





CONTRACTOR'S PERSPECTIVE



Qualifications:

1. Experience with Corenet X is based on MOU projects
2. Contractor involved from the start of Schematic Design
3. Purely based on Woh Hup operating procedures
4. Projects undergone CoreNet X are mostly PPVC projects, eg
Norwood Grand

For many years or so....

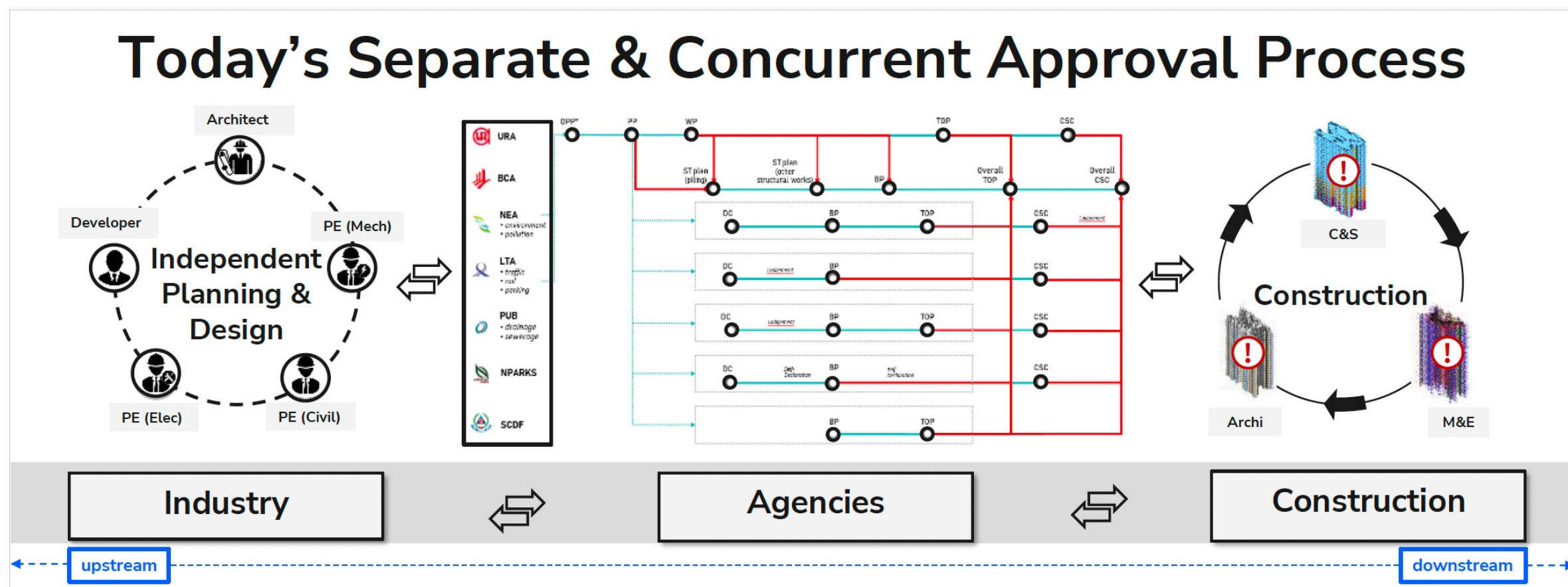
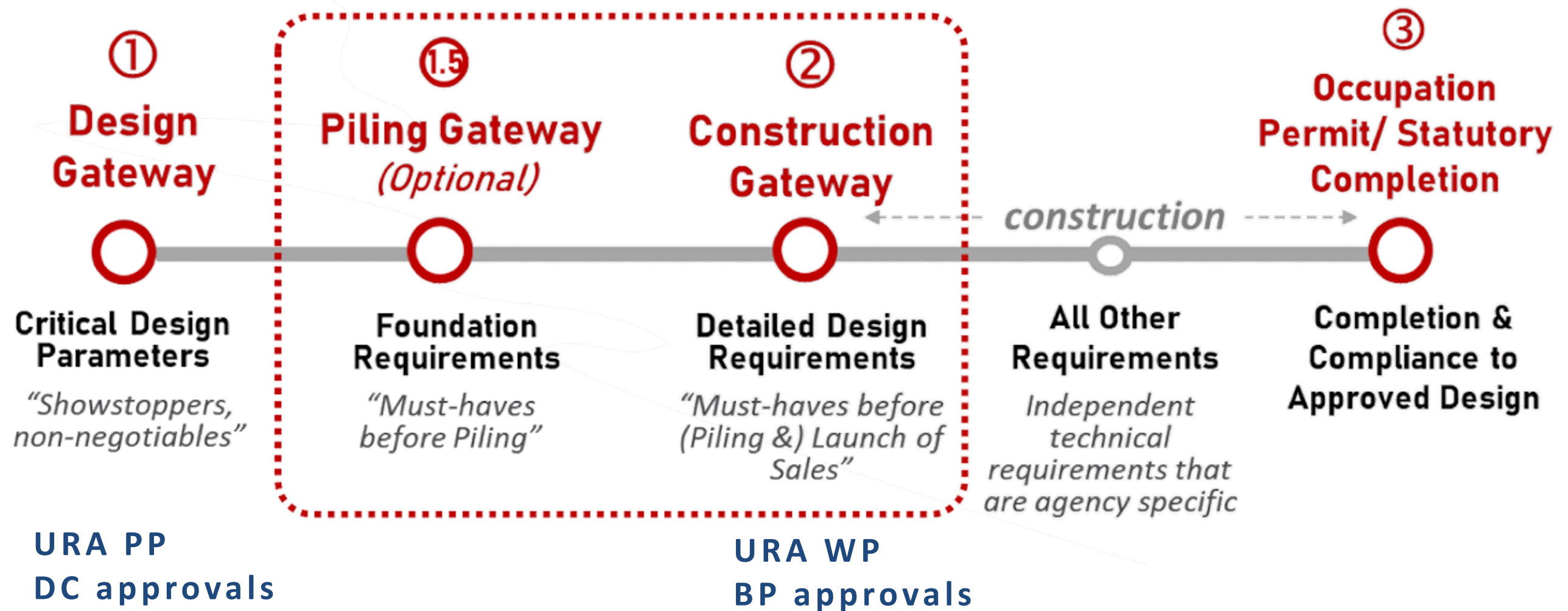


Illustration by BCA

Project team submit separate plans to different agencies

Agencies may have conflicting comments and at different timing

During construction, have to resolve the conflicts and make changes accordingly

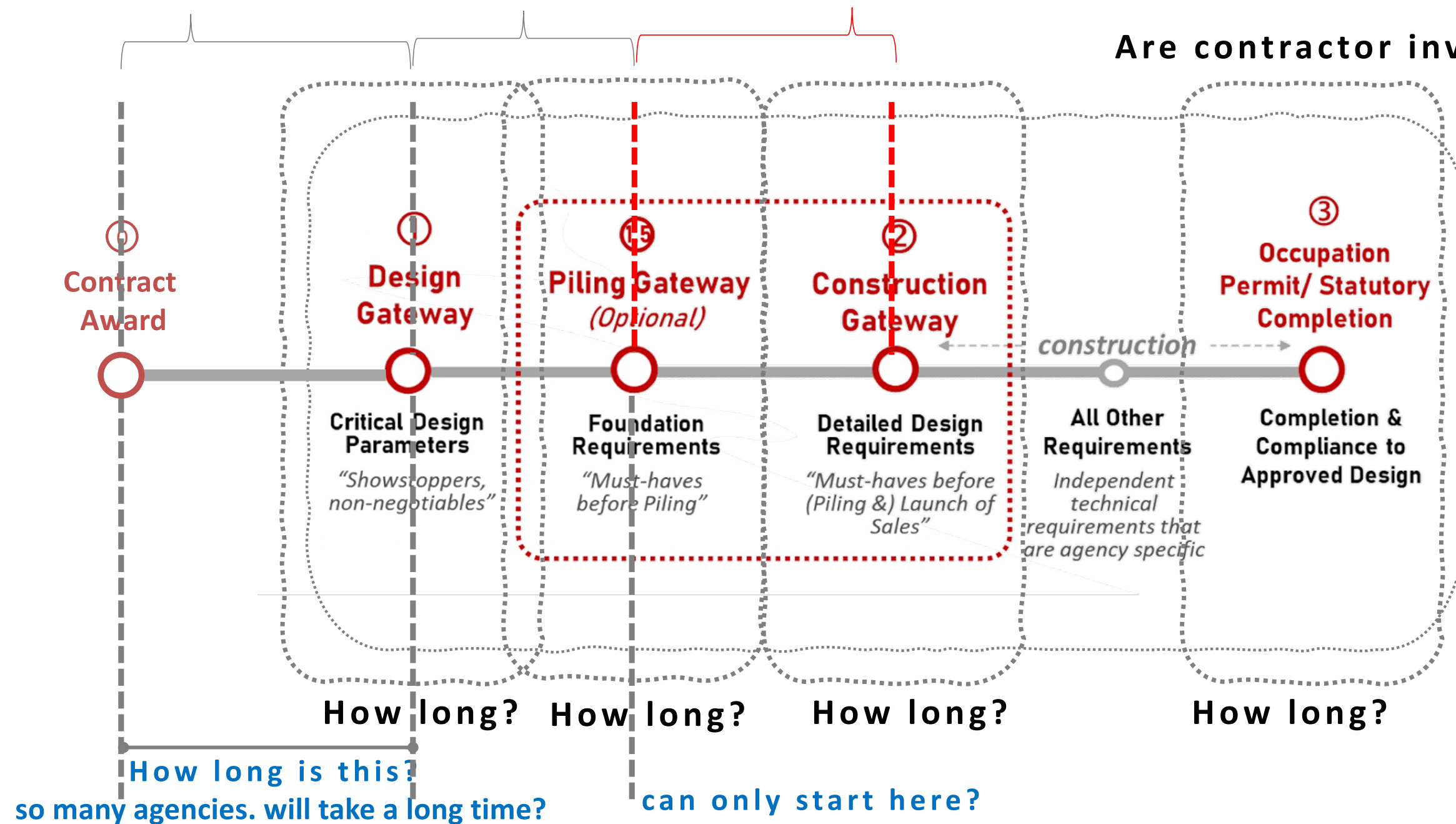


A major shift from the traditional regulatory process and approvals
- multi-agency regulatory submissions through key submission gateways in CORENET X.

INITIAL REACTIONS

Subcontractors to be on board? when can I start mobilizing? what happens when there are changes?
 what LOD should I build models? can I start piling and ERSS works? what level of detail for submission

Are contractor involved?



INITIAL REACTIONS





The journey undertaken and key takeaways especially post-Construction Gateway (CG) for Norwood Grand Project

NORWOOD GRAND



Live transformed in the new north

This is where you can enjoy unparalleled connectivity, with a direct train line to both Orchard and the CBD. Where the largest future economic hub in the north resides within your neighbourhood. And an on-site Early Childhood Development Centre, together with schools of every level nearby, offer greater convenience for your family.

At Norwood Grand, true luxury is all of the above. And even more than you can imagine.

Illustration by CDL

**PROPOSED FLAT HOUSING DEVELOPMENT
COMPRISING 4 BLOCKS OF 11 STOREY
APARTMENTS (TOTAL:348 UNITS) WITH CHILD
CARE CENTRE, 1 LEVEL OF BASEMENT PARKING,
LANDSCAPE DECK WITH SWIMMING POOL AND
COMMUNAL FACILITIES AT CHAMPIONS WAY**

CLIENT: CDL STELLAR PTE LTD

ARCHITECT: ADDP ARCHITECTS LLP

C&S: TW ASIA CONSULTANTS PTE LTD

M&E: BELMACS PTE LTD

QS: WT PARTNERSHIP(S) PTE LTD

ID:INDEX DESIGN PTE LTD

LANDSCAPE: ECOPLAN ASIA PTE LTD

Site area - 14432.50sqm

Total gross floor area- 32580.51sqm



NORWOOD GRAND

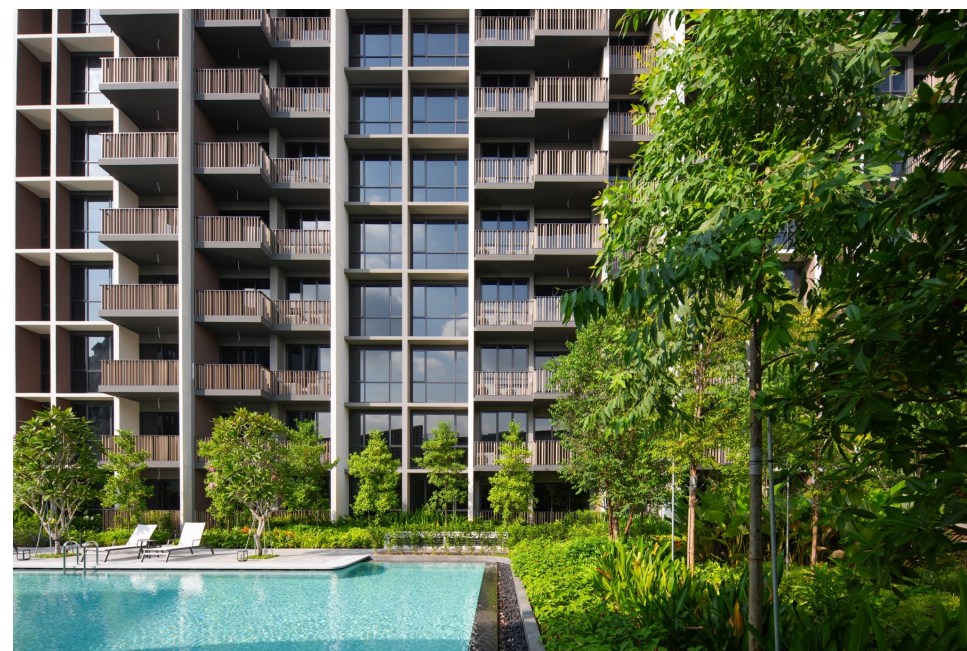
Find your true joy every day,
in every way



- Main swimming pool in the middle of the site with common facilities like the tennis court, clubhouse and gym at the landscape deck
- Childcare centre at the corner near the road

NORWOOD GRAND

1. Prefabricated Prefinished Volumetric Construction (PPVC)
2. Prefab riser
3. Precast staircase flight
4. Precast lift core
5. Precast household shelter
6. Precast refuse chute
7. 3D printing for walls



Photos

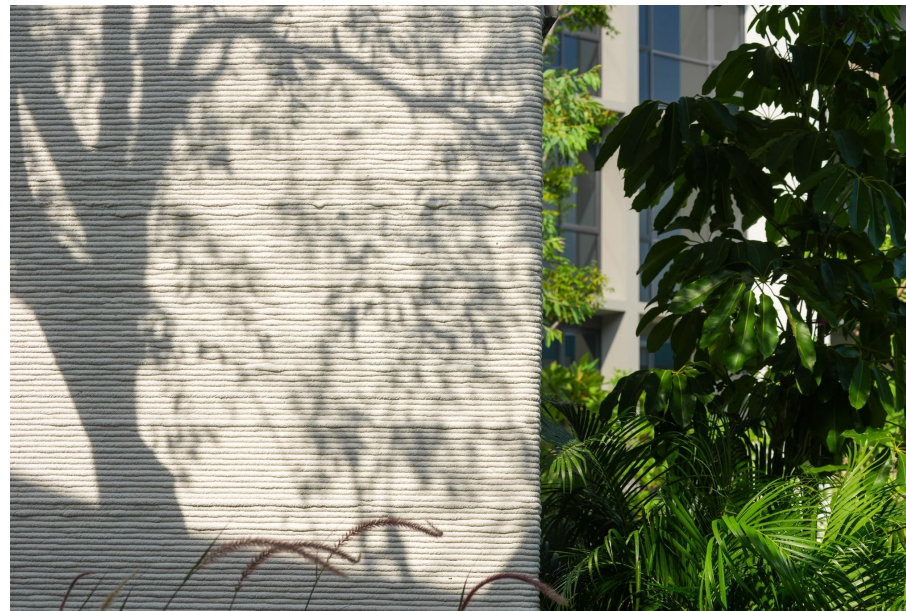
NORWOOD GRAND

3D printing

- Structural walls at drop off and childcare



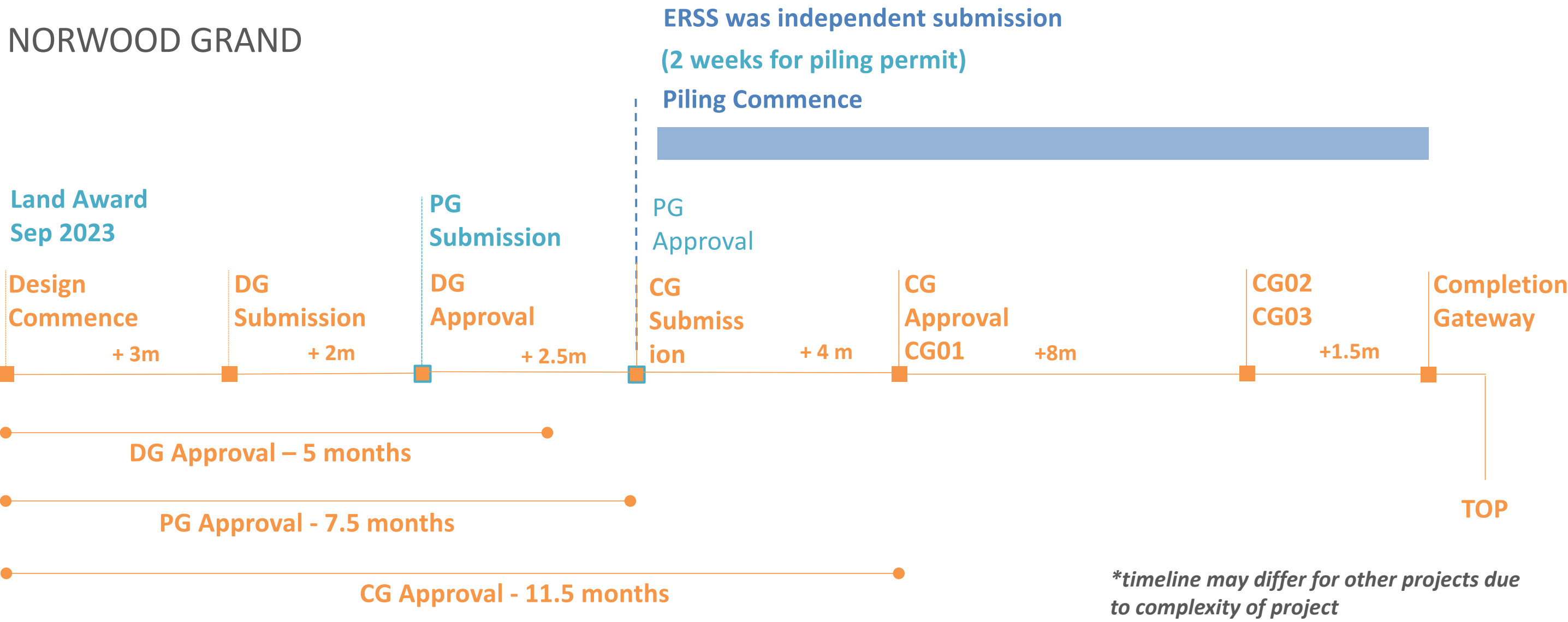
Drop off



3D printing

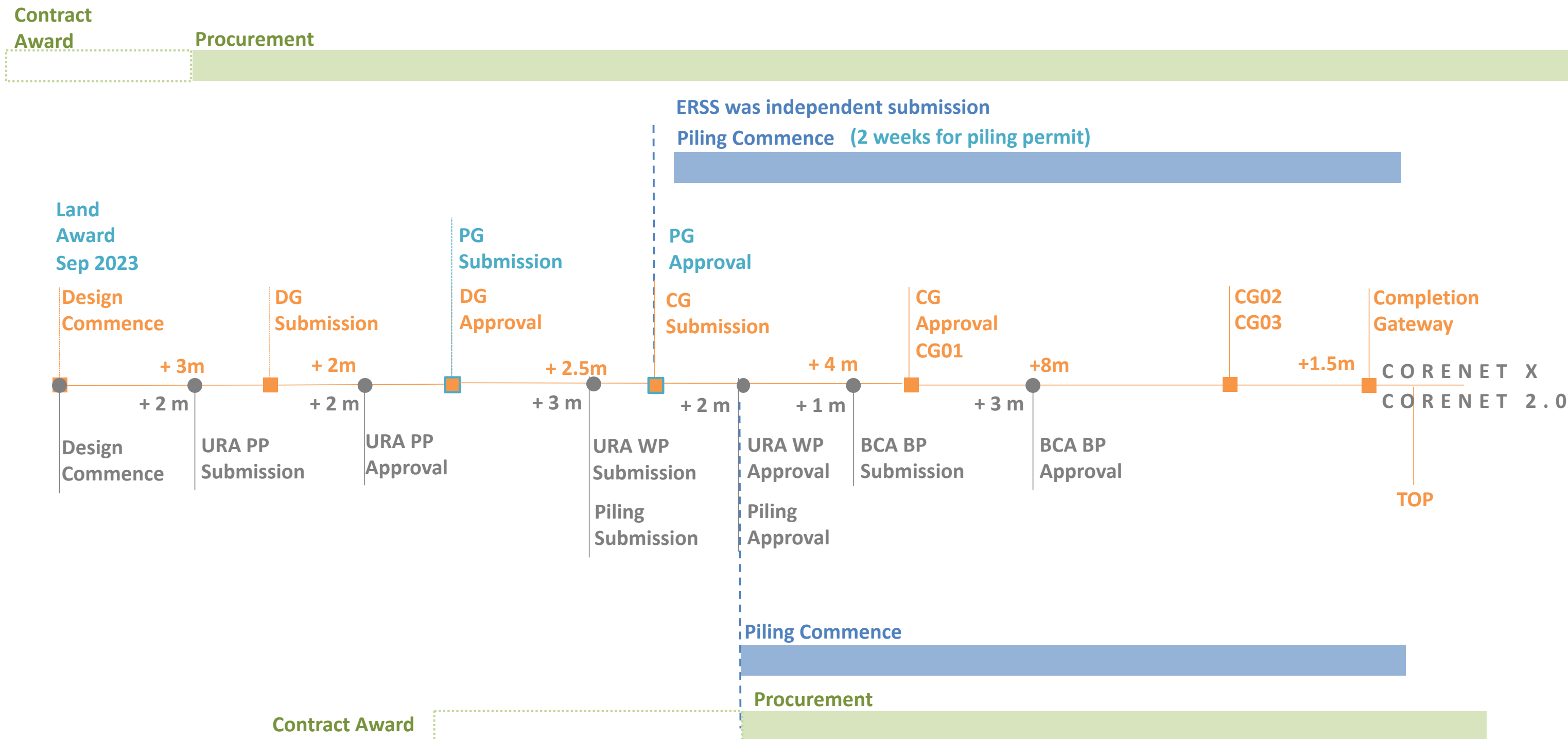


NORWOOD GRAND



- *Design to post construction gateway
- Collaborative workflow
 - Synchronization of multi-disciplinary models for approvals

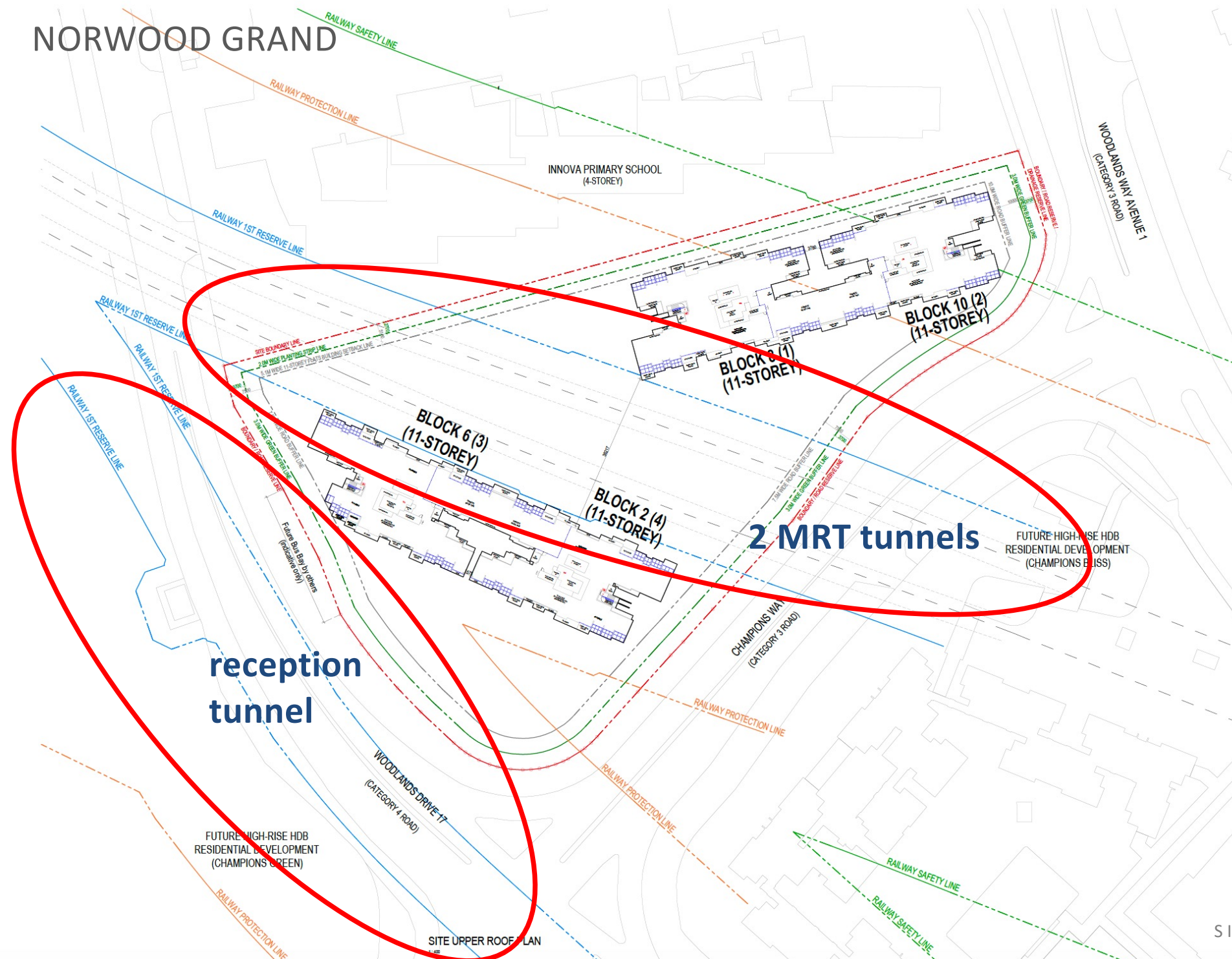
GOING THROUGH CORENET X



*Shift from traditional sequential agencies submissions and review to upfront consolidated comments

GOING THROUGH CORENET X

NORWOOD GRAND



Site plan

- Land parcel bounded by Woodlands Drive 17, Champions Way and Woodlands Avenue 1
- Well served by the Thomson East Coast Line (TEL) with the Woodlands South MRT Station within walking distance
- 2 MRT tunnels passing through site and 1 adjacent reception tunnel to Mandai depot
- Early approval from authorities especially LTA rail is critical for our project.
- Due to Corenet X, we will be able to obtain DG, piling gateway approval and CG approval early.

Benefits	For Contractor
• Early confirmation of design due to Corenet X by client and consultants (Collaborative efforts by the whole team)	• Procurement can be brought forward • More integrated planning and less abortive works
• Coordinated submission of BIM model by all the consultants to the authorities through the 3 main gateways	• Can use the consolidated model for coordination, design study and confirmation, early identification of clashes and buildability issues • Reduced rework and abortive works
• Concurrent review and consolidated comments from the various agencies. - Improved efficiency and known response time - Overall times for authorities approval reduced	• More certainty • Less conflicting instructions • Able to plan and deliver
• Major technical issues are resolved early - Lesser authorities issues during construction period	• Able to focus more on coordination, quality and design issues

**More manpower required at the beginning, including early award of subcons*

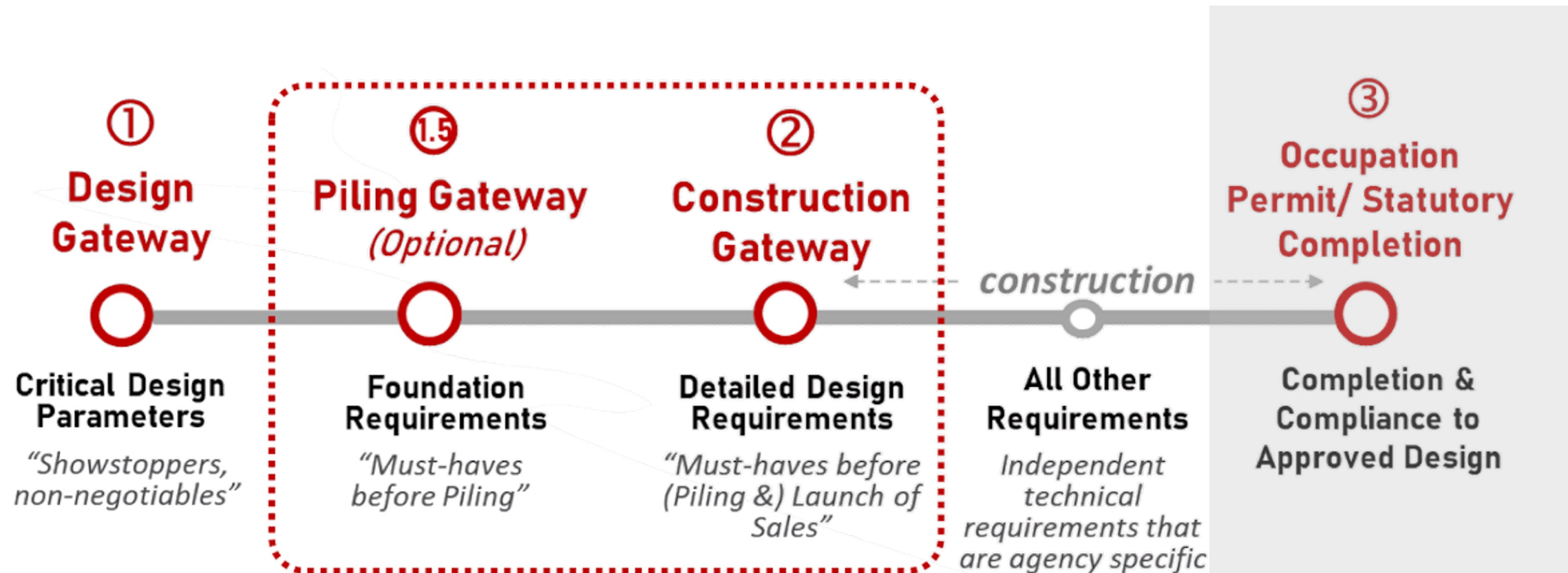
**For mega projects, more time may be required for each gateway and ST submissions*

** To consider delink external works submissions outside boundary from CG after we finish piling, may have to wait for CG*

PAVING THE WAY TO COMPLETION GATEWAY

- **Reduction of execution risk**
 - Clearing the CG creates a reliable baseline of integrated models drastically reducing changes, structural re- work or major late stage non compliance comments during construction.
 - Improve productivity
- **More prediction construction timeline**
 - Early CG clarity streamline the final Completion gateway milestone as we can plan with more certainty and build with confidence
 - Approvals are obtained early instead of midway through or towards the end of construction
- **Manpower**
 - Can be better managed or redeployed
 - plan drawings schedule, procurement and construction activities
 - reduction in manpower for authorities follow up, documentation and tracking
 - Time and cost savings in the long run

What happens at completion gateway?



- As built submission to all the agencies
- (Bscore, Cscore, Greenmark as built submission etc)
- Site inspections to ensure building works are in compliances.

INITIAL REACTIONS

TOP inspection

BCA Virtual TOP inspection

- BCA review the digital submissions remotely and returns with comments
- Able to rectify the comments earlier.
- Reduced inspection time and manpower.
- Better project outcomes, reduced delay and better site documentation

VTOP & STP + OpenSpace

No tags

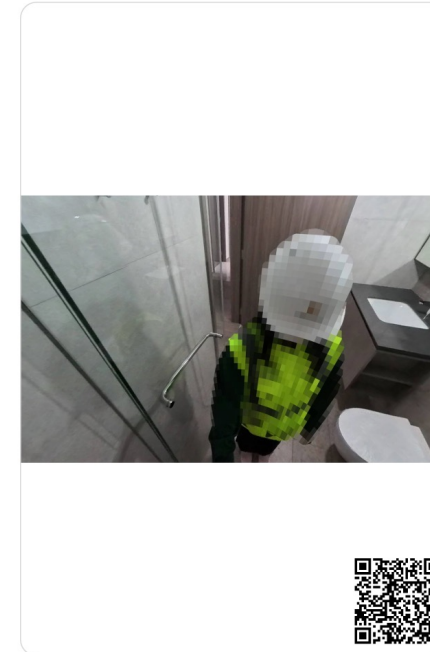


114-290

is this the retrofit toilet? If so, to measure...
BLK10_L1_DG_W.pdf

VTOP & STP + OpenSpace

View Thumbnails



Field Notes (1 of 31): Block 10

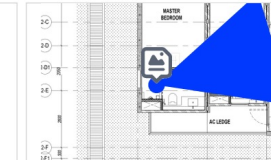
View Field Note in OpenSpace

114-290

BLK10_L1_DG_W.pdf



Overall map view



Field Note location

Created by

Date created Apr 23, 2026

Date captured Apr 15, 2026

Status No status

Assignee Unassigned

Due Date None

Tags None

Description

is this the retrofit toilet? If so, to measure drop at entrance

VTOP & STP + OpenSpace

View Thumbnails

Comments (most recent first)

RJ

May 15, 2026, 2:54 PM

Added 114-290-BLK10-L1 Retrofit Toilet Drop 02.jpeg



RJ

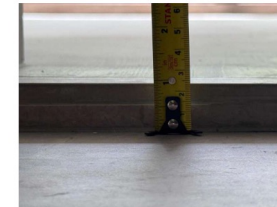
May 15, 2026, 2:54 PM

Yes, it is a retrofit toilet. The change in level is less than 25mm.

RJ

May 15, 2026, 2:54 PM

Added 114-290-BLK10-L1 Retrofit Toilet Drop 01.jpeg



COMPLETION GATEWAY & TOP

Through the Corenet X portal

- Clear visibility of submission status for TOP and CSC
- Show documents require or not required
- Greater transparency
- Overall smoother process for completion gateway and TOP

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 works

Please obtain the necessary technical clearances from the below agencies. If the project is subject to approval by BCA under the Building Control Act, please note that these technical clearances are necessary in order for BCA to issue Temporary Building Permit (TOP) or Certificate of Statutory Completion (CSC) for the project.

	AGENCY	TOP CLEARANCE STATUS	CSC CLEARANCE STATUS	ACTIONS
	Planning parameters URA	Direct technical clearance (CSC) is required	Clearance	View checklist
	Greenery provision and tree conservation NParks	Not required	In progress	View checklist
	Roads LTA	Not required	Not submitted	View checklist
	Rails LTA	Not required	Not submitted	View checklist
	Vehicle Parking with/without Electric Vehicles (EV) charging provisions LTA	Not required	In progress	View checklist
	Drainage PUB	Clearance	Not submitted	View checklist
	Sewerage and sanitary PUB	Direct technical clearance (CSC) is required	Clearance	View checklist
	Environmental health and pollution control NEA	Clearance	Not submitted	View checklist
	Fire safety SCDF	Clearance	Not submitted	View checklist

Corenet X was a game changer for our project with a joint submission with multiple approvals. It addressed all our previous pain points of waiting for approvals at different stages of construction.

The key to our success lies in early engagement, strong upfront coordination with clients and consultants, disciplined information management, and proactive communication across all stakeholders.

END
THANK YOU