AGENDA

- Speaker introductions
- About Barton Malow, Smartvid, Autodesk
- Barton Malow’s Smartvid journey
  - Expansion
  - COVID-19 impacts
  - Where we go from here
- Q&A
Josh Kanner, Smartvid.io

- Founder, CEO
- 15 years in AEC Software
- Former founder, Vela Systems, now Autodesk BIM 360 Field
- Boston based
- “Fun” facts
  - Best jobsite walks: Cowboy stadium, Liberty hotel
  - Continue to try to organize cross-industry groups (now the Predictive Analytics Strategic Council)
  - Tip for handling the quarantine with 2 sons, wife, dog: lots of Netflix
SMARTVID.IO’S MISSION

To reduce risk in the AEC industry by using AI to improve safety, quality and productivity.
Who is Smartvid.io?

- Software focused on reducing project risk using AI
- 100% focused on the Construction Industry
- Our construction-tuned AI is 4x better than Google
- Pre-built integrations with leading con-tech vendors for easy deployment
- Boston-based, offices around the world
Ted Jennings, Barton Malow

- Senior VDC Manager
- Based in Southfield (aka, Detroit), MI
- Construction experience (11 years)
  - Federal Court House, San Diego
  - Coranado Island Naval Hangars, San Diego
  - Power plants across SE Michigan
- Fun facts (little known)
  - Loves skiing
  - 2 boys - 7 and 3 (if on video, watch the door behind him)
SMARTVID RELATIONSHIP RECAP

- 2019 Pilot expanded to Division-wide rollout in Q1 2020
- Safety Monitoring using 2D photos from Box and 360 photos from StructionSite
  - Now adding BIM 360 imagery
- Currently launching Safety Observations Module
- Member of the Predictive Analytics Strategic Council
  - Demonstrated potential value in incident rate reduction from analytics & management focus
AUTODESK RELATIONSHIP Recap

- Long time customer of Assemble, PlanGrid, BuildingConnected
- Now moving company-wide to BIM 360 as core construction management system
- Review of entire process from viewing documents in the field to the analysis of all of the data generated by project teams
SMARTVID DEPLOYED IN 3 PHASES

Phase 1
- SAFETY MONITORING
- SAFETY OBSERVATIONS
- PREDICTIVE ANALYTICS
- ENTERPRISE PHOTO & VIDEO MANAGEMENT

Phase 2
- VINNIE THE AI ENGINE
- REPORTING & DATA ANALYSIS
- PREBUILT INTEGRATIONS & APIs

Phase 3
SAFETY MONITORING MODULE

PROJECT PHOTOS & VIDEO

“VINNIE” ANALYZES ALL PHOTOS

KPIs & REPORTS IDENTIFY HIGHEST RISK PROJECTS
Project teams capture photos. Smartvid.io’s mobile app & pre-built integrations make it fast and easy to pull them all together:

And others... 🦚 StructionSite
WHAT does Vinnie see? Some examples...

-1 of 5 workers not wearing gloves
WHAT DOES VINNIE SEE? SOME EXAMPLES...

Finding ladder positioning
Vinnie+ extends Smartvid’s Insights to New Categories

Vinnie+ Risk Categories:

- Guardrail issue
- Uncapped rebar
- Fall arrest issue
- Ladder safety
- Body positioning
- MEPI issue
- Trench issue
- Hole covers
- Stairway health

Ladder Safety Example
COVID-19 RESOURCES

- Appreciation to everyone keeping jobs open and cranes moving

- Mitigation measures we’ve heard from our customers
  - Temperature screening; On/off days; Clear social distancing guidelines; Additional cleaning crews; Minimize ride & tool sharing

- Some of Barton Malow’s mitigation measures include
  - Immediate and strong action plan to work from home
  - Leverage technology like StructionSite for WFH, site documentation
  - Develop simple tools for surveys and questionnaires

Resources

https://constructionblog.autodesk.com/covid-19-construction/

Includes: sample COVID-19 mitigation plan

https://www.agc.org/coronavirus
AND now... PEOPLE IN GROUP tagging
PEOPLE IN GROUP: REPORTING

- Get automatic .pdf reports summarizing all examples for each project

Report generated automatically on all “People in Group” tags
PEOPLE IN GROUP: “REAL TIME” VIEWING

- Keep an eye on results in “real time” in the web or mobile interface
Create observations in:

AUTODESK CONSTRUCTION CLOUD™
BEYOND IMAGES, GET INSIGHT INTO SAFETY TRENDS
**Simple Prioritized List of Projects by Risk Score**

<table>
<thead>
<tr>
<th>Project URL</th>
<th>Project Name</th>
<th>Project Score</th>
<th>Photos per Month</th>
<th>Work at Height</th>
<th>Ladders Last</th>
<th>Slip &amp; Trip</th>
<th>People per 100</th>
<th>PPE Compliance</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Project B</td>
<td>38.7</td>
<td>450</td>
<td>334.0</td>
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**Vinnies Scoring for Project Benchmarking**

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**HIGHLIGHTS FROM LAST MONTH**

**PROJECTS IN SMARTVID**

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**PROJECT SCORES**

![Project Scores Chart]

**PROJECT LOCATION**

![Project Location Map]

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Covered by SMARTVID.IO
## Risk Score Benchmarking Helps Focus Attention

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Avg. Score: 50.0
Now let’s go to the live dashboard for more...
BIM 360 JOURNEY THIS YEAR ...
BIM 360 + SMARTVID

2.1 Job Hazard Analysis catalog

A catalog listing work tasks, known potential hazards, and protective measures. Answer will create an open issue, which will remain open until documentation is uploaded to the open issue.

Submitted
Not Submitted

2.2 List of Project Supervision and Competent Person

To include: Superintendent, Foreman, Safety Manager, Responsibility Assigned, Competent Person and First Aid, CPR trained personnel. Answer will create an open issue.

Most Popular Templates

Template Title
- COVID-19 Self Assessment
- Daily Interim Life Safety Measures
- Daily Pre-Task Plan
- Project Safety Audit
- Punch List

SMARTVID.IO
(INTERNAL SLIDE) LIVE DEMO TO EXPLORE...

- Phases of Construction on Homepage (click projects) - we’ll come back to this
- Click into “Project J” to explore work at height metrics
  - See ratio of ladders last improving but above peer group
  - Types of work at height increasing a lot Month over month
- Slip and Trip hazards - where do we need to focus?
  - Click into that tab and identify the projects see vs. peer group
- PPE analysis - where and how are issues cropping up?
  - Compare one project to another
  - Context specific is key - may not care as much if in interiors
- Speaking of construction phase, we now can give insight into phase across your projects in the activities tab
NEXT: OBSERVATIONS AND PREDICTIVE

MODULES

- SAFETY MONITORING
- SAFETY OBSERVATIONS
- PREDICTIVE ANALYTICS
- ENTERPRISE PHOTO & VIDEO MANAGEMENT

FOUNDATION

- VINNIE THE AI ENGINE
- REPORTING & DATA ANALYSIS
- PREBUILT INTEGRATIONS & APIs
RISK-WEIGHTED MOBILE SAFETY OBSERVATIONS

- Easy to use, mobile-first
- Configurable
- Risk-weighted & AI-ready
- APIs & access to data
- Enables Predictive-Based Safety
VINNIE METRICS CORRELATE WITH ACTUAL INCIDENTS ACROSS HISTORY

Risk Score
(better score = lower risk)

Bodily Injury Incidents
(Rough magnitude)
PREDICTIVE ANALYTICS AT WORK

SAFETY MONITORING OUTPUT

SAFETY OBSERVATION DATA

SAFETY INCIDENT DATA

ERP DATA: PROJECTS, HOURS & OTHER DATA

“VINNIE” THE AI & RISK SCORING ENGINE

RISK SCORES & PREDICTIONS ARE DELIVERED FOR EVERY PROJECT

INCIDENT RATES ARE REDUCED WHEN THE PREDICTIONS ARE ACTED ON
BIM360 and Smartvid - From Data to Cards

- Insights and safety risks heat map is aligned well with Smartvid & Vinnie
ADD SAFETY, COVID METRICS TO BIM 360 INSIGHTS DASHBOARD
For more information...

- Add “Vinnie” to your team!
  - email: info@smartvid.io
  - visit: www.smartvid.io and “Contact us”

- Thank you and stay safe!
Thank you!

Smartvid.io
101 Main St., 14th Floor, Cambridge MA, 02142
844-382-7300 | www.smartvid.io