

Common mistakes and good practices when submitting CORENET X projects

No. of Slides: 33

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Common mistakes observed:

- Administrative mistakes
- Submission packages
 - IFC structural models
 - 2D structural plan)
- Submission procedure



Common mistakes observed: Administrative



Key Personnel Name in CORENET X

All project team members **should use their Legal names** when they create personnel profiles in Submission Portal.

Case 1

Project information		Project members
List of project members		
NAME	ROLE	
ABC Lok	Professional Engineer (Civil)	
LWIN KO	Resident Technical Officer (C&S)	

Project information		Project members
List of project members		
NAME	ROLE	
Lok	Professional Engineer (Civil)	
LWIN KO	Resident Technical Officer (C&S)	

Case 2

Project information

Project members

List of project members

NAME	ROLE
	Resident Technical Officer (C&S)
	Developer (Organisation) (Main acting personnel)
	Licensed Builder (Approved Person)
	Licensed Builder (Technical Controller)
 Sherman	Licensed Specialist Builder (Technical Controller)
	Licensed Specialist Builder (Approved Person)
	Accredited Checker
	Resident Technical Officer (C&S)
	Professional Engineer (Mechanical)
	Licensed Builder (Technical Controller)

21-30 of 32 results

Project information		Project members
List of project members		
NAME	ROLE	
	Resident Technical Officer (C&S)	
	Developer (Organisation) (Main acting personnel)	
	Licensed Builder (Approved Person)	
	Licensed Builder (Technical Controller)	
Sherman Chua	Licensed Specialist Builder (Technical Controller)	
	Licensed Specialist Builder (Approved Person)	
	Accredited Checker	
	Resident Technical Officer (C&S)	
	Professional Engineer (Mechanical)	
	Licensed Builder (Technical Controller)	

21-30 of 32 results

Create my profile

Please complete the following details to proceed with project creation and submissions

Profile details

Your profile details such as name and address may be displayed in the formal response letters issued by Agencies. Select Retrieve Myinfo to update the following information with your latest Myinfo details.

[Retrieve Myinfo](#)

Login type

Singpass for Individual

Profile information

Name

LEE HUI LING

NRIC/FIN

*****014E

As per NRIC/FIN. Name will be reflected in formal response letters

Designation (optional)

Contact

Telephone no. (optional)

+65

Mobile no.

+65

97897308

Project member is encouraged to use the **Singpass my-info retrieval** to register their profile in CORENET X Submission Portal.

Encryption of CX submission package

The QP/AC assumed that since Singpass authentication was used for the declaration, encryption was not required for their submission packages in CORENET X. This oversight resulted in **missing encryption** for submission package.

Case 1

Uploaded documents

FILE TYPE	FILE NAME
Design calculations	[REDACTED].pdf ❌
Structural plan	[REDACTED].pdf ❌

Case 2

Uploaded documents

FILE TYPE	FILE NAME	FILE SIZE
Structural plan	[REDACTED].ifc ❌	6.75 MiB
Structural plan	[REDACTED].ifc ❌	11.22 MiB
Design calculations	[REDACTED].pdf ❌	207.47 KiB

Upload coordinated BIM model(s)

FILE TYPE	FILE NAME	FILE SIZE
Mechanical and Electrical model	[REDACTED].ifc.ent	967.36 MB
Civil and Structural model	[REDACTED].ifc.ent	11.17 MB
Civil and Structural model	[REDACTED]	8.81 kB
Architectural model	[REDACTED].ifc.ent	82.87 MB
Architectural model	[REDACTED].ifc.ent	83.47 MB
Civil and Structural model	[REDACTED].ifc.ent.ent ✅	312.96 MB

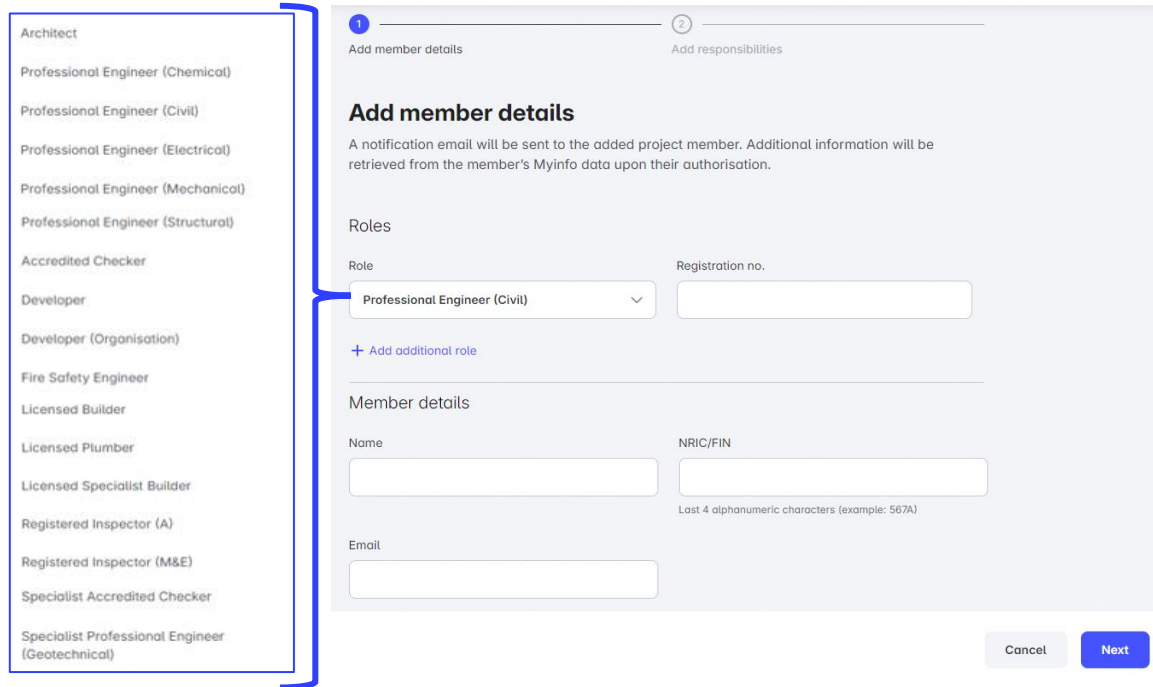
All the structural plans (including IFC model & 2D drawings) and design calculation reports **need to be encrypted** by relevant project parties before uploading to CORENET X submission portal.

- AC, QP(Geo) and AC(Geo) to encrypt the IFC models and structural plans and pass to QP for submission [if applicable]



Roles and Responsibilities of Project Parties

Clear understanding of assigned duties should be communicated between project team members and Project Coordinator (PC). This will help to ensure team members have the right access permissions to submit plan applications smoothly.



The screenshot shows a web form titled 'Add member details' with two steps: 'Add member details' and 'Add responsibilities'. On the left, a list of roles is shown, with 'Professional Engineer (Civil)' selected. The form fields include 'Role' (dropdown), 'Registration no.' (text), 'Name' (text), 'NRIC/FIN' (text), and 'Email' (text). A 'Next' button is at the bottom right.

- Architect
- Professional Engineer (Chemical)
- Professional Engineer (Civil)
- Professional Engineer (Electrical)
- Professional Engineer (Mechanical)
- Professional Engineer (Structural)
- Accredited Checker
- Developer
- Developer (Organisation)
- Fire Safety Engineer
- Licensed Builder
- Licensed Plumber
- Licensed Specialist Builder
- Registered Inspector (A)
- Registered Inspector (M&E)
- Specialist Accredited Checker
- Specialist Professional Engineer (Geotechnical)

Add member details

A notification email will be sent to the added project member. Additional information will be retrieved from the member's Myinfo data upon their authorisation.

Roles

Role: Professional Engineer (Civil) Registration no.: [text field]

+ Add additional role

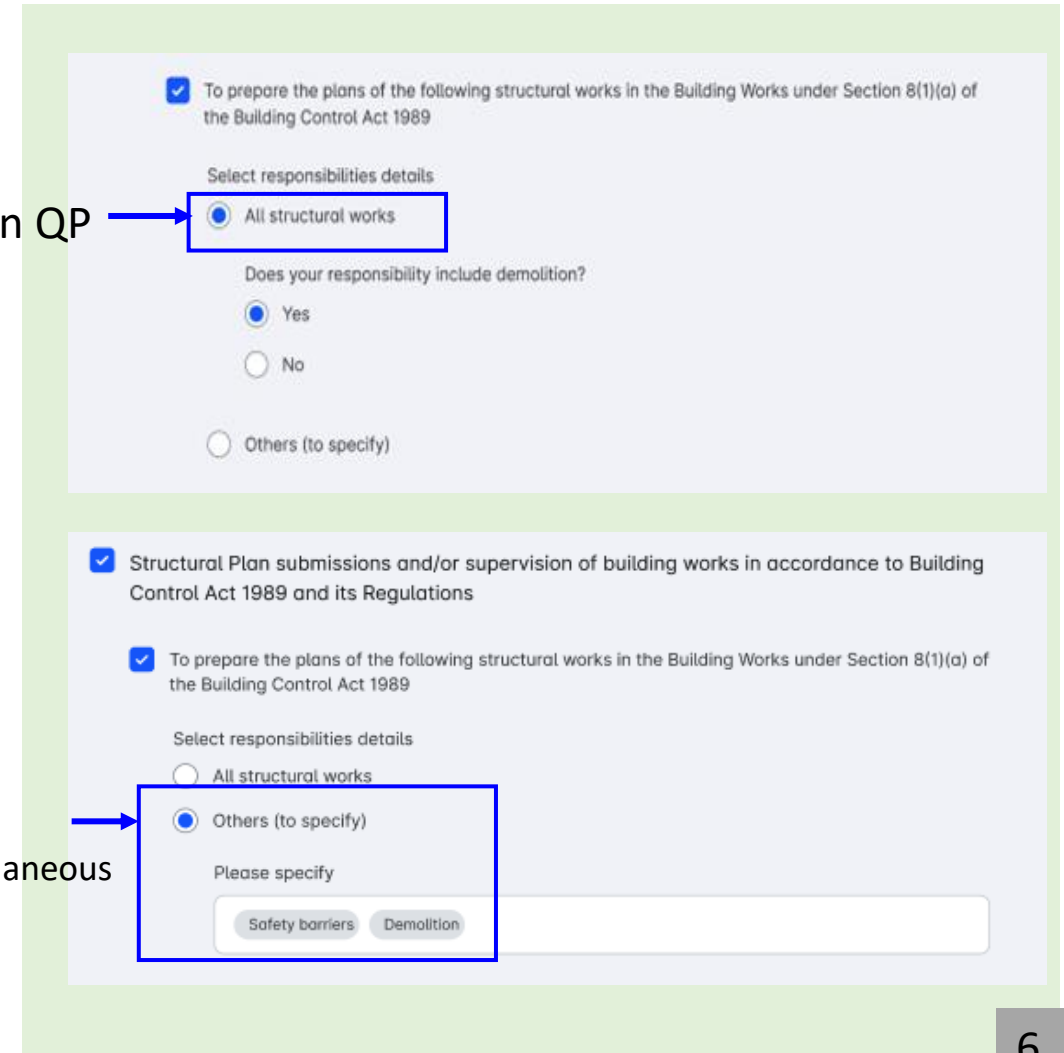
Member details

Name: [text field] NRIC/FIN: [text field]

Email: [text field]

Cancel Next

Main QP



The screenshot shows a web form titled 'Select responsibilities details' with two sections. The first section is 'All structural works' and the second is 'Others (to specify)'. The 'All structural works' section has a checkbox for 'To prepare the plans of the following structural works in the Building Works under Section 8(1)(a) of the Building Control Act 1989' and a radio button for 'All structural works'. The 'Others (to specify)' section has a checkbox for 'Structural Plan submissions and/or supervision of building works in accordance to Building Control Act 1989 and its Regulations' and a radio button for 'Others (to specify)'. The 'Others (to specify)' section also has a text field for 'Please specify' and buttons for 'Safety barriers' and 'Demolition'.

Select responsibilities details

☒ To prepare the plans of the following structural works in the Building Works under Section 8(1)(a) of the Building Control Act 1989

☒ All structural works

Does your responsibility include demolition?

☒ Yes

☐ No

☐ Others (to specify)

Select responsibilities details

☒ Structural Plan submissions and/or supervision of building works in accordance to Building Control Act 1989 and its Regulations

☒ To prepare the plans of the following structural works in the Building Works under Section 8(1)(a) of the Building Control Act 1989

☐ All structural works

☒ Others (to specify)

Please specify

Safety barriers Demolition

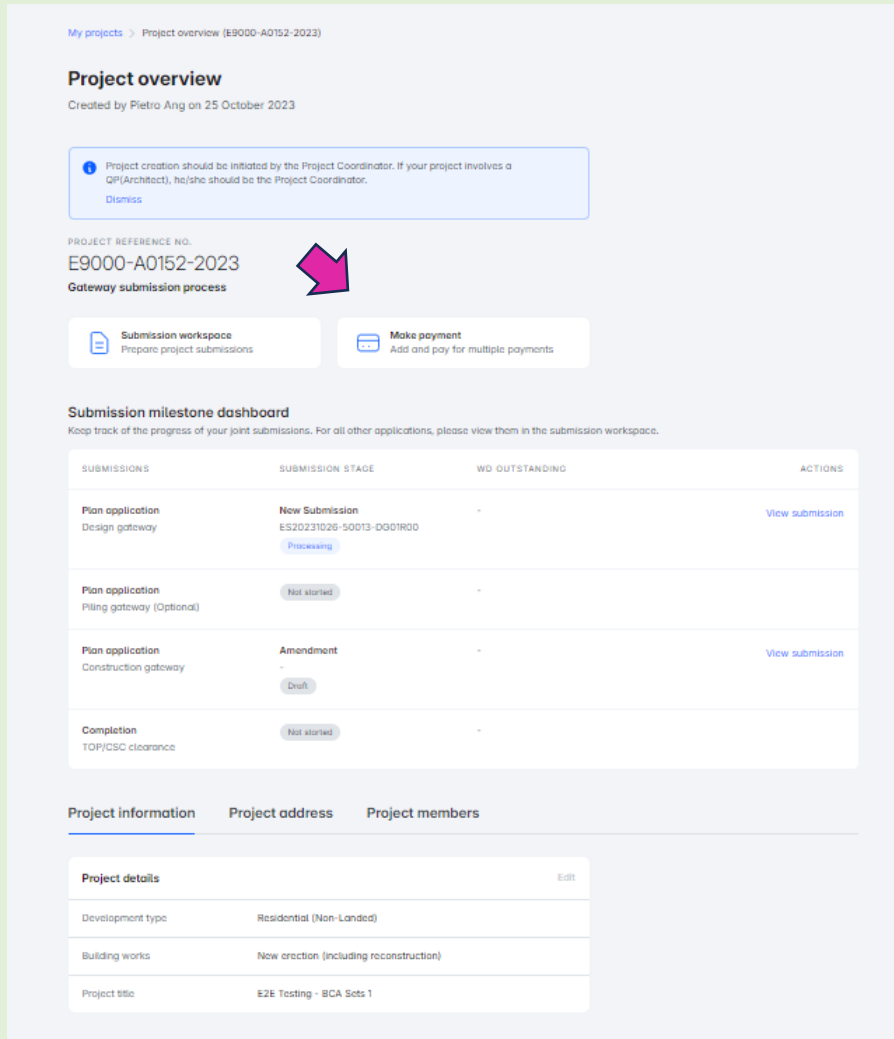
QP for miscellaneous work



Payment for CORENET X submissions

Project teams to **complete payments promptly** when reaching the payment stage. Timely payment can move forward the submission to agency for processing.

Navigate to project overview page, select “Make payment”



Project overview
Created by Pietro Ang on 25 October 2023

Project creation should be initiated by the Project Coordinator. If your project involves a QP(Architect), he/she should be the Project Coordinator.
[Dismiss](#)

PROJECT REFERENCE NO.
E9000-A0152-2023
Gateway submission process

[Submission workspace](#)
Prepare project submissions

[Make payment](#)
Add and pay for multiple payments

Submission milestone dashboard
Keep track of the progress of your joint submissions. For all other applications, please view them in the submission workspace.

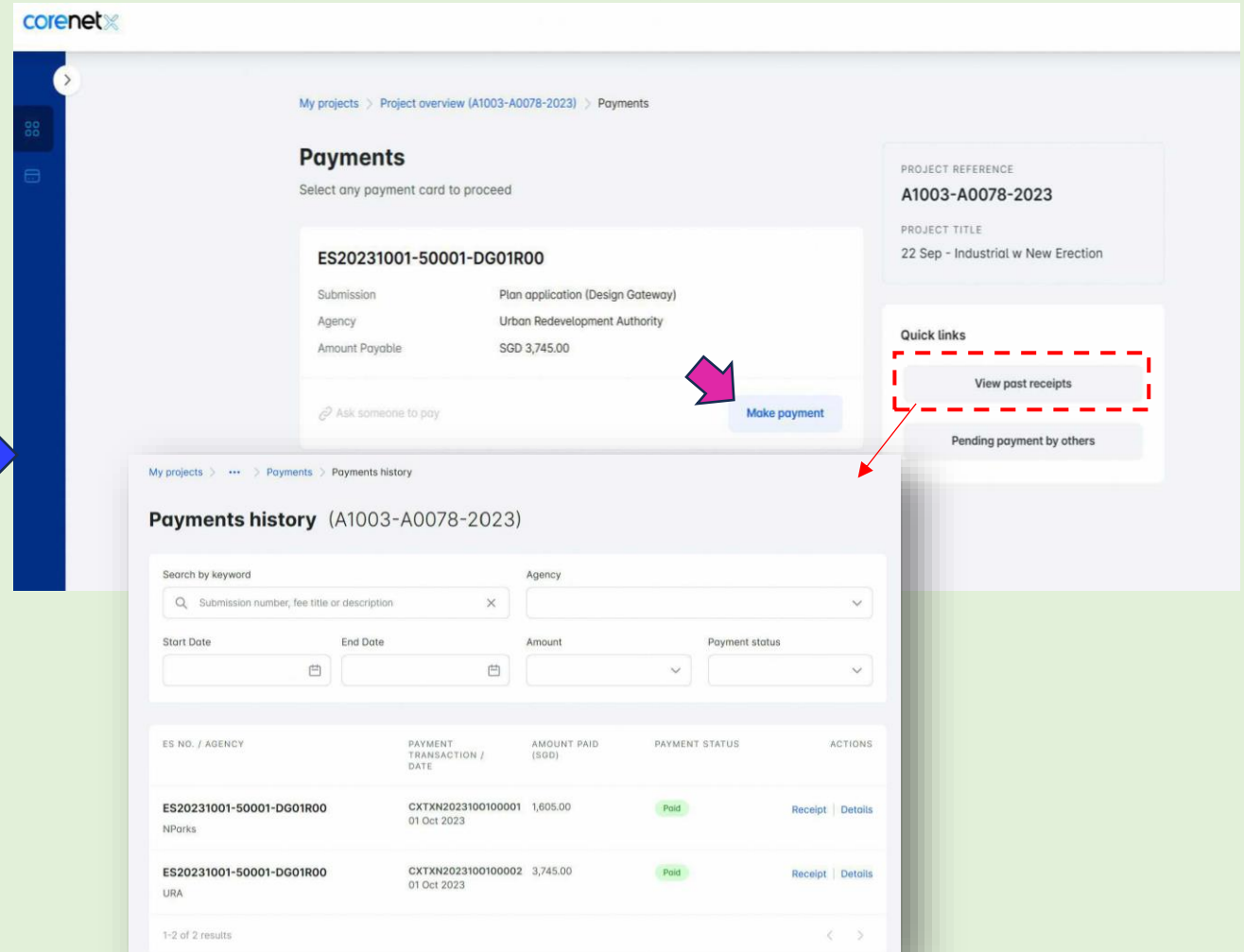
SUBMISSIONS	SUBMISSION STAGE	WD OUTSTANDING	ACTIONS
Plan application Design gateway	New Submission ES20231026-50013-DG01R00 Processing	-	View submission
Plan application Piling gateway (Optional)	Not started	-	
Plan application Construction gateway	Amendment Draft	-	View submission
Completion TOP/CSC clearance	Not started	-	

Project information | Project address | Project members

Project details [Edit](#)

Development type	Residential (Non-Landed)
Building works	New erection (including reconstruction)
Project title	B2E Testing - BCA Sets 1

Locate the desired project and select “Make payment”



Payments
Select any payment card to proceed

PROJECT REFERENCE
A1003-A0078-2023
PROJECT TITLE
22 Sep - Industrial w New Erection

ES20231001-50001-DG01R00

Submission	Plan application (Design Gateway)
Agency	Urban Redevelopment Authority
Amount Payable	SGD 3,745.00

[Ask someone to pay](#) [Make payment](#)

Quick links

- [View past receipts](#)
- [Pending payment by others](#)

Payments history (A1003-A0078-2023)

Search by keyword
Submission number, fee title or description

Agency
[Dropdown]

Start Date
[Calendar]

End Date
[Calendar]

Amount
[Dropdown]

Payment status
[Dropdown]

ES NO. / AGENCY	PAYMENT TRANSACTION / DATE	AMOUNT PAID (SGD)	PAYMENT STATUS	ACTIONS
ES20231001-50001-DG01R00 NParks	CXTXN2023100100001 01 Oct 2023	1,605.00	Paid	Receipt Details
ES20231001-50001-DG01R00 URA	CXTXN2023100100002 01 Oct 2023	3,745.00	Paid	Receipt Details

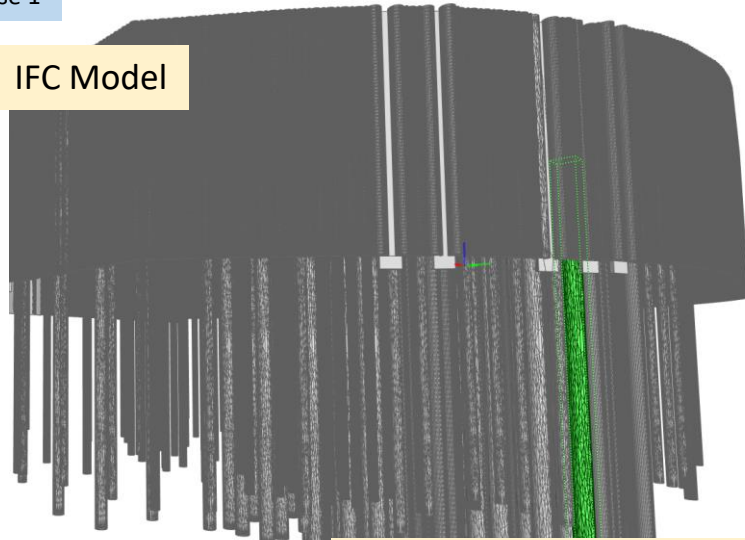
1-2 of 2 results

Common mistakes observed: Submission packages (IFC structural models & 2D structural plans)



QP did not incorporate design updates into their IFC models. This resulted in **inconsistencies between the 2D plans and the IFC structural models.**

IFC Model

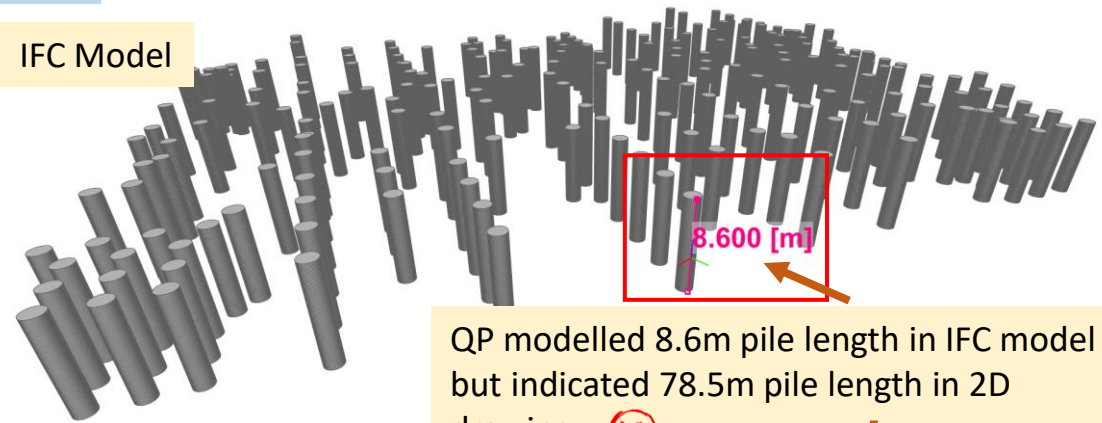


2D drawings

QP did not provide IFC parameter information in IFC model (X)

[illegible]

IFC Model



QP modelled 8.6m pile length in IFC model
but indicated 78.5m pile length in 2D
drawing ❌

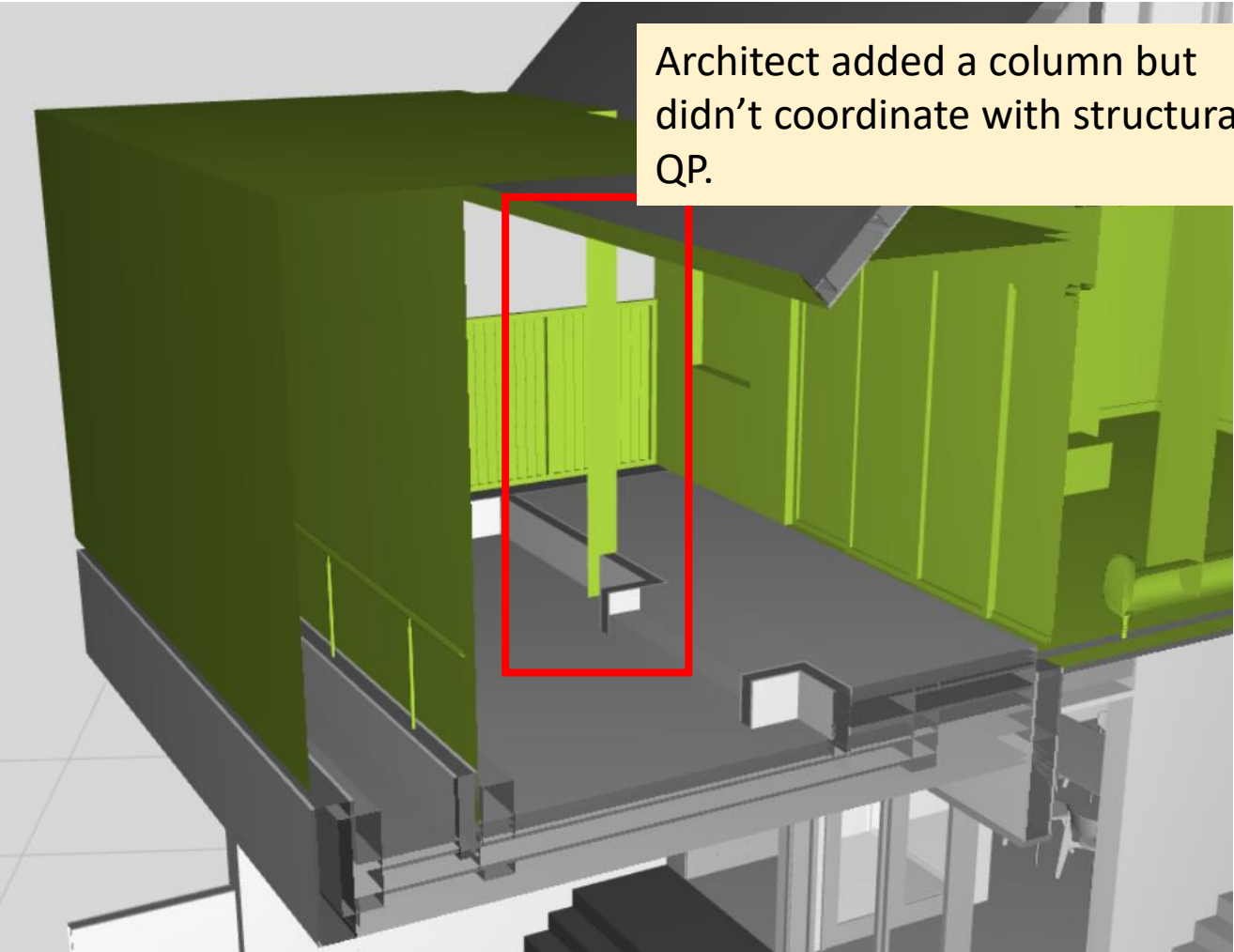
2D drawings

2D drawings			NOTE : FOR PURPOSE OF ESTABLISHING PILE LENGTH PLATFORM LEVEL IS TAKEN AS RL 105.00							
REFERENCE BOREHOLE	NOMINAL PILE DIAMETER (mm)	PILE REFERENCE	PILE SYMBOL	PILE CONCRETE DESIGN RESISTANCE-COMPRESSION (kN)	NSF (kN)	PILE DESIGN GEOTECHNICAL RESISTANCE-COMPRESSION (kN)		MIN. EMBEDMENT INTO SPT 100(m)	MINIMUM PILE LENGTH FROM PLATFORM LEVEL (m)	No OF PILES
						DESIGN APPROACH 1 COMBINATION-1	DESIGN APPROACH 1 COMBINATION-2 (WORKING LOAD)			
BH6	Ø1500	K*		27213	4042	14919	10956	4.7	78.5	14
	Ø1500	K#		27213	4042	16606	11861	6.7	80.5	70
	Ø1500	K		27213	4042	21245	15175	12.2	86	105
	Ø1500	K^		27213	4042	12810	9150	2.2	76	20
	Ø1500	K-		27213	4042	25463	18188	17.2	91	18
									TOTAL No OF PILES	227

Coordinated IFC model will take precedence over 2D plans and thus IFC+SG information in the BIM model is important for Approval. ✓

IFC model in coordinated submission

There were discrepancies between the architectural and structural models due to **poor coordination**. QP was not informed of the architectural amendments, resulting in outdated structural models that failed to incorporate the latest changes.



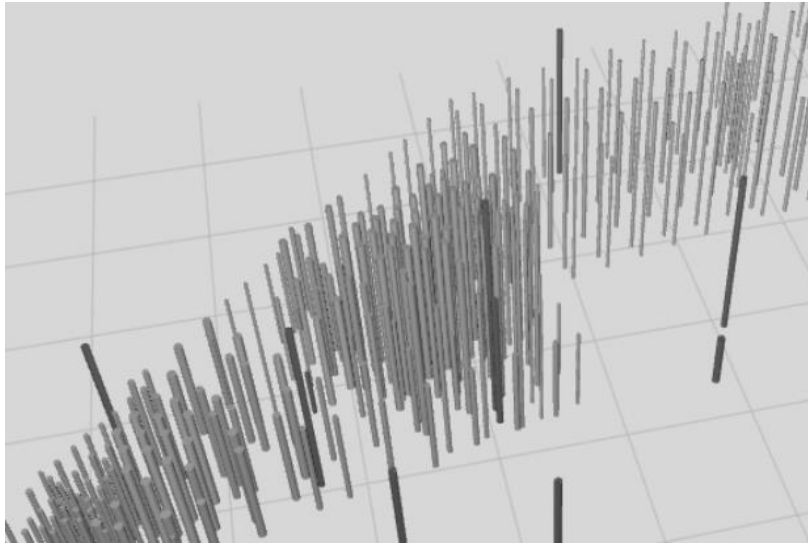
Architect added a column but didn't coordinate with structural QP.

Prior to submitting via CORENET X, the project team must coordinate with all relevant stakeholders and confirm on the scope of proposed changes and amendments.

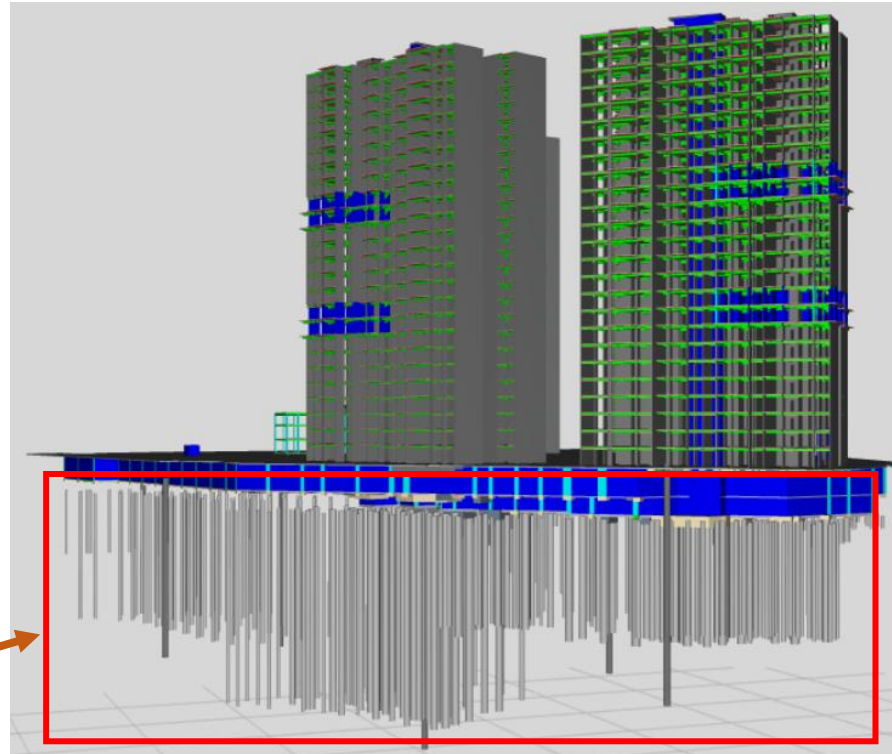
IFC model in coordinated submission

QP **incorrectly included previously approved elements** in the structural IFC model for other gateway submission.

Approved IFC structural model in PG



IFC structural model submitted in CG (for Approval)



QP should properly segregate submission content into distinct IFC models to ensure consistency between the IFC structural model and 2D structural plans.

Piling elements should be exported as separate IFC model and tagged as “for reference” since it had been approved in Piling Gateway.



IFC model in coordinated submission

The project team misinterpreted the requirements for a "carcass structural model" for Construction Gateway submission. As a result, they **did not include the structural carcass model** in their Construction Gateway submission, despite this being a mandatory requirement for projects eligible for Part Structural (ST) submission.

We had not submitted the IFC structural carcass model, since the architectural IFC model already covered the **geometric profiles** of the structural members.

The structural carcass model should include the **structural elements with minimum information**.

This model should coordinate with the architectural model and be submitted through Construction Gateway to facilitate coordination with other agencies.



Main QP



BCA



CORENET X submission packages

QP submitted multiple **separate structural plan files** instead of consolidating them into either a single file or two separate files as required by the submission guidelines.

QP submitted **files in ZIP format**, which is not acceptable as submission packages cannot generate the required checksum verification.

QP submitted individual file (e.g. IFC model, design calculation report, etc.) with **File size >1GB**, which exceeded the size limit for Submission Portal.

Uploaded documents			
FILE TYPE	FILE NAME	FILE SIZE	
Structural plan Updated	11-SD02.pdf.ent	308.37 kB	⋮
Structural plan Updated	12-SD03.pdf.ent	287.76 kB	⋮
Structural plan Updated	Block 5 and 6 Transfer Beam.zip		⋮

Uploaded documents			
FILE TYPE	FILE NAME	FILE SIZE	
Structural plan Updated	Submission Drawings – Minor works.pdf.ent	308.37 kB	✓ ⋮
Structural plan Updated	Submission Drawings – Superstructure.pdf.ent.ent	287.76 kB	✓ ⋮

QP may consolidate the submission drawings into single or two separate files based on the types of works. Each file shall be encrypted by relevant project parties.



CORENET X submission packages

QP **did not include supplementary documentation** that is typically required for structural plan submissions. These supporting documents are part of the standard submission requirements.

	Supplementary documents (if applicable)
Structural Plan Application	➤ Cover letter ➤ Part ST proposal ➤ Completion letter for complex structure project ➤ Impact assessment report ➤ Summary for Design and Checking of Structural Elements Annex A1 ➤ Summary for Design and Checking of Structural Elements Annex A2 ➤ Design Considerations for Earth Retaining or Stablising Structures (ERSS) BEV_ERSS ➤ Accredited Checker's Checklist in Design Evaluation Report - Form BCA-BE-ACCHECKLIST (BEV/A3) https://www1.bca.gov.sg/regulatory-info/building-control/structural-plans-and-permit-approvals
Permit Application	➤ Site Supervision Plan ➤ Relevant appendices to the BCA-BE-Permit (BEV/B1) ➤ Deployment of site supervisor(s) at different phases of construction https://www1.bca.gov.sg/regulatory-info/building-control/structural-plans-and-permit-approvals
Completion of Structural Works	➤ Cover letter ➤ As-Built Pile Information excel sheet (QPCTPW_Annex A)



CORENET X submission packages

QP had **incorrectly tagged/categorized the submission package** during the plan submission process, leading to potential processing delays or routing errors in Submission Portal.

Project team should tag the submission package with appropriate document tags and submit at correct subsection.

- Use document tag **“Civil & Structural model”** for the 3D IFC-SG model for approval & **“Structural Plan”** for 2D structural plan for approval .
- Use document tag **“Structural Plan”** for both 3D IFC-SG model and 2D structural plan for approval if the structural plan is submitted thru “Structural plan & permit application” module.
- Use “Others” document tag for all **reference** documents/drawings

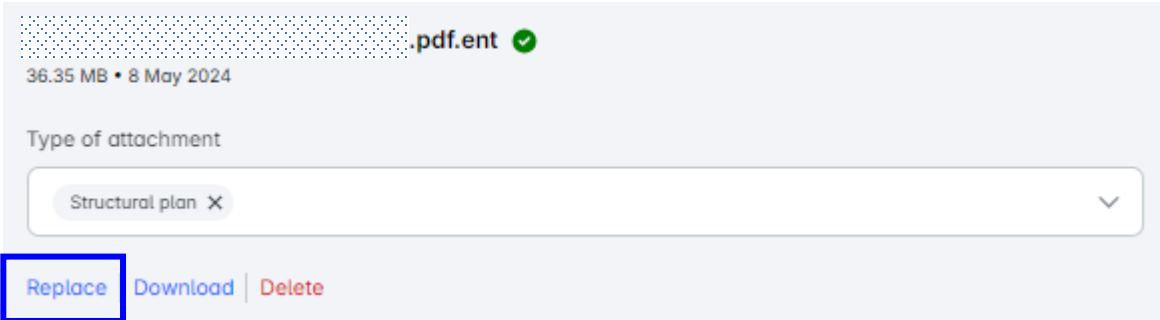
S/N	Example submission documents	Relevant subsection	Document tag
1	IFC-SG Civil & Structural model (For Approval)	Coordinated BIM	Civil & Structural model
2	2D structural plan (For Approval) [format: merged pdf / lightweight dwf]	Structural Works	Structural Plan
3	IFC-SG Civil & Structural model (For information)	Structural Works	Others
4	QP(ST) cover letter / Part ST proposal	Structural Works	Cover letter
5	QP’s design calculation report	Structural Works	Design calculation
6	AC’s design calculation report	Accredited Checker Certificate	Design calculation
7	QP(Geo)’s design calculation report	Geotechnical Building Works	Design calculation
8	AC(Geo)’s design calculation report	Specialist Accredited Checker Certificate	Design calculation



CORENET X submission packages

QP **did not replace/ remove** the submission packages that had been superseded in their resubmission/amendment submission.

Resubmission/ amendment submission



.pdf.ent ✓
36.35 MB • 8 May 2024

Type of attachment

Structural plan X

Replace Download Delete

Project team can use **“replace file” feature** to replace the submission drawings & IFC model with the same file name if there is a change of content in the resubmission.

	New submission (PG01R00)	Resubmission (PG01R01, PG01R02)	Amendment submission (PG02R00)	Record plans submission (BC01R00)
IFC structural model e.g. Model_PG-Part 1.ifc	To upload & submit	To replace the whole IFC structural model if there are changes	Approved IFC structural model will be available for QP to replace, if there are changes/amendments on the model	To upload & submit (partial completion: IFC model with related scope of as-built)
2D Structural plan (50 drawings) e.g. 2D STR plan_PG-Part 1.pdf	To upload & submit	To replace the whole set of drawings (50 drawings) if there are changes	To upload & submit the affected structural plan (e.g. 10 drawings)	To upload & submit (partial completion: e.g. 20 drawings for related scope of as-built)
Cover letter	To upload & submit	To replace	To upload & submit	To upload & submit
Design calculation report	To upload & submit	To replace the whole documents if there are design changes Or To upload supplementary design calculation report	To upload & submit the design calculation of the affected structural works	To upload & submit (if applicable)



Standard plan certification for 2D structural plans

QP followed the outdated CORENET 2.0 format by **including the ST number** in the standard plan certification, rather than adopting the new requirements under CORENET X.

STANDARD CERTIFICATION ON STRUCTURAL PLANS AND DESIGN CALCULATIONS BY THE QUALIFIED PERSON FOR STRUCTURAL WORKS

1. I, _____, the Qualified Person for building works appointed in accordance with Section 8(1)(a) or 11(1)(d)(i) of the Building Control Act 1989, hereby submit the structural plans and/or geotechnical building plans and/or civil defence shelter plans, and design calculations prepared by me and certify that these have been prepared & designed in accordance with the provisions of the Building Control Act, the Building Control Regulations, and any other applicable law and requirements (including but not limited to the Technical Requirements for Household Shelters or the Technical Requirements for Storey Shelters) for the time being in force.
2. I further certify that these structural plans/geotechnical building plans/civil defence shelter plans, and design calculations are in reference to **Project Reference No : _____-ST101**
3. Total no. of IFC structural models submitted = -
4. Total no. of 2D structural plans submitted = 4

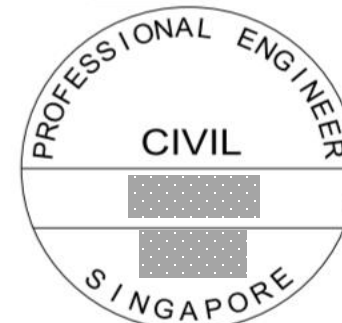


(Qualified Person Signature and Stamp)

Date: Jun-2025

STANDARD CERTIFICATION ON STRUCTURAL PLANS AND DESIGN CALCULATIONS BY THE QUALIFIED PERSON FOR STRUCTURAL WORKS

1. I, _____, the Qualified Person for building works appointed in accordance with Section 8(1)(a) or 11(1)(d)(i) of the Building Control Act 1989, hereby submit the structural plans and/or geotechnical building plans and/or civil defence shelter plans, and design calculations prepared by me and certify that these have been prepared & designed in accordance with the provisions of the Building Control Act, the Building Control Regulations, and any other applicable law and requirements (including but not limited to the Technical Requirements for Household Shelters or the Technical Requirements for Storey Shelters) for the time being in force.
2. I further certify that these structural plans/geotechnical building plans/civil defence shelter plans, and design calculations are in reference to **Project Reference No : _____ - PG Part 1**
3. Total no. of IFC structural models submitted = -
4. Total no. of 2D structural plans submitted = 4



(Qualified Person Signature and Stamp)

Date: Jun-2025

Project team should **dis-continue to use ST no** as documentation for submission scope

Format of approved plans (2D) in CORENET X project



2D Structural Plans – Project Reference No:

Standard title block for plans of building works in CORENET 2:

FIRST SCHEDULE

Standard title block for plans of building works

sheet of _____

BUILDING AND CONSTRUCTION
AUTHORITY
APPROVED UNDER SECTION 8 OF THE
BUILDING CONTROL ACT (CAP 29)

PROJECT REF NO: A or ENNNN NNN YYYY
.....
for Commissioner of Building Control - to delete

<reserved>

Appropriate QP's
& AC's

DRAWING SIZE : A1 OR A2
**Drawings submitted must be clear and legible for
microfilming**

Format of "Project Ref No" for
CORENET X project.

[Extracted from Guideline on submission of application to CBC, Ver 1.03, Apr 2008]



Format on CORENET X Project Reference No.

3.5 Gateway project

Submission scope

(PG, CG, Part ST, Demolition, ERSS, Cladding, Barrier)

Plan submission stage

(Piling Gateway/Construction Gateway/Structural Plan & permit application)

Record plan Stage

(Completion of Structural Works)

Case scenario	Area/Block	Case reference number for approved plans	Case reference number for record plans
New submission	Piling Part 1 Drawings for approval: 15 drawings [Piling Part 1 is approved under ES20250124-50123-PG01]	All structural plans (15 drawings) to indicate: A1234-A0001-2025-PG Part 1	For record plan submission for plans (9 drawings) under PG Part 1: A1234-A0001-2025-PG Part 1 (ES20250124-50123-PG01)
Amendment submission	Amending Piling Part 1 Drawings for approval: amend 6 drawings [Amendment submission (Piling Part 1) is approved under ES20250124-50123-PG02]	All structural plans (6 drawings) to indicate: A1234-A0001-2025-PG Part 1 (amendment to ES20250124-50123-PG01)	For record plan submission for plans (6 drawings) under amendment PG Part 1: A1234-A0001-2025-PG Part 1 (ES20250124-50123-PG02)



Format on CORENET X Project Reference No.

DSP projects (e.g. landed house, bus stop)

Submission scope

(DSP, Demolition, ERSS, Cladding, Barrier)

Plan submission stage

(DSP/Structural Plan & permit application)

Record plan Stage

(Completion of Structural Works)

Case scenario	Area/Block	Case reference number for approved plans	Case reference number for record plans
New submission	All structure framings (DSP) Drawings for approval: 6 drawings [DSP is approved under ES20250224-50004-DS01]	All structural plans (6 drawings) to indicate: A1234-A0001-2025-DSP	For record plan submission for plans (6 drawings) under amendment DSP: A1234-A0001-2025-DSP (ES20250224-50004-DS02)
Amendment submission	Amending DSP Drawings for approval: amend all 6 drawings [Amendment submission (DSP) is approved under ES20250224-50004-DS02]	All structural plans (6 drawings) to indicate: A1234-A0001-2025-DSP (amendment to ES20250224-50004-DS01)	



Standard plan certification for 2D structural plans

Plan submission stage

(DSP/Structural Plan & permit application)

STANDARD CERTIFICATION ON STRUCTURAL PLANS AND DESIGN CALCULATIONS BY THE QUALIFIED PERSON FOR STRUCTURAL WORKS

1. I, _____, the Qualified Person for building works appointed in accordance with Section 8(1)(a) or 11(1)(d)(i) of the Building Control Act 1989, hereby submit the structural plans and/or geotechnical building plans and/or civil defence shelter plans, and design calculations prepared by me and certify that these have been prepared & designed in accordance with the provisions of the Building Control Act, the Building Control Regulations, and any other applicable law and requirements (including but not limited to the Technical Requirements for Household Shelters or the Technical Requirements for Storey Shelters) for the time being in force.
2. I further certify that these structural plans/geotechnical building plans/civil defence shelter plans, and design calculations are in reference to Project Reference No : _____ – PG Part 1
(Amendment to ES20250712-50003-PG01)
3. Total no. of IFC structural models submitted = _____ ✓
4. Total no. of 2D structural plans submitted = 4



(Qualified Person Signature and Stamp)

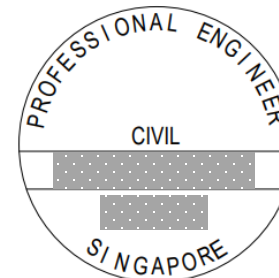
Date: Jun-2025

Record plan Stage

(Completion of Structural Works)

RECORD PLAN STANDARD CERTIFICATION FOR QP:

1. I, _____ the Qualified Person for building works appointed in accordance with Section 8(1)(a) or 11(1)(d)(i) of the Building Control Act 1989, certify that the departures and/or deviations in the building works in respect of the Project as shown in the record plans submitted do not affect the structural adequacy and stability of the buildings in the Project.
2. I, _____ the Qualified Person for building works appointed in accordance with Section 8(1)(a) or 11(1)(d)(i) of the Building Control Act 1989, hereby submit the structural plans and/or geotechnical building plans and/or civil defence shelter plans, and design calculations prepared by me and certify that these have been prepared & designed in accordance with the provisions of the Building Control Act, the Building Control Regulations, and any other applicable law and requirements (including but not limited to the Technical Requirements for Household Shelters or the Technical Requirements for Storey Shelters) for the time being in force.
3. I further certify that these structural plans/geotechnical building plans/civil defence shelter plans, and design calculations are in reference to Project Reference No: _____ – PG Part 1
(ES20250712-50003-PG02) ✓
4. Total no. of IFC structural models submitted: 0
5. Total no. of 2D structural plans submitted: 18



(QUALIFIED PERSON FOR STRUCTURAL WORK'S SIGNATURE & STAMP) JUN 2025 Date:

Definition of scope of structural work in CORENET X

3.5 Gateway project

Recommended description
for submission scope

Recommended project reference no in
structural plan

Scope of structural works	Area/Block	Current CN2 submission naming	CX submission category	Case reference no. for structural plans
Piling & substructural works	PG Part 1	A1234-A0001-2025-ST01	Piling Gateway	A1234-A0001-2025-PG Part 1
	PG Part 2	A1234-A0001-2025-ST02	Piling Gateway	A1234-A0001-2025-PG Part 2
Structural work	CG Part 1 (including structure carcass model for CG Part 2 & ancillary structures)	A1234-A0001-2025-ST03	Construction Gateway	A1234-A0001-2025-CG Part 1
	CG Part 2	A1234-A0001-2025-ST04	Independent submission	A1234-A0001-2025-CG Part 2
	Ancillary structures (e.g. Linkways, Detention tank, Substation, Pavilions etc.)	A1234-A0001-2025-ST14	Independent submission	A1234-A0001-2025-Ancillary structures
ERSS*	Main buildings (Part 1)	A1234-A0001-2025-ST101	Independent submission	A1234-A0001-2025-ERSS Part 1
	Ancillary structures (Part 2) (e.g. Retaining wall, manhole, sewerage, sump, drawpit, etc.)	A1234-A0001-2025-ST102 to A1234-A0001-2025-ST110	Independent submission	A1234-A0001-2025-ERSS Part 2
Claddings*	All claddings (e.g. rainscreens, perforated aluminium shield, curtain wall, etc)	A1234-A0001-2025-ST201	Independent submission	A1234-A0001-2025-Claddings
Barriers*	All barriers (e.g. staircase barriers, safety barriers, etc)	A1234-A0001-2025-ST202	Independent submission	A1234-A0001-2025-Barriers
Miscellaneous structural work*	Internal works (within project boundary) (e.g. Retaining wall, manhole, sewerage, sump, drawpit, etc.)	A1234-A0001-2025-ST203 to A1234-A0001-2025-ST210	Independent submission	A1234-A0001-2025-Others
External works*	External works (e.g. Drains, box culvert, etc.)	A1234-A0001-2025-ST301	Independent submission	A1234-A0001-2025-External works

To dis-continue using ST no

*QP should consolidate all relevant works into a single independent submission



Definition of scope of structural work in CORENET X

DSP projects (e.g. landed house, bus stop)

Recommended description
for submission scope

Recommended project reference no in
structural plan

Scope of structural works	Area/Block	Current CN2 submission naming	CX submission category	Case reference no. for structural plans
Piling works	Piling & substructure works	A1234-A0001-2025-ST01	Direct submission process	A1234-A0001-2025-DSP
Structural work	Super structure works	A1234-A0001-2025-ST02		
Full demolition work	Full Demolition	A1234-A0001-2025-ST10	Full demolition submission	A1234-A0001-2025-Demolition
ERSS*	Main buildings	A1234-A0001-2025-ST03	Independent submission	A1234-A0001-2025-ERSS
	Ancillary structures (e.g. Retaining wall, manhole, sewerage, sump, drawpit, etc.)	A1234-A0001-2025-ST04 to A1234-A0001-2025-ST06		
Claddings*	All claddings (e.g. rainscreens, perforated aluminium shield, stone wall, etc)	A1234-A0001-2025-ST11	Independent submission	A1234-A0001-2025-Claddings
Barriers*	All barriers (e.g. staircase barriers, safety barriers, etc)	A1234-A0001-2025-ST12	Independent submission	A1234-A0001-2025-Barriers
		To dis-continue using ST no		

*QP should consolidate all relevant works into a single independent submission



Common mistakes observed: Submission procedure



Pre-submission consultation for Complex Structure Project

Project team incorrectly submitted their pre-submission consultation request by under **“Submission requirement”** and **“Others”** sub-categories. These consultations (e.g. complex structures, alternative solutions, and Part ST proposal) should have been submitted under “Agency specific requirement → Structural Works” category.

All submissions
Create and manage your submissions

Search by submission or ES no.
Type in keywords e.g. plan application or ES20231212-12345-DG01R00

Filter
1 filter(s) applied

Complex structure pre-consultation request

SUBMISSION	STATUS	AGENCY	LAST UPDATED	ACTIONS
Pre-submission consultation on agency specific requirements -	New Submission -BC01R00 Response issued	BCA (Structural works)	7 Mar 2025	View
Pre-submission consultation - Others -	New Submission -JS01R00 Response issued	BCA	26 Dec 2024	View

Sub-categories	Examples
Submission requirement	• Appeal cases
Agency specific requirement	• General form for complex structure/ alternative solution pre-consultation, Part ST proposal
TOP/CSC requirement	• TOP/CSC requirements
Partial TOP	• Partial TOP cases
Others	• Any other pre-consultations

Select submission

Only applicable submissions will be made available for selection

Submission category

Pre-submission consultation

Submission

Pre-submission consultation on agency specific requirements

Agency

Building and Construction Authority (BCA)

Agency category

Structural works

Environmental sustainability

Fixed Installation

Lightning Protection System

Structural works

Others

Select this

QP should always select **“Structural works”** for all structural related preconsultation submission



Submission of documents not meant for approval

"Submission of Document" is an administrative module where the industry can communicate with agencies pertaining to any project related documentation, e.g. pile test report, performance-based pile design, change of QP.

Important

Any submission package submitted thru Submission of Document module will not be linked to any submission and is not meant for approval.

All submissions
Create and manage your submissions

Search by submission or ES no.
Type in keywords e.g. plan application or ES20231212-12345-DG01R00

Filter
3 filter(s) applied

SUBMISSION	STATUS	AGENCY	LAST UPDATED	ACTIONS
Submission of documents -	New Submission Submitted -BC01R00	BCA (Others) ❌	7 Jul 2025	View
Submission of documents -	New Submission Submitted -BC01R00	BCA (Others)	17 Jun 2025	View
Submission of documents -	New Submission Submitted -BC01R00	BCA (Structural works) ✅	27 May 2025	View
Submission of documents -	New Submission Submitted -BC01R00	BCA (Others) ❌	5 May 2025	View

ULT, WLT, PDA
Test report

Select submission

Only applicable submissions will be made available for selection

Submission category

Independent submission (to individual agencies)

Agency

Building and Construction Authority (BCA)

Submission

Submission of documents

Agency category

Structural works

Buildability

Building design

Environmental sustainability

Lightning Protection System

Structural works

Select this

QP should always select
“Structural works” for all
structural related document
submission.

Linking of Structural Plan & Approved Permit

QP **did not link the approved structural plans** with the corresponding approved permit in Submission Portal before commencement of the structural works on site.

View TOP/CSC requirements

Please ensure that the below clearances are obtained before applying for a TOP or CSC with BCA.

Site inspection Technical clearance Certificate of Supervision and As-Built Completion of Structural work

⚠ **There are approved structural plan(s) not tied to permit**

Please ensure that all structural plan(s) are tied to an approved permit and the necessary clearances are obtained before applying for a TOP/CSC clearance.

[View approved plan\(s\) not tied to permit](#)

	APPROVED PERMIT(S)	RELATED STRUCTURAL PLAN(S)	C-FORM(S) STATUS	ACTIONS
✓	Structural plan and permit application ES20250624-50008-BC01R00	• ES20250624-50008-BC01R00 (Structural plan and permit application)	Not submitted	Manage structural plans View permit
✓	Permit to carry out structural works ES20250624-50005-BC01R00	• ES20250513-50021-DS03R00 (Plan application (Direct Submission Process)) • ES20250513-50021-DS02R00 (Plan application (Direct Submission Process))	Not submitted	Manage structural plans View permit

1-2 of 2 results

View approved structural plan(s) not tied to permit

- ES20250522-50012-DS01R00 (Plan application (Direct Submission Process))
- ES20250522-50011-DS01R00 (Plan application (Direct Submission Process))

Next steps for approved plan(s) not tied to permit

- Attach plan to the associated approved permit via "Manage structural plans"
- Or apply for a new permit to carry out structural works via create submission

View submission timeline

Last updated on 12:24pm, 4 March 2024

Link an approved structural plan to an existing permit

Under the Building Control Act and Regulations, structural works can only be carried out if the relevant works obtain the permit to carry out structural works. You can link the approved structural plan(s) to an existing permit by accessing 'Manage structural plans and permits' under the Actions menu on the right.

Submission cleared

4 March 2024

The regulatory agencies have cleared the submission. Please proceed to apply for the applicable submission(s) under other clearances/completion.

[View approved submission](#)

Permit to carry out structural works

Clearance

[View responses](#)

[Download permit](#)

Submission submitted to regulatory agencies

Permit to carry out structural works

AGENCY
BCA

APPLICATION FOR
ES20240301-50006-CG01R01 (Plan application (Construction Gateway))

SUBMISSION STAGE
New Submission

STATUS
[Clearance](#)

[What is submission status?](#)

E-SUBMISSION NO.
ES20240304-50003-BC01R00

[View all members](#)

Actions

[Manage structural plans and permits](#)

[View responses](#)

[View submission activity](#)

[Reapply for permit](#)

Proceeding with structural works of approved plans without a valid permit constitutes a regulatory offence.

QP supervision can link the approved structural plan to the earlier approved permit using "[Manage Structural Plan](#)" feature.



Linking of Structural Plan & Approved Permit

QP can link the approved structural plan to the earlier approved permit.

Manage structural plans and permits

Add or remove structural plan(s) tied to the permit

i As the Supervision QP for this permit, you are responsible to supervise the structural works under the approved Structural Plan(s) and submit the Certificate of Supervision of Structural Works upon completion.

Structural plan(s)

Add the new approved plan

The original structural plan(s) that are tied to this permit application, along with their respective amendments cannot be removed

ES20240301-50006-CG01R01 (Plan application (Construction Gateway))

☒ ES20240301-50006-CG01R01 (Plan application (Construction Gateway))

☐ ES20240223-50020-PG03R00 (Plan application (Piling Gateway))

ES20240301-50006-CG01R01

Plan application (Construction Gateway)

Related approved amendment(s)

-

Structural plan(s)

The original structural plan(s) that are tied to this permit application, along with their respective amendments cannot be removed

ES20240301-50006-CG01R01 (Plan application (Construction Gateway))

ES20240223-50020-PG03R00 (Plan application (Piling Gateway))

ES20240301-50006-CG01R01

Plan application (Construction Gateway)

Related approved amendment(s)

-

ES20240223-50020-PG03R00

Plan application (Piling Gateway)

Related approved amendment(s)

- ES20240223-50020-PG01R02 (Plan application (Piling Gateway))
- ES20240223-50020-PG02R01 (Plan application (Piling Gateway))

Cancel

Save



Linking of Structural Plan & Approved Permit

Some QP Design linked structural plans to existing permits **without notifying or obtaining acknowledgment from the QP Supervision**. This lack of communication between QPs compromises proper project oversight and coordination.

[QP B selects existing permit of QP A in plan application]
- Original intention - QP B acts as QP supervision for ERSS

Existing permit (if applicable)

Please select

ES20240301-50003-BC01R00 (Permit to carry out structural works) Permit 1

ES20240418-50004-BC01R00 (Structural plan and permit application) Permit 2

	QP Design	Permit	QP Supervision
Piling Gateway	Main QP (QP A)	Main permit (Permit 1)	Main QP (QP A)
Construction Gateway	Main QP (QP A)	Main permit (Permit 1)	Main QP (QP A)
ERSS [submitted thru Structural Plan & permit application]	ERSS QP (QP B)	Main permit (Permit 1)	Main QP (QP A)
Cladding [submitted thru Structural Plan & permit application]	Cladding QP (QP C)	Permit 2	Cladding QP (QP C)
Barrier [submitted thru Structural Plan & permit application]	Barrier QP (QP D)	Permit 2	Cladding QP (QP C)

[QP D selects existing permit 2 of QP C in plan application]
- Original intention - QP D acts as QP supervision for Barrier

	QP Design	Permit	QP Supervision
Piling Gateway	Main QP (QP A)	Main permit (Permit 1)	Main QP (QP A)
Construction Gateway			
ERSS			
Cladding			
Barrier			

We strongly recommend that projects maintain a single QP and single site supervision team. This approach helps ensure consistent oversight and streamlined communication.

Change of project members for permit

QP **did not update the permit** documentation when there are changes in the project members, including modifications to the Technical Controller, RE/RTO, or specialist builders. Maintaining current project member information is a regulatory requirement.

Change of QP supervision & Builder

QP should reapply the permit immediately thru “[Reapply for permit](#)” feature to regulate the changes.

QP can provide cover letter to explain the changes of project member and provide the work demarcation for the out-going & incoming project members

Permit to carry out structural works

Clearance

[View responses](#)

[Download permit](#)

Actions

[Manage structural plans and permits](#)

[View responses](#)

[View submission activity](#)

[Reapply for permit](#)

Update on RE/RTO, Specialist Builder, Technical Controller

QP should update the permit thru “[Reapply for permit](#)” feature to include the addition/removal of RE/RTO and the appointment of specialist builder.

QP can provide cover letter and substantiate with relevant documents (e.g. BCA-BE-Permit_A4 for phased deployment).



Full Demolition submission and Permit for demolition works

QP can submit the full demolition submission prior to DSP submission with the help from project coordinators as project coordinator needs to initiate full demolition submission in submission workspace.

Select submission

Only applicable submissions will be made available for selection

Submission category

Plan application (Gateways/Direct Submission/Full demolition) ▼

Submission

Full demolition application ▼

Plan application (Direct Submission Process)

Plan application (External works)

Full demolition application

1 ————— 2 —————

Select sections required for approval Review summary

Select sections required for approval

Determine the relevant agencies for approval of the proposed building works

☒ Planning parameters (URA)

☒ Structural works (BCA)

The demolition submission should be submitted concurrently to URA & BCA for approval.

Important

BUILDING CONTROL ACT
[Section 6]
PERMIT TO CARRY OUT STRUCTURAL WORKS (DEMOLITION WORKS) ("Permit")

QP should not link any structural works related submission to the permit granted for demolition works only.

Separate permit to carry out structural works is required if the 1st permit application is granted for demolition works only.



Thank you



@BCASingapore

