AUTODESK **UNIVERSITY** 2014

Fundamentals of Quality and Consistency in Company-Wide BIM 360 Field Implementation

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CO6009

This class is designed to show users how to implement BIM 360 Field software on any size project or within any size company, quickly and effectively. We can demonstrate how within just a few months we went from zero to more than 100 projects online companywide through BIM 360 Field software, including obtaining one of the world's largest ongoing commercial construction projects. We will examine some of the procedures and practices we used to enable us to streamline our implementation and provide consistency and quality across our projects and our company.

Learning Objectives

By using BIM 360 Field vs. conventional construction punch list processes you will be able to:

I.   Understand effective practices for quickly implementing BIM 360 Field software on any size project

II. Learn how to create a streamlined project management approach to quality consistency across a company

III. Unify a project team and assist to provide a solution that creates a team mindset

IV. Learn how to allow users to maximize time onsite, cutting down on data entry in the trailer

About the Speakers

Wendell Barnes received his bachelor's degree in construction science from Texas A&M University, and he has worked in a variety of capacities and on a variety of projects while at Gilbane Building Company. His unique skill set includes over 6 years of jobsite management in the field and over 6 years of experience on the construction management software side. That dynamic experience helps him to relate to and understand users in any role of the commercial construction industry.

Meghan Hogan is currently a Business Consultant at Gilbane Building Company. After graduating Wentworth Institute of Technology with a degree in Construction Management she spent a couple years as an engineer on a large psychiatric hospital. After completing this project she moved into the Business Consulting role and has been doing it for a little over 2 years.

Michael Digman is currently a Project Engineer for Gilbane Building Company. His experience ranges from quality, project turnover, and is currently involved in project operations at the Exxon Mobil campus Project. He graduated from Wentworth Institute of Technology with a degree in Civil Engineering.

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I. Understand effective practices for quickly implementing BIM 360 Field software on all size projects

> **Strategic Roll out Plan:**
> - *Regional Business Consultants were trained on software in less than 1 week*
>
> - *Comprehensive Kickoff Agenda was followed (Figure 1.0)*
>
> - *Standard project template used on all jobs*
>
> - *Advertised / Promoted from within the company*
>
> - *Created Job Aids (Figure 1.1)*
>
> - *Champion Concept*

BIM 360 Discovery/ Kickoff Session

Project:

Meeting Agenda

General Overview / Demo

I. Desktop
   i. Management of data, running reports, project admin functions

II. iPad
   i. Field collection tool, download app, sync to/from database in web application

Strategic Discussion

III. What modules are intended to be used?
   i. *Issues for RCL/PL tracking*
   ii. *Checklists*
   iii. *Equipment Tracking*
   iv. *Tasks*

IV. Who will be participating in usage (Owner, Design Team, Inspectors, Trade Contractor, etc.)?

Setup Process

1. Setup Companies (send email)
   a. Check for existing users
   b. Import Template

2. Setup Users (send email)
   a. Check for existing users
   b. Import Template

3. Import Locations
   a. Define Locations:

4. Customize Issue Types (list types below)

5. Import/Review Issue Templates

6. Create Checklists
   a. Do owner/architect/inspectors have field reports they would like us to make into a template?

Advanced Setup

1. Adding Documents to the Library – decide what drawings are needed
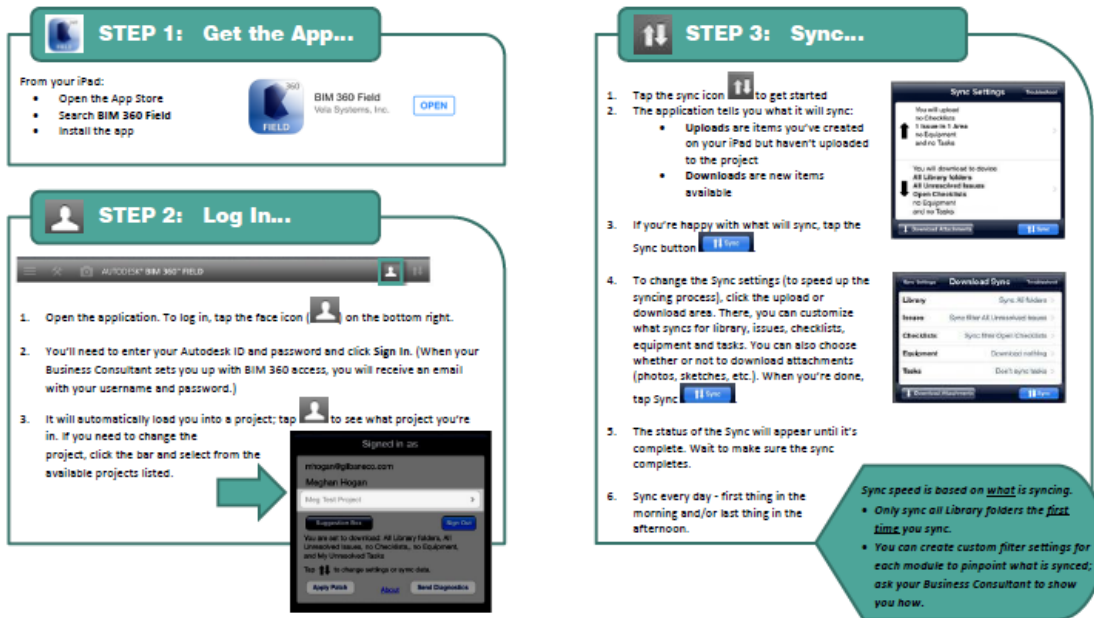
2. Creating Root Causes

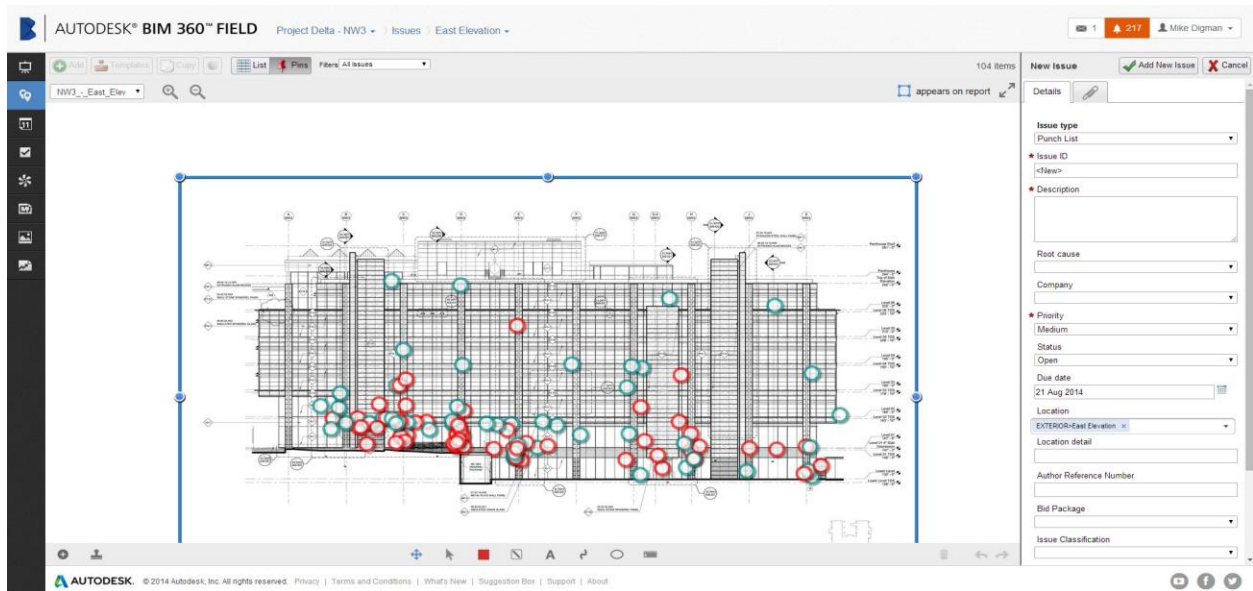*(Figure 1.0 Standard Kickoff Agenda)*

(Figure 1.1 Job Aid)

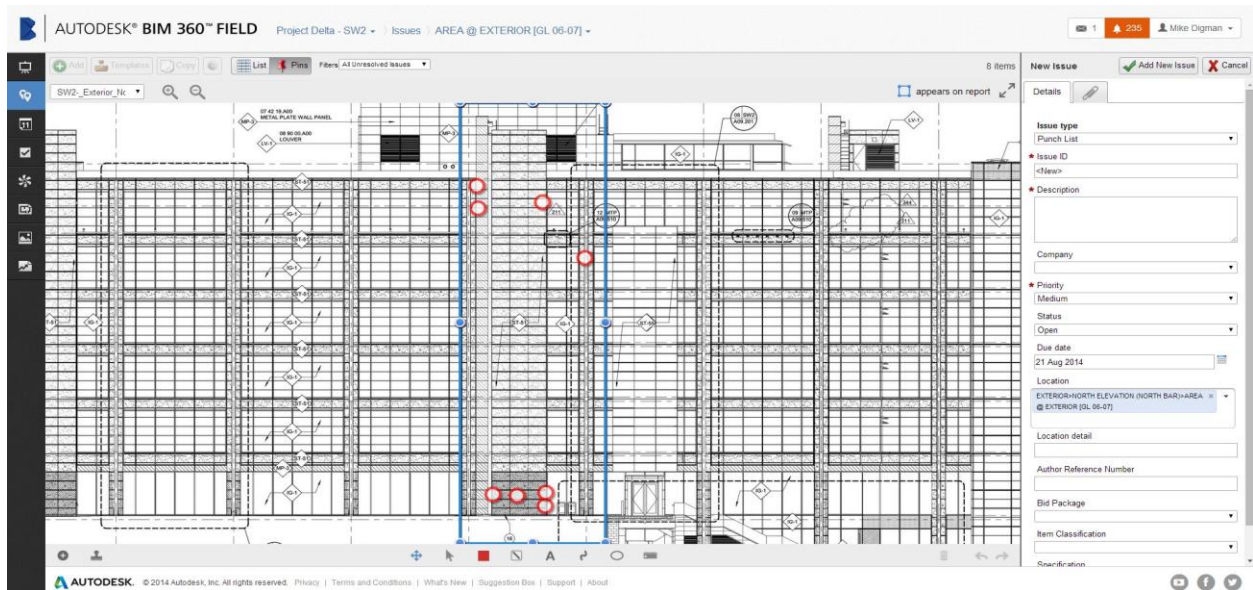➤ **Lessons Learned / Best Practices**

- *Consistent CHAMPION approach*

- *Use of Column Lines vs. Room numbers for locations (Figure 2.0)*

- *Effective use of drawings in the library*

    ♦ **Using only Floor Plans and Reflective Ceiling Plans to help with Sync times**

- *Accurate descriptions & correct trade contractor assignments during item creation*

- *Use of the History tab to help track items with multiple trades*

- *Voice recognition feature on iPads*

- *Use of Punchlist Checklists (Figure 2.1)*

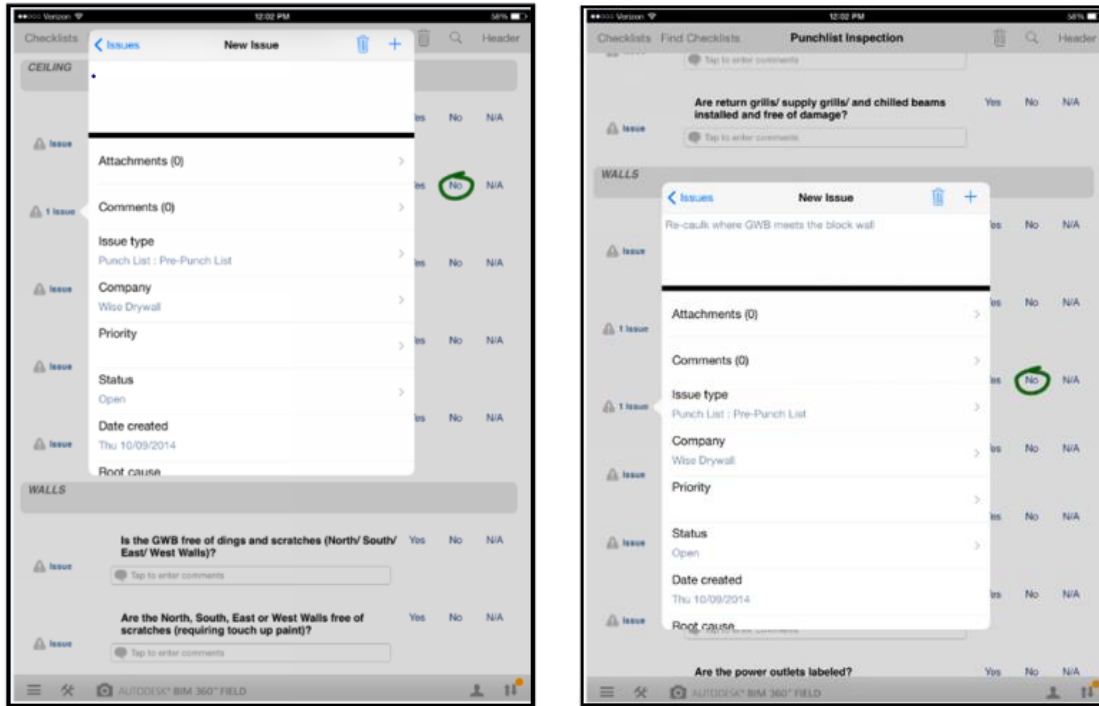   ♦ *Set up punchlists checklists with either a (.), or with a default issue description for quick issue creation.*
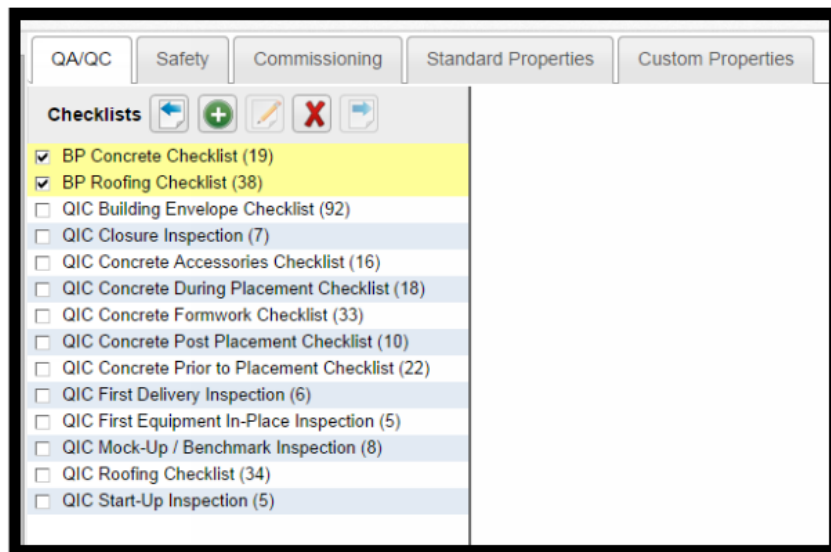
(Figure 2.0 Initial Approach)

(Figure 2.0 Current Approach)

(Figure 2.1 Punchlist Checklists)

II. <u>Learn how to create a streamlined approach to quality consistency across a company</u>

> **How Gilbane ensured consistency throughout all jobs:**
> - *Regional Business Consultants set up the projects and trained the project teams*
>
> - *Comprehensive Kickoff Agenda was followed for each job being set up (Figure 1.0)*
>
> - *Standard project template used to create new projects*
>
>   ◆ *This included standard checklists, issue types and root causes (Figure 3.0)*
>
> **Immediate Benefits:**
> - **Consistent quality tracking across the company globally**
>
> - **Knowledge sharing across the company**
>
> - **All users – regardless of experience – could be counted on to complete accurate inspections**
>
> - **Standard project template increased time it took to create new jobs**
>
> - **Kickoff agenda ensured projects were kicked off successfully**

(Figure 3.0 Standard Checklists that are added to all jobs)

III. <u>**Unify a project team and assist to provide a solution that creates a team mindset**</u>

➢ The <u>**CHALLENGES**</u> of adopting a new solution can bring the team closer as everyone drives for the same goal

➢ **Access allowed for the entire team**

➢ **Securities used to manage various project team roles**

IV. <u>**Learn how to allow users to maximize their time onsite, cutting down on data entry in the trailer**</u>

➢ **Immediate Benefits of BIM 360 Implementation:**
- *Access to plans in the field*

- *Ease of use for all users / skill levels*

- *Pictures are linked to items helps eliminate confusion*

- *Elimination of some Admin-type functions so team members are in the field more*

- *Improved closeout time*

- *SAVES TIME & MONEY!*