

# Project Collaboration Guide

Improving Communication Workflows for AECO Success

# From Chaos to Clarity.

Connect your people to the information they need to deliver excellent projects.



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### Preface

Collaboration is more than a buzzword in the construction industry: no project is completed alone, and AECO firms recognize that successful project delivery is heavily impacted by stakeholders' ability to work together. However, some may argue that collaboration is getting in the way of our ability to get things done.

The Work Innovation Lab report "An Executive's Guide to High-value Collaboration" found that "29% of leaders say the expectations placed on their workers to collaborate—whether in meetings or with countless collaborative apps—prevent employees from getting their work done."

So, if collaboration is necessary, but also driving a wedge between project teams and consequently increasing project costs, then maybe it's time to rethink how we collaborate. And in Newforma's experience, it's not necessarily the lack of collaboration that is the issue, but the lack of focus and meaningful communication that results in wasted time, extra costs and frustration.

For construction projects, it is common for collaboration to take the form of a meeting. And there are lots of them. Today, they often occur through Zoom or TEAMS calls where it's easy to be distracted with other things, like checking emails. And when everyone has more to do in a day than hours available, it's understandable that they may not dedicate 100% of their attention to the issues at hand. Meetings also tend to include all stakeholders, regardless of what's on the agenda: the MEP engineer may have to wait through thirty minutes of discussion on structural issues before their issues with the pipes are addressed. To try and improve collaboration, stakeholder teams will hold multiple meetings to try and get everyone on the same page, but that

comes at cost. Most attendees are on billable hours, meaning that their participation may not be the most cost-effective way to share information.

# So how does one improve communication and coordination without sacrificing money and project quality?

Rethinking collaboration, and reducing the many costs associated with suboptimal stakeholder communication, is about examining how people are working together to share, communicate, and make decisions throughout the project lifecycle. Although collaboration between stakeholders is critical to project success, understanding where collaboration bottlenecks are occurring can help teams focus on the root cause of the problem. This will enable teams to prioritize and focus their communications to make better use of time and resources; thereby reducing project costs and limiting the possibility of human error.

As we rethink our collaboration strategy, reconsidering the systems we are using for communication is an essential step in ensuring optimal communication streams in project workflows. We have evolved from hardcopy correspondence to email, but we are a bit stuck in the email rut. Thankfully, we've found ways to "speed up" response time with real-time communication within key project workflows using shared project data thanks to the cloud.

This guidebook examines the biggest challenges in optimizing project workflows by highlighting exactly where communication bottlenecks tend to occur within key points in the project lifecycle with the end game of greatly improving project delivery and increasing profitability using project information management (PIM).



# Challenges in Project Performance: Collaboration & Coordination

Collaboration challenges in construction projects can arise from various factors including the project's complexity, involvement of multiple stakeholders, differing expectations, interests, and priorities.

The stumbling blocks to collaboration are often due to lack of communication and difficulties in sharing information. Common challenges include determining what information needs to be shared, with whom, when, and how. However, communication barriers are often related to risk mitigation, as firms have been reluctant to share too much information out of fear of liability and litigation. Yet duplication of effort, delays in receiving information, and unclear communication lead to confusion or misinterpretation and may pose more risk for the project; leaving you open to even more costs.

The Covid-19 pandemic forced most firms to figure out how to collaborate remotely inside the firm, but multi-firm collaboration remains a challenge. These complex construction workflows are hampered by manual tasks related to document control and inefficiencies introduced through exchanges of information via email and disparate software applications.

Newforma's study "Finding Common Ground: The Future of Project Information Management," found that collaboration issues manifest in several different ways. Human error was cited by many survey respondents as the biggest challenge to effective collaboration. Inconsistent or manual workflow processes, overburdened staff, etc. was consistently listed as one of the greatest challenges across architects, engineers, and contractors. Project information left unsynchronized across systems was also cited by more than a quarter of respondents.



We examined the project workflows that require the most coordination and communication across multi-company teams. We then looked at how these workflows could be optimized to simplify the flow of project information, improve coordination efforts, and increase the transparency for all project stakeholders.

There will always be the need for meetings, but there is an opportunity to collaborate in a more efficient and far more cost-effective way to reduce human error.

# Design Development and Construction Document Review Workflows

There are multiple collaboration and coordination points throughout the design development (DD) and construction documents (CD) review processes. These workflows have a major impact further downstream in the construction lifecycle. Issues found during the construction phase usually result in RFIs, rework, and change orders that have a significant impact on the project schedule and budget.

The number of stakeholders involved in the DD review is dependent on the project delivery method chosen (design-bid-build, design-build, CMAR, etc.), and the phase of the project. For example, with design-build projects, the construction team is involved in the review, which increases the number of participants. Design-build projects also generate more feedback up front in the project. Because of a compressed project schedule with design-build, design issues typically require faster turnaround and resolution.

The various methods for communication and collaboration for design and construction document reviews can introduce several communication bottlenecks.

#### Establishing Constructability: Communication Bottlenecks During Design Review (DD & CD)

Design reviews are complicated. The architect is typically the "hub" of communication and is responsible for coordinating reviews, gathering feedback, gaining consensus, and updating the design documents. Workflows include regularly scheduled meetings, where key stakeholders, including architects, clients, consultants, and relevant team members, gather (usually virtually) to discuss the project's design progress. There is also communication through text messages, phone calls, emails, markup sessions, and various modeling and clash detection software applications.

Because various communication channels are used to collect and manage feedback during the review process, it is possible for some communications to be missed or overlooked. For example, an engineer may use a markup tool to indicate a required design change, however, if the engineer does not send an email out indicating that a change is in the markup tool, others will be unaware that the change is waiting for review.

In addition, current project communication channels often lack transparency where it's unclear who is responsible for what, resulting in status on issues not communicated until the next meeting. Lack of transparency not only introduces delays in the review process, but also can lead to duplication of effort which can further erode trust across project stakeholders.



#### Exchanging Model and Design Documents Between Multicompany Stakeholders.

Improper document control is one of the biggest impediments to optimal collaboration during design development and construction document reviews. Deciding which documents are shared, how they are shared, and how comments and changes to the design are managed and coordinated across stakeholders are the foundation of any successful project

The advancement of Building Information Modeling (BIM) has increased the number of digital assets. However, sharing of these assets, including BIM files, is still contentious. AIA has recognized this and as stated in the 2022 AIA Digital Practice Documents Guide, edits to BIM documents are intended to address concerns related to risk by attempting to get parties to agree on setting expectations on how model data is shared and used early in the project lifecycle. The AIA, through exhibit 201-2022, also enables project participants to "enumerate model versions as Contract Documents".

However, it is still frequent practice for architects to share 2D drawings per their contractual requirements. If files are shared, they may be in several different formats (DWG, RVT, PDF, etc.), transferred via several different channels including email and FTP. For this reason, open file formats such as Industry Foundation Classes (IFC) are preferred for model.

It is common for the contractor team to "re-create" the model for clash detection purposes in their own modeling software, using the documents that were supplied if they are planning to use BIM during the construction phase. Contractors working from static 2D drawings also run the risk of working from outdated information; making the need for proper project management software crucial in this modern setting.

Popular software tools for model collaboration enable synchronization of models between systems, however, given limitations regarding software licensing costs and ease of use, these types of software platforms are not widely used.



In Newforma's study, "Finding Common Ground: The Future of Project Information Management", the primary way design-related documents are sent to contractors is through file transfer software. It further exposes why firms have been turning to project information management software to help them track and share all the file transfers between parties.

#### Security Issues Related to Sharing Information

Architects often use digital file sharing methods to provide design development and construction documents with stakeholders, particularly with large document sets. This can include uploading the documents to a file-sharing platform or using cloud storage services such as Dropbox, Google Drive, or Microsoft OneDrive. The architect can then share access to the specific folders or files, allowing reviewers to download and access the documents digitally.

Design Development and Construction Documents often contain sensitive information, such as proprietary designs, intellectual property, or financial details. Ensuring the security and confidentiality of these documents during exchanges is critical. Unauthorized access, data breaches, or unintentional sharing of confidential information can have serious consequences for all firms involved. If the firm sending the information has no way to determine when files were downloaded by the other party, the file transfer server may be left open for indefinite periods of time. This creates a security risk and potential for potential litigation down the road.

#### Access for Non-BIM Users to Model Authoring Software

Although design authoring and review tools are heavily used, each party usually maintains their own system which requires files to be downloaded and uploaded or synchronized between systems. One of the main goals of BIM is to resolve issues with collaboration, however, not all stakeholders have expertise in BIM, are trained on the software, or have a software license.

Some software platforms offer "reviewer" access; however, it usually requires someone who is a trained architect or engineer to use. It is common for the design team to send other types of files such as PDFs where markup tools can be used to supply comments and feedback. There is risk with this form of communication as reviewers may be working from outdated PDF versions.

#### Lack of Email Filing Leading to Lost Information

Comments, action items, decisions coming in through email also need to be incorporated back into the design. This communication is not associated with the model which makes keeping track of changes more difficult. Back-and-forth exchanges through email across multiple parties certainly impact the coordination process with siloed communication exchanges that may not be visible to all parties who need the information.

Communication via email also lacks the context needed to fully understand the issue. If the comments are not associated with the model, it is harder to understand where and why the issue is occurring. A picture is worth a thousand words – or emails.

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#### Leveraging Project Information: Organized and Coordinated Design Reviews

Therein lies the importance of one central communication hub through which all of the various stakeholder groups would be able to share and access information on the go. By leveraging your project data and turning it into a valuable resource, project information platforms like Newforma Konekt are helping to eliminate the need for multiple costly meetings.

For example, if the design team and project stakeholders are able work from a central, project communication hub, it would eliminate the need to transfer files or various formats back and forth, saving teams valuable time and avoiding duplications. Project Information Management (PIM) platforms like Newforma Konekt enable all users, BIM novices and experts, to access the IFC models or 2D drawings, create and manage issues, provide comments in real-time, and centralize access to emails and other files thanks to its cloud-based capabilities.

Having all the information accessible from one central place also provides a complete picture of the project tasks, enabling teams to make better decisions. Design changes can be easily tracked in Newforma Konekt making them visible to the Design Team in their modeling tool. This level of transparency where project information is readily available, accurate, and accessible, builds trust and improves collaboration across stakeholders; thereby reducing the risk of extra project costs.

#### **The New Process:**

- The design team can share IFC or 2D drawings with stakeholders directly in Newforma Konekt. Stake holders do not need a model authoring or clash detection software license and they do not need training.
- The design / BIM Coordination / VDC team can create issues and action items in Newforma Konekt directly from model authoring or clash detection software such as Autodesk Revit and Navisworks. They can work in the software they are already using.
- All team members can create an issue or action item in Newforma Konekt that is then visible to all stakeholders.
- Comments can be entered in real-time within Newforma Konekt with automated notification to parties assigned to action items or issues.
- Status on action items and issues can be easily tracked by discipline, priority, due date, location, etc.

#### DESIGN REVIEW: Newforma Konekt



#### Workflow Improvements:



The Design Team can share model information directly from Newforma Konekt enabling all users, regardless of BIM experience and training, to access and view the model. This enables team members to have full context of issues and action items.

Model files can be updated in real-time, eliminating problems with teams working from static and outdated information.

Reviewers can create action items or issues in Newforma Konekt or any supported design / coordination platform to provide one central location where all stakeholders have visibility.



All stakeholders can enter comments directly for each action item or issue, significantly reducing the number of emails. Any email communication that is not directly related to an issue / action item can be filed to the project for visibility and searchability.

If there is one issue occurring across multiple spaces, they can be grouped, significantly reducing the number of issues or action items to manage.

There is an audit trail of all issues, changes, and comments that is now part of the project record and project archive.



Newforma Konekt Action Item and Issue Tracking associated with the 3D model

### Case Study: WSP Australia Improves Coordination through Transparency

#### The Project:

Infrastructure Development on the Sydney Metro City & Southwest Rail Expansion by WSP Australia

Sydney Metro's Rail Expansion project will extend its new metro railway into the Central Business District and through to Bankstown in the south.

#### The Challenge:

WSP had to manage complex coordination involving many layers of validation to end up with a final deliverable that was successfully integrated with designs from UGL, Sydney Metro, and Hassell. The project involved exchanging models between 8 different disciplines working in different software applications including Autodesk BIM 360, Bentley ProjectWise, and 12d Synergy.

#### The Solution:

WSP used BIM 360 and Bentley ProjectWise for model management, with models shared between teams via IFC standard format files. All team members then used Newforma Konekt (Formerly BIM Track) to manage communication and issue-tracking throughout the coordination process.

Each discipline had responsibility for their own work and ensuring it was coordinated. Newforma Konekt empowered the design team to manage their own coordination between disciplines saving time by eliminating unnecessary back-and-forth.



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All the different parties came together. It seemed like it just worked very well. There's nothing hidden under the rug - it was one of the easiest projects that I've been involved in.

- Brendan McFarlane, Data Analytics / Digital Engineering at WSP Australia

# Mitigating Risk Through Coordination: Clash Detection and Issue Tracking

A workflow that resolves clashes and issues has a significant impact on project delivery and budget. By identifying and resolving clashes and issues early in the construction process, the need for rework is greatly reduced and delays are minimized, helping to keep the project on schedule and within budget. As with the design review workflow, clash detection and issue coordination involve communication across multi-company systems.

However, once construction begins, communication and coordination become more difficult as teams head out to the job site.

In Newforma's study "Finding Common Ground: The Future of Project Information Management". When asked how model clashes are typically communicated, email was the clear winner.

There are several pitfalls with communicating and collaborating – or trying to collaborate – through email. Email requires a human to determine who should receive the email, explain the issue in a way that is understandable to the recipient, and hit the send button in a timely manner.

Email threads can also include people who are not impacted by the issue which can lead to teams skimming email considered as "clutter".



#### **Risk & Reworks: Communication Bottlenecks Leading to** Delays in Issue Resolution

In a perfect world, all clashes and issues would be resolved before construction begins. However, depending on the project delivery method, and the involvement of the contractor before construction, the contractor may identify constructability issues or may encounter issues or clashes on the jobsite.

Issues may be reported to the design team through informal communication (email, phone calls, meetings, etc.), or may result in a formal communication via a Request for Information (RFI) if the issue impacts the design intent.

During construction, regular site inspections and walkthroughs on the jobsite are conducted to identify clashes or conflicts between different building components, systems, or discipline. They must be reported and communicated back to the design team usually in the form of an RFI.



#### More meetings are required to sort through and prioritize issues and RFIs.

It's not uncommon for issues to be reviewed by the project team in a meeting. Teams must wait to discuss issues and work may be paused based on severity, priority, and impact on project schedule, cost, and quality. The contractor must then collaborate with project stakeholders, including engineers, contractors, and subcontractors, to discuss and reach a consensus on issue resolution and priorities.

Action items resulting from the meeting may be managed between impacted parties via email, phone calls, or text messages. As a result, some of this communication may not be documented as part of the project record.

If an issue is raised in between meetings, the coordination efforts to resolve the issue may be put on pause until the next meeting.

#### Saving Time & Money: Building Information Modeling and Project Information Management

Collaboration across project stakeholders can be significantly improved by replacing outdated communication methods, such as email and meetings with real-time communication. That process is made easy through project information management (PIM) platforms; giving you the power to choose your method of communication and store that information for easy document sharing.

In addition to advancements in PIM, Building Information Modeling (BIM) also plays a huge part in ensuring the health of a project design.

Through partner integrations with the likes of Navisworks, teams are now able to quickly identify clashes in design and coordinate the resolution of clashes (among other functions). Once the issues have been identified, the report will be universally available to the whole team, facilitating quick communication between stakeholders. Any stakeholder can reply, comment, or resolve the issues that have been assigned to them directly, while also being made aware of the state of the project in real-time.

No need for a large email chain, and no need for an endless number of meetings keeping teams from executing design plans.

Combining the power of Building Information Modeling (BIM) and Project Information Management (PIM) within Newforma Konekt has thus been a game-changer for many in the field, as it has redefined collaboration at crucial points in the project lifecycle.

#### **The New Process:**

- The design team can upload the Construction Documents package, including IFC model files, to Newforma Konekt making them accessible to the entire team.
- The contractor can create issues in Newforma Konekt directly from their clash detection software.
- The contractor can assign subcontractor(s) to the issue or action item.
- Subcontractors can view the model and issue in Newforma Konekt.
- All team members can view issues and comment in real-time to resolve issues.
- All team members can view issues and actions from one central location filtered by discipline, due date, priority, etc.

Emails related to the issue can be filed to the project as part of the project record.

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#### Workflow Improvements:



The contractor team has access to IFC model files for clash detection eliminating the need to re-create from 2D drawings.

Contractors can enter an issue which can be immediately reviewed and commented on.

Subcontractors and contractors can collaborate on issue resolution in real-time eliminating delays waiting for meetings.

Subcontractors can view issues in the model for added context.

The design team has visibility to issue resolution.

A complete history of the review is captured as part of the project record and archive.

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Newforma Konekt Action Item / Issue Tracking – users can view details and comment directly on the issue with email notifications for stakeholders



Newforma Konekt 3D Viewer with Action Items / Issues

### Case Study: Hensel Phelps Improves Coordination of Issues with Trade Partners and Design Team

#### The Project:

The Denver International Airport expansion project includes the three-phase Jeppesen Terminal Great Hall project aimed at enhancing security, increase capacity, improve operational efficiency, and elevate the passenger experience.

Hensel Phelps, the General Contractor for the project, coordinates across numerous trade and design partners including the lead architect firm, civil / structural, MEP, and mechanical engineering firms.

#### The Challenge:

Issues that arose during construction were addressed during weekly coordination meetings which could run one hour to three hours long to go through each issue. If anything came up in between meetings, the issues were addressed through email or if the design team was onsite, the Hensel Phelps team could discuss the issues in person. Hensel Phelps would then need to document all issues to discuss at the next meeting.

There was also a significant amount of coordination required with the trade partners. Hensel Phelps used Navisworks Saved Viewpoints to create views from clash detection into their folder structure. Folders were organized by date of the coordination meeting along with subfolders within the dated folders. The process for organizing and tracking the status of issues was slow due to the amount of manual administrative tasks to file open issues in one folder and then move the Viewpoint to another subfolder when the issue was closed. Excel spreadsheets were also used to track the status of issues.

#### The Solution:

The Hensel Phelps team implemented Newforma Konekt (formerly BIM Track), a cloud-hosted BIM coordination platform, to help manage, track, and resolve issues. Everyone on the team saw the benefits of not having to continuously go through every Navisworks Saved Viewpoint but could now filter down to the issues ready for review and filter all the issues that were ready to be closed out and to be reviewed by the VDC team.

All team members including trade partners, can now enter issues directly in Newforma Konekt enabling all disciplines to see when it was created, who created it, and comment back and forth with other trade partners involved with the issue. Hensel Phelps can notify multiple trade disciples of an issue which enables real-time collaboration to resolve issues outside of weekly meetings. Automated email notifications are sent to assigned team members when an issue has been updated.



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Newforma Konekt (formerly BIM Track) has changed the way of managing the coordination process. This tool has helped Hensel Phelps and our Trades to become faster and more efficient.

# Submittal and RFI Review Workflow

Construction administration processes pose their own set of challenges. It's a necessary phase of the project but processing submittals and RFIs is a tedious process that is time consuming for most project teams. Larger projects can generate thousands of submittals and hundreds of RFIs.

Contractual obligations for submittals and RFIs in construction projects are typically outlined in the project contract documents including the timeline for submitting submittals and RFIs, and the required lead time for review and approval. The contract may require the parties to maintain records of all RFIs, responses, and subsequent actions for documentation and dispute resolution purposes.

Although contractual requirements for construction administration help teams meet deadlines, reviews often experience delays due to breakdowns in communication channels that result in the lack of timely responses from project stakeholders.

The Newforma study revealed that email is the most common way that submittal and RFI information is exchanged between parties. As with other key workflows, email introduces an array of communication issues particularly for submittal and RFI reviews.



In addition, file transfer software is another method of exchanging information and is commonly used for exchanging large files. As a result, information related to a specific submittal or RFI may be exchanged through multiple channels causing information to become disconnected. Only a small percentage of respondents indicated that they use the same platform to exchange information between parties.

#### Time is Money: Making Sense of Disjointed Submittal and RFI Reviews

The submittal and RFI review workflows are prone to human error and delay given that the primary methods of communication are email and file transfer software.



# Manual Uploading and downloading submittal and RFI information between systems.

Submittal and RFI processing move across multi-company systems. The Newforma study participants indicated that all parties were exchanging submittals and RFIs on the same platform only 20% of the time. The contractor may initiate the submittal or RFI in their system of record such as Procore, however, the design team may be using a different system for the review process. As a result, email and file transfer software requires human intervention to upload, download, and re-enter information across systems. Human intervention is prone to human error. As a result, information can be incomplete, inaccurate, or contain errors that erodes trust between parties.

# Waiting for RFI responses delayed through email communication.

The response to an issue or RFI usually requires the architect to forward the RFI to the appropriate engineering or consulting discipline. An RFI forwarded via email communication is prone to delay in the review process. Emails get lost in inboxes, get forwarded to the wrong party, or are sent to people who are out of the office. Without reminder messages, it's easy to lose track of RFI due dates.

Many reports on the topic of RFIs cite a study published by Navigant in 2013 that indicates the median response time for RFIs as 10 days. That may have been true 10 years ago, but construction project teams are under pressure to deliver projects faster and faster. A 10-day response time for an RFI may be equivalent to a month today.

Communication lags for RFIs can result in rework, safety issues, increased cost, and schedule delays. Parties can point fingers at the "ball-in-court" when responses are overdue.

# Lack of standardization leads to incomplete or unclear submittal and RFIs.

When information is exchanged between systems, Submittals may be incomplete or contain inaccurate information, leading to revise and resubmit ping pong. This can result in project delays and increased coordination efforts to rectify the issues.

RFIs that are poorly written or lack clarity can lead to misunderstandings between the design team and the contractors. This can result in delays in obtaining the necessary information or incorrect interpretations, potentially leading to construction errors.

The lack of standardization on what information is required is often the culprit. Not all information needs to be exchanged between parties, but there is core metadata required.



#### Automating Workflows: Streamlining Communication to Reduce Human Error

Automating workflow processes reduces the chance of human error occurring and significantly reduces the review times.

There are several ways that submittal and RFI workflows can be automated. For example, emails generated from the contractor's system can be eliminated by using Application Programming Interfaces (APIs) to standardize and automate the exchange of core metadata between systems. Newforma Konekt has several "Connectors" to automate the exchange of information, making it a seamless experience for all parties involved.

Automation and the optimization of document control have been a major help to the AECO industry in general, greatly reducing communication timelines and allowing teams in the field to maintain project deadlines.

#### **The New Process:**

- The contractor team can send an email for submittals and RFIs from their system of record such as Procore or use the Newforma "Connector."
- If a submittal or RFI email is sent, the architect files the email directly from Microsoft Outlook as a submittal or RFI. The information from the email, including the attachments is autopopulated in Newforma Konekt eliminating duplicate data entry.
- The architect can then forward to the review team via Newforma Konekt. Email notifications are sent to reviewers with a link to the submittal or RFI.

Architect

- Review teams can access attachments and respond / review directly in Newforma Konekt.
- All Newforma Konekt users can see the workflow and history of each submittal or RFI.
- Submittals and RFIs can be filtered and sorted by priority, discipline, etc.

#### SUBMITTAL / RFI REVIEW: With Newforma Konekt



#### Workflow Improvements:

- Reduce manual administrative work of uploading and downloading files.
- Reduce the number of emails for review cycle.
- Transparency on workflow / ball-in-court.
  - Easily track high-priority, items coming due, and overdue items.

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Newforma Konekt Outlook Add-in

### Case Study: Michael Petrovick Architects Improves Collaboration with a Focus on Responsiveness

Michael Petrovick Architects is a small firm working on numerous large projects. As the volume of work increased, so did the number of submittals, RFIs, and emails. Contractor teams sent submittal and RFI information via email which then had to be saved as a message file and filed in a project folder along with the associated attachments. An Excel spreadsheet was also used to log incoming submittals and RFIs.

#### **The Challenge:**

New emails with the attachments were then sent out to the engineering and consulting review teams. However, there was no system to track the status once they were sent out for review and response. Although the documentation was filed to a project folder, the team did not have time to try and find it.

Michael explained that their killer pain point was chasing down responses after the contractor inquired on the status. This required sending multiple emails to reviewers to ping them for a response. As a result, Michael indicated that at least 50% of responses were overdue. This impacted the firm's ability to effectively collaborate with their contractor and review teams.

#### The Solution:

Michael Petrovick had used Newforma Project Center in previous positions and was familiar with the functionality and benefits of a Project Information Management solution. Michael joined the beta program for Newforma Konekt and began using the software on five new projects. His firm has recognized several benefits including improving collaboration across the extended project team by streamlining the review process to be more responsive.

The firm saw an immediate benefit from using the Newforma Konekt Microsoft Outlook Add-in to file incoming emails as submittals or RFIs. The Outlook Add-in auto-populates the information in the Newforma Konekt submittal or RFI form, and files all associated attachments. Michael estimates that his team is saving at least 8 to 9 minutes per transaction. The team also saved time by forwarding the submittal or RFI to the review team directly from Newforma Konekt without requiring another email to be generated. As a result, Michael's team can initiate the review process much faster.

Chasing down submittal and RFI review responses was also impacting the team's ability to effectively collaborate. An email notification is sent to reviewers when the submittal or RFI is forwarded to them for review. Newforma Konekt sends reminder notices to reviewers to keep them on track!

All submittals and RFIs are now logged in Newforma Konekt and can be tracked through the Submittals and RFI module dashboards. Submittals can be filtered by due date, status, discipline, and more. There is also a filter for overdue which as displayed in red on the dashboard. RFI's can also be filtered on the same fields with the addition of cost impact, RFI type, and urgency. The firm can now see the detailed workflow of each submittal or RFI to see where the item is in the review process.



Newforma Konekt is very intuitive. You only need to know the workflow and within two minutes you are up and running.

- Michael Petrovick, Principal, Michael Petrovick Architects

# Ensuring Proper Project Delivery: How to Optimize Project Communication and Collaboration

Now that we've gone over the major challenges project teams face on a regular basis, here are a few ways that teams can take to streamline collaboration and optimize coordination:

#### **Create a Collaboration and Communication Hub**

Today's technology enables teams to "connect" software environments without requiring everyone to be on the same platform. A communication and collaboration hub are layers over existing applications that enable the free flow of information via standard file formats and Application Programming Interfaces (APIs). This enables the team to work in their software of choice but maintain a central way to manage communication and action items.

The International Organization for Standardization (ISO) published ISO 19650 in 2018 as the standard for organizing information on construction projects. ISO 19650 ISO 19650 is often associated with a Common Data Environment (CDE). A CDE, as defined by BIM Wiki, "is the single source of information used to collect, manage and disseminate documentation, the graphical model and non-graphical data for the whole project team." This definition also states that the CDE may contain several different information environments.

Newforma developed the Project Information Management (PIM) category of software precisely to enable multi-company teams to communicate and share information.



Newforma Konekt enables multi-company teams to communicate and share information by bringing together project communication, action items, workflow processes, and project information all in one place. Team members can comment on tasks directly without waiting for the next meeting.

#### Real-time Communication: Instant Information Sharing Changing Pace of Project Lifecycle

Email will not go away anytime soon. However, key workflows require real-time response. Providing team members with information and visibility into the project enables teams to better coordinate work outside of the meeting.

Newforma Konekt's Action Items / Issues provides teams with an "instant messaging" capability to communicate and coordinate their work. Team members can create action items and issues directly from Newforma Konekt, model authoring, or clash detection software.

All team members can access the Action Item / Issue dashboard to view priority items, item status, filter by discipline, and group related items to make it easier to manage. Teams can easily manage follow-ups which reduces misunderstandings and errors and ensures that everyone is working towards the same goals. Real-time notifications keep teams on budget and on schedule without requiring a meeting.



#### **Connectors & Add-Ins: Automating Project** Workflow Processes

Newforma Konekt lets you streamline several key workflows through integrations, "Add-ins" or "Connectors". Individuals can work in their preferred software but communicate and exchange information through Newforma Konekt. Collaboration is improved with the sharing of information across platforms.

#### Ensuring a Complete Project Record: Integrating Email As Project Information

Email communication is a key component of project information which is often disconnected from other project data. Collaboration efforts are hindered with delays and miscommunications which are inherent with email.

Eliminate communication bottlenecks that often occur through missed, misfiled, or lost emails. When email is siloed in an individual's inbox, critical information may not reach the intended party. Newforma Konekt Project Email provides an easy and intelligent way for your team to centralize project emails, so that all team members have access to these communications. If a person is away, your team doesn't miss a beat! You can also stop digging through hundreds of emails to find what you need; Newforma Konekt Aggregate Search will find it for you.

# Project Information Management: Unifying People, Processes, and Information

Openly sharing information promotes effective communication and collaboration among project participants. When everyone has access to the same information, misunderstandings and conflicts can be minimized.

A comprehensive strategy for managing project information is about unifying people, process, and technology. The strategy includes defining what information needs to be shared, with whom, when, and how. It involves the development of standard processes and protocols across project stakeholders. The strategy also helps to set expectations across project stakeholders on how information exchanged will be used.

To maintain this strategy throughout the length of the project, teams require comprehensive software to collaborate and communicate across all multi-company stakeholders.

In rethinking how we collaborate with various teams across multiple communication channels, top-of-the-line technology has quickly become the most pivotal component. Having the best tools for your project is the foundation to a successful and efficiency project lifecycle, from design to handover.

In leveraging PIM platforms like Newforma Konekt, we can easily build transparent communication channels that enable stakeholders to coordinate their efforts, share insights, and make informed decisions collectively, leading to improved project outcomes. By eliminating communication bottlenecks, siloed data and manual document administration tasks, firms are now empowered to execute faster and more efficiently, giving them more control on project quality and budget.

As we look to re-think the process of collaboration in the AECO industry, the value of project information has quickly become essential. Such platforms like Newforma Konekt have only begun to scratch the surface of their potential and are redefining the industry in a big way.

In a world where information is currency, you can bank on Newforma Konekt to help be the figurehead of any successful project strategy moving forward.

To learn more about Newforma Konekt or to schedule a demo please visit: https://www.newforma.com/our-solutions/newforma-konekt/  $\overline{>}^{(1)}$ 

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