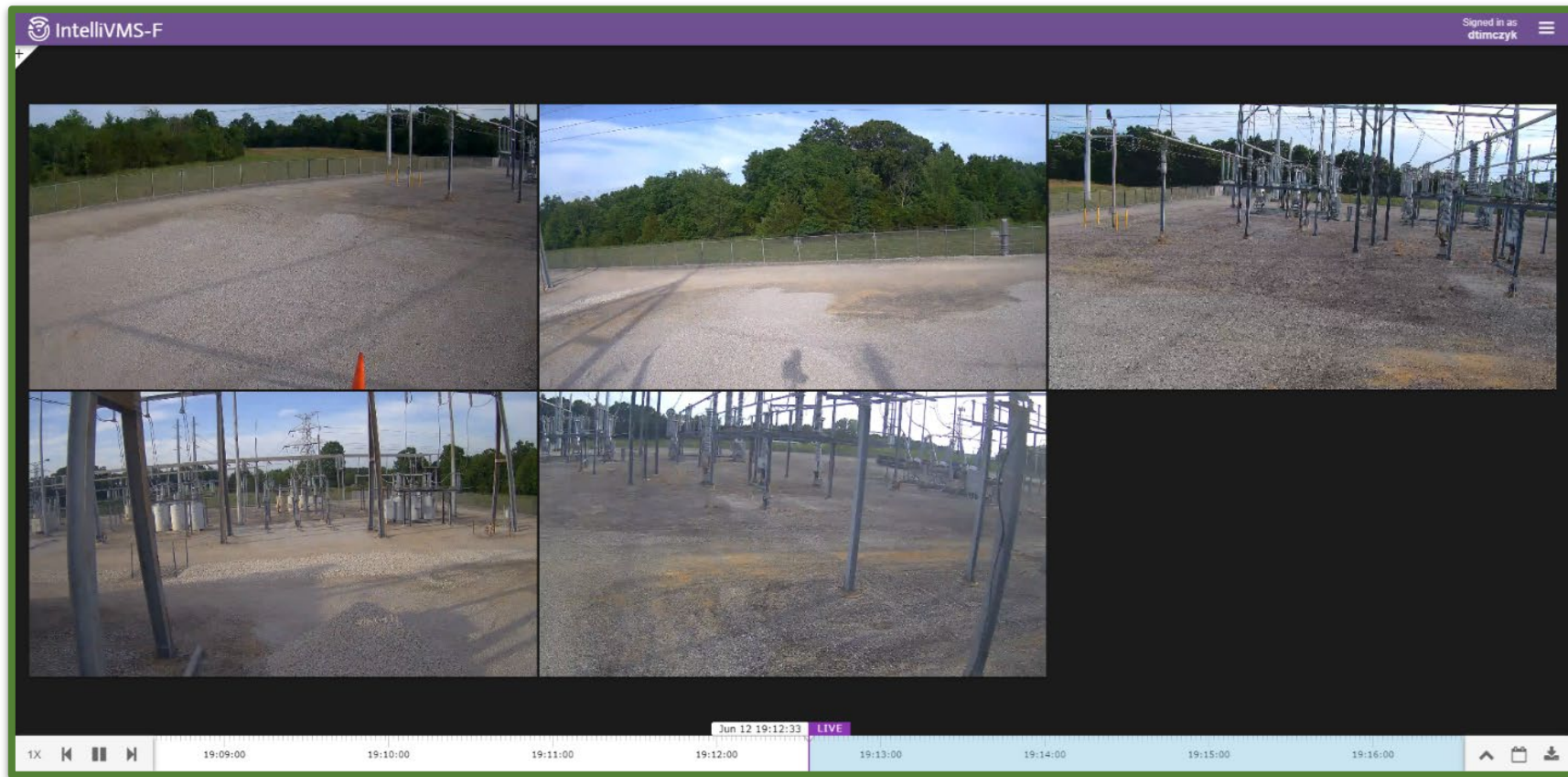
# Real-time Monitoring

## OBSERVE

**Review footage of safety incident on internet portal**

**Real-time, simultaneous login to all video feeds:**

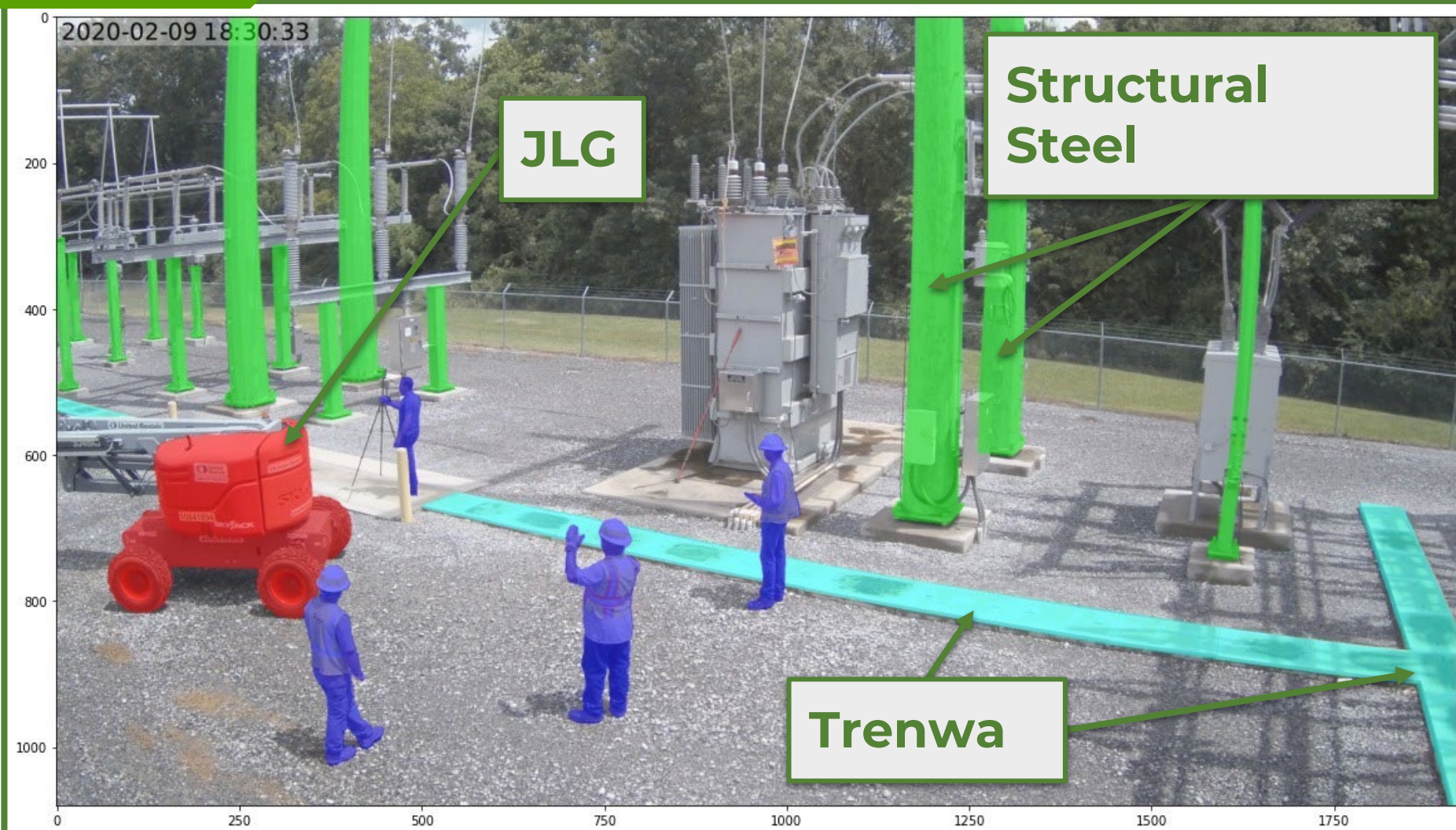
- Site conditions
- Crew check
- Build status
- Safety review
- Build quality





# Detection

## IDENTIFY

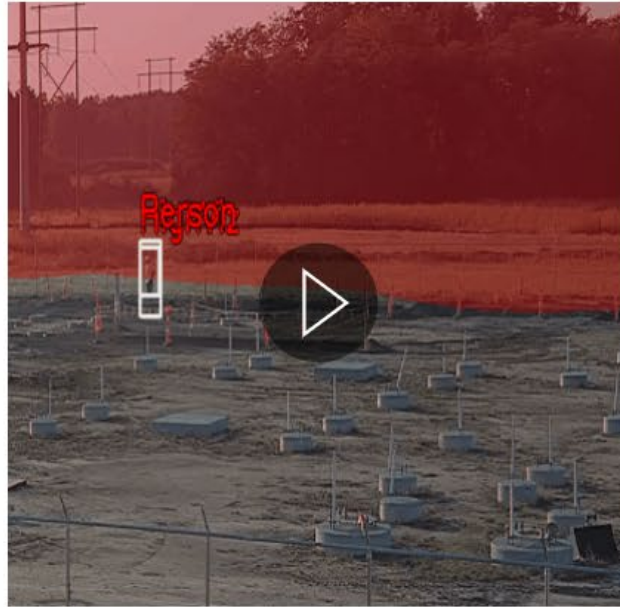


# Detection

## IDENTIFY



Active People and Vehicles

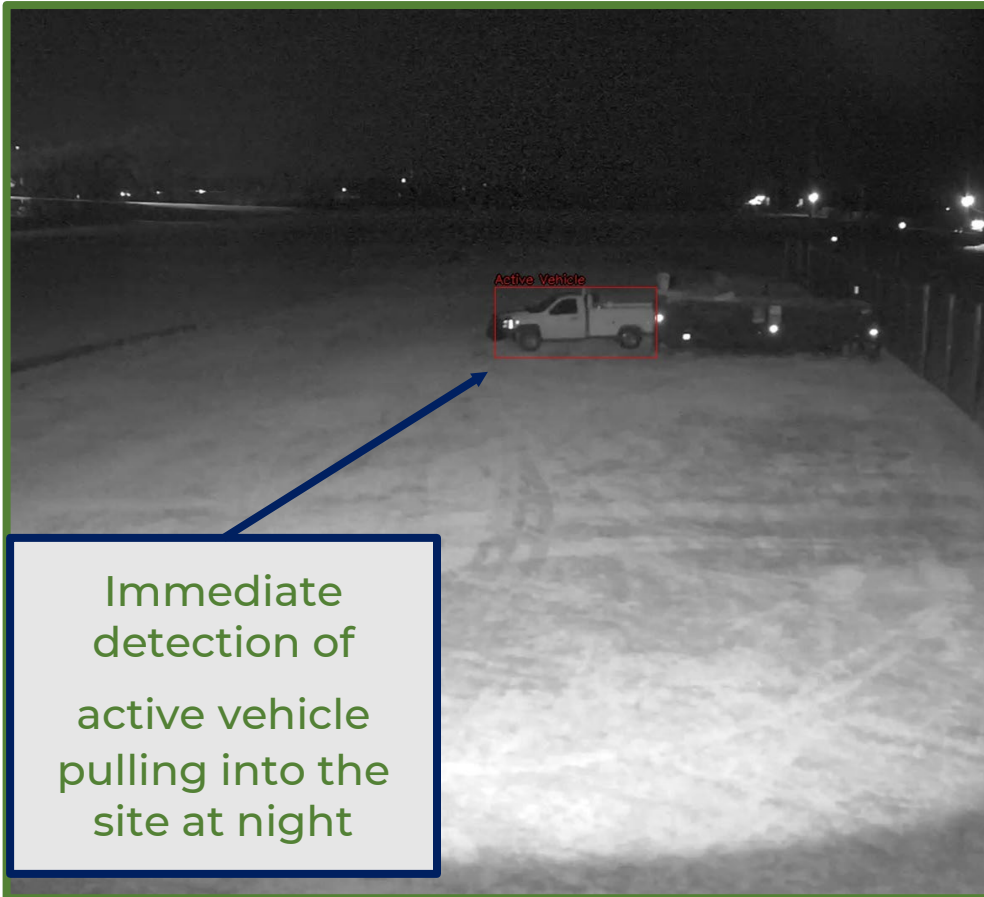


Approximate Vehicle Speed

# Night Detections

## IDENTIFY

## Moving Vehicles & People at Night



# Combined Detections

IDENTIFY

## Combined Safety & Security Tracking



Speed of moving vehicles

Active Vehicle

Security and theft prevention

PPE Detections

Active Vehicle

Helmet  
Clothing  
Uncertain  
Aweave

# Combined Detections

IDENTIFY



# Customer Defined Exclusion Zones

IDENTIFY

## Configured Exclusion Zones



# Alerting: email or Text

ACTION

Security Onsite Alerts



Strobe



Siren / Voice Message



Notification

# Alerting: email or Text

## ACTION

### Site Monitoring Alert

A vehicle was detected exceeding 15 miles per hour at the Chicago location. Follow [this link](#) to review the footage

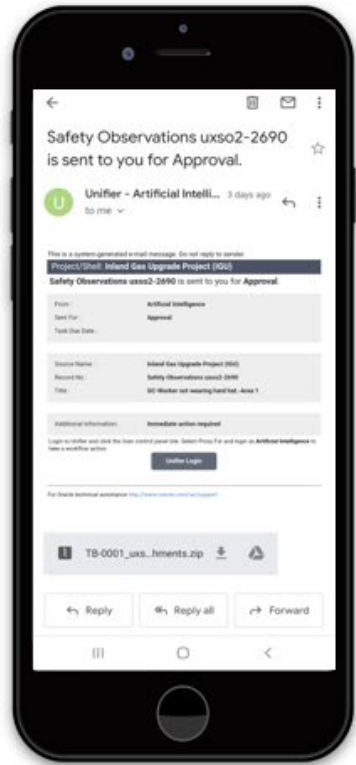
Additionally, please follow [this link](#) to view the Live Video feed from the site



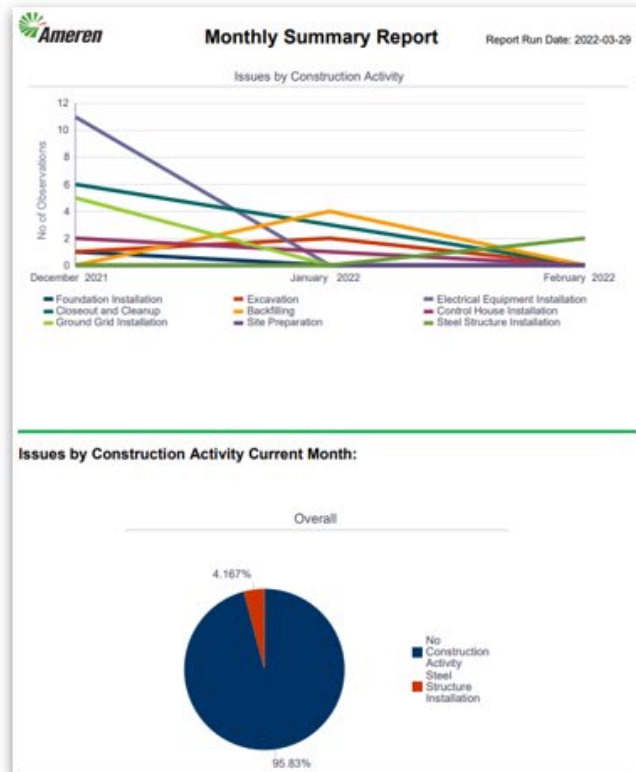
# Reporting & Analytics

DECISION

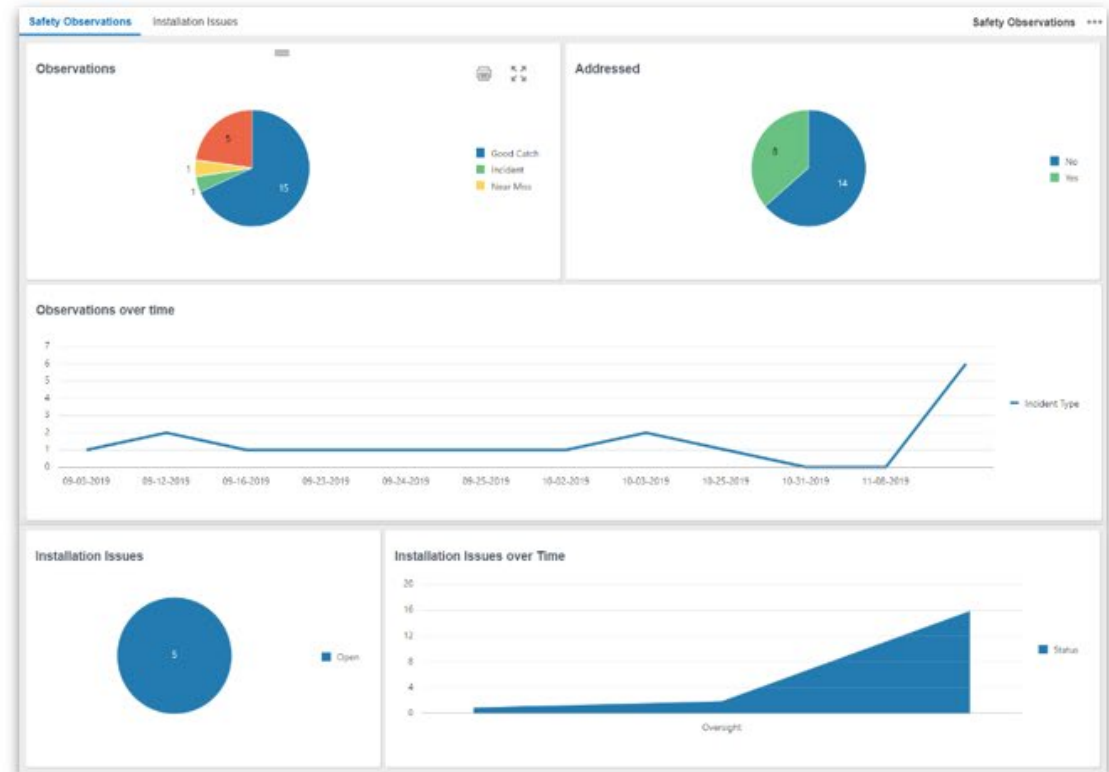
## Safety Incident Leading Indicators



Real-time alerts



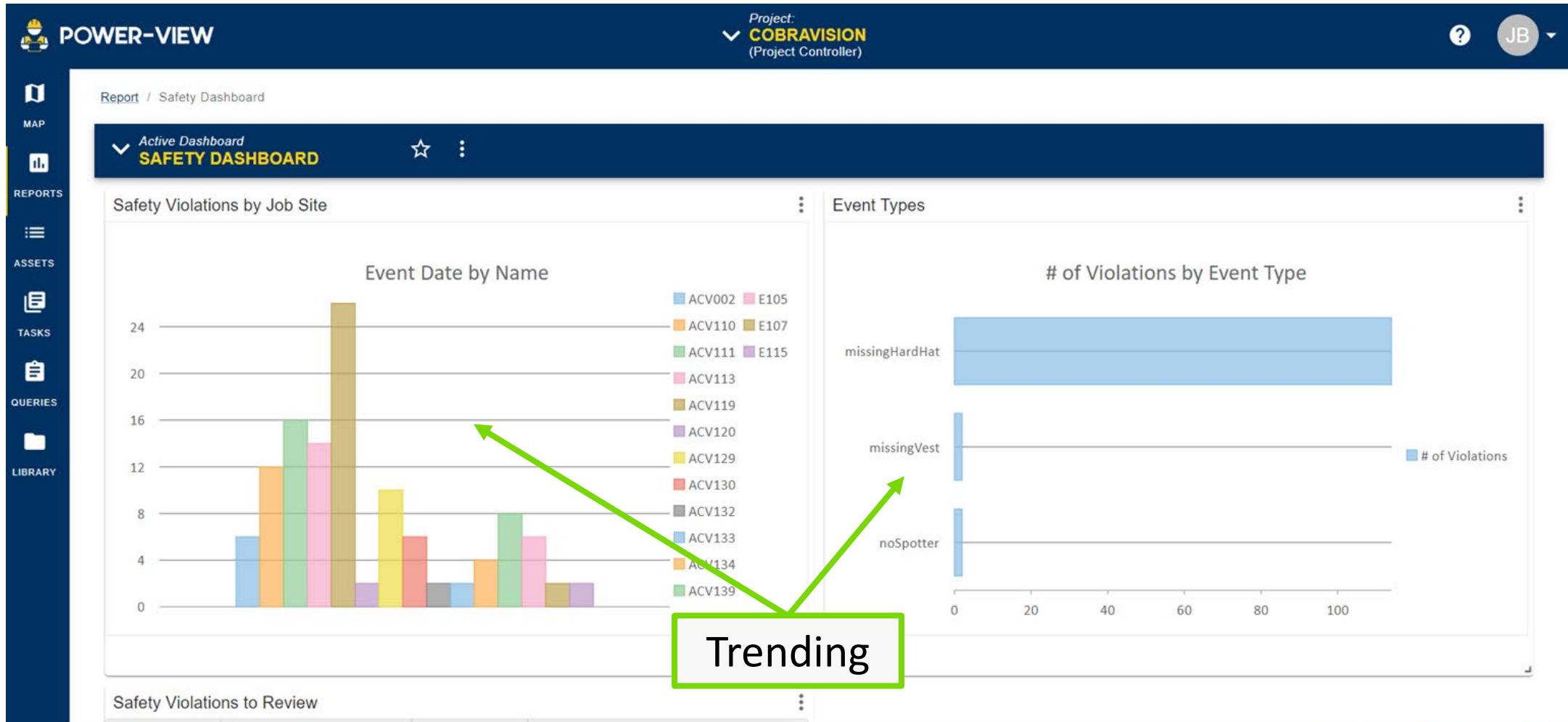
Weekly / Monthly reports




Ongoing Trending and Analytics

# Reporting & Analytics



DECISION



# Customer Defined Schedules by Camera



Brokaw: 177 Time Zone: CST

Day	Safety		Security		Actions
	Start	End	Start	End	
Saturday	12:08 AM	3:08 AM	6:08 PM	7:08 AM	 
Sunday	12:08 AM	3:08 AM	6:08 PM	7:08 AM	 

# Stereo Camera Data



# Thank you for attending

If you have any questions, please send emails to [bbub@orbitalengr.com](mailto:bbub@orbitalengr.com) or [dgessinger@orbitalengr.com](mailto:dgessinger@orbitalengr.com)