## Norms/Guidelines/Assumptions to Prepare Schedule:

(1) Every wing (and its immediate construction vicinity eg. upto expansion joint) shall be treated as a separate project for purposes of schedule finalization and monitoring..

(2) Concept schedule shall be a Level 2 schedule; Delivery Schedule shall be a Level 3 schedule; Site coordination schedules shall be at Level 3/4/5 as needed (see Annexure 1).

(3) Schedule for each project will comprise of following key ***Activity Sets***:

(a) ***BD Deliverables*** (the Start Date and End Date shall be the same and shall be the date when the physical possession of the site is available with company / when the required document, duly checked and finalized, is handed over to concerned recipient).

(b) ***Pre-Con Deliverables*** (the Start Date and End Date shall be the same and shall be the date when the final document (eg. budget, schedule), agreed upon by all concerned, is entered into the system).

(c) ***Design Deliverables*** (the Start Date and End Date shall be the same and shall be the date when the required drawing, duly checked, finalized & signed and in physical form is issued to the concerned recipient).

(d) ***Liaison Deliverables*** (the Start Date and End Date shall be the same and shall be the date when the said approval, in physical form, is made available to the site).

(e) ***Contract Deliverables*** (the Start Date and End Date shall be the same and shall be the date when the said contract is to be awarded viz. date of Contract Document (/LOI in rare cases), taking into account the mobilization lead time leading to appropriate start of Construction Activity as per schedule).

(f) ***Material & Equipment Deliverables*** (the Start Date shall be the date when the first lot of the said material, duly checked by concerned, is received at the Stores dept at site. The End Date shall be date when the last lot of the said material is received at the Stores dept at site).

(g) ***Construction Activities*** (the Start Date shall be the date the first physical work on the said activity is commenced at site (with adequate resources), and the End Date shall be the date when the said activity is virtually (99%) completed for the said project).

(4) Each of the aforesaid deliverables may be further grouped into following ***Packages*** (this shall be highest-level WBS):

(a) Civil
(b) Services
(c) Façade
(d) Finishing

(e) Landscape

(5) The ***Contract Deliverables*** shall be the middle-level WBS. However, in case of Civil, it will be permissible to further split WBS into Sub-Structure Civil and Super-Structure Civil (which may often be part of the same Contract viz. Civil Works). The ***Contract Deliverables*** shall be an aggregation of ***Construction Activities***.

(6) With each project, the line items in the schedule should be MECE (Mutually Exclusive, Comprehensively Exhaustive).

(7) All ***Construction Activities*** need to begin with a verb (eg. Delivery, Erection and Commissioning of Elevator).

(8) With ***Construction Activities***, the activities whose initiation is a payment milestone shall be marked as ***Marketing Milestone***. For marketing purposes, the Start Date (Initiation) of these activities shall be used for purposes of estimation of date of payment demand.

(9) One of the key goals is that sub-structure works begin at site no later than 28 weeks from the date of land availability. This period may be increased to 36 weeks in case of very large projects.

(10) **Design Guidelines*:*** Refer Design Delivery Schedule Guidelines (Policy PL05)

(11) **Procurement Guidelines:**

(a) In case of ***Contract Deliverables***, lead times shall be as defined for each trade signed off between Procurement team and Planning depending on size of project.

(b) In case of electrical procurement, it may be noted that the electrical conduiting works for upto the first 5 slabs (including any basement slabs) may be done by a specialist conduiting agency (and not necessarily the main electrical contractor). While it is preferable to have the main electrical contractor do the electrical conduiting from the 1st slab itself, this exception maybe used in case of the start of electrical conduiting is leading to unsustainable timelines for design and procurement of the services package (or any part thereof).

(c) Materials Procurement:

(i) Only key materials (those forming top 80% of the estimated value spent) will be tracked in the Final Schedule.

(ii) Material Specifications are needed -15 days from date of start of procurement (to Cost Management).

(iii) Delivery Time (Period between End of Procurement and delivery of material onsite) shall be shall be as per the 'net' lead times defined by Procurement department + a 20% variance buffer.

(iv) Material Procurement Schedule shall be forwarded to Procurement Dept. as required by trade for helping them in their Procurement planning & negotiations.

(v) For material procurement in Lodha's scope, where material has to be procured from outside the country, min. period of 180 days is to be considered between material specification availability and date of delivery of said material at site.

(12) Irrespective of any other policy/norm, till date of issue of excavation VFC drawings to site, the Design Deliverables timelines (as per policy) will be the control/governing factors of the schedule ('forward pass'). Thereafter, the timelines of Construction Activities will become the control/governing factors of the schedule ('backward pass').

(a) Till issue of excavation VFC: Design Deliverables → Contract Deliverables → Mobilization Lead time / Material Supply Lead Time → Construction timelines.

(b) Post issue of excavation VFC: Design Deliverables ← Contract Deliverables ← Mobilization Lead time / Material Supply Lead Time ←Construction timelines.

(In case of conflict between Construction Timelines and Procurement / Design Deliverables, we shall first try to optimize the construction duration to the extent possible without changing the marketing possession date (and ensuring that the construction completion date is no later than marketing possession date – 50% of specified buffer). Thereafter, if the conflict continues, the period required to meet the schedule shall be reduced 2/3rd from the specified Design timelines and 1/3rd from the specified Procurement timelines).

(13) In '*Assumption*' Column, all key assumptions used for the purposes of finalization of the related timelines for the said line item and which are not clear from the '*Predecessor*' column, should be clearly stated.

(14) The Planning associate shall ensure that:

(a) All linkages are duly checked for logic and timelines.
(b) The list of line items is MECE.
(c) The deliverables of each team are discussed, in person, with the person responsible for the said project from that team

(15) For any drawings to be prepared by vendor, term 'shop drawing' is to be used.

(16) Land Availability and Land Information activities should come under BD deliverables.

(17) Within Construction Activities, it is essential to ensure that '**Snagging, Testing and commissioning'** is included as a separate line item in the Construction Schedule. Duration for this shall be as follows:

| No. of levels (from lower most basement) | Duration (Days) after completion of all activities for 'Snagging, Handover and Cleaning' |
|---|---|
| <= 10 levels | 60 days |
| 11- 25 levels | 60 days |
| 26 – 40 levels | 90 days |
| 40 levels + | 120 days |

(18) In addition to the above, in projects/buildings where certain finishing can only be done post OC, an additional 3 month buffer is to be added to the schedule to account for the finishing works post OC. The following milestones need to be defined in the construction schedule before the Snagging, Testing and Commissioning milestone

(a) OC Completion
(b) Finishing Works post OC

(19) In addition to the nett schedule (Construction Baseline Duration), it is expected that certain delays would occur on account of unforeseen operational issues such as design, procurement, vendor performance or other similar reasons (other than formal stoppages due to liaison and/or BD issues). In order to get a realistic assessment of the construction timeframe, following 'Unforeseen Operational factors buffer' is to be added to arrive at the target 'Construction Possession date':

| No. of levels (from lower most basement) | Unforeseen Operational factors buffer |
|---|---|
| <= 10 levels | 3 months |
| 11- 25 levels | 4 months |
| 26 – 40 levels | 5 months |
| 40 levels + | 6 months |

(20) Construction Possession Date shall be applicable for each wing and is defined as below

- **Construction Baseline Start Date**: Defined as date of start of works on site (i.e. start of excavation)
- **Construction Baseline Duration**: As defined in the baseline schedule and includes snagging, testing & commissioning and post OC works completion durations.
- **Construction Baseline End Date**: Construction Baseline Start Date + Construction Baseline Duration
- **Construction Possession date (Concept Schedule)**: Construction Baseline End Date + Unforeseen Operational factors buffer

The PD/PMH is responsible for delivery to the Construction Possession Date and any operational delay (i.e. delay other than Liaison Stoppage or delay in start of construction due to BD issues) will have to be managed within the Construction Buffer.

Note: All site planning and quarterly targets are to be based on the Baseline Schedule assuming Baseline durations and any utilization of Unforeseen Operational factors buffer by the site Planner will need approval of PD/PMH..

(21) In case of any formal stoppage of site activities (partial or full) due to liaison and/or business development reasons for a period > 30 days, the Construction Possession Date shall stand extended by a period equivalent to the said stoppage.

(22) All activities on the critical path (from Land Possession to Possession to Customer) should be highlighted separately (underlined / italicized) on the schedule to be discussed with each department/cell as their deliverables.

(23) In general Villa projects should be clustered and tracked in suitable groups to enable proper infrastructure planning and livability at possession.

(24) Design (drawing) Deliverables to be structured as follows:

(a) Concept – Project level
(b) Schematic – Project level
(c) DD – Package level
(d) Tender / BOQ drawings – Package Level (will include multiple contract tenders)
(e) VFC – Contract level (for Structure Contract may be split into multiple deliverables)
(f) Shop Drawings – Contract level

(25) Timelines in relation to schedule finalization:

(a) Schedule Guidelines – Simultaneously with land info
(b) Concept Schedule – Within 2 weeks of completion of Concept design
(c) Marketing Schedule – Within 4 weeks of completion of Concept design (shall be based on Concept Schedule + Buffer period)
(d) Construction Strategy (covering equipment and technology) and Site Logistics plan – Within 6 weeks of completion of IDD.

(26) **Liaisoning Guidelines:**

(a) Plan submission within 1 week of end of Concept Design.
(b) **Intimation of Disapproval (IOD)** within 6 weeks of Plan Submission. IOD must be received by the date when the sub-structure works (post-excavation) are ready to begin.
(c) CC within 8 weeks of IOD & no later than 2 weeks from start of sub-structure concreting.
(d) **Plinth Certificate (PCC)** (for each wing): To be completed in 30 days after completion of plinth. The process to start 7 days before projected date of plinth completion.

(e) **Occupation Certificate (OC)**: To be completed within 60 days of the date of Completion of Construction. The process to start 30 days before date of Completion of Construction.

(f) Electricity Connection and meters for individual tenants / owners and Water connection (for each wing): To be completed 30 days before date of Possession.

(27) **Budget Management Guidelines:**

(a) Budget guidelines shall be provided to Design Team in Week 2 after land availability.

(b) Concept Budget shall be finalized within 4 weeks from completion of concept design

(c) Delivery budget shall be updated from Concept Budget within 3 weeks from completion of the concerned FDD package.

(28) **Construction Management Guidelines:**

(a) Enabling works shall be started depending on time required to complete them and linked to target date for start of excavation.

(b) Thereafter, the actual construction driven timelines shall be the determined, subject to adherence to the overall construction schedule.

(29) **Building Infrastructure:**

This needs to be made ready as per the Company's possession policy (which requires that the entire building and all areas in its 20 m periphery should be ready at time of possession and all other balance areas within 6 months thereafter).