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# CITA BIM Gathering

Automating CWMF Workflows in Autodesk CDE: NTI's  
Approach to Digital Project Delivery

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# CWMF – Capital Works Management Framework

The CWMF is the Irish Government’s standard framework for delivering and managing public capital projects (construction and engineering works).



The CWMF defines:

How public construction projects are planned, procured, and delivered

Standard contracts and procedures everyone must follow (Client, Consultant, Contractor)

Templates and workflows for approvals, reporting, and documentation

Control points (Stage Gates) where formal sign-off is required before moving forward

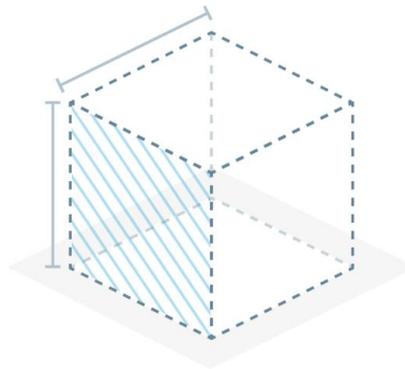
## Benefits of Automating CWMF in a CDE

- **Governance:** digital sign-off at every stage gate (CWMF compliant)
- **Audit trail:** full traceability for approvals and changes
- **Reporting:** live dashboards for the client
- **Efficiency:** fewer email chains and Excel trackers
- **Consistency:** every project follows the same CWMF structure

# CDE / Autodesk Construction Cloud



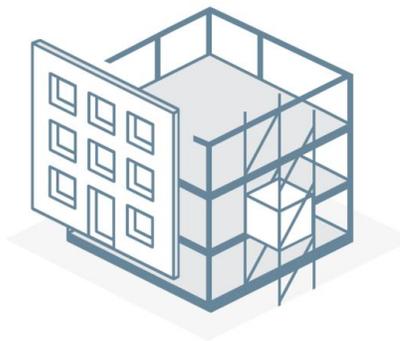
## AUTODESK CONSTRUCTION CLOUD™



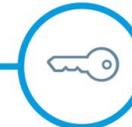
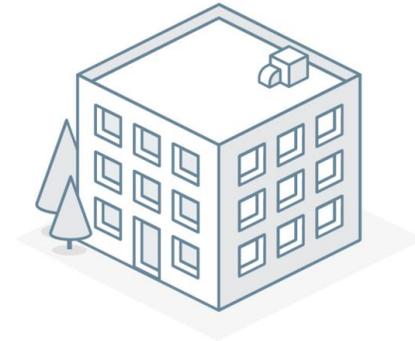
DESIGN



PLAN



BUILD



OPERATE

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# Ciaran Mc Loughlin

## Technical Consultant

- Over a decade of experience in the Construction industry
- Cloud system configuration and implementation
- AEC design software
- BIM and VDC expert
- Management & Training of CDE's



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## Enforcing a simplified folder structure WIP/Shared/Published per stage

- Folder structure from a Design Team view
- Folder structure from a Client view
- Folder permissions are enabled for controlled access

# Folder structure from a Client view

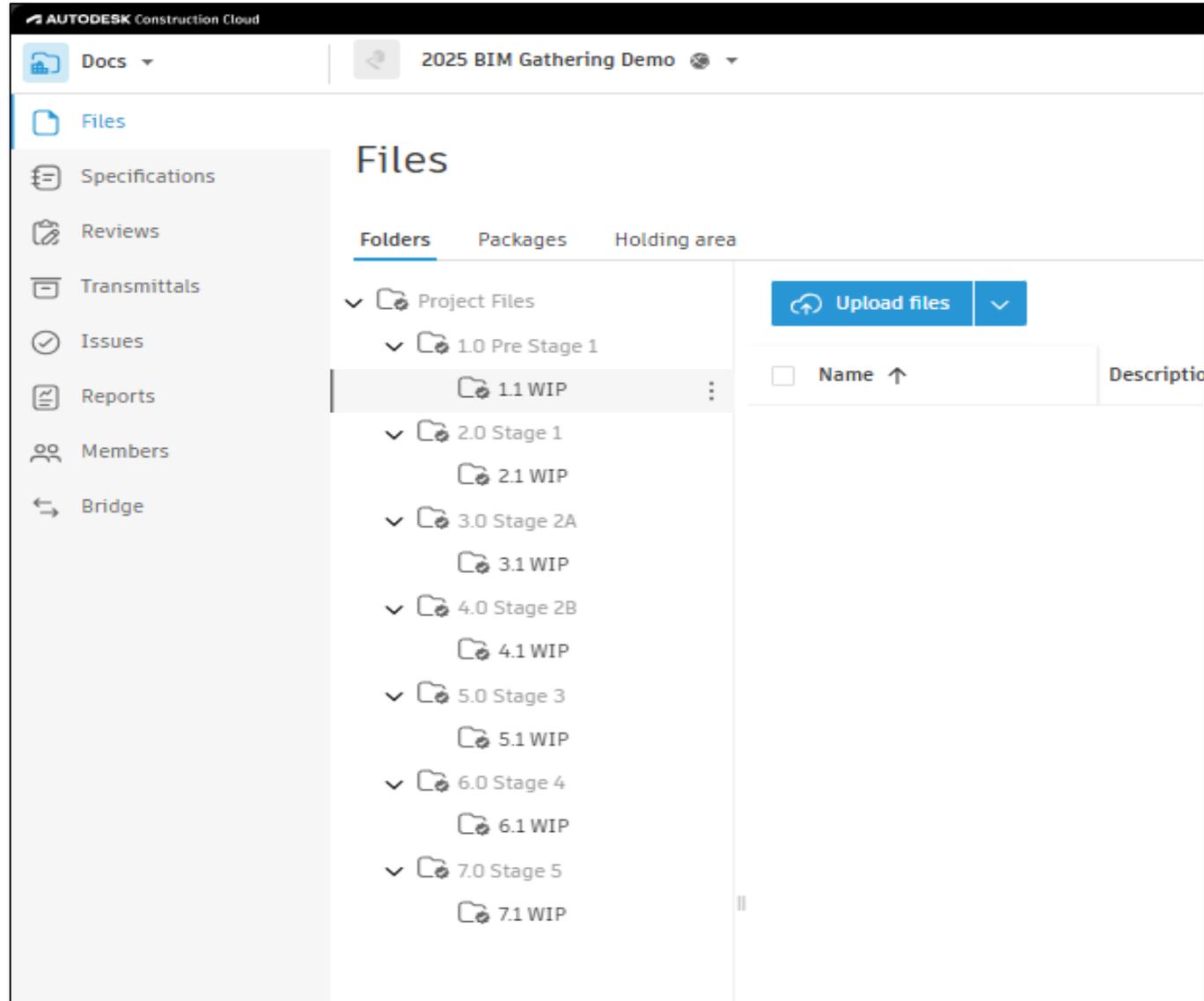
The screenshot displays the Autodesk Construction Cloud interface. The top navigation bar shows 'AUTODESK Construction Cloud' and the project name '2025 BIM Gathering Demo'. The left sidebar contains navigation options: Docs, Files, Specifications, Reviews, Transmittals, Issues, Reports, Members, Bridge, and Settings. The main content area is titled 'Files' and has tabs for 'Folders', 'Packages', and 'Holding area'. The 'Folders' tab is active, showing a tree view of the folder structure under 'Project Files':

- Project Files
  - 1.0 Pre Stage 1
    - 1.1 WIP
    - 1.2 Shared
    - 1.3 Published
  - 2.0 Stage 1
    - 2.1 WIP
    - 2.2 Shared
    - 2.3 Published
  - 3.0 Stage 2A
    - 3.1 WIP
    - 3.2 Shared
    - 3.3 Published

Below the folder tree, there is an 'Upload files' button and a table listing the folders and their descriptions:

<input type="checkbox"/>	Name	Description
<input type="checkbox"/>	1.0 Pre Stage 1	Pre Stage 1
<input type="checkbox"/>	2.0 Stage 1	Preliminary Design
<input type="checkbox"/>	3.0 Stage 2A	Developed Design
<input type="checkbox"/>	4.0 Stage 2B	Detailed Design
<input type="checkbox"/>	5.0 Stage 3	Tender
<input type="checkbox"/>	6.0 Stage 4	Construction
<input type="checkbox"/>	7.0 Stage 5	Handover, DLP & Final Account

# Folder structure from an External Design Team view



# Folder Permissions controlled access

The screenshot displays a software interface with a left-hand navigation pane and a main content area. The navigation pane shows a tree structure of folders under 'Files', with '1.1 WIP' selected. The main content area shows the 'Permissions' settings for the selected folder, including a list of users and roles with their respective permissions.

**Files**

- Folders
- Packages
- Holding area
- Project Files
  - 1.0 Pre Stage 1
    - 1.1 WIP**
    - 1.2 Shared
    - 1.3 Published
  - 2.0 Stage 1
  - 3.0 Stage 2A
  - 4.0 Stage 2B
  - 5.0 Stage 3
  - 6.0 Stage 4
  - 7.0 Stage 5

**Permissions - 1.1 WIP**

1 2 0

+ Add Export Search for name or email

Name	Permissions	Type	
CM Ciaran McLoughlin	Manage	User	Project Ad...
Client	Edit	Role	Inherit... ⓘ
External	Edit	Role	Remove

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# Stage submission Review and approval process on documents submitted



# Workflow Video

**Files**

Folders Packages Holding area

Project Files

- 1.0 Pre Stage 1
- 2.0 Stage 1
- 2.1 WIP
- 2.2 Shared
- 2.3 Published
- 3.0 Stage 2A
- 4.0 Stage 2B
- 5.0 Stage 3
- 6.0 Stage 4
- 7.0 Stage 5

Name	Description	Project Code	Sub-Project or Phase	Element or System	Spatial Zone	Level	Information Type	Originator	Discipline or Project	Number	Revision	Version
No files to view. Drag files here or upload files.												

Upload

[Learn more about files.](#)

# Reviews Dashboard

Project Name  
All

Project Type  
All

Business Unit  
All



Last Updated: **30/10/2025 ...**

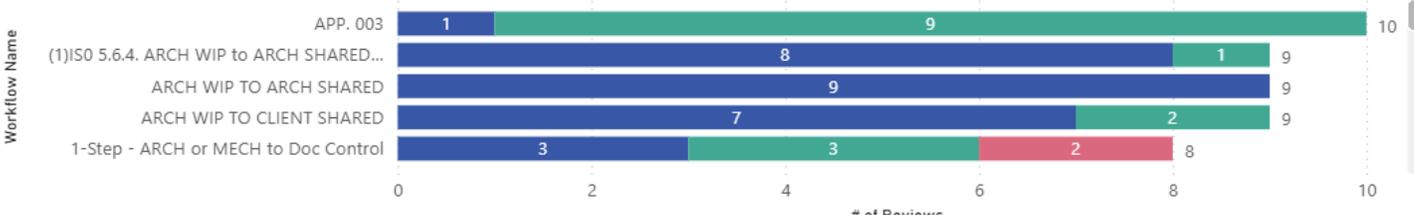
480.81  
Average of Days overdue

19.73  
Average of Days to Close

2.86  
Average of Documents per Review

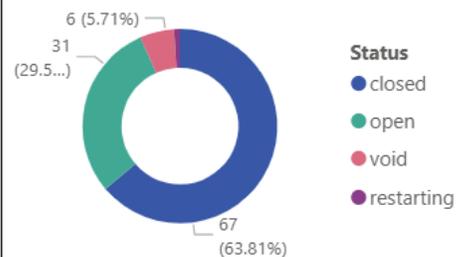
### Reviews by Workflow Name and Status

**Status** ● closed ● open ● restarting ● void



Workflow Name	closed	open	restarting	void
APP. 003	1	9	0	0
(1)ISO 5.6.4. ARCH WIP to ARCH SHARED...	8	1	0	0
ARCH WIP TO ARCH SHARED	9	0	0	0
ARCH WIP TO CLIENT SHARED	7	2	0	0
1-Step - ARCH or MECH to Doc Control	3	3	0	2

### Reviews Open V Closed

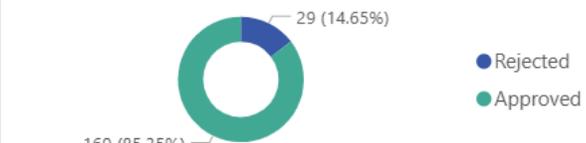


Status	Count	Percentage
closed	67	63.81%
open	31	29.5...
void	6	5.71%
restarting	0	0%

Workflow Name	Review step	Status	Created by	Created on	Updated on	Next Action By	Next Due Date	Docs	Approved	Rejected
DETAIL DESIGN PACK	Final Review	closed	Jonathan R	30/09/2024	30/09/2024	Company: CIRCET		7	7	0
SITE LAYOUT REV 1	Final Review	closed	Jonathan R	01/10/2024	01/10/2024	Company: CIRCET		3	3	0
<b>ENG WIP TO SHARED A</b>										
12-9-23	Final Review	void	Jonathan R	11/01/2024	11/01/2024			1		
adcvb567	Final Review	closed	Jonathan R	11/01/2024	23/01/2024			1	1	0
120324	Final Review	open	Jonathan R	10/01/2024	26/09/2024	Role: BIM Manager	13/01/2024	1		
A1234	Final Review	open	Jonathan TUD	10/01/2024	26/09/2024	Role: BIM Manager	13/01/2024	1		

Comments	Name	Email	Date	Status	round_num
Approve	Ciaran McLoughlin	cmcloughlin@diatec.ie	08/04/2025	submitted	1
Approved	Ciaran McLoughlin	cmcloughlin@diatec.ie	14/03/2025	submitted	1
dfbgns	Ciaran McLoughlin	cmcloughlin@diatec.ie	07/08/2025	submitted	1
dvfdbdf	Ciaran McLoughlin	cmcloughlin@diatec.ie	07/08/2025	submitted	1

### Approved V Rejected Doc



Status	Count	Percentage
Rejected	29	14.65%
Approved	169	85.35%

# Risk Register

The screenshot shows an Excel spreadsheet with the following data:

Risk Register												
Title	Date Raised	Area	Risk Description	Consequence	Probability	Impact	Risk Level	Mitigation/Control	Risk Owner	Action Owner	Open/Closed	Date For Completion
01	24/03/2025	Design	Taking too long to produce drawings manually	Delays to project programme	3	2	6	Implement BIM methodologies	Client	Design Team	Open	28/03/2025
02	24/03/2025	Construction	Injury to site staff whilst using drills. They appear to hit the backs of the drill with a hammer.	Loss of life	2	5	10	Train employees not to hit the back of drill with a hammer and use a hammer drill instead	Contractor	Contractor	Open	28/03/2025
03	24/03/2025	Planning & Environment	Newts present on construction site	Delay to construction	3	2	6	Check for newts pre-construction. If found, throw them somewhere else	Client	Contractor	Open	28/03/2025
04	26/03/2025	Tender	Tender coming in above budget	Request for more money	2	1	2	Ensure there is enough money prior to going out for tender	Client	Client	Open	04/04/2025
05	26/03/2025	Construction	Something to do with excavators	Excavator causing a risk...or something like that	5	5	25	Talk to the bloke on site who does controls the plant...	Contractor	Contractor	Open	04/04/2025

# Risk Register in CDE (ACC)

The screenshot displays the Autodesk Construction Cloud (ACC) interface for a Risk Register. The main view shows a table of risks with columns for Type, Status, Title, Start date, Area, Risk Description, Consequence, Probability, Impact, Mitigation/Control, Risk Owner, and Action Owner. A sidebar on the left contains navigation options like Files, Specifications, Reviews, Transmittals, Issues, Reports, Members, Bridge, and Settings. A right-hand panel provides a detailed view of 'Issue #2', including fields for Title, Status, Type, Start date, Area, Risk Description, Consequence, Probability, Impact, Mitigation/Control, Risk Owner, Action Owner, and Assigned to.

Type	Status	Title	Start date	Area	Risk Description	Consequence	Probability	Impact	Mitigation/Control	Risk Owner	Action Owner
Risk	Open	01	24 Mar 2025	Design	Taking too long to produce ...	Delays to project pro...	3	2	Implement BIM methodologies	Client	Design Team
Risk	Open	02	24 Mar 2025	Construction	Injury to site staff whilst u...	Loss of life	2	5	Train employees not to hit the ...	Contractor	Contractor
Risk	Open	03	24 Mar 2025	Planning & ...	Newts present on construc...	Delay to construction	3	2	Check for newts pre-construc...	Client	Contractor
Risk	Open	04	26 Mar 2025	Tender	Tender coming in above bu...	Request for more m...	2	1	Ensure there is enough money ...	Client	Client
Risk	Open	05	26 Mar 2025	Construction	Something to do with exca...	Excavator causing a ...	5	5	Talk to the bloke on site who d...	Contractor	Contractor

Showing 1 - 5 of 5

# ACC Risk Register > Data Connector > Power BI

Risk Register

Project Name	Project Reference CDECP	Area All	Open / closed All
Project Manager	Date 26/03/25		

No.	Date raised	Area	Risk description	Consequence	Probability	Impact	Risk level	Mitigation / control	Risk owner	Action owner	Open / closed	Date for completion
01	24/03/25	Design	Taking too long to produce drawings manually	Delays to project programme	3	2	6	Implement BIM methodologies	Client	Design team	Open	28/03/25
02	24/03/25	Construction	Injury to site staff whilst using drills. They appear to hit the backs of the drill with a hammer.	Loss of life	2	5	10	Train employees not to hit the back of drill with a hammer and use a hammer drill instead	Contractor	Contractor	Closed	28/03/25
03	24/03/25	Planning & Environment	Newts present on construction site	Delay to construction	3	2	6	Check for newts pre-construction. If found, throw them somewhere else	Client	Contractor	Open	28/03/25
04	26/03/25	Tender	Tender coming in above budget	Request for more money	2	1	2	Ensure there is enough money prior to going out for tender	Client	Client	Open	04/04/25
05	26/03/25	Construction	Something to do with excavators	Excavator causing a risk...or something like that	5	5	25	Talk to the bloke on site who does controls the plant...	Contractor	Contractor	Open	04/04/25

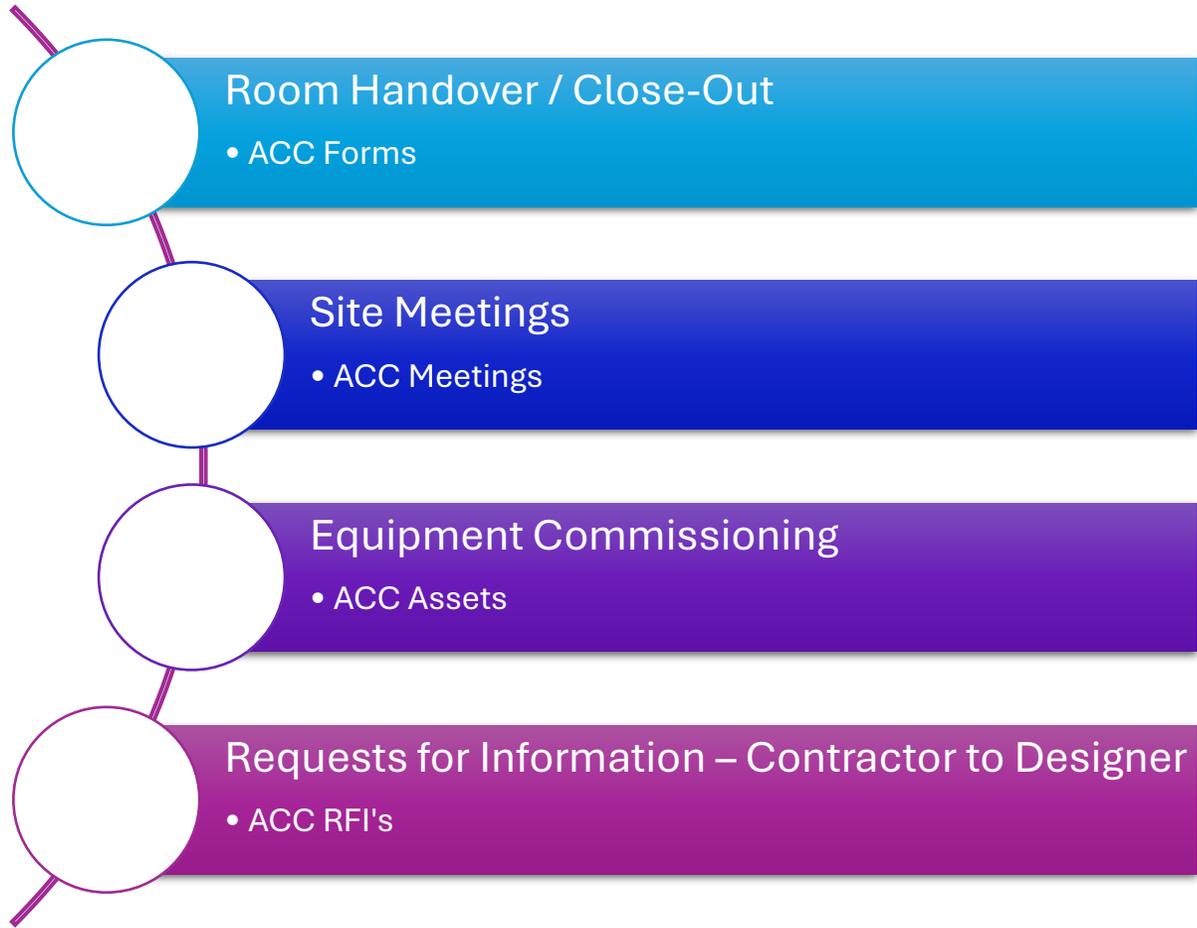
**Impact**

	1	2	3	4	5
<b>Probability</b> 1	1	2	3	4	5
2	2	4	6	8	10
3	3	6	9	12	15
4	4	8	12	16	20
5	5	10	15	20	25

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# Construction Stage



# Handover Autodesk Tandem



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# Thank You