AUTODESK®
BIM 360™

Commissioning and Handover

AUTODESK

Introduction

While there is a lot of heavy lifting and tedious steps that need to be taken in order to close out the project, this critical phase if not performed correctly, can negatively impact the success of the project, and erode the trust between client and general contractor. Owners rely on the contractor to give them timely and complete information at handover. If construction teams can't deliver efficient and organized documentation, the likelihood of establishing good relationships and winning future work is slim.

The following guide introduces a few ways in which BIM 360 can help streamline the commissioning and handover phases of a project.

Autodesk BIM 360

BIM 360 improves the process of construction by supporting informed decision making throughout the project lifecycle. It does this by centralizing all project data in a single data repository and connecting project stakeholders and workflows—from design to construction to operations, from the field to the office and back.

Visit BIM 360 Site 💡

Please note that the capabilities outlined in this guide are reflective as of December 2019 and will continue to undergo improvements. Additionally, some capabilities are only available in certain countries. For more information on product updates and capabilities please visit the BIM 360 Product Release Notes.

Table of Contents

Suggested Workflows

Quality Control Workflow

Ensure best practices on and off the jobsite by controlling quality through a streamlined workflow. The graphic below outlines the suggested quality control workflow using BIM 360.

Why follow this workflow?

- Easily track and review issues in a centralized location
- Utilize templates or create custom checklists
- Maintain a consistent quality control process
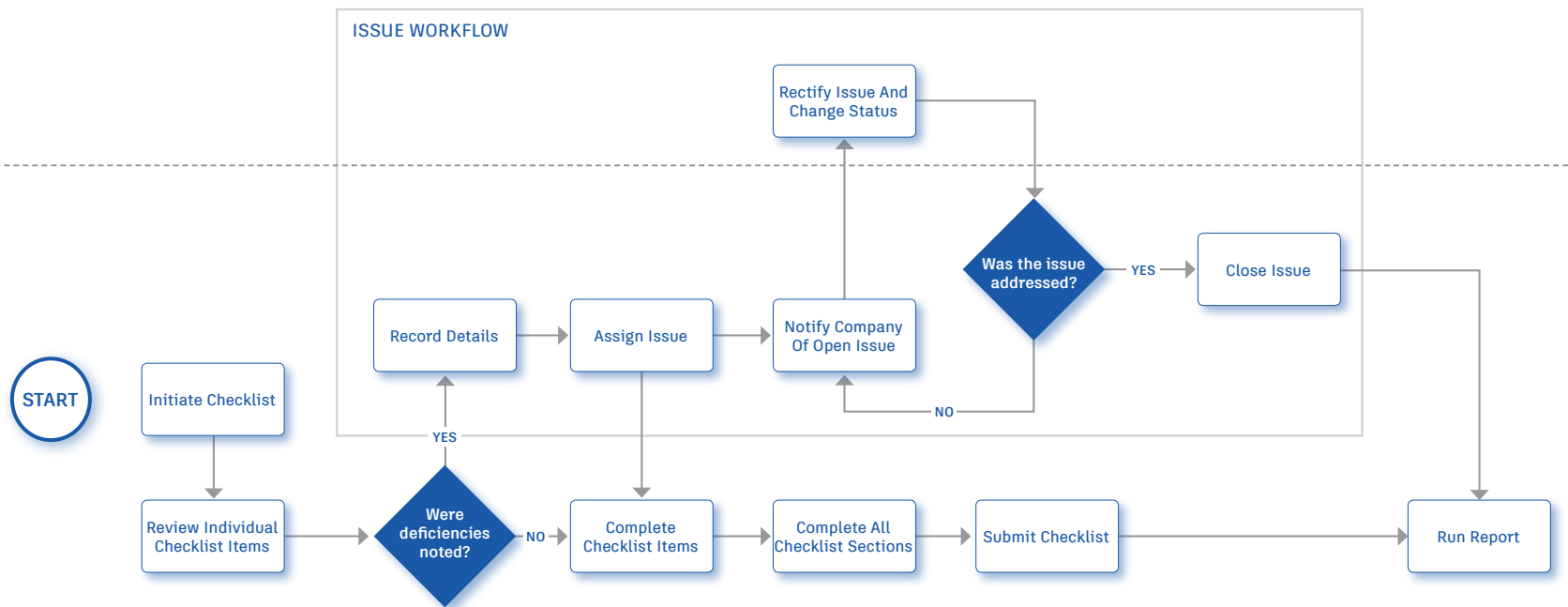
BIM 360 capabilities used

- Quality checklists
- Issue management

RESPONSIBLE PARTY

INSPECTOR

ISSUE WORKFLOW

START → Initiate Checklist → Review Individual Checklist Items → Were deficiencies noted?

Were deficiencies noted? — YES → Record Details → Assign Issue → Notify Company Of Open Issue → Was the issue addressed?

Was the issue addressed? — NO → Notify Company Of Open Issue

Notify Company Of Open Issue → Rectify Issue And Change Status → Was the issue addressed?

Was the issue addressed? — YES → Close Issue

Were deficiencies noted? — NO → Complete Checklist Items → Complete All Checklist Sections → Submit Checklist → Run Report

Close Issue → Run Report
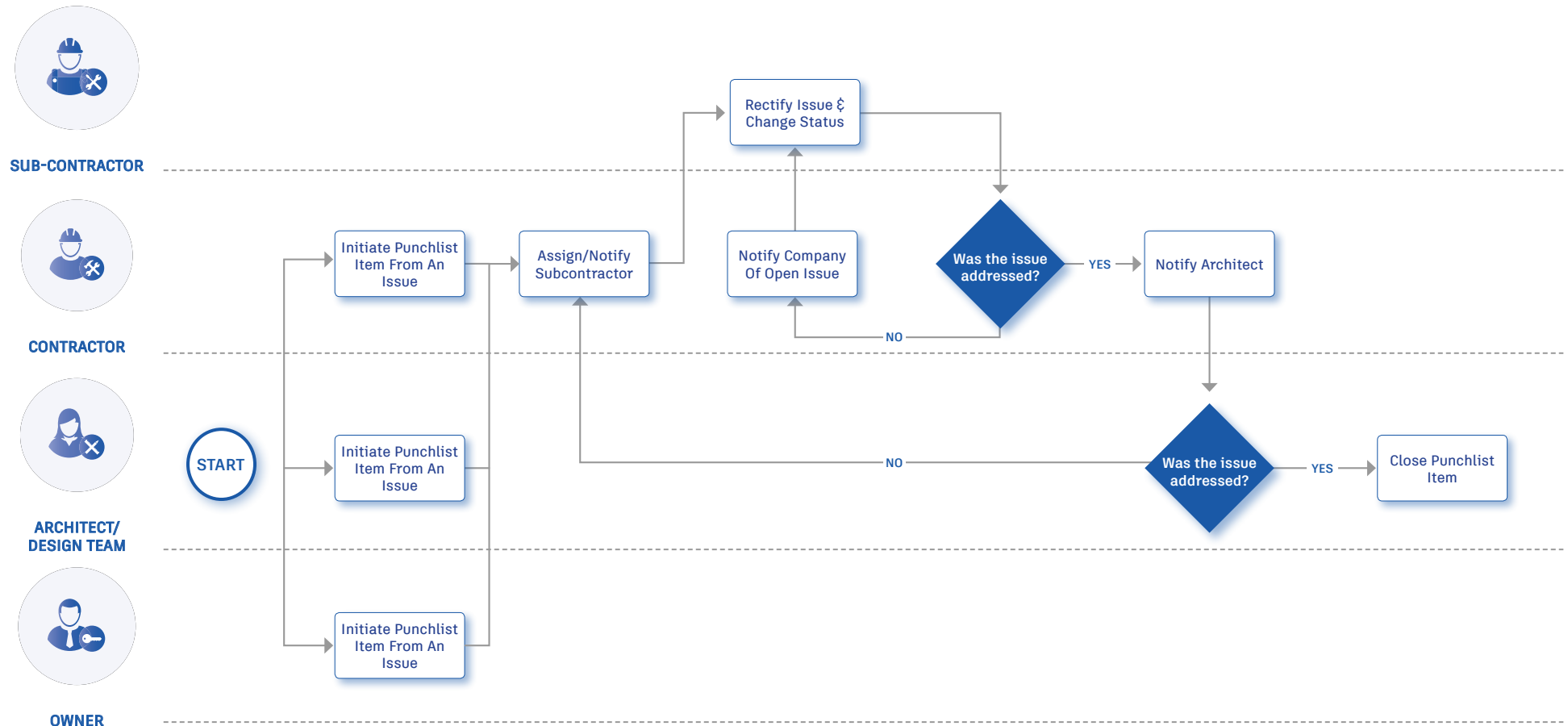
Punchlist Workflow

Successfully utilizing a streamlined punchlist process will increase efficiency and reduce errors. The graphic below outlines the suggested document management workflow using BIM 360.

Why follow this workflow?

- Easily initiate a punchlist review process
- Set appropriate review and approve privileges
- Track punchlists and improve visibility to project progress

## BIM 360 capabilities used

- Quality checklists
- Issue management

SUB-CONTRACTOR

CONTRACTOR

ARCHITECT/ DESIGN TEAM

OWNER

START

Initiate Punchlist Item From An Issue

Initiate Punchlist Item From An Issue

Initiate Punchlist Item From An Issue

Assign/Notify Subcontractor

Notify Company Of Open Issue

Rectify Issue & Change Status

Was the issue addressed?

YES — Notify Architect

NO

Was the issue addressed?

YES — Close Punchlist Item

NO

Submittal Workflow

Create submittals packages, track the flow of approval processes, and manage all information in a single document library. The graphic below outlines the suggested submittal workflow using BIM 360.

Why follow this workflow?

- Full flexibility to package items as desired
- Easily track & review the status of submittal items
- Distribute & control reviewer privileges

BIM 360 capabilities used
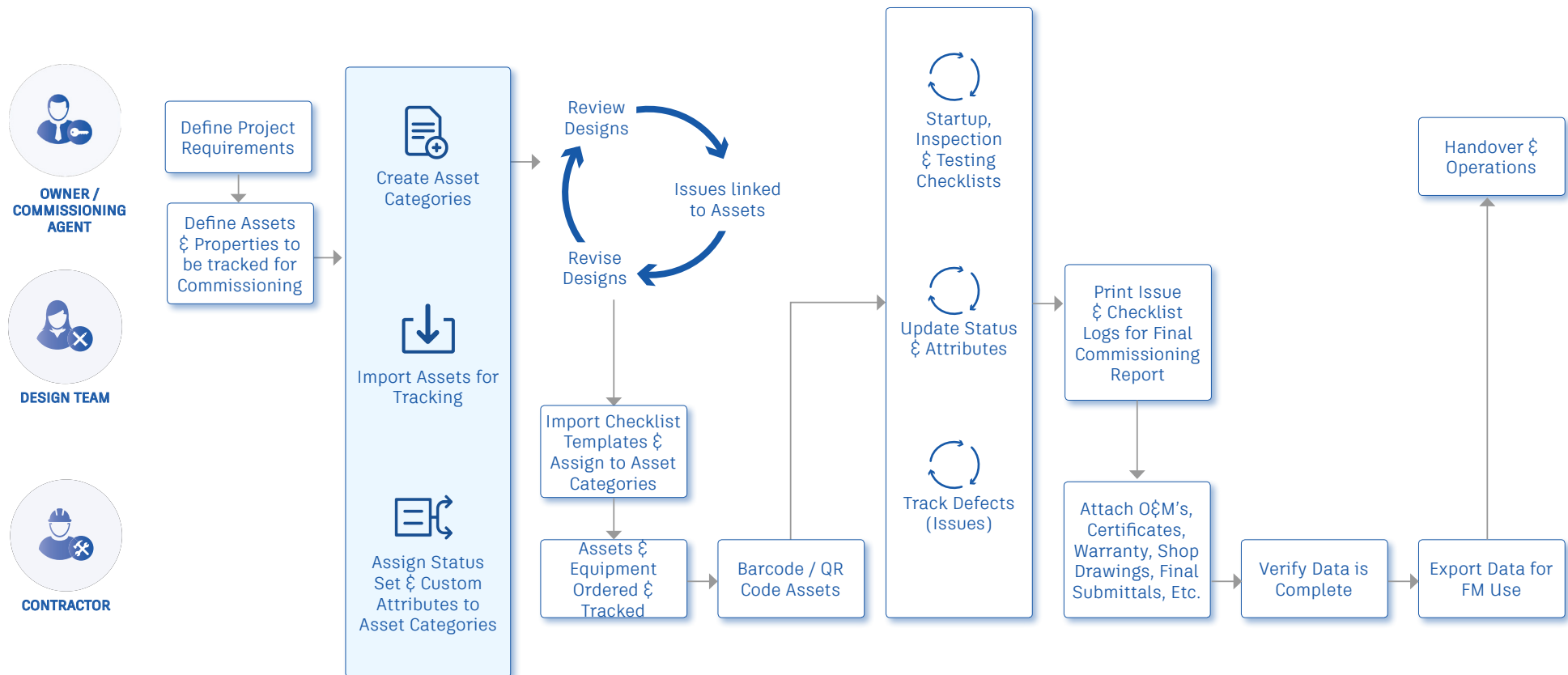
- Submittal management
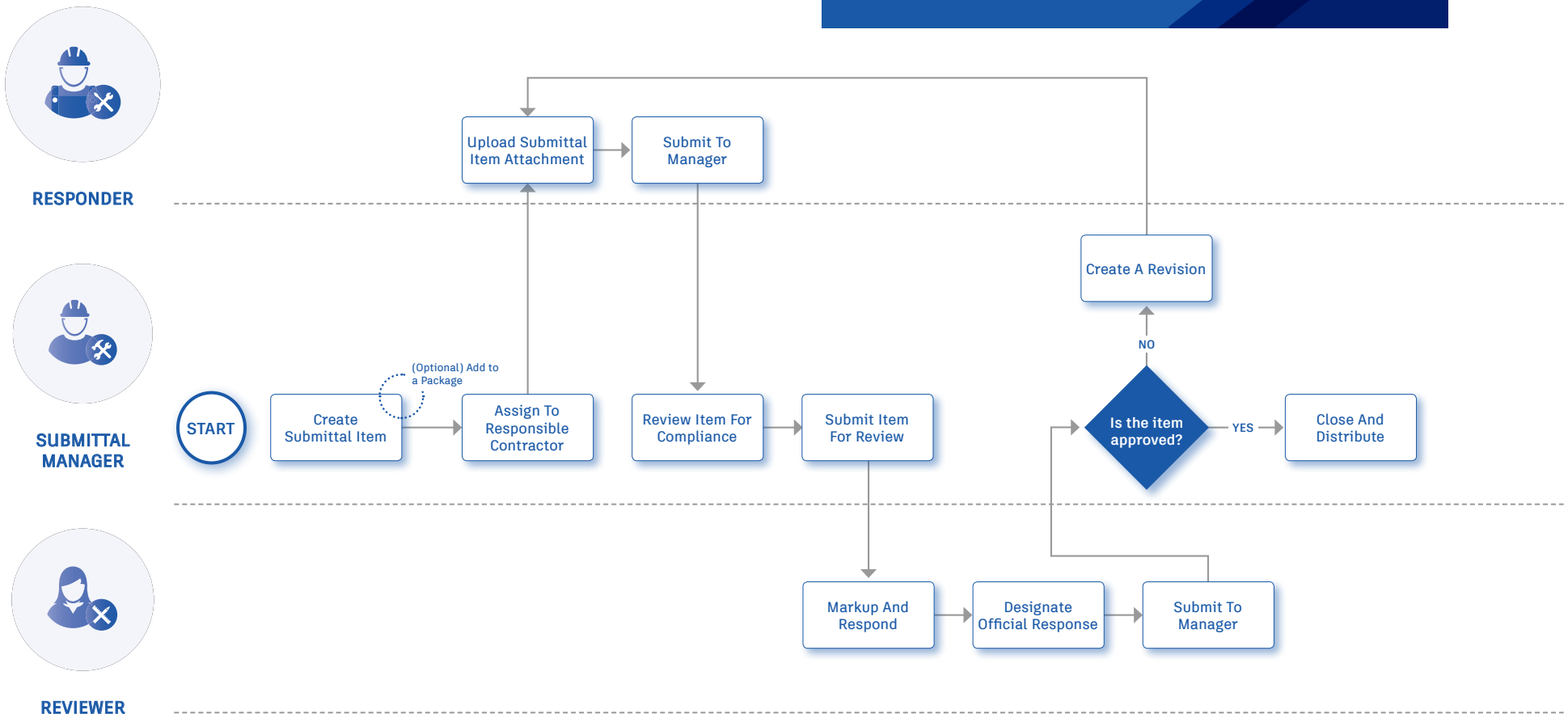
Asset & Equipment Tracking

Streamline the tracking and management of construction project assets from design through handover. The graphic below outlines the suggested asset and equipment tracking workflow using BIM 360.

Why follow this workflow?

- Enhance project status visibility
- Accelerate commissioning
- Improve handover

BIM 360 capabilities used

- Asset & Equipment Tracking

OWNER / COMMISSIONING AGENT

DESIGN TEAM

CONTRACTOR

Define Project Requirements

Define Assets & Properties to be tracked for Commissioning

Create Asset Categories

Import Assets for Tracking

Assign Status Set & Custom Attributes to Asset Categories

Review Designs

Revise Designs

Issues linked to Assets

Import Checklist Templates & Assign to Asset Categories

Assets & Equipment Ordered & Tracked

Barcode / QR Code Assets

Startup, Inspection & Testing Checklists

Update Status & Attributes

Track Defects (Issues)

Print Issue & Checklist Logs for Final Commissioning Report

Attach O&M's, Certificates, Warranty, Shop Drawings, Final Submittals, Etc.

Verify Data is Complete

Export Data for FM Use

Handover & Operations

Commissioning & Handover Capabilities

Asset & Equipment Tracking

Reduce the time it takes to access asset data in the field, perform commissioning & resolve defects all while reducing risk. The BIM 360 Asset Module delivers a user-friendly, centralized place to track and manage the lifecycle of project assets from design through handover. All asset-related documentation, including product information such as cut-sheets and warranty documents are stored in a central repository and is also connected to other project workflows like Checklists and Issues.

1 Customization

- Set up all custom Categories, Sub-Categories, Statuses and Attributes before adding in any assets

- Click on the "Project Admin" module in the selector tool

- Within the "Services" tab, select "Assets" on the left side panel

- There will be 3 tab options at the top:
  - Categories
  - Custom Attributes
  - Status Sets

- Click on any of these tabs to start creating customizations by then clicking the blue "Create" button on the top right and fill out all relevant information
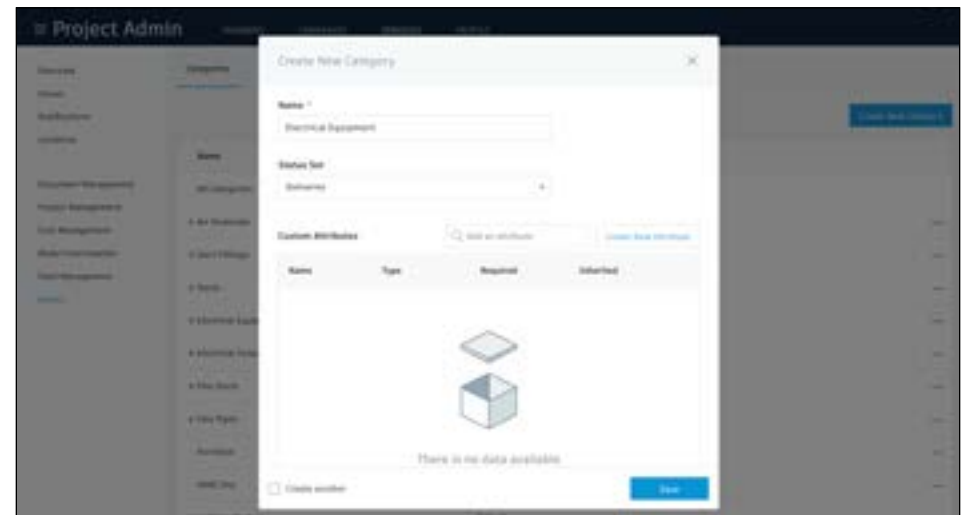
PRO TIP: Within Status Sets you can also set custom color

PRO TIP: Creating customizations is optional! Alternatively, users can import assets using Excel and categories will be automatically created.

Getting Started

Asset & Equipment Tracking

2 | Adding an Asset

- Adding an asset can be done in two ways:

  - **Excel Import**

    - Click on the "Assets" module in the selector tool
    - On the top left click the "Import" button
    - Choose to "Download a Sample" to get a template spreadsheet for how to set up your list import, or go directly to the "Browse" button to select the excel file with all of your asset data you wish to import
    - Any custom categories, attributes or statuses need to match what is already set up in the project.

  - **Manual Entry**

    - Click the module selector for Assets
    - On the top left click the "Create" button
    - Add all relevant information

PRO TIP: Set up your custom categories, statuses and attributes before importing so you can match naming. If a Category is listed in the excel doc it will automatically be added as a new Category

PRO TIP: Alternatively, rooms, areas, or sections of your project can be identified as assets. This would allow statuses, attributes, checklists and other documentation to be tied to those rooms, and available through the mobile app, or from a QR code scanned from your device. The workflow is the same as adding a piece of equipment as an asset

Managing Assets
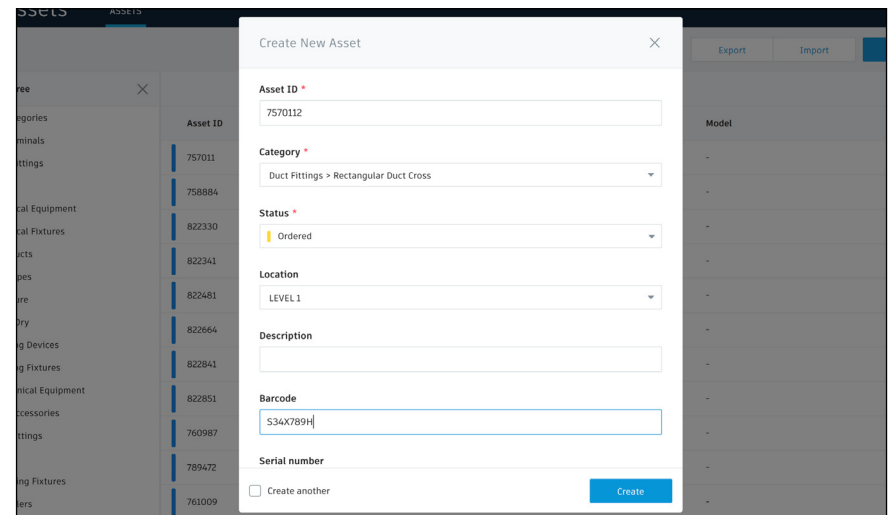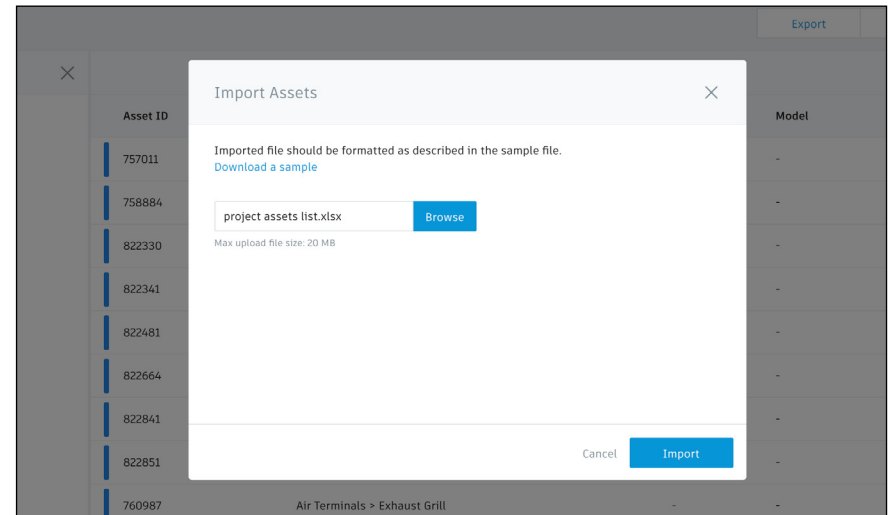
Asset & Equipment Tracking

3 | Assemble Integration

- Import from Assemble to Assets:
  - Open the model in Assemble
  - Create a view to organize model assets
  - Open the Assets module in BIM 360
  - Click "Import" and download the sample Excel Template
  - Open the Excel Template and install the Assemble Excel Add-In
  - Map Assemble Connection and map the columns from Assemble to the Assets Excel Template
  - Click to run the report and it will populate the Asset Excel Template with the information from Assemble
  - Save the Excel Template as .xls file
  - Within Assets module click "Import" and select the new .xls file

- Import from Assets back to Assemble:
  - In the Assets module select "Export"
  - Open Excel export and map the output back to Assemble
  - Click "Update Assemble" within the Assemble Excel Add-In to push data back into Assemble
  - Visualize new views in Assemble for asset information (like showing all installed assets on the model)
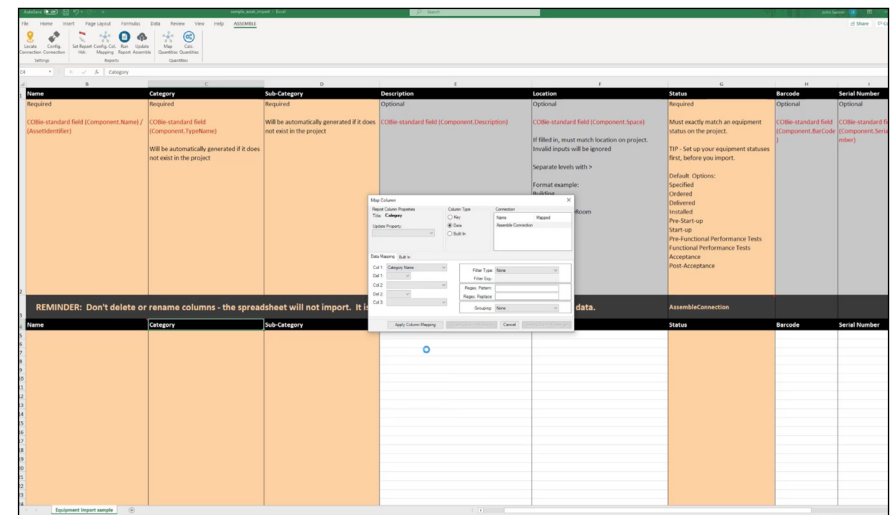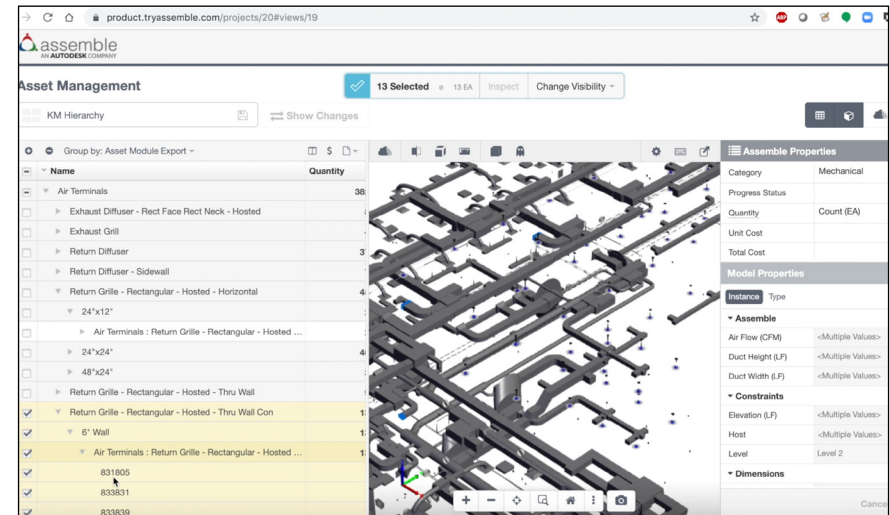
PRO TIP: Any updates made to as asset via the Asset module (like adding a barcode or changing status) will be synced back to Assemble when exported from excel and pushed back into Assemble

Assemble to Assets
Demo Video

Asset & Equipment Tracking

4 Barcode / QR Code Scanning

- Connect any asset information via Barcode / QR code scan for easy onsite use

- Click on the Asset from either a mobile device or desktop
  - From a mobile device click on the "Barcode" option and a camera will pop up to take a picture of the code directly
  - From a desktop click on the "Barcode" option and enter in the number manually

- NOTE: This barcode can be used when team members are out in the field and scan a barcode with their mobile device
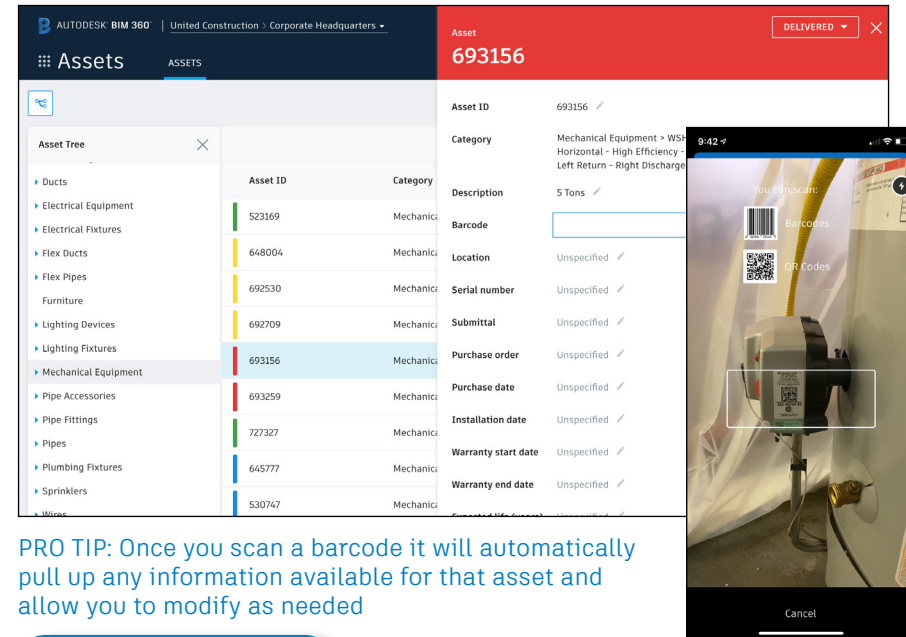
PRO TIP: Once you scan a barcode it will automatically pull up any information available for that asset and allow you to modify as needed

Assigning a Barcode

5 Document Linking

- Link any relevant information about a specific asset (including warranty documents, training manuals, installation guides, etc.) directly to the asset item
  - Attach new documents
    - Click on the Document Management module and select the appropriate folder
    - Click 'Upload Files' to add any new documents to the project
  - Link an existing document
    - Once files have been added to Document Management, click on a particular asset
    - Click on the "Attachments" tab and click "Browse" to attach a file
    - Within the pop up window, navigate to select one or multiple files
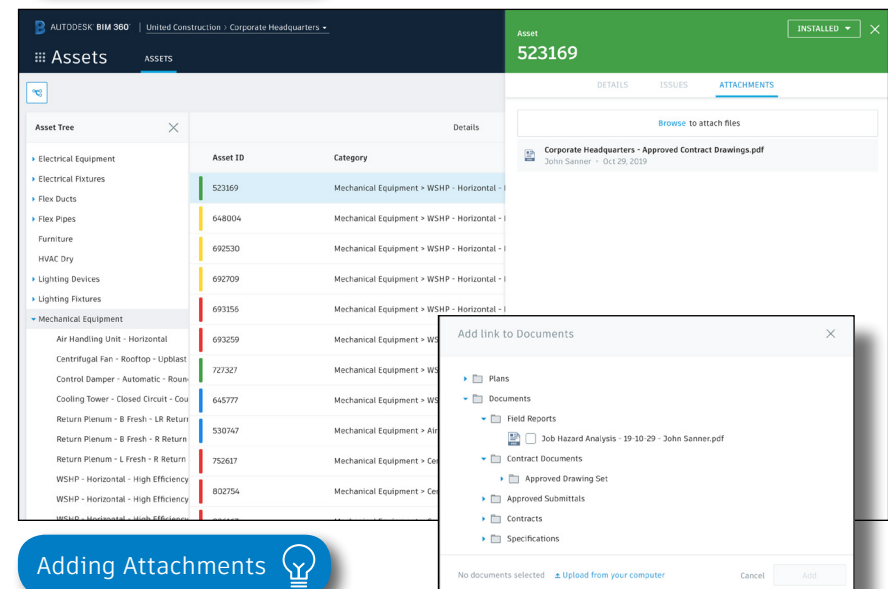
Adding Attachments

Asset & Equipment Tracking

6 Checklist Linking

- Link any inspection, testing, or commissioning checklists directly to a particular asset
  - **Link Checklist to asset Category or Sub-Category**
    - Within the "Project Admin" module in the "Services" tab select the "Assets" option on the far-left side panel
    - Select a Category
    - Underneath the colored header within that Category will be a tab called "Checklists"
    - Click "Add Reference" to associate a checklist with a specific asset Category
  - **Create a new Checklist**
    - Click on the asset from either a mobile device or desktop
    - Underneath the colored header will be a tab called "Checklists"
    - Click on the "Checklists" tab to create start a new checklist
    - Only checklists that have been associated with an asset category will appear as an option to initiate
  - **Link an existing Checklist**
    - Click on the asset from either a mobile device or desktop
    - Underneath the colored header will be a tab called "Checklists"
    - Click on the "Checklists" tab and click the "Add Reference" option
    - Search for an existing Checklist and click to add one or multiple to an asset
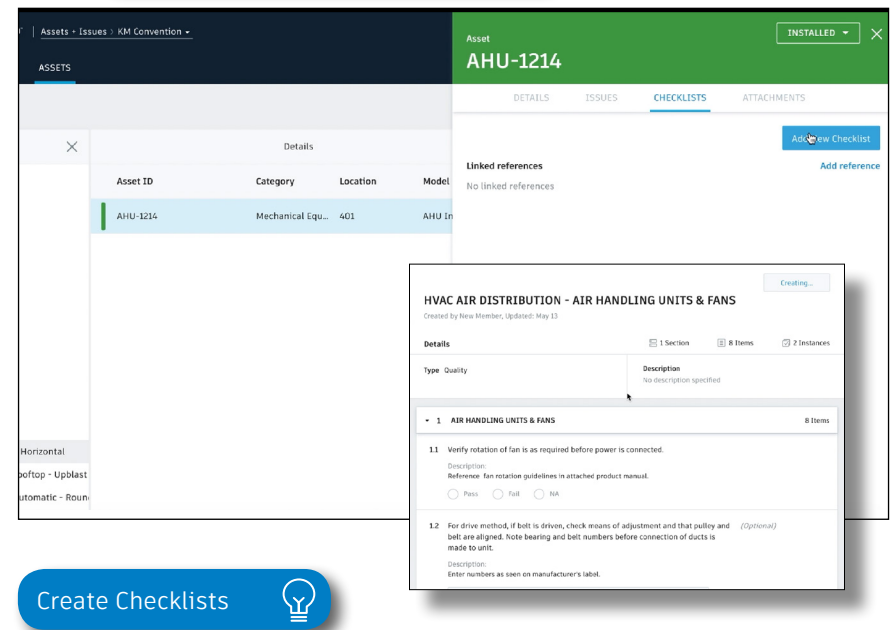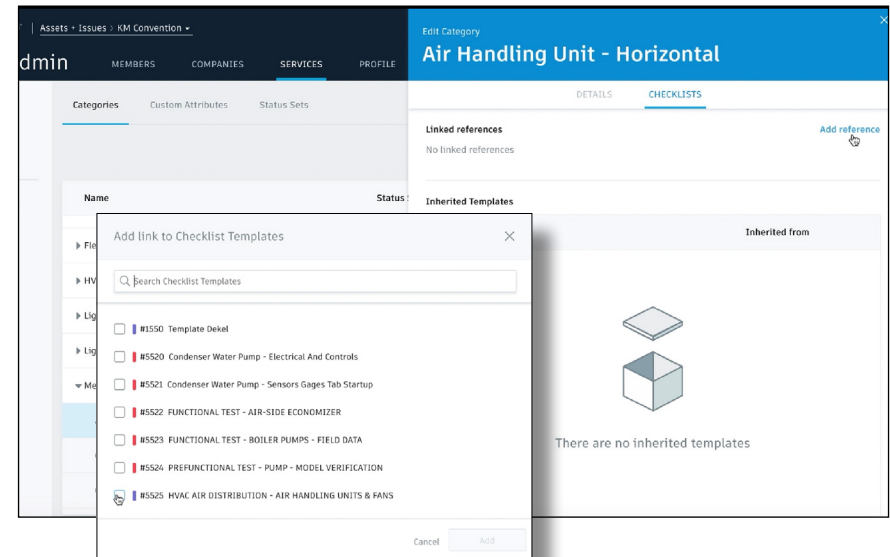
Create Checklists

Asset & Equipment Tracking

7 ## Issue Linking

- Link an existing issue or log a defect by creating a new issue, connecting it directly to a particular asset
    - **Create a new Issue or view existing Issues**
        - Click on the asset from either a mobile device or desktop
        - Underneath the colored header will be a tab called "Issues"
        - Click on the "Issues" tab to create a new issue and fill out all relevant information and attach an image.
        - Click on the "Issues" tab to view other Issues related to that specific asset
    - **Link an existing Issue**
        - Click on the asset from either a mobile device or desktop
        - Underneath the colored header will be a tab called "Issues"
        - Click on the "Issues" tab and click the "Add Reference" option
        - Search for an existing Issue and click to add one or multiple Issues to an asset

8 ## Mobile Accessibility

- View the Asset module via iOS app
- Access all relevant information for each specific asset while onsite by:
    - Scanning a barcode
    - Viewing / filtering list views
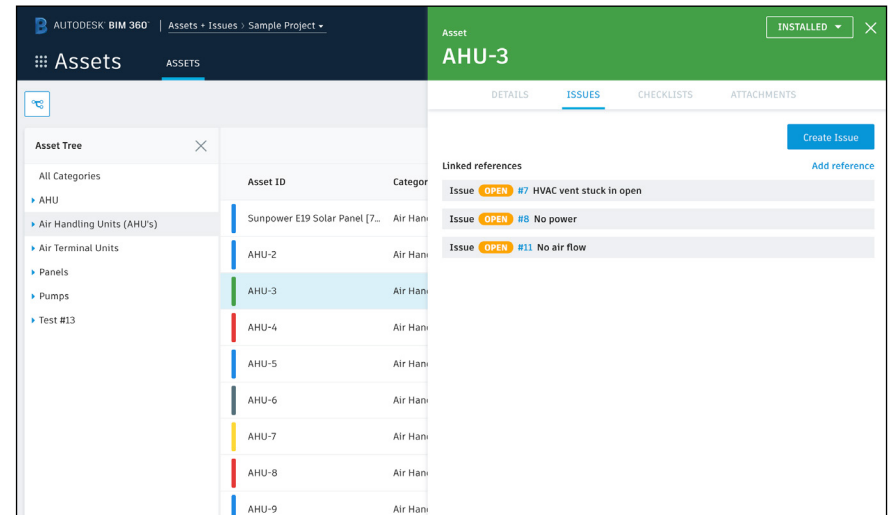
Creating Issues from Assets
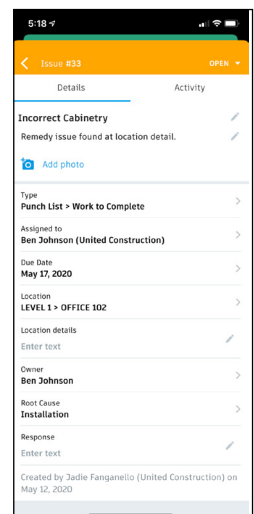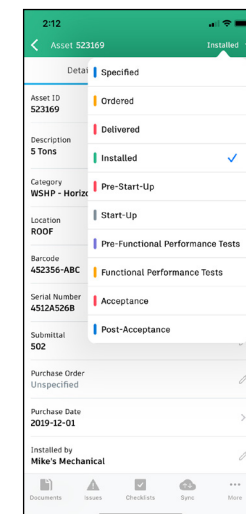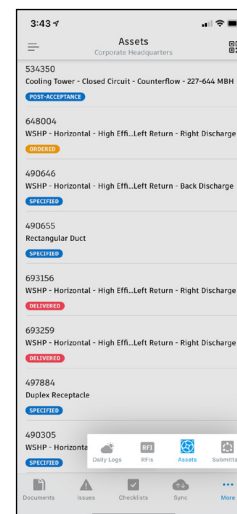
Assets on iOS

Document Distribution

Uploading and sharing project files is the first step in establishing a successful document management process for your project. It is essential to assign permission levels appropriately to ensure the right people have access to the right information. With batch uploading functions and the ability to set standardized permission controls, distributing and sharing construction documents has never been easier.

1 Uploading documents

- Select or create a folder where you want to add a file.

- Click "Upload" and select the file or simply drag the file into the required folder.

- To upload Autodesk® Revit®-linked files and Autodesk® AutoCAD® xrefs, follow these steps (note: you cannot drag linked files):
  - Click "Upload" and select "Linked Files."
  - Select the parent file.
  - In the linked files box, select "Add Files" and choose additional child files if necessary.

PRO TIP: To select multiple files, press Shift+Click or Ctrl+Click.

Add Documents ▶

Document Distribution

2 Creating document sets

- Create a Set or add documents to an existing Set when uploading to any Plans folder.

- In the Folders tab, select "Sets" on the left side panel

- Select "Manage Sets" to create new Sets or edit existing set names or issuance dates.

- When creating a new set, you can give it a unique name and an "Issuance Date" (which can be different from the upload date) and select "Continue."

- Click the drop down Set list to select different Set packages to view

  - NOTE: If you select a previous set you will see a yellow bar indicating you are not viewing the current Set.

- When uploading new documents, you can choose to add it into a new set by selecting the "Set Not Specified" section of the upload screen and choosing to "Publish to a new set" (project admins only) or "publish to an existing set" (project admins and members with control permission).

- You can also add previously-uploaded documents to a Set from the Folder view, or edit the contents of a Set from the Folder or Sets view.

-
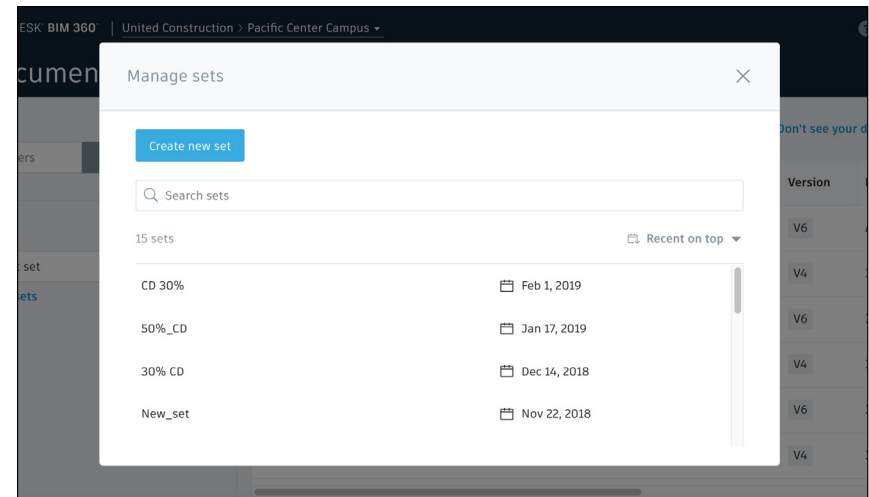
Creating Sets

PRO TIP: It is recommended that you name sets in a way that communicates to the project team what a given collection of documents represents, i.e. "50% CD".
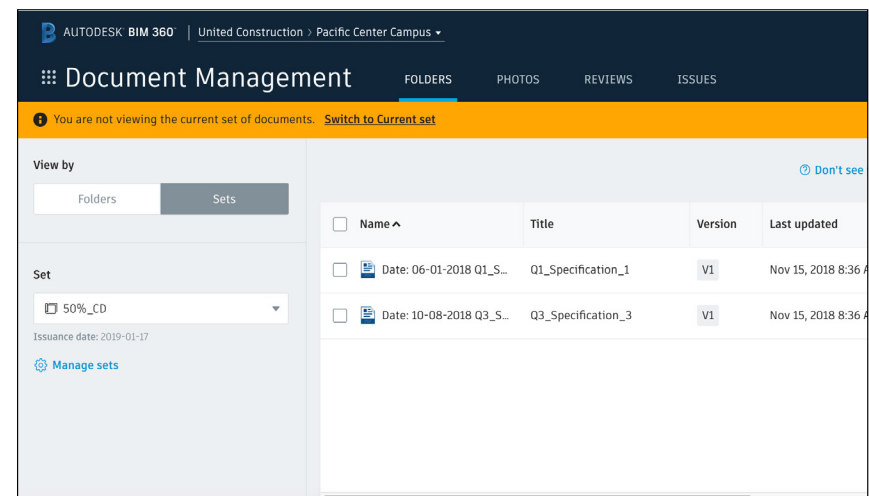
Document Distribution

3 | Adding members

- Click the module selector for Project Admin.

- Click the Members panel and select the blue "Add" button.

- Search the directory by typing a name or adding a new email into the search field and click "Select."

- Assign default company and role(s). If the company does not already exist, create a new company. Click to modify module access.

- Click "Add to Project" and they will receive a Welcome to BIM 360 email with a link to access the project.
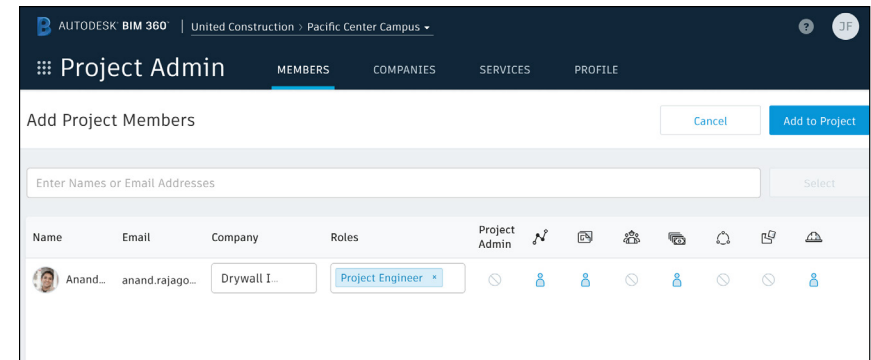
PRO TIP: You can add one or multiple members at a time.

Add Members ▶

4 | Setting permissions

- Select the folder and right-click "Permissions" or select from the three-dot folder menu.

- Choose the permission level you want to assign to the folder.

- There are six permission levels to choose from, and you can preset permission levels based on role, company, or user.

- Permission levels can be drilled down further within subfolders.
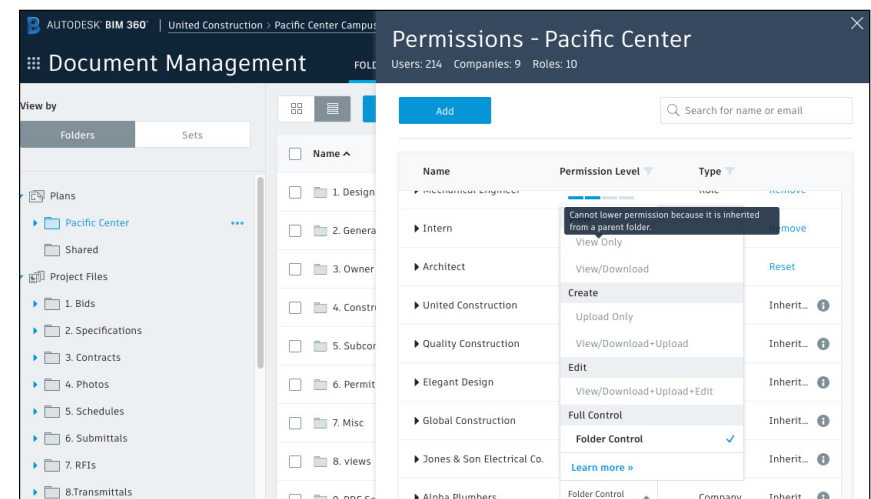
PRO TIP: It is a best practice to start assigning permissions based on a role or company level first.

Set Permissions ▶

Document Distribution

5 Printing documents

- When viewing a 2D drawing or 3D model, click on the three dots on the top right and select "Print".

- Select the printer and paper size or choose to print as a PDF.

- This allows teams to print versions of drawings that include both private and public markups.
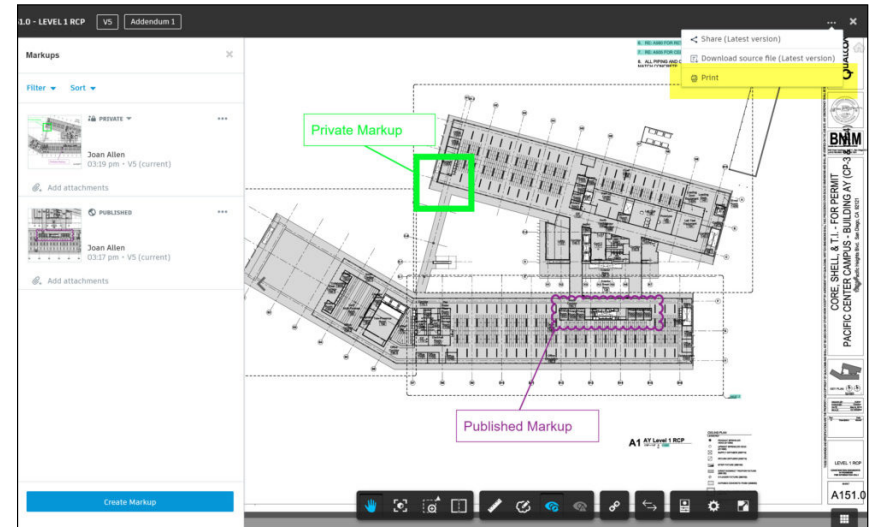
6 Version control

- Open the folder and find the document you want to view.

- Click on the version number.

- A Version History dialog box will pop up with details about when the file was updated and by whom.

- Similar to the above workflow, you can click "Compare Versions" to choose which versions you want to compare, using either overlay or side-by-side view.

PRO TIP: You can also view an export of a Document Log by clicking the icon in the top right of the Folders tab.
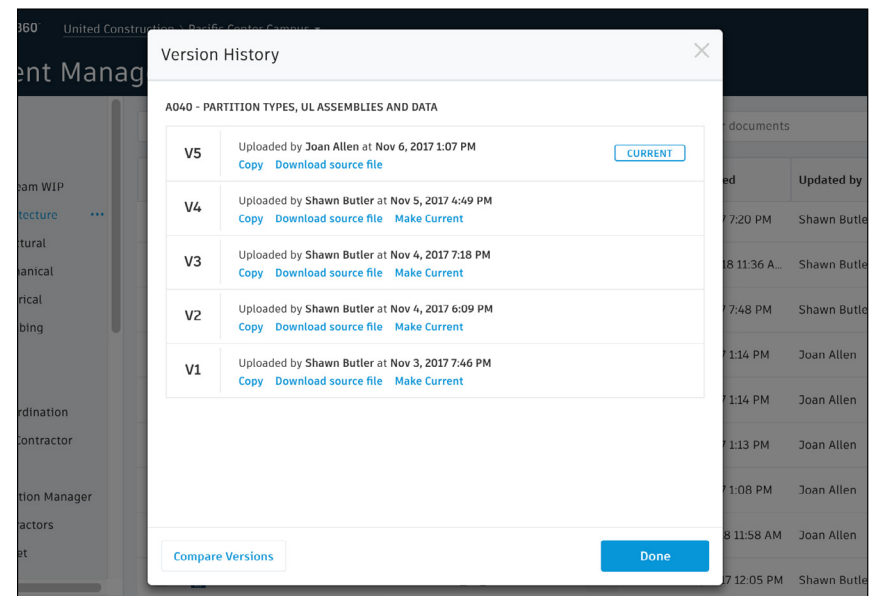
Document Distribution

7 | Reviews and Approvals

- Create one or more workflows by clicking into "Project Administration" under "Document Management" and "Reviews".

- Choose from several workflow templates and customize the workflow by name, participants (users / roles / companies), durations, status labels, and action after approval.

- Team members with "initiate" permissions can select one or more documents and choose the "Submit for review" option. NOTE: depending on the workflow configuration rules, project members can choose between multiple workflows including the option to initiate group reviews.

- An email notification will be sent to the next participants in the workflow. You can also choose to notify other project team members.

- If using a "multiple reviewer" workflow, teams can have groups of individuals as designated reviewers and can simeltaneously review and approve to speed up the process.

- The assigned team members will then go through the review process, with the ability to add markups from within the viewer and add comments for each document.

- The Approver can set the approval status on a document-by-document basis.

PRO TIP: All documents will remain in their original folders, however, Project Admins do have the option to configure workflows so documents can be copied into another folder once approved so that they can be shared with a broader group.
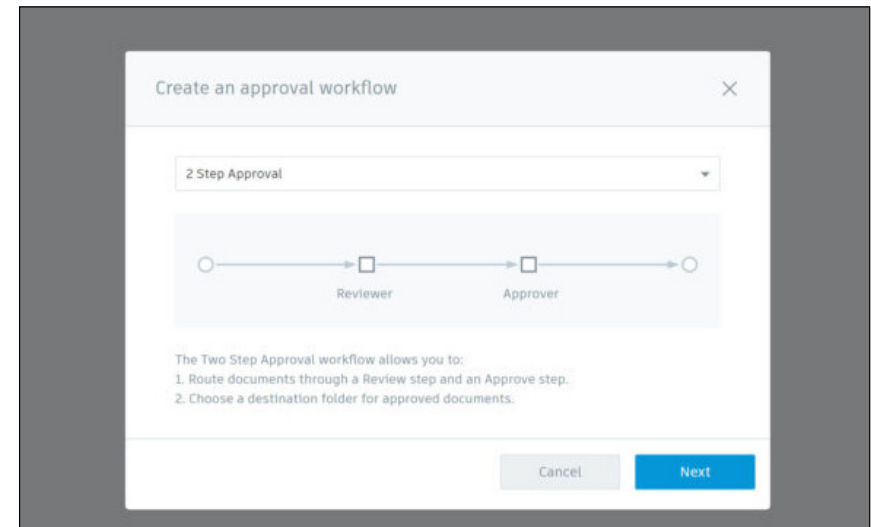
About Reviews   Approval Workflows
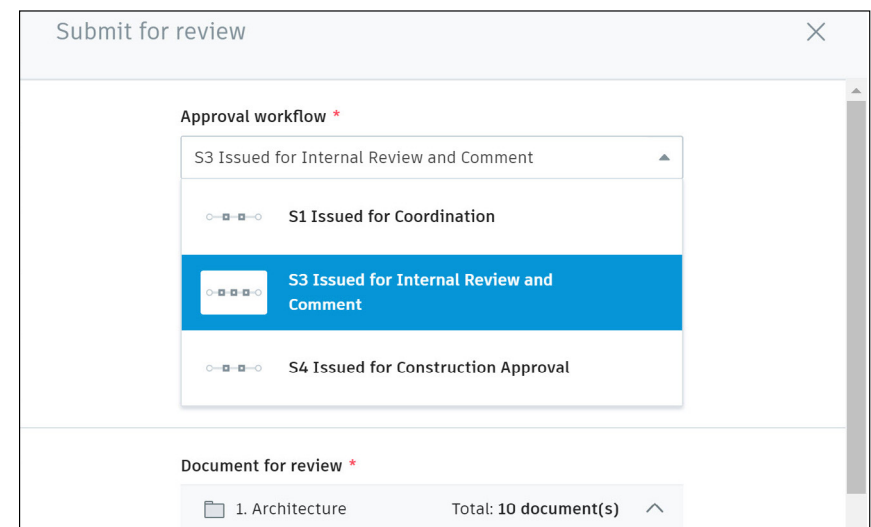
Document Distribution

8   Document Transmittals

- From the Folders tab in Document Management, select the files or plans that should be included in the transmittal.

- Click the 3 dots for "More Actions" on the top panel and then select "Create Transmittal".

- Type in a custom title for the transmittal name and then select the recipients by User, Role, or Company.

- An email will be sent to each recipient when the transmittal is ready to be viewed.

- To view a list of all transmittals click on the "Transmittal" tab on the top menu bar.

- Click into different transmittals to view details.

- Recipients can easily view project documents directly from within BIM 360 as well as download a zipped file of all transmittal documents.
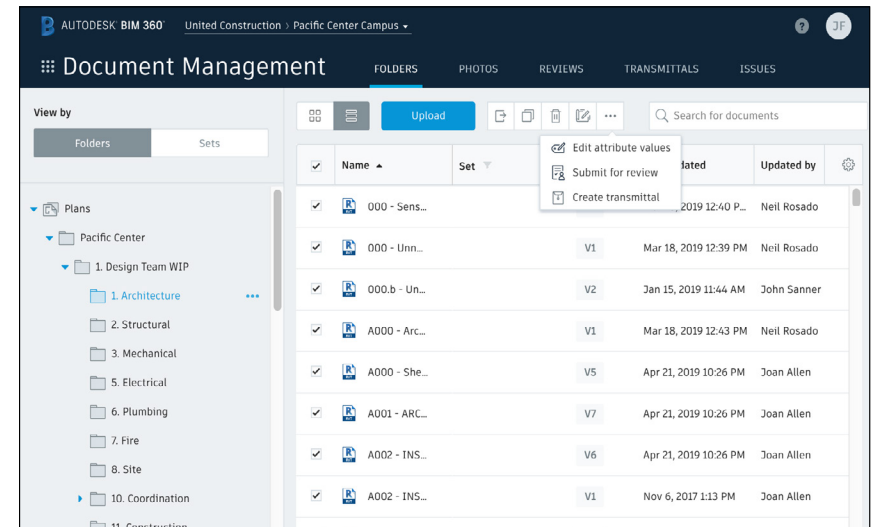
Document Transmittal Blog   About Transmittals

9   Microsoft 365 Integration

- Project members with upload and edit permissions can view and edit Microsoft files (Word, Excel, PowerPoint, Visio) directly from within Document Management.

- To edit a file, select a file in Document Management.

- Click Edit in Browser.

- Sign in with your Microsoft® Office 365 credentials or sign up for an account.

- Make the desired changes. The status bar at the top must state "Saved to Autodesk BIM 360" before exiting a file or changes may be lost.

- End the editing session by doing one of the following:

  - Click Return, to return to the viewer or list view.
  - Click BIM 360, to return to the BIM 360 Document Management home page.
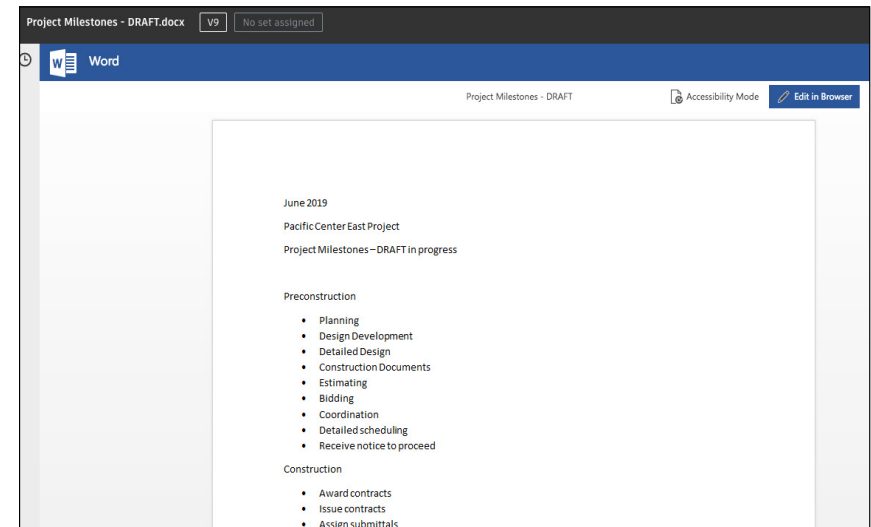
Working with MS Files   Integration Blog

Quality Checklists

Quality problems that cost the most are the ones you miss. The checklist workflow makes sure your entire team is proactively managing quality standards from any device, anywhere. With the easy-to-use checklist builder, you can create quality checklists, punchlists, and commissioning templates, assign them to team members, and track status. Use Project Home to see your assigned checklists for the day, tomorrow, and the future. During the inspection use your mobile app to add notes, attach photos, and/or create issues for any nonconforming items. With the filters and reporting feature, you can identify trends and areas for improvement.

1 Activate the Field Management module

- A project admin needs to activate the Field Management module.

- In the Project Admin module select the Services tab, then "Overview" on the left sidebar.

- In the BIM 360 Field row, select "Filed Management" and click "Activate." Designate at least one project admin.

PRO TIP: The Document Management module needs to be activated first.
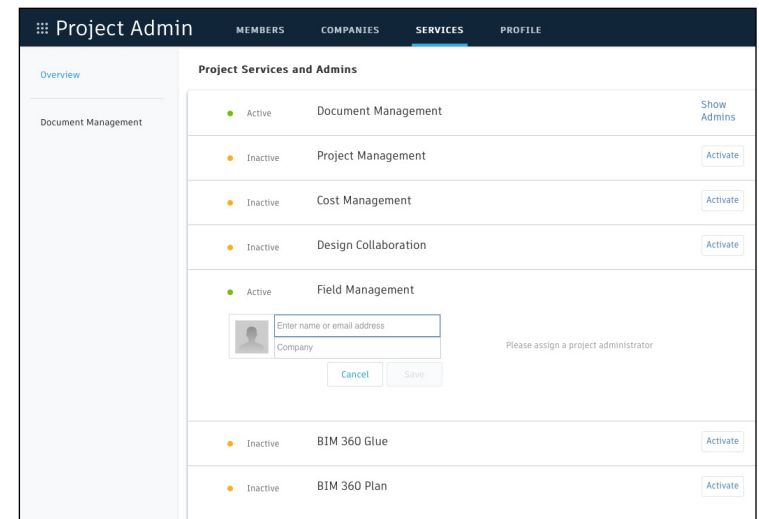
Quality Checklists

2 Designating issue permissions

- In the Project Admin module, select the Services tab.

- On the left sidebar, click "Field Management."

- Here you can designate user-, role-, or company-based permissions using the drop-down list.
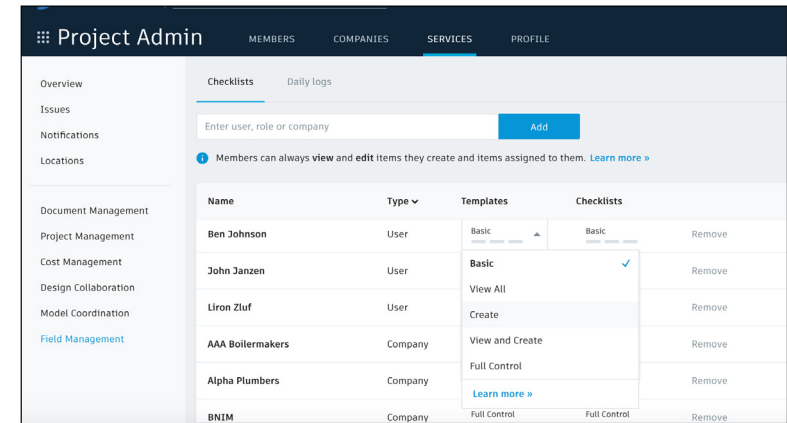
3 Custom issue types

Project admins can control the issue types and sub-types available for selection. To make filtering issues more efficient, they can add custom issue types or sub-types.

- In the Project Admin module, select the Services tab and Issues on the left sidebar.

- Select the Types tab then click "Create New Issue Type." Enter the name to appear in the issue drop-down list

- Optionally, change from Active to Inactive. Inactive keeps the newly created type from being available for use. Select the appropriate status set and click "Create."

- Select the drop-down next to an Issue Type to reveal the sub-types. Add sub-types by clicking "Add Sub-type." Enter the name of the sub-type and click the check-mark. Use the more menu (...) to edit/activate sub-types.

PRO TIP: Custom issue types can not be removed, they can only be turned off by using the more menu (...)to select Inactive.
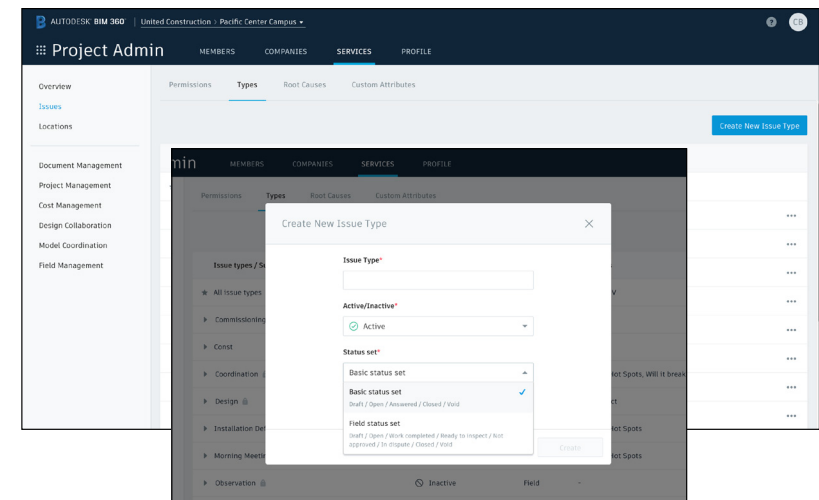
Adding Issue Types & Sub-types

Quality Checklists

4 Custom issue attributes

- In the Project Admin module, select the Services tab, Issues on the left sidebar, and then the Custom Attributes tab.

- Once on the Custom Attributes tab click "Create New Attribute." Add a title and use the type drop down to select the field you need (text, dropdown, paragraph or numeric).

PRO TIP: Once the custom attribute has been created, you have the option to map the attribute to Issue Types and Sub Types.

Custom Attributes
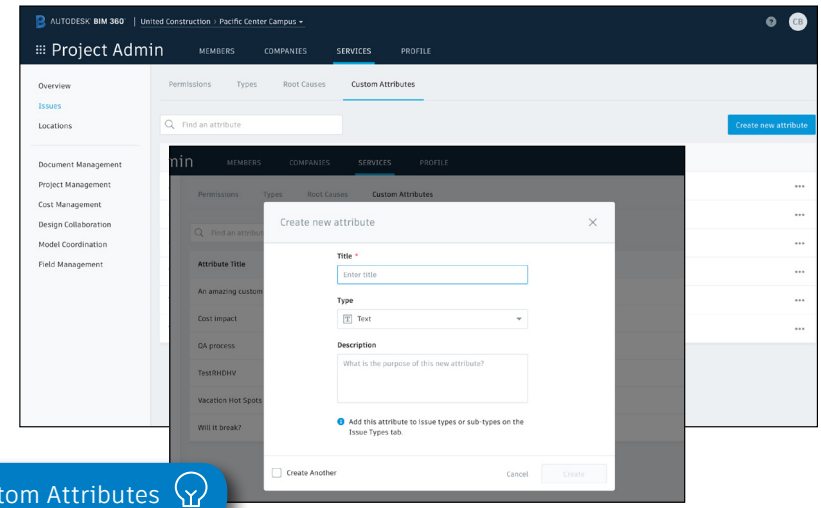
5 Custom root causes

- In the Project Admin module, select the Services tab, Issues on the left sidebar and then the Root Causes tab.

- First you need to create a category. Click "Create New Category" and enter a category name. Optionally, you can set it to inactive to delay usage while creating root causes. Click "Create."

- Once you've created a category you can start creating root causes. Select the drop-down next to a Category to reveal the root causes for that category. Add a root cause by clicking "add root cause." Enter the name of the root cause and click the check-mark. Use the more menu (…) to inactivate root causes.

Adding Custom Root Causes
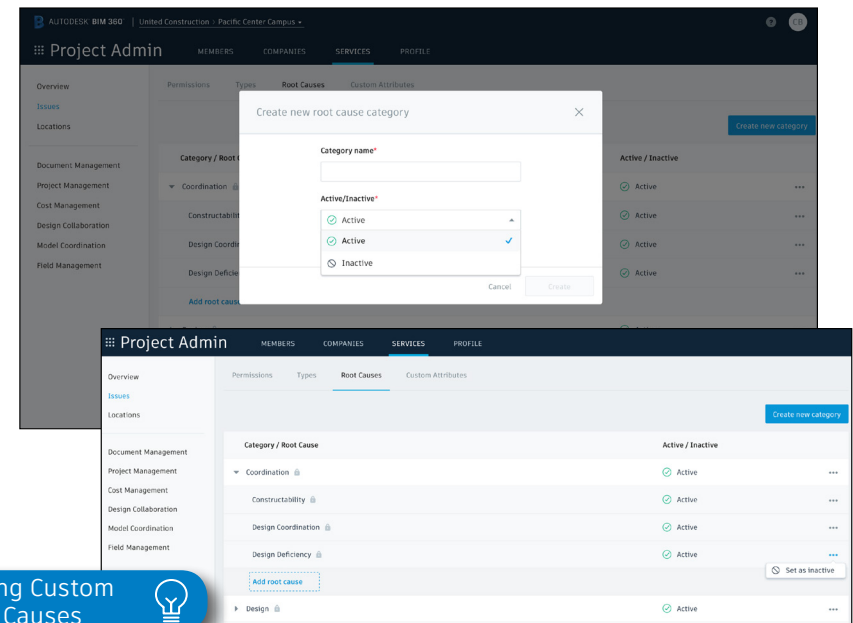
Quality Checklists

6 Creating checklists

Creating a checklist template: Project admins and users designated with "Create" permission can use the template builder to quickly add sections and items to create a new template.

- In the Field Management module, select the Templates tab and click "Create New Template."

- Select the template type (e.g., Quality) using the "Type" drop-down list.

- You can also turn on different settings including "Issue Settings" where you can define if an issue should be auto-created from non-conforming items, "Allow adding section assingee", and "Require signatures".

- Here you will start building out the template. Add in section names such as "general," and click "Add new item" to start populating questions related to that section.

- For each question, click the drop-down list to select the response type and fill in necessary fields. Select (...) to add a description, set as optional, or delete.

- When done, click "Publish." Now the template can be used to create new checklists.

PRO TIP: While generating a checklist template you have the ability to define at the header if signatures are required or not. If a signature is required, a "signature" section is added to the checklist template which allows the checklist template creator to define how many signatures are required. The role and or company of the signatory required can be defined at this state.

Creating Checklists

About Checklist Signatures

Quality Checklists

Import a template from excel:

- In the Templates tab, select "Import."

- Check "Import Templates" and click "next."

- If you don't have a properly formatted spreadsheet, click "Download a sample" and enter your information in the spreadsheet. Rename and save the file.

- If you have a properly formatted spreadsheet, select "Browse" to choose the file, then "Import."
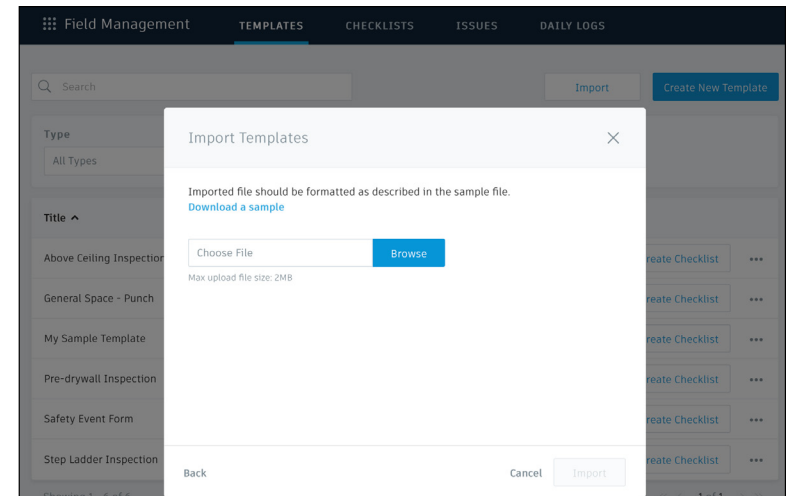
Import a template from classic BIM 360 Field:

- In classic BIM 360 Field, export from the admin space the checklist template that you want to import. Save it to your computer.

- In the Templates tab, select "Import."

- Check "Import Template from Classic Field" and click "next."

- Specify the template type, click "Browse" to select the file, then "Import."

- Once it is imported, you can edit the template as needed.

Creating Checklist Templates ▶
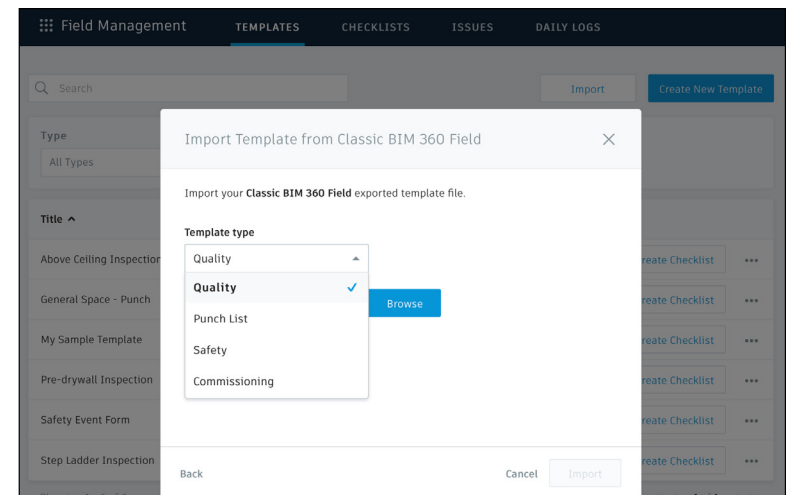
Quality Checklists

7 Adding checklists to a project

- In the Templates tab, use the search bar or filter by type to find the checklist you need.

- Click "Create Checklist" in the list view, or open the checklist and click "Create Checklist" to add it to the project.

- Once the checklist has been added, a new window will pop up where you will see a details box. Complete all necessary fields.

PRO TIP: Add a checklist to the project with the BIM 360 mobile app by tapping "+" in the checklist to select your template.

8 Completing checklists

- Complete your checklist in the field with the BIM 360 mobile app or web browser.

- Tap "Checklists" and select a checklist from the list.

- As you perform your inspection, review the criteria for each item and enter the appropriate response.

- (Optional) Add a note or photo by tapping the icon under each item. Use the photo markup tools to refer to specific areas in the photo.

- (Optional) If you aren't utilizing the Auto Issue Create function for non-conforming items, you can manually create issues. Tap the issue icon and fill in the necessary fields. You can snap a photo and add markups. The issue is added to the project issue list.

- Tap "Save" when complete.

PRO TIP: Using checklist sections will help navigate long checklists by breaking items down into more manageable groupings.

Working with Checklists

Quality Checklists

9 Filter and sort

- On a mobile device, tap "Checklists" then use the filter options.

- On a computer select the Field Management module then the Checklists tab to filter with the drop-down lists or sort by clicking the column headers.
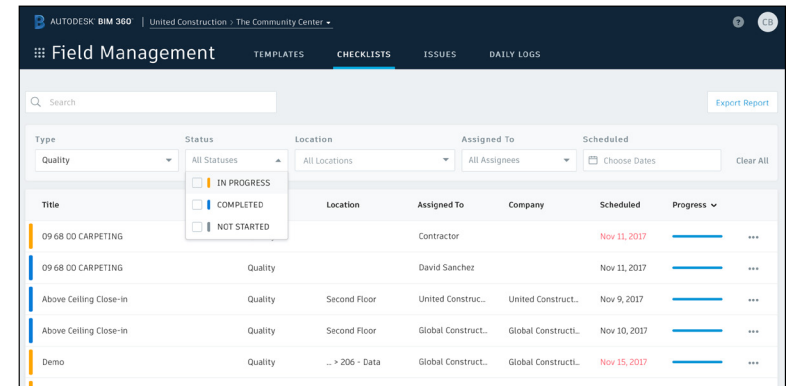
10 Exporting reports

- On a computer select the Field Management module then the Checklists tab.

- To export a summary report of all clicklists click "Export Report." You can optionally edit the report title and add a message. Select "Create Report" and the report will be emailed to you.

- To export a detail report of an individual checklist select to open the checklist. Then click the folder icon in the top right corner. The report will be emailed to you.

PRO TIP: Use the reports tab in the Insight module to access all exported summary and detailed checklist reports. You can filter the reports by type, creation date, and creator in order to quickly find the report you need.

You can download the report or share it with team members by clicking the three dot icon.
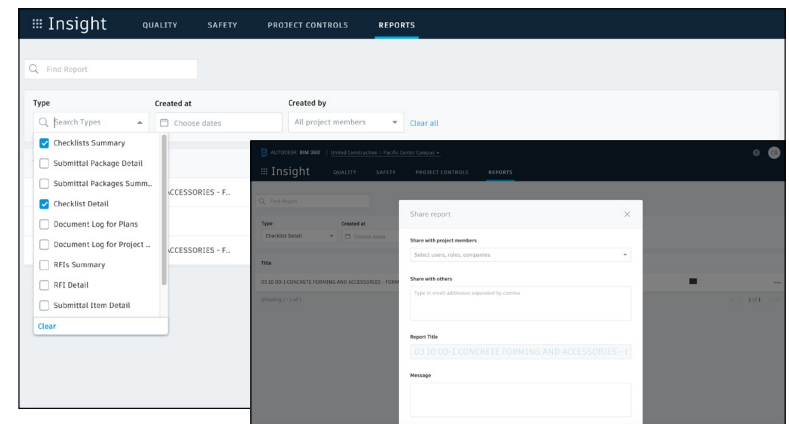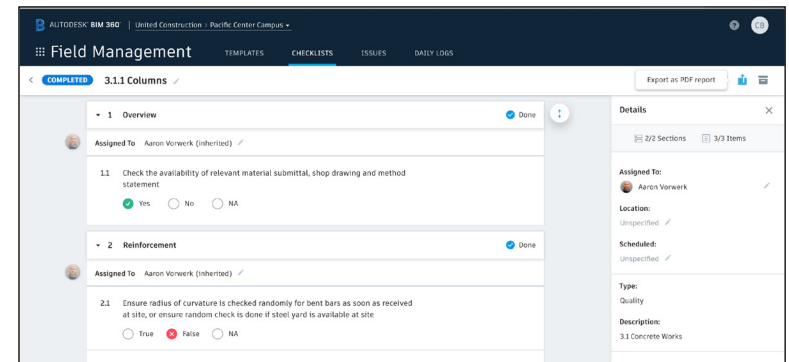
Issue Management

Don't let problems slow you down. The ability to create, assign, track, and respond to issues on any device is a critical workflow. With the Field Issue Management functionality, you can easily track work to complete, problems to fix, areas to inspect, and more. Add context around the issue resolution by adding photos and collaborating on comment threads. With a central view of all project issues, tracking status and analyzing root causes has never been easier.

1 Creating issues

- On your mobile device, navigate to Filed Issues and tap the plus icon. Or on your computer, in the Field Management module select the Issue tab and click "Create New Issue."

- Identify the issue type, sub-type, status and title. Then complete all desired fields including such as location and root cause. Make sure to assign the issue and select a due date.

- When creating an issue on your mobile device, add more context by including a photo. Click the camera icon to snap a photo or select from your photo library, mark it up, and attach it to the issue.

PRO TIPS: All Issues are unified meaning the same Issue added via the Field Management can also be viewed in the Document Management module.
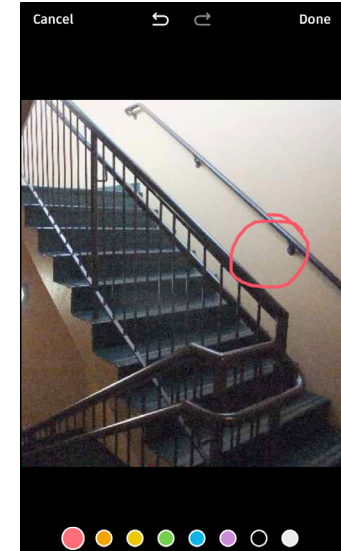
Creating Field Issues

2 Review & respond to issues

- If you're the assignee, open the email notification and select "View the Issue" to be directed to the issue.

- On your mobile device, navigate to the list of all field issues. Scroll/filter and tap the issue to open. Or on your desktop, in the Field Management module select the Issues tab and search for the issue.

- Once the issue window is open, tap/select "Activity."

- Use the comment box to write a comment. On your mobile device you can click the camera to attach a photo.
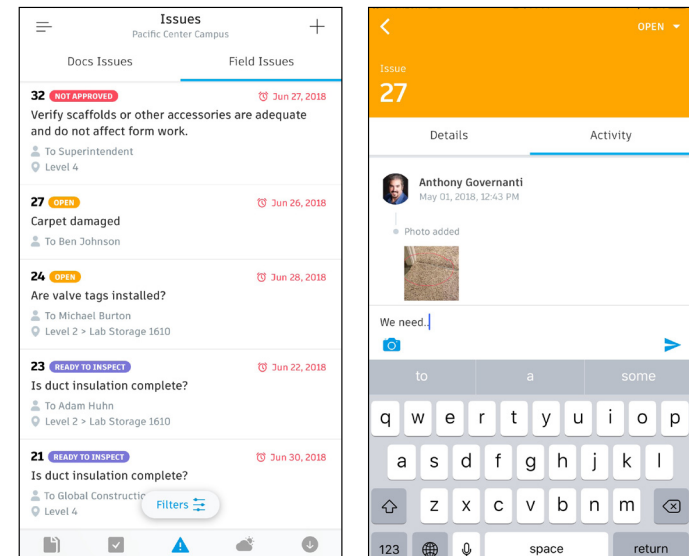
3 Changing issue status

- On your mobile device, navigate to the list of all field issues.

- Scroll/filter and tap the issue to open. Or on your desktop, in the Field Management module select the Issues tab and search for the issue.

- Once the issue window is open, tap/select the status drop-down list in the top-right corner to select a new status.

- Only the issue owner or project admin can set the issue to closed after checking for completion of work or that the safety hazard has been remedied.
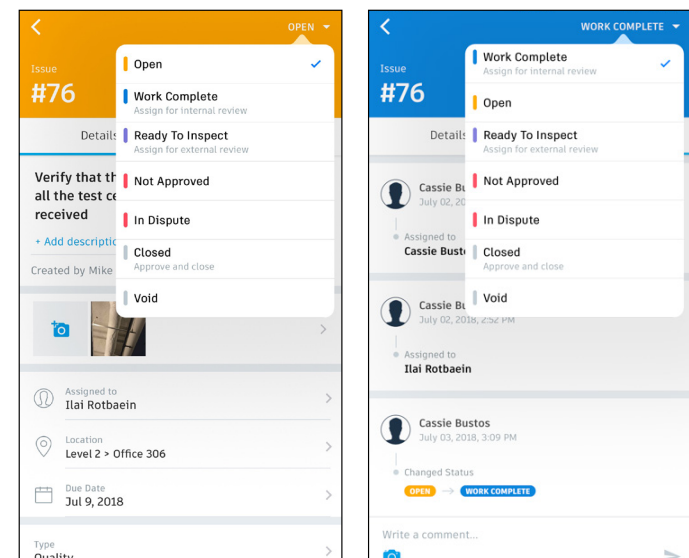
Issue Management

4 Filter and sort

- On your mobile device, tap "Issue" then use the filter options to filter by status, assignee, or due date.

- On a computer select the Field Management module then the Issues tab to filter with the drop-down lists or sort by clicking the column headers.

PRO TIP: You can open a sheet or model to view associated field issues. Once open use the issues viewer on the left panel.
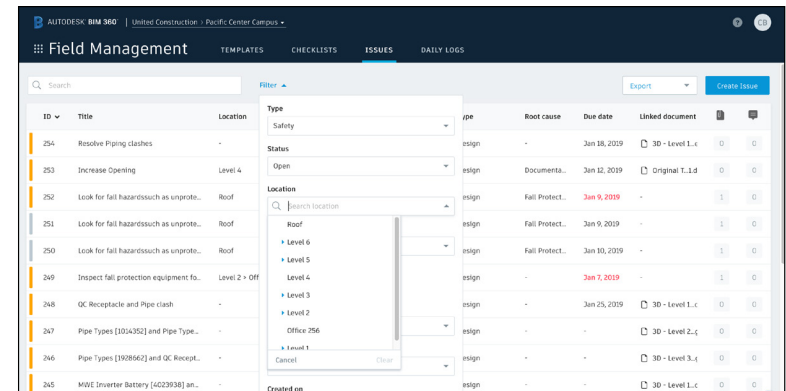
5 Exporting reports

- On a computer select the Field Management module then the Issues tab.

- To export a summary report of all issues click "Export Report" and select PDF or CSV. You can optionally edit the report title and add a message. Select "create Report" and the report will be emailed to you.

- To export a detail report of an individual issue select to open the issue. Then click the folder icon in the top right corner. The report will be emailed to you.

PRO TIP: Use the reports tab in the Insight module to access all exported summary and detailed issue reports. You can filter the reports by type, creation date, and creator in order to quickly find the report you need.

You can download the report or share it with team members by clicking the three dot icon.
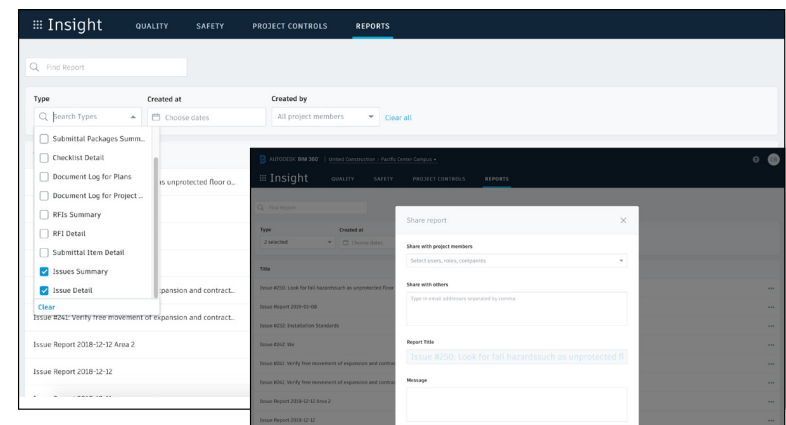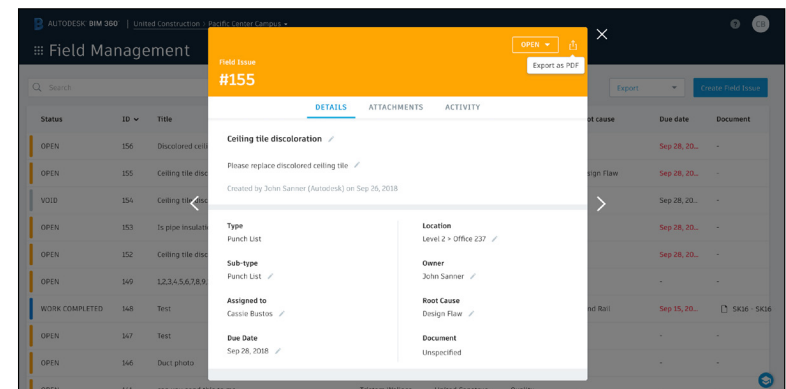
Submittal Management

Submittals are an essential part of any construction project, and effectively organizing and managing your submittals is vital. With the BIM 360 Submittals workflow, you can efficiently create, coordinate, and manage all submittals in a single software. As well as initiate requests, manage reviews and approvals, and sync critical information to mobile devices for offline use.

1 Identifying submittal manager

- To identify a Submittal Manager a Project Admin needs to active the Project Management module.

- Click the module selector then "Project Admin," select the Services tab, and click "Overview" in the left sidebar.

- In the Project Management row select "Activate" and designate at least one Project Admin.

- Now, to identify a Submittal Manager on the left sidebar, select "Project Management" then "Submittals."

- Enter member, company, or role to act as the Submittal Manager.

Add a Submittal Manager
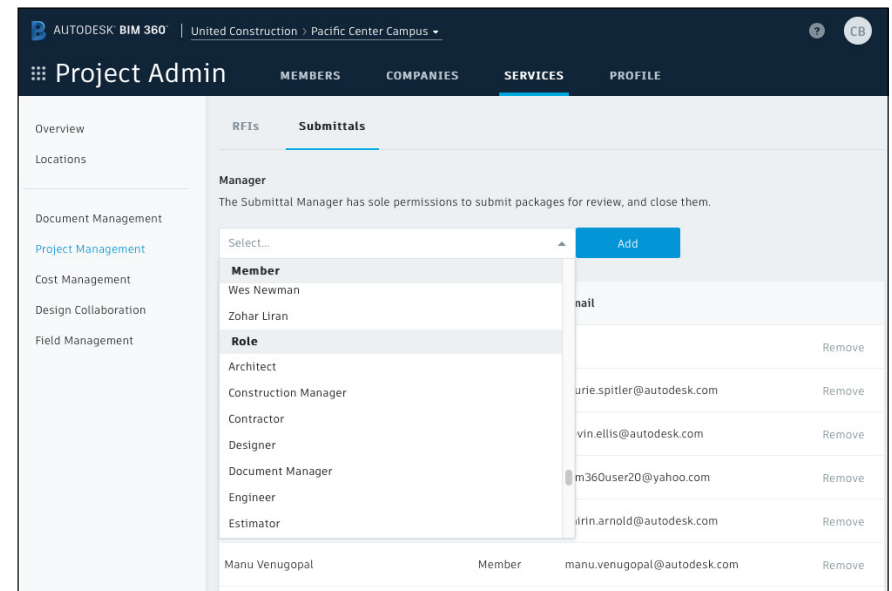
Submittal Management

2 Creating submittal items
(Submittal Manager)

- In the Project Management module, select the Submittals tab. Within the Items tab, you can manually create Items by selecting "Create new item." Submittal Managers can import a list of Items using the import button. When importing auto assign Submittal participants by including the Manager, Reviewer, Co-Reviewers, Responsible Contractor, and distribution list members in the excel import file.

Enter all necessary information, including:

- **Spec Section:** Select a spec section or create a new one.
- **Title:** Enter a descriptive title to identify the item.
- **Type:** Select a type. For example, samples or product data.
- **Assign to Responsible Contractor:** Select the responsible Subcontractor.
- **Dates:** To track items more efficiently, fill in the dates within the tracking section.

PRO TIP: If you need to create multiple items, check the "create another" check-box to save you from clicking the "create new item" button each time.

Creating Submittal Items ▶

Importing Submittal Items ▶

3 Creating spec sections
(Submittal Manager)

- You can create a spec section when entering a new submittal item by clicking "Create New" above the "Spec Section" drop-down list.

- Or, in the Submittals tab, select "Spec Section" then "Create spec section."

- Enter the spec number and title, then click "Create."

Submittal Management

4 ## Creating submittal packages
(Submittal Manager)

- Admins and Submittal Managers can create and delete packages in the "Packages" tab.

- To create a package select "Create new package," fill in the spec section and package title, then select "Create."

PRO TIP: If you need to create multiple packages, check the "create another" check-box to save you from clicking the "create new package" button each time.

5 ## Adding submittal items to package
(Submittal Manager)

- Adding items to packages is optional and can be done when the item is in any state within the workflow.

- There are two ways you can add items to packages.

  - **From the Packages tab:** In the "Packages" tab, open the package you want to add the item(s) to. If the package is empty, select the blue "Add items" button. If the package contains items, there will be an add items link under the last package. In the pop-up box, use the search field or scroll to find the items you want to add, check the box and select "Done" to add them to the package.

  - **At the Item Level:** Open the Item and in the Overview or Details tab select the pencil icon next to "Package." A drop-down list will appear, search for the package you want to add the Item to.

Submittal Management

6   Submitting documents
(Responsible Contractor)

- The Responsible Contractor will be notified of the submittal item via email.

- Open the item, review the details and in "Attachments" upload the necessary documents.

- Once attached, the document will appear. Make sure the "For review" box is checked.

- Select "Submit to Manager."

- The Submittal Manager can now send the item to the Reviewer.
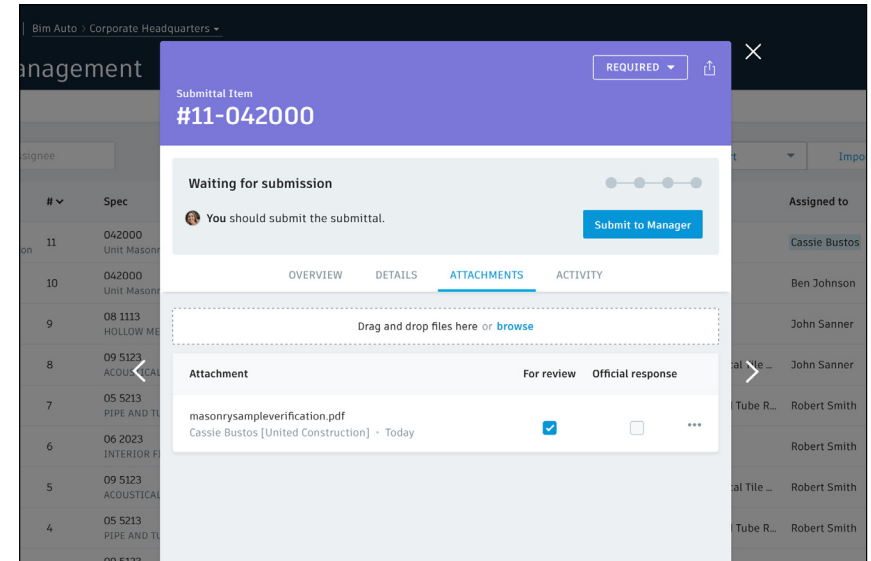
7   Submitting item for review
(Submittal Manager)

- Open the item and review the attachments.

- If changes need to be made return the item to the Responsible Contractor. If no changes are needed proceed by selecting "Submit to Reviewer."

- Select the reviewer, add co-reviewers, due date, distribution list members and note if needed.

PRO TIP: If you need to send the item back to the Responsible Contractor select the arrow next to "Submit for Review."
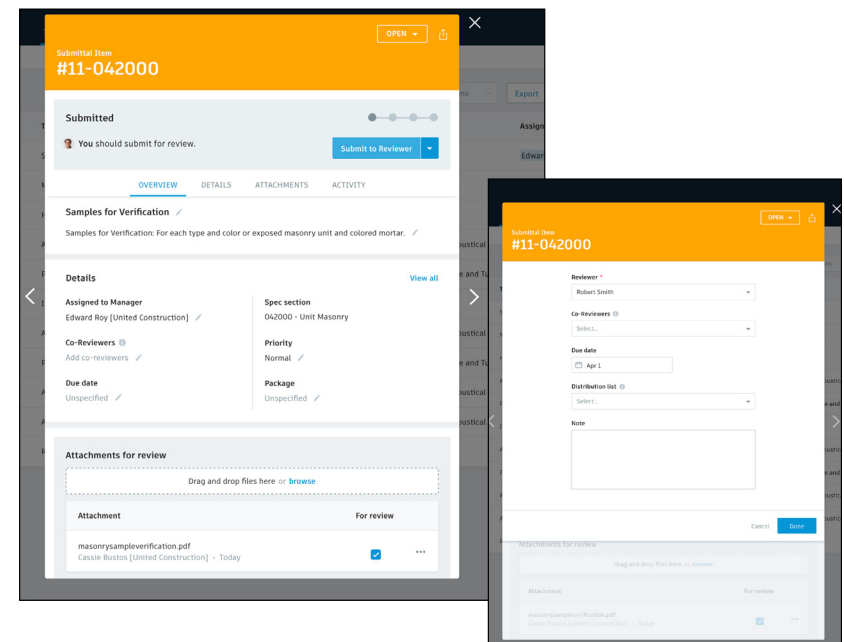
Submittal Management

8 Reviewing submittal item
(Reviewer)

- The Reviewer and Co-reviewers will be notified of the submittal item via email. Click to open the item and review the attached documents within "Attachments."

- Designate official response using the drop-down list at the top.

- If approved, select the official response attachments and click "Done."

- To send the item back to the Submittal Manager select "Return to Manager."

PRO TIP: Admins have permission to act on behalf of Reviewers in the Submittal module providing teams with the flexibility of process while allowing the correct Reviewer to be displayed in the Reviewer field and reports. The activity log will show the Admin logged the response.

9 Distributing official item
(Submittal Manager)

- Once the item is approved by the Reviewer, the Submittal Manager needs to close it and distribute it to the Responsible Contractor.

- Open the item and select "Close and Distribute."

- Include the Responsible Contractor and in the distribution list identify team members who should be aware of the approved submittal item via email.

- Once the item is closed (approved) it will be available for viewing by all project members.

PRO TIP: Admins and Submittal Managers can re-open closed items. With the closed item open, select the arrow next to the "Closed" button in the top right corner, then select "Open." The item will be re-opened to its latest state and sent to the Manager. Managers and Admins can send it to a Reviewer or close and distribute it.

Submittal Management

10 Creating a revision
(Submittal Manager)

- If a Reviewer responds to a submittal item with "Revise and Resubmit" or "Rejected," the Submittal Manager needs to create a revision.

- The Submittal Manager needs to open the submittal package and select "Create new revision."

- Include the Responsible Contractor, due date, and note.

- Select "Done" to send the item back to the Responsible Contractor.
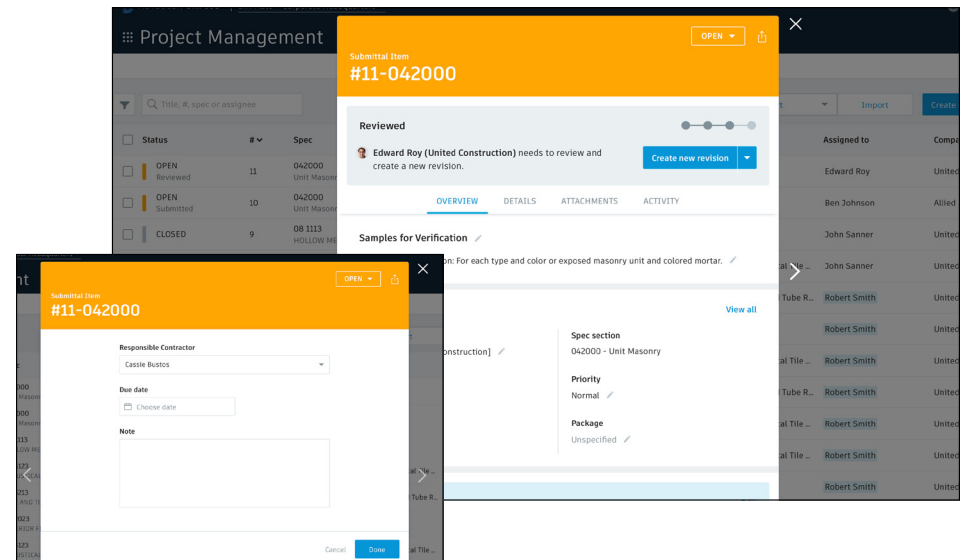

11 Responding to a revision
(Responsible Contractor)

- The Responsible Contractor will be notified of the revision request via email.

- Open the item, and in "Attachments" upload the revised documents.

- Once attached, the document will appear above the Revision 0 section. Make sure the "For review" box is checked.

- Select "Submit to Manager." The Submittal Manager can now send the revised item(s) to the Reviewer.
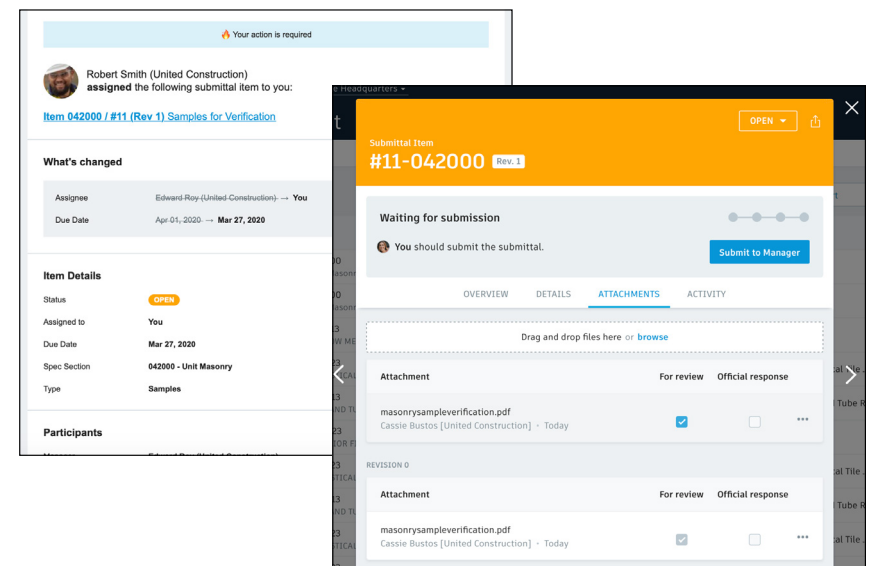
Submittal Management

12 ## Workflow date tracking

- As submittal items move through the workflow (forward and backward), the system automatically tracks transition dates.

- The tracking dates are visible in the details section of the Submittal Item and display in the columns within the Item list view.

- Dates pull in summary XLSX export as well as a calculated days difference column.

- Admins and Submittal Managers have permission to override the tracking dates.
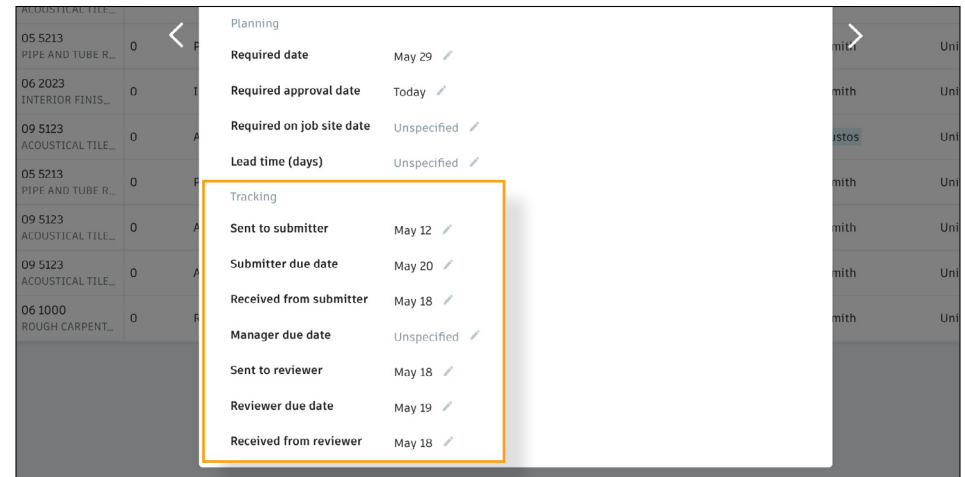
13 ## Viewing submittals on mobile

BIM 360 App:

- Within the BIM 360 app, team members can access a list of Submittal items via the More menu.

- All approved submittal items are accessible to the entire project team. Submittal items in progress are only available to those involved in the submittal process.

- Tap to open an item and reference the details. Tap the download icon to sync attachments for offline viewing.
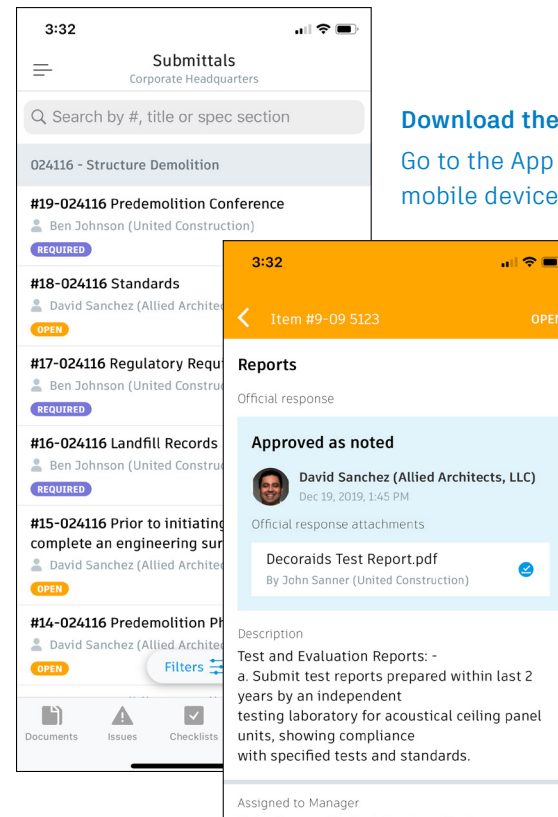
Download the BIM 360 App:

Go to the App Store or Google Play Store on your mobile device to download the BIM 360 app.

Get the iOS App

Get the Android App

Submittal Management

14 Filter / sort / search submittals

Web:

- In the Project Management module select the Submittals tab.

- Within either the Items or Packages tab, select the funnel icon to access the filter options.

- To sort, click the column headers. To customize the columns within the Items list view, select the control icon, then check the items you wish to see.

- To search use the search bar.

Mobile:

- The filter and search functionality is currently only available on iOS.

- To filter within the submittals list on mobile select Filters. Use the quick filters or filter by spec section, status, assignee, due date, priority, type, package, manager, reviewer, or responsible contractor.

- When searching for a particular submittal item use the search field. The search functionality searches by submittal number, title, or spec section.
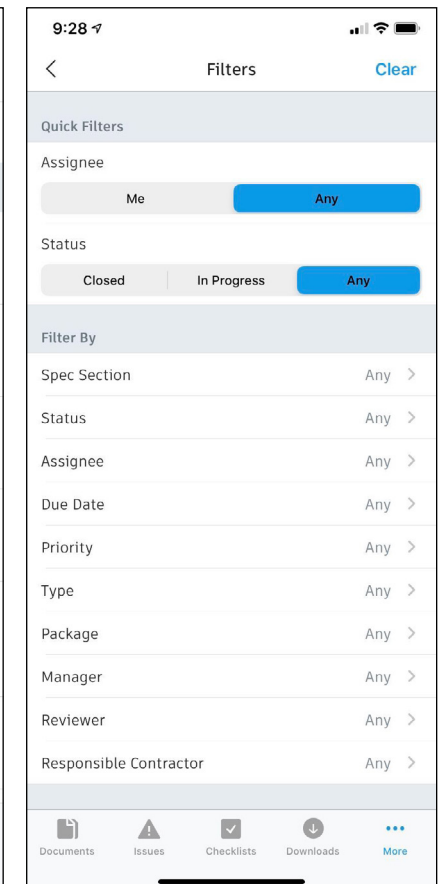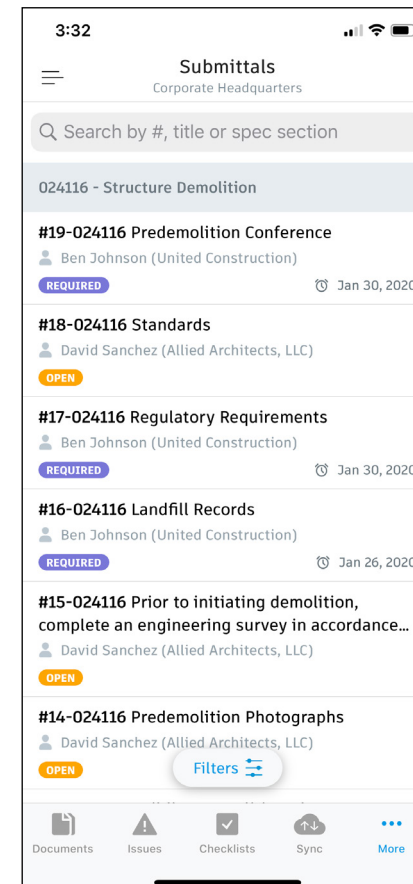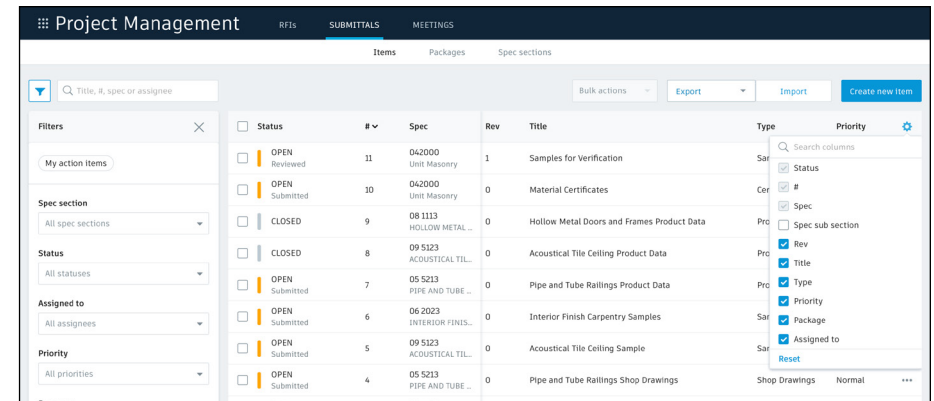
Submittal Management

15 Exporting reports

- In the Project Management module select Submittals.

- To export a PDF report or Excel export of all items, select the Items tab, then click the export button (only available to Admins and Submittal Managers).

- To export a detailed PDF report of an individual item, open the item, then click the export button.

- To export a PDF report of a package, select the Packages tab, open the package, then click the export button (only available to Admins and Submittal Managers).

- Use the reports tab in the Insight module to access all exported submittal item summary and detailed reports. You can download a report or share them with team members by clicking the three-dot icon. You can also run and schedule reports directly from the Insight module.

Prediction & Analytics

At its core, BIM 360 is built to help construction teams better visualize and take daily action to minimize project risk. Whether it is risk associated with safety, quality, or project controls, BIM 360 allows teams to streamline workflows to improve project outcomes.

The prediction and analytics ecosystem enhances the BIM 360 platform with a deeper understanding of project performance, prioritized daily activities, and instant visibility into project risk, giving teams the information they need to avoid costly mistakes and further improve risk mitigation.

1   Project Home

- Project members can see a snapshot of a real-time "to do" list as well as leverage risk prediction assistance through the Project Home module.

- Dashboard cards can be personalized depending on your project role by selecting "Customize" on the top left and clicking on the "Card Library."

- Click any of the links to drill down and get more information on a specific item and take immediate action.

- Use the expand arrows to open the card to full screen to see more information.

PRO TIP: Interact with your projects plans or models through the Project Design card. This card allows you to markup or create and view issues from directly inside the card view and it integrates back to the original file in Document Management.
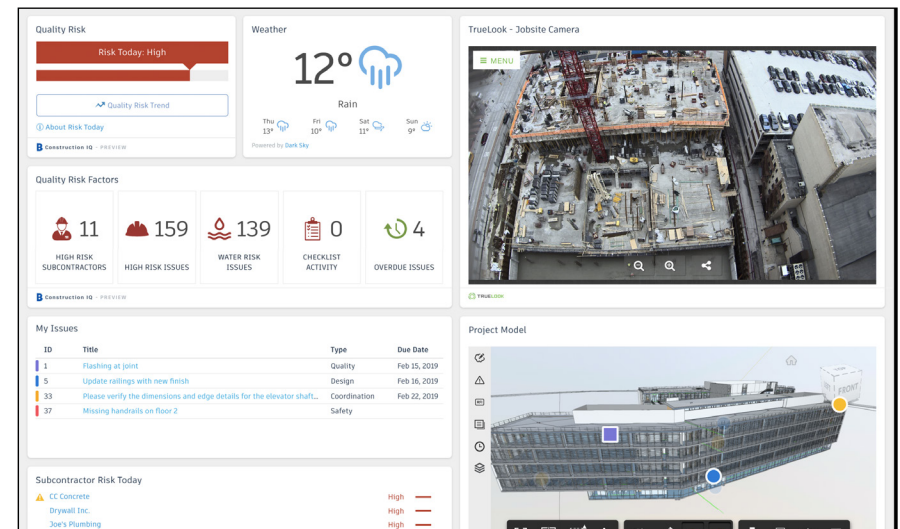
Project Home Overview

Project Home Blog Post

Prediction & Analytics

2 — Card Library & Partner Cards

- The Card Library gives users the ability to show information that is personalized for them.

- Click on the "Customize" icon on the top left to see a view of the Card Library.

- Filter, view, and select cards to be added to your dashboard.

  - Filter by Partner Cards to add data from any of the selected integration partners filter for a single view of all project information.

  - To view and add Construction IQ specific cards filter by Construction IQ.
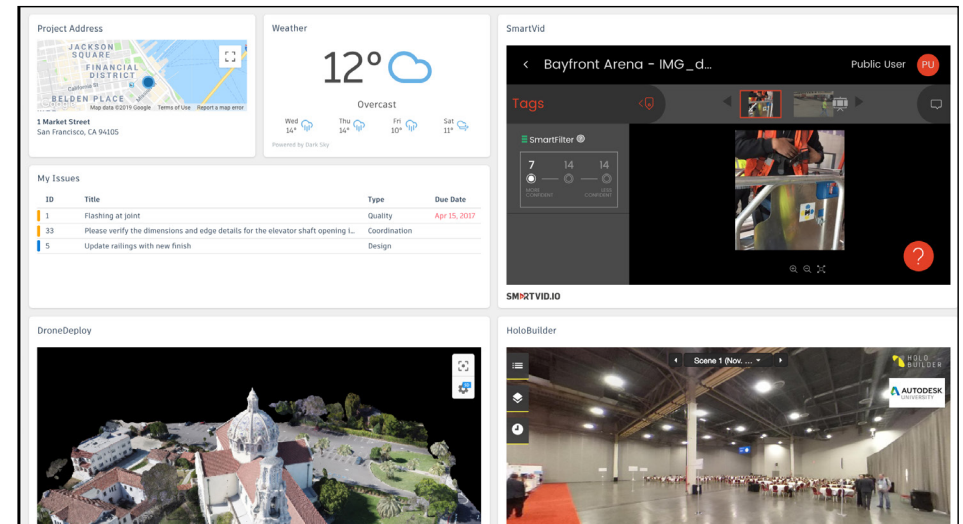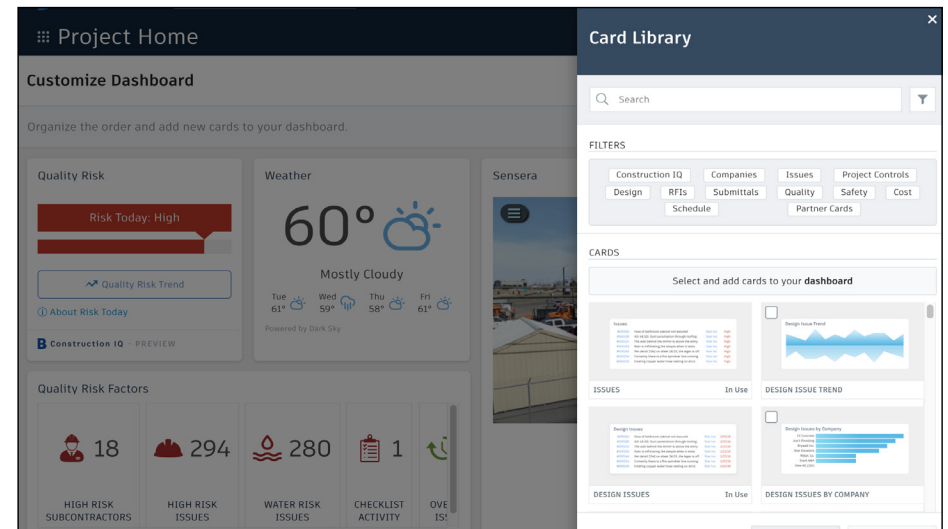
Partner Cards

3 ## Quality Analytics

- BIM 360 helps predict quality related issues by visualizing high risk areas through Construction IQ and providing visibility to project data.

- Quality data is visualized on the Quality tab within the Insight module as well as through select cards in the Card Library in Project Home.

- The Risk Tab in the Insight module shows a summary of subcontractors who have the highest risk based on outstanding issues, a list of high risk issues, water related risk issues, checklist activity, and overdue Issues.

- Click on each of these quality risk factors to drill down and get more detail.

Insights Setup   Insight Blog
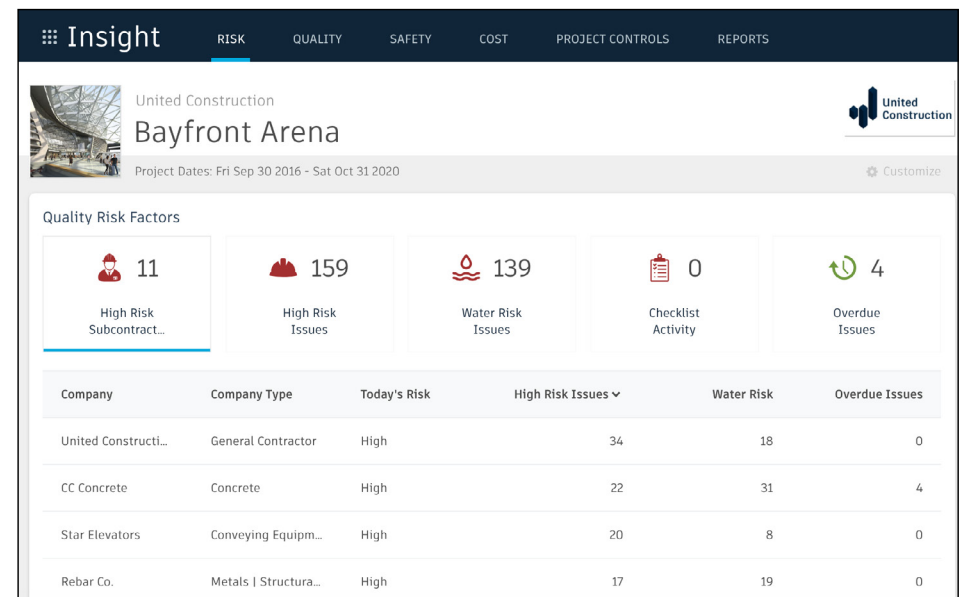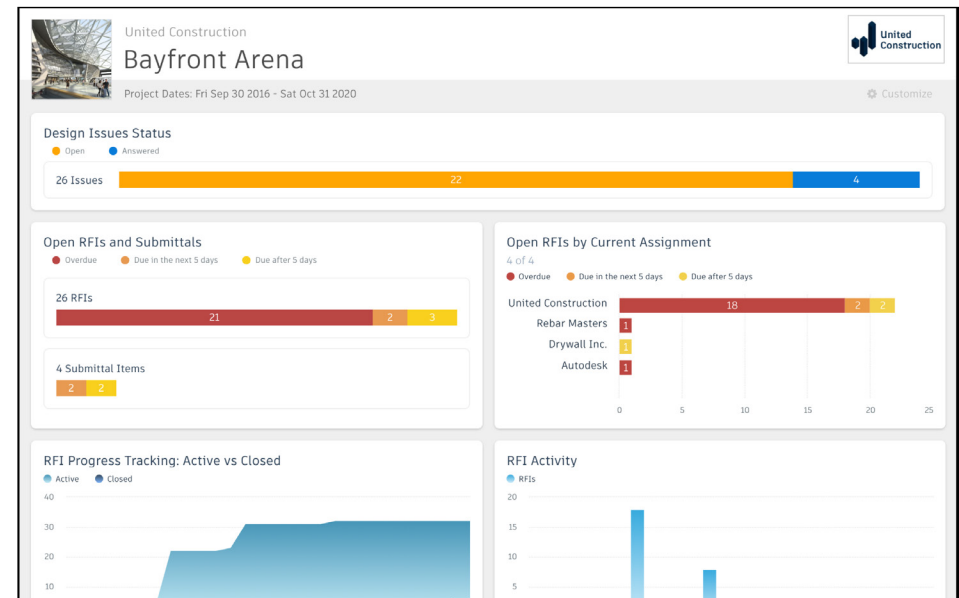
Prediction & Analytics

4 Safety Analytics

- BIM 360 tracks safety related data like near misses and at-risk behaviors through logged Issues, RFIs, Checklist items, etc.

- Construction IQ analyzes this data as leading indicators and helps predict safety issues before they become serious incidents.

- Data is visualized on the Safety tab within the Insight module as well as through select cards in the Card Library in Project Home.

- Integration Partner Cards also show safety related data insights through site cameras or their own AI based technology.

- **Highlighted Safety Cards:**
  - **Housekeeping Issues** - many safety incidents can be avoided by keeping a clean jobsite.
  - **Fatal Four Safety Issues** - 60% of all construction deaths are due to one of these four issues; fall, caught between, electrocution, struck by. See jobsite Issues that fall into these categories.
  - **Subcontractor Safety Risk** - highlights subcontractors that have issues relating to the "fatal four."
  - **Subcontractor Risk Summary** - shows subcontractors with the highest risk and drill down to see what those Issues are.
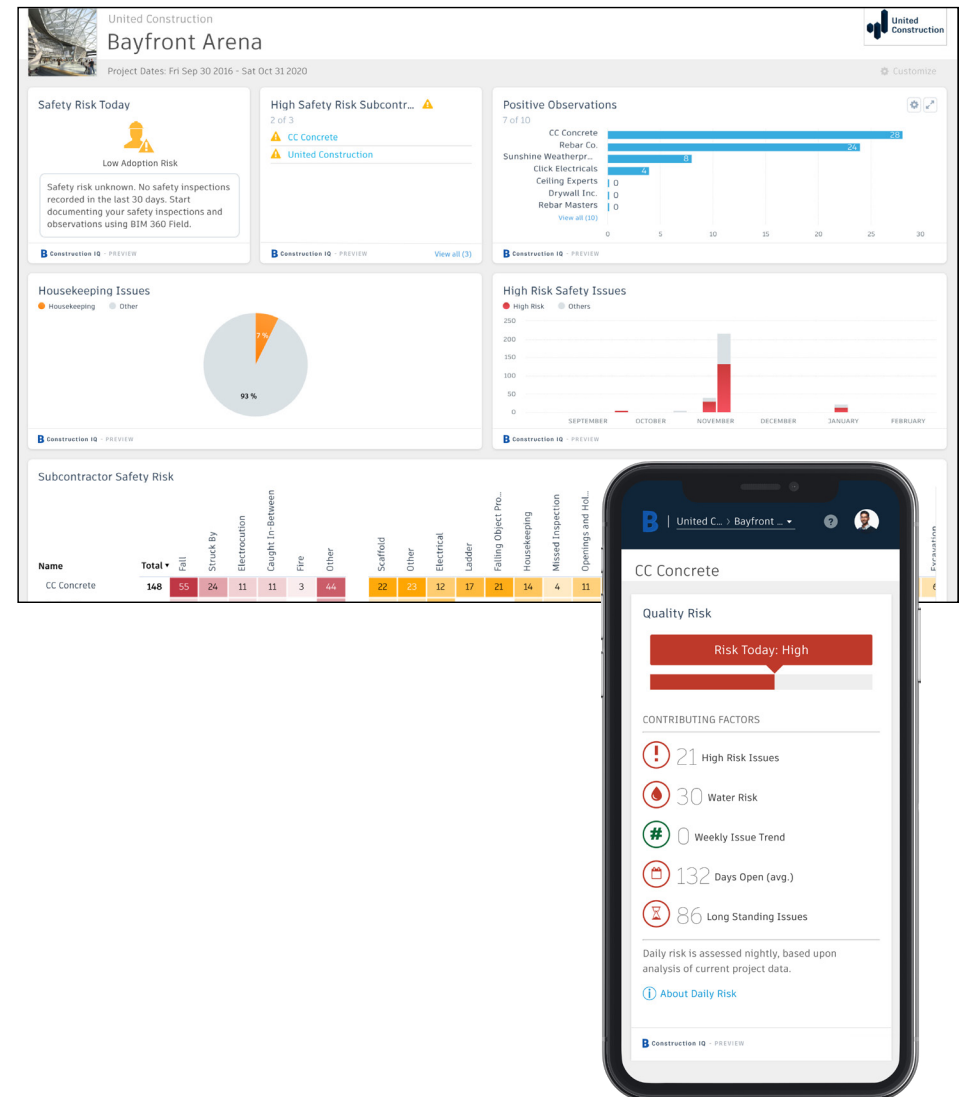
5 Design Analytics

- BIM 360 surfaces design issues through the Design tab in the Insight module

- Through this tab, users get visibility into key design issues and take immediate action to resolve.

- Design Review Risk Factor Card:
  - Powered by Construction IQ
  - Surfaces code compliance design issues
  - Identifies design issues that involve critical building components
  - Highlights documentation errors and omissions
  - Highlights overdue issues and reviews as well as who is responsible

- Approval Reviews by Current Assignment Card:
  - Highlights the status of design reviews by company

Design Risk Blog

Design Risk Demo Video
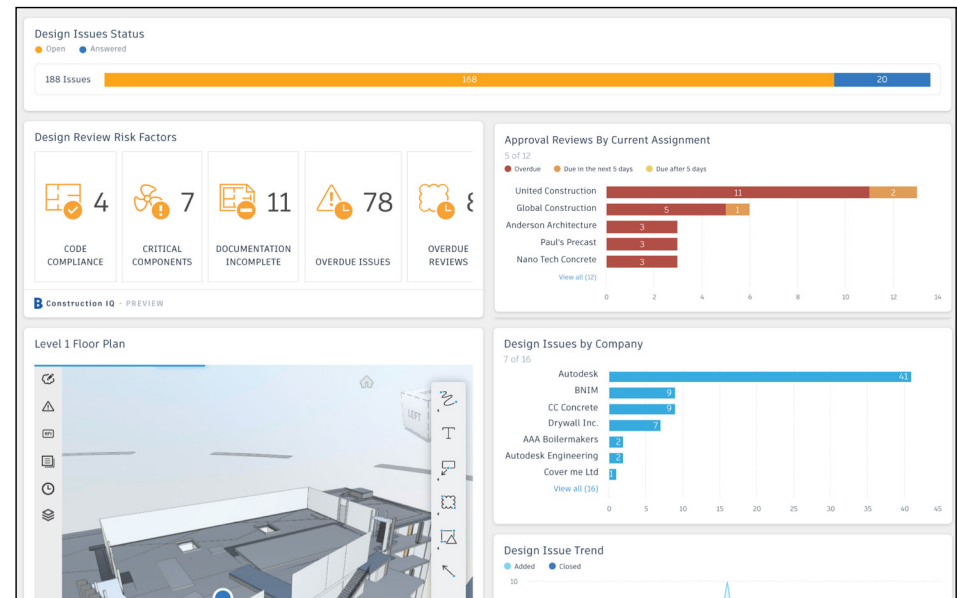
Prediction & Analytics

6 | Project Controls Analytics

- The Project Controls tab in the Insight module gives visibility into managing a projects RFIs and Submittals as well as oversight of any Design Issues.

- **Highlighted Project Control Cards:**
  - **Open RFIs and Submittals** - gives a summary of the number of overdue as well as upcoming RFIs and Submittals.
  - **Open RFIs by Current Assignment** - shows a list of subcontractors and how many overdue and upcoming RFIs they have.
  - **Design Issues** - shows a summary of open Issues that are design related as well as the number of answered Issues.

- Click on each of these cards to drill down and get more detail.
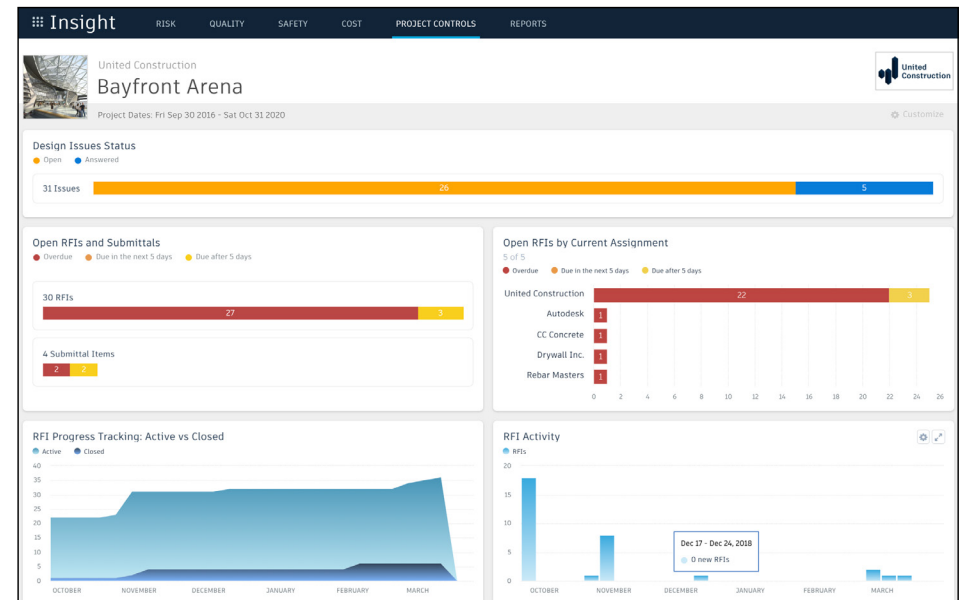
Prediction & Analytics

7 Reporting

- The Report tab within the Insight module shows an aggregated list of generated reports related to Issues, Checklists, Documents, Submittals, and RFIs.

- Filter reports based on type, date, or creator.

- Download or share reports with other team members.

- Create and schedule reports based on your filter criteria.

8 Construction IQ

- Construction IQ is a built-in machine learning and AI functionality that leverages data across the entire BIM 360 platform.

- Construction IQ sifts through millions of data points from your construction documents, issues, checklists, related meta-data and historical data, and analyzes it to identify and prioritize risks.

- Construction IQ automatically classifies items and flag issues as "High Risk."

- "High Risk" issues are items that if left open, will likely lead to bigger more costly issues down the road.

  - EXAMPLE: if flashing was marked as missing on a window, the Issue would be flagged as "High Risk" to avoid bigger water leaking Issues.

- View Construction IQ data through the "Risk" tab within the Insight module as well as by selecting cards tagged as "Construction IQ" in the Card Library.
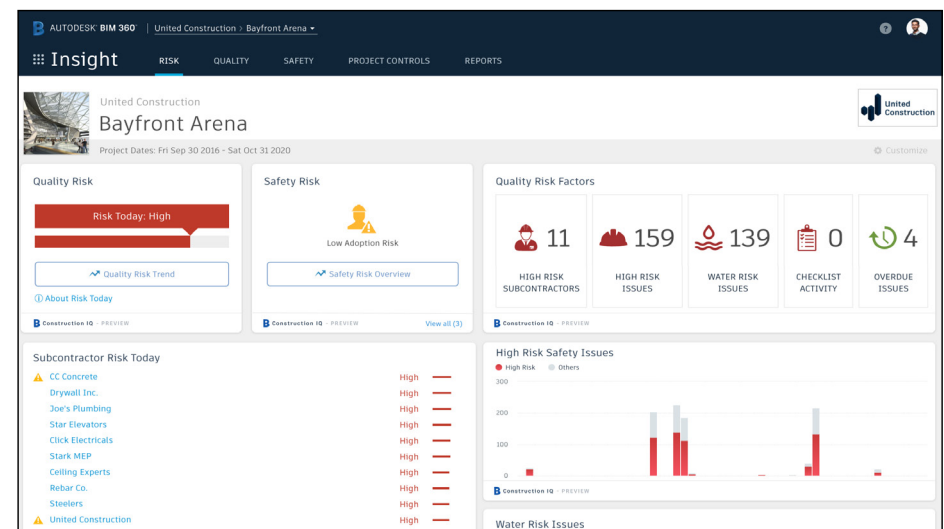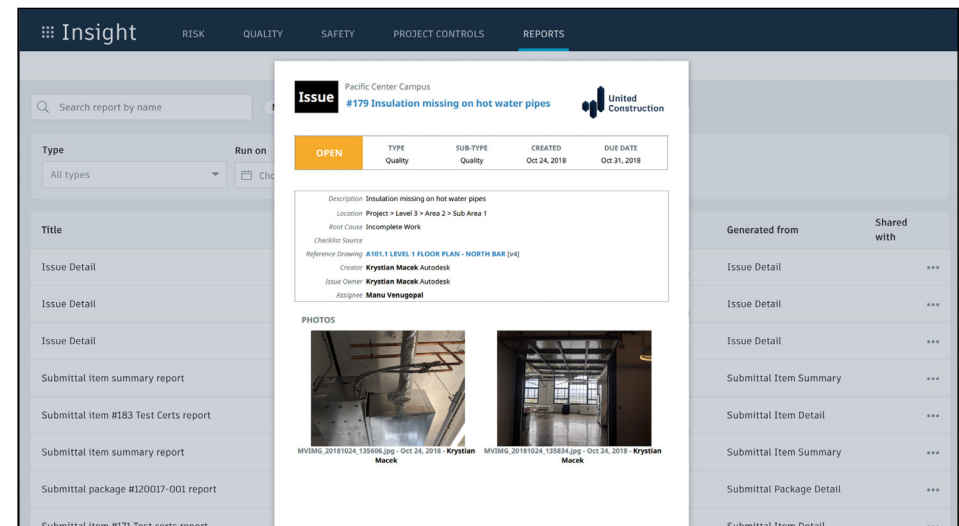
About Construction IQ

Prediction & Analytics Blog

Prediction & Analytics

9 | Executive Insight

- With the ability to view company-wide performance data across multiple project, executives and cross-project leaders can make more informed business decisions and gain visibility into overall risk assessment for current as well as future projects.

- Invite users with "executive overview" permission to access this view. This is a separate Insight view geared towards Executives and cross project leaders only.

- View cross project health across Risk, Design, Quality and Safety tabs.

  PRO TIP: Through the Risk tab in the Insight module, executives can get instant visibility into which projects have the highest risk levels each day. Assess the project risk overtime to see which projects remained in a "high risk" category over longer periods to determine which projects need executive level support.

10 | Data Connector

- Within the Data tab under the Account Executive Insights view, users can automatically extracts data from all BIM 360 projects in your account.

- The easy extraction offers you the flexibility to analyze data using your own business intelligence tools.

Data Connector Video

Data Connector Help Site
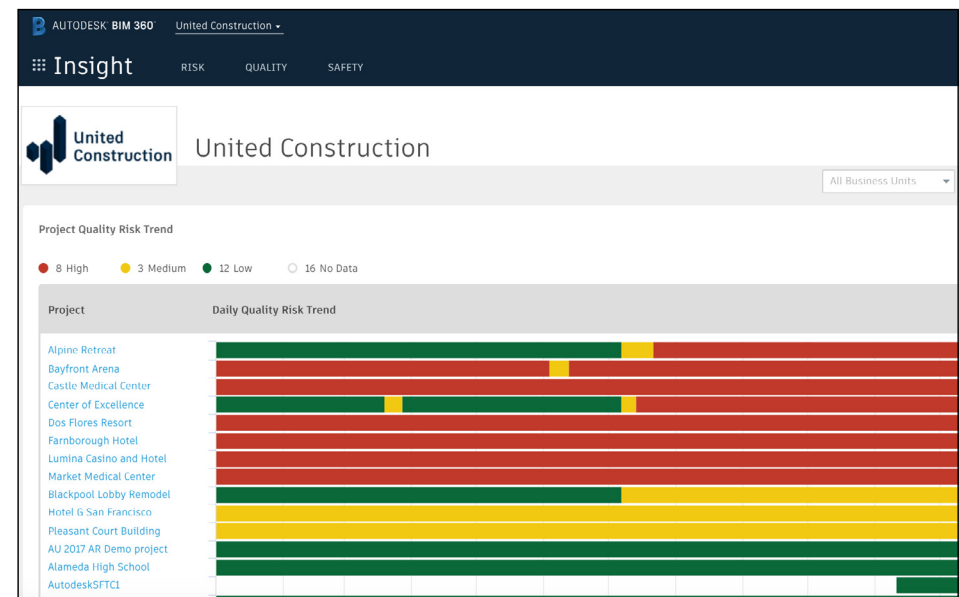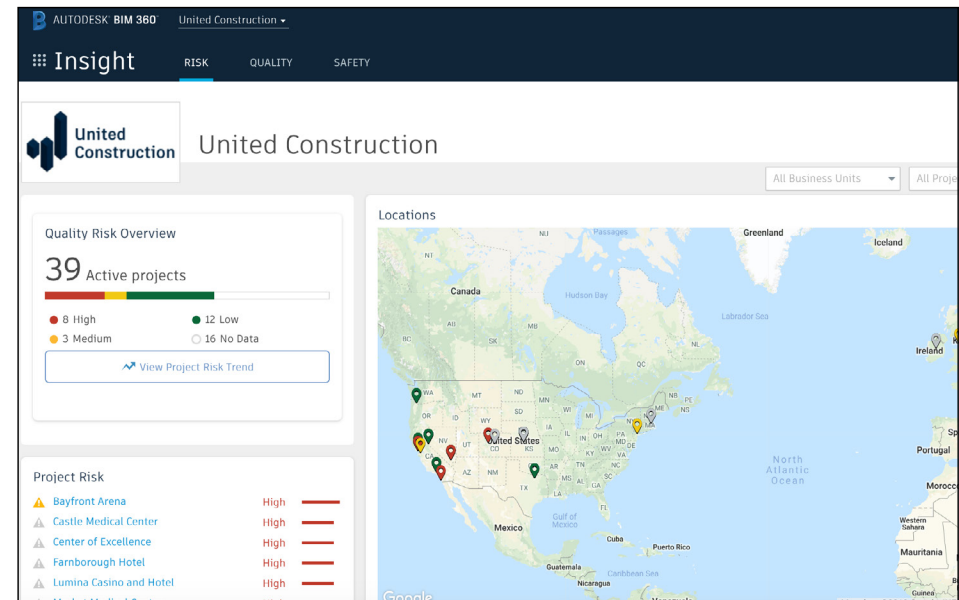
Additional Capabilities

Account Admin

With the project administration tools in BIM 360, you can rest assured that your project information is in the right hands. Project admins can easily invite team members to the project and define their access levels on a project-by-project basis with a simple click. BIM 360 has two levels of administration to ensure security and control across your projects: Account admins and project admins. Only account admins can create new projects and assign additional account admins and project admins. Project admins can add and remove members, set permissions, and adjust project details.

1   Create a project

- In the Account Admin module, select the Projects tab and click "Add."

- Enter project information and click "Save & Continue."

Getting Started Guide

Create a Project

Create Project Profile
Step 1 of 2

* Project Name
Oakwood Medical
Project name is valid.

* Project Type
Hospital

Construction Type
New Construction

* Project Value
87000000   USD
Project value is valid.

Project Image
Select image to upload
JPEG, GIF, PNG, or BMP file
(4MB max)
Browse

Project Address
560 Dockside Avenue
Address Line 2
Boston   Postal Code
Massachusetts

Account Admin

2   Activating modules

- Click "Activate" for the desired BIM 360 service.

- Assign a project admin for each service. You can add multiple admins.

- (Optional) For Document Management and Field you can copy existing project settings.

- An email invitation will be sent to the assigned project admin(s). They will need to click the link to join the project.

- Click "Finish."

PRO TIP: You have to activate Document Management first, before you can activate other next-gen services.

3   Add members to directory

- In the Account Admin module select the Members tab and click "Add."

- To add an individual member, select "Add People to the Member Directory."

- To add an account admin, select "Invite Account Admins."

- To import members from a list, select "Import Members by Spreadsheet." For a first-time import, download and complete the member list template.

PRO TIP: You can change the default company and role later if necessary.

Account Admin

4 Adding members to a project & assigning access levels

- In the "Project Admin" module, select the "Members" tab.

- Click "Add" and use the search bar to search the member directory.

- When you find the member, select them and click "Select."

- Add their company and role. Note: Role determines their access level to all BIM 360 services.

- Click the icon(s) to overwrite the access level granted by their project role.

- Click "Add to Project."

- Update existing access levels by clicking the grayed out icon(s).

Members & Access Levels 💡   **Setup Roles** 💡

PRO TIP: You can choose from a list of preset roles or create your own custom roles as well as configure the permission and access levels by each role.

Mobile Access

Construction doesn't happen behind a desk. Teams need access to project documents and project management tools anytime, anywhere. With the BIM 360 mobile app, teams can execute construction quality and safety workflows, including creating or editing checklists, viewing RFIs, adding or tracking issues, and managing or creating drawing markups, directly from an Android or iOS device.
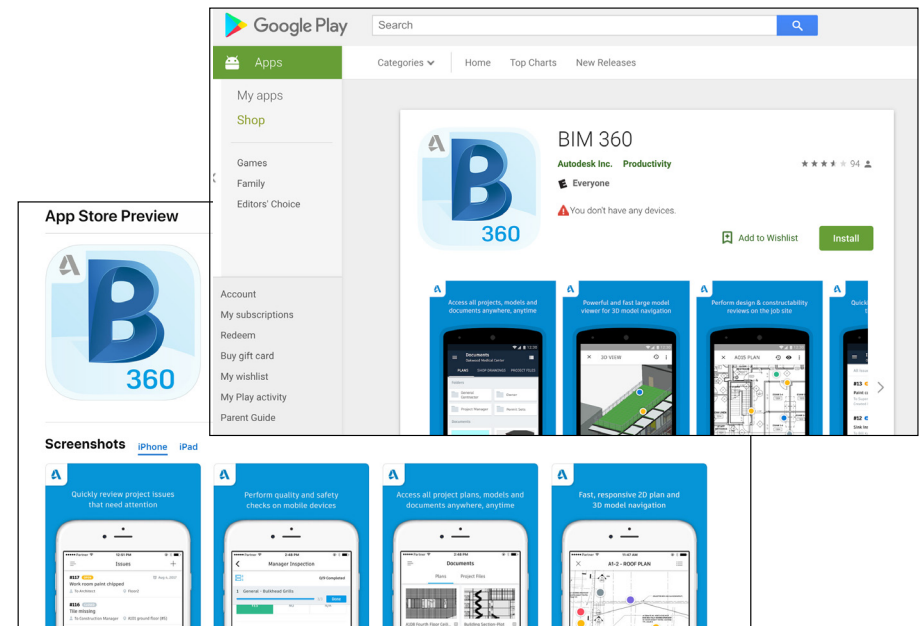
1 Download the BIM 360 app

- Go to the App store or Google Play store on your mobile device to download the BIM 360 app.

- The BIM 360 mobile app works with all other modules, including Document Management.

Get the iOS App

Get the Android App

PRO TIP: Stay up to date on mobile capabilities through the Autodesk Knowledge Network.

Mobile Access

2   Mobile workflows

- Several workflow capabilities can be accomplished using the BIM 360 mobile apps, including Checklists, Issue Management, RFI Tracking, Daily Logs, and Markups.

- To see the differences in workflow capabilities for the BIM 360 and BIM 360 Docs apps, click the "BIM 360 Mobile Capabilities" link below.
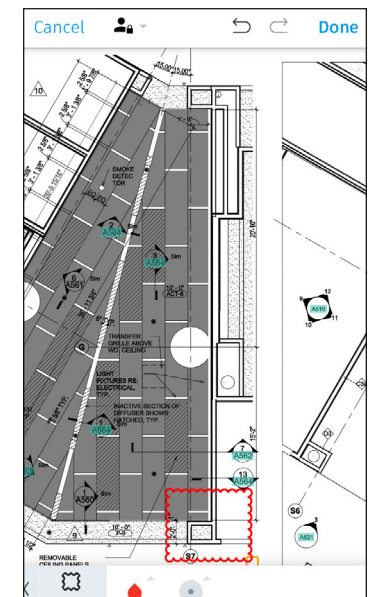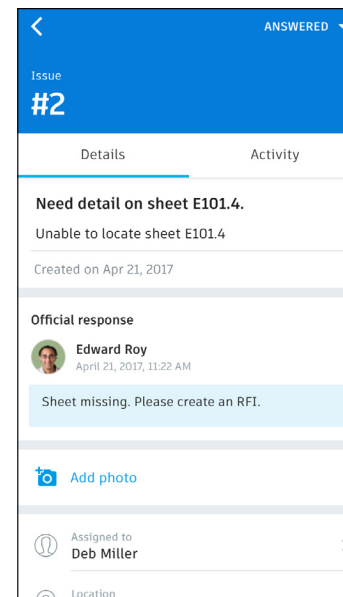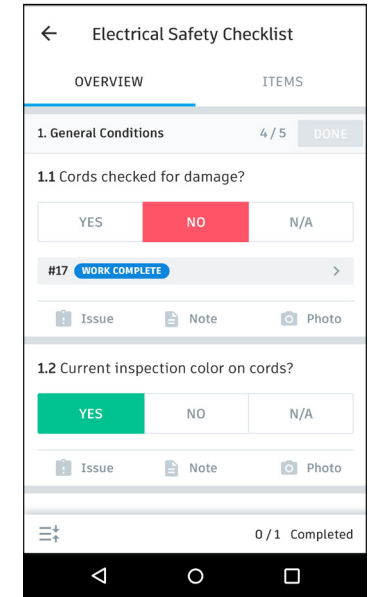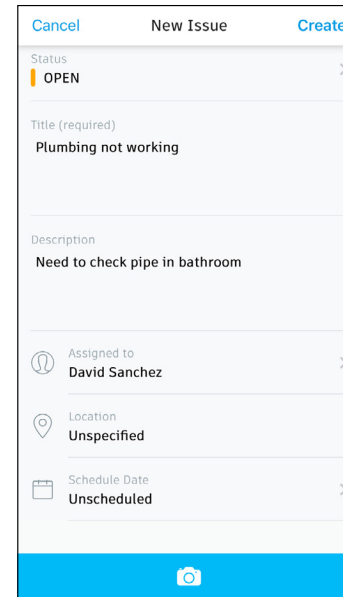
BIM 360 Mobile Capabilities

About the iOS App

About the Android App

3   Offline sync

- Teams are able to work on-site without Internet access.

- Teams can also download individual documents and add markups and comments when working offline. Once back online, all changes will be synced back to the cloud.

Integration Partners

Get the most out of construction technology by integrating the software you already use with BIM 360. Built on an open and secure API platform, BIM 360 enables users to easily integrate with various other construction softwares, including drone technology, estimating and bid management, as well as safety management tools.

Reality Capture	Cost Management
Estimating	Construction Management
Takeoff	Design Checking
Field Management	Layout
Bid Management	Scheduling
Accounting	Data Transfer

Learn More

3DR   SIGMA ESTIMATES   eSUB construction software

Pype   SMARTBID

EGNYTE   hsbcad   STRATUS

SITEAWARE   assemble

ManufactOn   triax   hsbshare

SMARTVID.IO   RMBX RHUMBIX

HOLO BUILDER Winning by Knowing   BECKTECH INNOVATION IN ALL DIMENSIONS   PRO ProjectReady

AUTODESK® BIM 360®

autodesk.com/bim-360