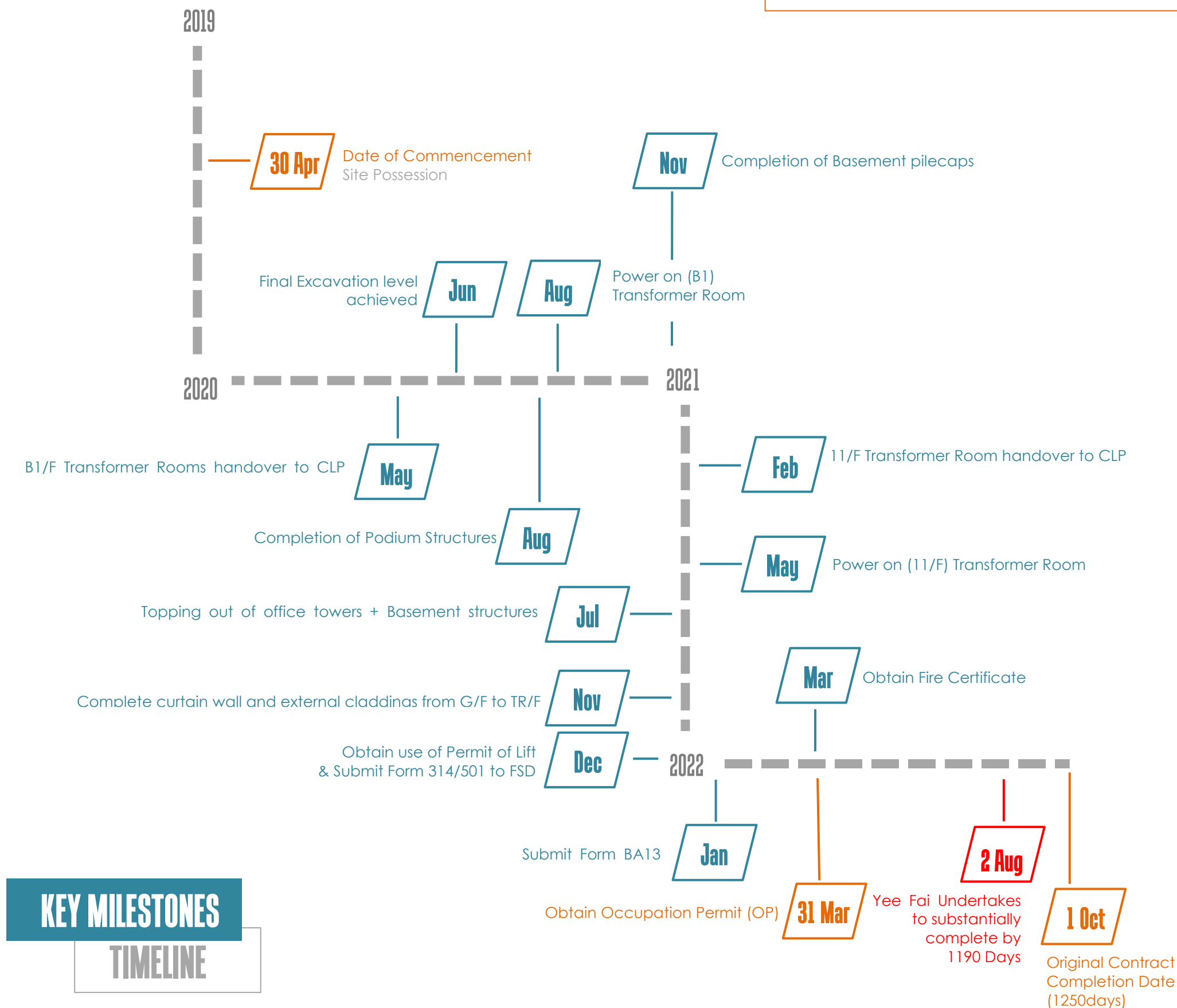


Chapter

SB

Master Program

Details refer to Annex A –Tender Programme

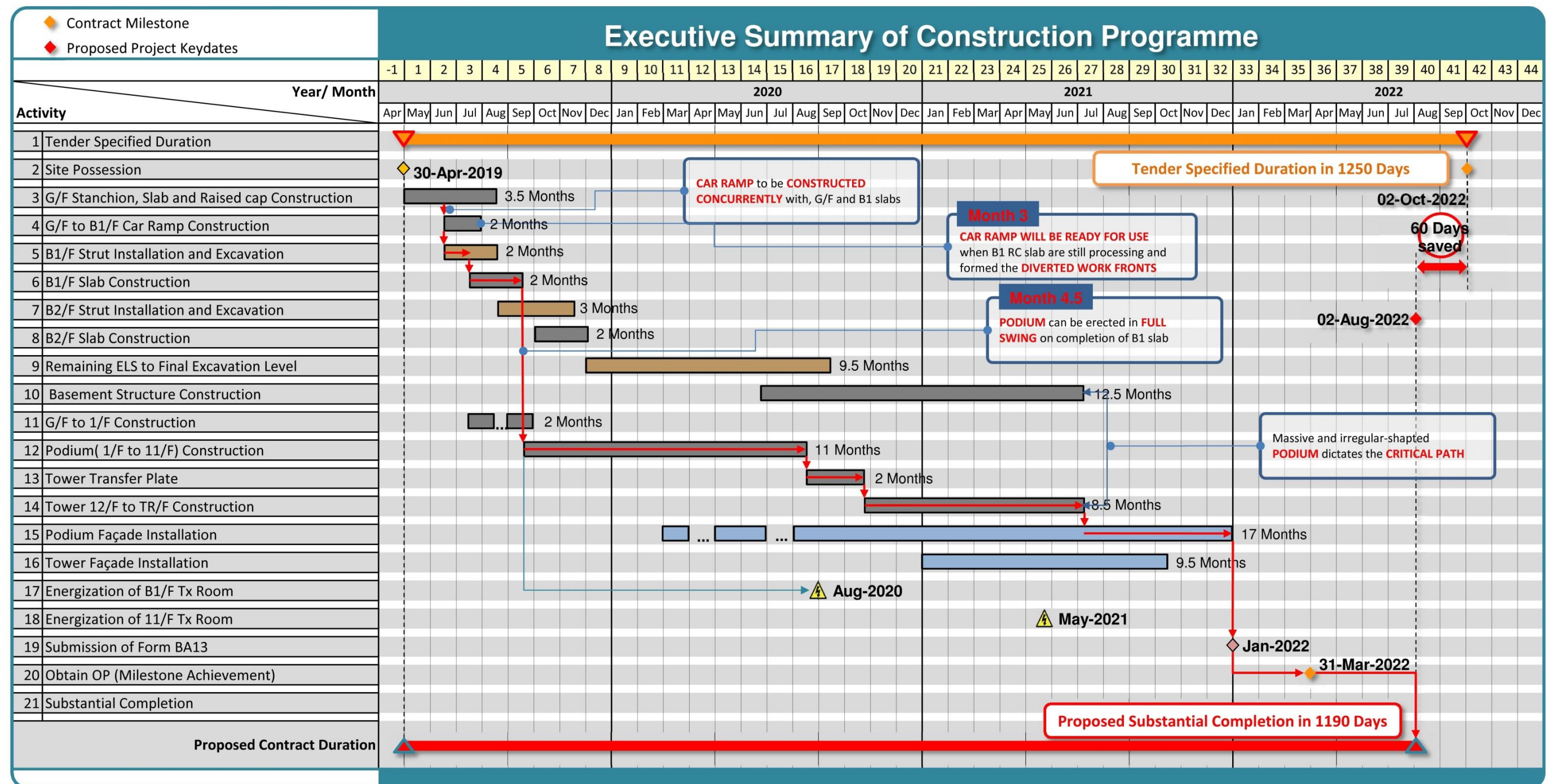


1. KEY MILESTONES

The Outline Construction Programme shows logical planning including key activities relating to all sections of the Works with critical path/ milestones for the following;

- ✧ Top-down construction method;
- ✧ Large amount of construction volume in excavation and RC construction;
- ✧ Variety composite structure construction
- ✧ Intensive M&E installation works in shopping arcade and office towers; and
- ✧ Complexity of building facade

We have studied the tender document and drawings in detail with identifying KTIL240's challenges such as Top-down construction and large amount of construction volume. In order to mitigate the construction challenges, we offer several alternative construction designs and methods as followings to secure the construction programme:



- ❖ Alternative Top-down construction and ELS scheme
- ❖ Modular Strutting System
- ❖ Post-tensioning design for transfer plate.
- ❖ Table system formwork for towers
- ❖ 5-day construction cycle for office towers

The tailor made methodology shown on the left delivers a secured RC construction schedule and early commencement of M&E installation and interior fitting out works. In this connection, **Yee Fai's** proposed contract period is shortened from 1250 calendar days in the Tender to 1190 calendar days. We will focus on the works, take all necessary measures and

allocate all necessary resources to complete the works on time.

The key programmed completion dates of our proposed programme are listed above for easy reference.

1.1. MAJOR M&E HANDOVER DATE

M&E System		Month																	
		16th	17th	18th	19th	20th	21th	22th	23th	24th	25th	26th	27th	28th	29th	30th	31th	32th	33th
1	Power Energization for B1/F Transformer Rooms																		
2	LE 5 Submission (Podium)																		
3	Podium Power Energization 11/F TX Room																		
4	DG and Generator																		
5	LE 5 submission (Office Tower)																		
6	Staircase Pressurization System																		
7	Smoke Extraction System																		
8	FS Sprinkler System																		
9	FS FH/HR System																		
10	FS AFA System																		
11	Plumbing WWO46 Part 4 Submission																		
12	FS WWO46 Part 4 Submission																		
13	FS314/501 Submission																		
14	Form BA 13 Submission																		

2. LONG-LEAD ITEMS

Long-lead Equipment	Tower 1	Tower 2
Transformer	B1/F	
	11/F	11/F
FSI Genset and Fuel Tank	11/F	11/F
Non-FSI Genset and Fuel Tank	TR/F	TR/F
LV Switchboard	B1/F	11/F
Lift (For Transformer Delivery)	B1/F – 11/F	B1/F – 11/F
Escalator	B4/F – 10/F	
MCC	3/F	
	R/F	R/F
Chiller Plant	4/F	
	5/F	
	UR/F	UR/F
Cooling Tower	6/F	
	8/F	
	TR/F	TR/F
Builder	Yee Fai Alternative ELS Design (Modular Strutting System)	B4/F-G/F (4 months including approval and consent)
	80mm Thk. S460M Steel Plates	B1/F-2/F (4 months including procurement and fabrication)

Equipment and materials conform to contract and be delivered on time

Yee Fai forecasts a vast quantity of M&E equipment to be delivered and installed for various systems. One single delay or one non-performance of equipment will obstruct site progress and T&C results. We shall manage equipment conformance and delivery from very beginning of KTIL240 so that we have enough time for sourcing, submission, review and approval, manufacturing and delivery.

All M&E plants, equipment and materials submitted and purchased by the BS NSC's shall be checked for compliance with contract offer prior to the submission to design consultant for approval. We monitor and report the procurement status of plants and equipment under NSC sub-contract to Consultants to ensure deliveries would be on time to suit the overall construction progress. Meanwhile, we proactively work with Consultants to mitigate any adverse situation



Delivery of bulky equipment must be on time

M&E installation work to be carefully planned to integrate with the Architectural and structural design

M&E works have to be duly coordinated with architectural and structural works for buildability and to get rid of avoidable conflicts during site execution. This is one of the critical factors to warrant quality and timely completion of a building. We would monitor every installation activity throughout the construction period and pay particular attention to the interface with architectural and structural details. We aim to resolve the conflicts before actual site installation works to avoid abortive works.

In addition, we shall closely co-ordinate with each NSC and SC on the following aspects to facilitate site installations:

- ✧ Plant room handover schedule,
- ✧ Builder's work requirement for each plant room and pipe duct before handover,
- ✧ Builder's work requirement for wall/floor openings, sleeves and concrete plinths,
- ✧ Builder's work requirement for the access route for bulky and major equipment delivery to the designated plant rooms,
- ✧ Temporary / permanent power provision for installation work and subsequent testing and commissioning,
- ✧ Necessary builder's attendances and site facilities enabling all subcontractors to perform their works in safe and operable manner.



Efficient spatial arrangement by careful coordination

BS systems to be tested and commissioned to operational conditions

With the technical input from the M&E Installation Sub-contractor, all NSC's shall be closely coordinated and monitored during the testing and commissioning stage to ensure all T&C

plans and procedures are approved in advance. Sufficient time is allowed to carry out all stages of testing and commissioning to the satisfaction of the M&E consultant.

Item(s)	Submission	Statutory parties to inspect	Awarded
1	Form BA 13 submission	OP inspection by BD	BD issue BD104 Permit to occupy a new building
2.1	WVO 46 IV (FS water system)	WSD	WSD issue Water supply certificate
2.2	WVO 46 IV (Plumbing system--- Potable/Flushing)	WSD	WSD issue Water supply certificate
3	Form HBP1 (Technical audit of drainage connection)	DSD	DSD issue the Completion advice
4	Run in out / associated pedestrian road	HyD	HyD issue the Completion advice
5	Form LE5; Form 5 (Lift installation) (Escalator installation)	EMSD	EMSD issue User Permit--- Form 6
6	Form 314, Form 501 (AFA, HR, Sprinkler system, Fire shutter, Street Hydrant system, Ventilation system)	FSD	FSD issue Fire certificate--- Form 172
7	Report of compliance	FSD	FSD issue DG store license
8	Undertaking letter for Direct line connection after OP	FSD	
9	Report of compliance	Lands Department	Lands D issue the Certificate of Compliance

3. STATUTORY INSPECTION

To report for completion and obtain the permit to occupy of KTIL240, satisfactions from the Government departments shall be obtained.

Summary of the statutory inspection is shown on the left: