

B + G + 21 mixed-use tower, Mumbai (from a measured BOQ)

MS Project programme · 220 activities · 374 logic links · cost-loaded from 249 BOQ items (Rs 25.57 Cr)

The project

Building	Basement, ground, two commercial floors, two parking podiums, an amenity floor and residential floors to the 21st
Enabling works	253 shore piles of 300 mm, capping beam and waler, three-stage excavation with two rows of rock anchors
Structure	750 mm raft; podium slabs on a 16-working-day cycle; typical slabs on a 12-working-day cycle with 3 formwork sets
Finishes	Floor by floor: masonry, MEP rough-in, plaster, waterproofing and flooring, doors, windows and paint; two gangs per trade
External works	Plaster and paint in drops from the terrace down, kept out of the monsoon
Cost loading	All 249 items of the measured BOQ (excl. GST and owner-supplied lifts), spread floor by floor using the BOQ's own floor split
Calendars	6-day week with Maharashtra holidays; excavation and external works closed 10 Jun-30 Sep

Results

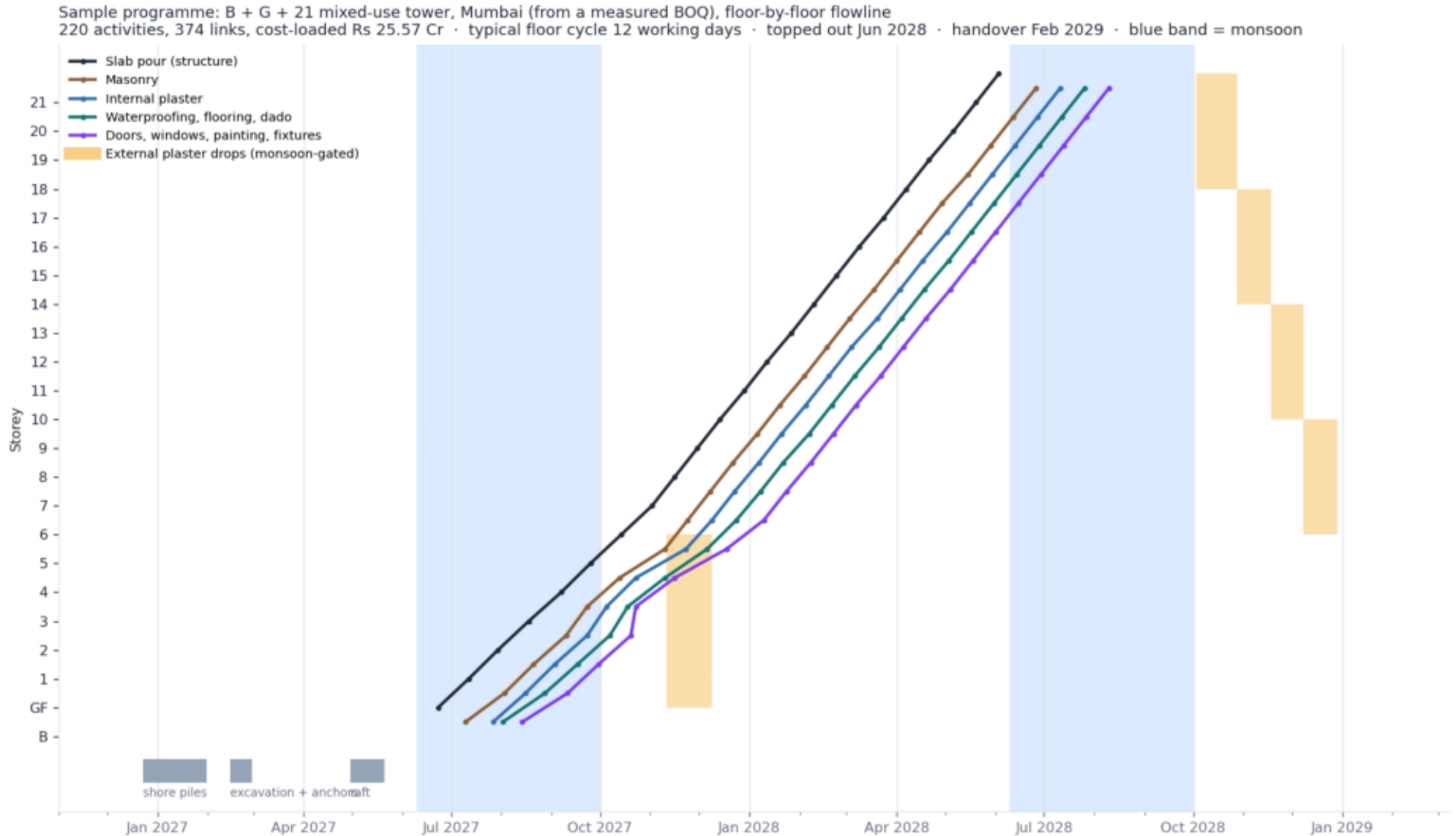
Start	2 Nov 2026
Excavation and anchors	15 Feb 2027 to 23 Apr 2027, before the monsoon
Raft	30 Apr 2027 to 20 May 2027
Structure topped out	3 Jun 2028
Handover	17 Feb 2029 (27.5 months)

What to notice

- The terrace slab is poured days before the June monsoon closure, and top-down external plaster cannot start until October: the monsoon, not the slab cycle, sets the handover date.
- The structure has about 80 working days of float: hire two formwork sets instead of three, or plaster the lower tower floors before the monsoon and finish about six weeks earlier.
- Masonry starts 12 working days after the slab above is poured: props under beams in PPC concrete stay 14 days under IS 456 (Amendment 5).
- Every BOQ item is spread over the activities that build it, so a lender's engineer or a RERA quarterly report can be checked against the same S-curve.

Programme: floor-by-floor flowline

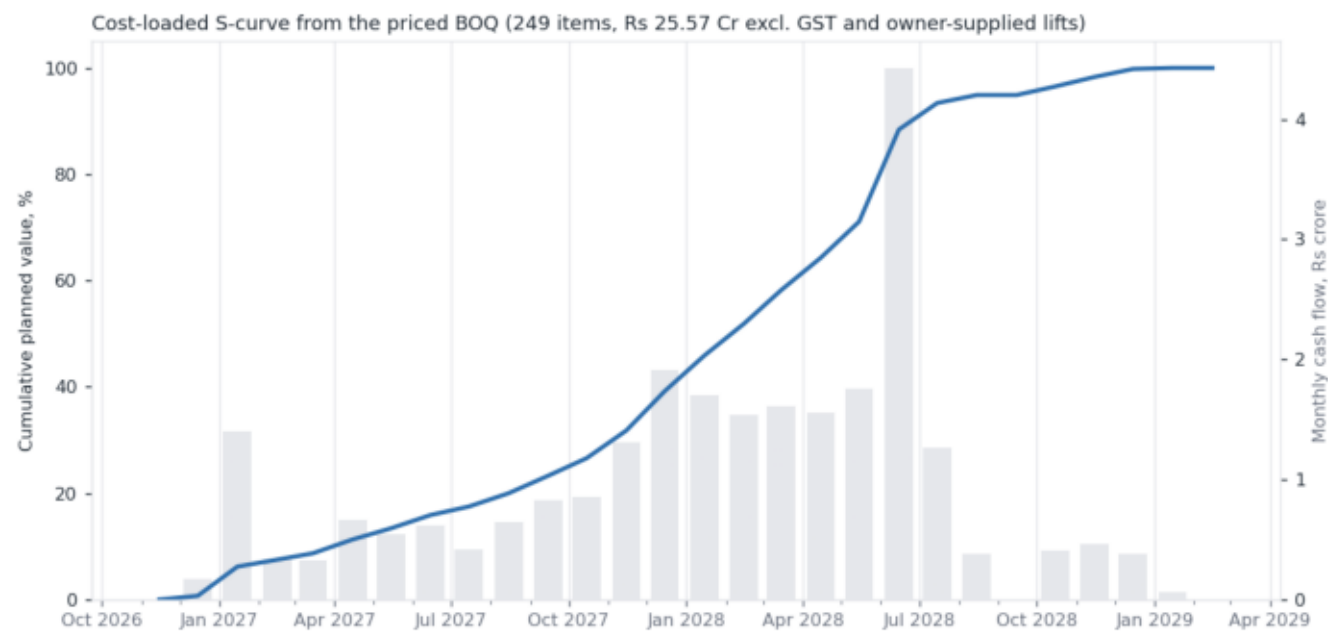
Each line is a trade moving up the building · amber = external plaster drops · blue = monsoon



The MS Project file carries 220 activities with location and trade codes and the duration basis in the notes.

Cost-loaded S-curve, monthly cash flow and key dates

The S-curve is the measured BOQ's own money, floor by floor



Key activity	Start	Finish
Shore piles	23 Dec 2026	30 Jan 2027
Excavation stage 1	15 Feb 2027	27 Feb 2027
Raft	30 Apr 2027	20 May 2027
GF slab	23 Jun 2027	23 Jun 2027
6th level slab	14 Oct 2027	14 Oct 2027
13th level slab	27 Jan 2028	27 Jan 2028
Terrace slab	3 Jun 2028	3 Jun 2028
Floor 21 finishes	27 Jul 2028	10 Aug 2028
Lifts installed	12 Jul 2028	21 Sep 2028
Testing and NOCs	21 Oct 2028	13 Nov 2028
External works	13 Jan 2029	17 Feb 2029

Month	Planned value	Cumulative
2026-12	Rs 0.17 Cr	1%
2027-01	Rs 1.40 Cr	6%
2027-02	Rs 0.33 Cr	8%
2027-03	Rs 0.33 Cr	9%
2027-04	Rs 0.66 Cr	11%
2027-05	Rs 0.54 Cr	13%
2027-06	Rs 0.62 Cr	16%
2027-07	Rs 0.42 Cr	18%
2027-08	Rs 0.65 Cr	20%

Month	Planned value	Cumulative
2027-09	Rs 0.83 Cr	23%
2027-10	Rs 0.86 Cr	27%
2027-11	Rs 1.31 Cr	32%
2027-12	Rs 1.91 Cr	39%
2028-01	Rs 1.70 Cr	46%
2028-02	Rs 1.54 Cr	52%
2028-03	Rs 1.61 Cr	58%
2028-04	Rs 1.56 Cr	64%
2028-05	Rs 1.75 Cr	71%

Month	Planned value	Cumulative
2028-06	Rs 4.43 Cr	88%
2028-07	Rs 1.26 Cr	93%
2028-08	Rs 0.38 Cr	95%
2028-10	Rs 0.41 Cr	96%
2028-11	Rs 0.46 Cr	98%
2028-12	Rs 0.38 Cr	100%
2029-01	Rs 0.06 Cr	100%

Where each duration comes from

A selection of activities; every activity carries its basis in its notes

Activity	Duration	Basis (from the activity notes)
Shore piles: 253 nos x 300 mm dia, ~9.2 m (2 rigs)	32 d	253 piles / (2 rigs x 4 piles per rig-day) = 31.6 d [indicative output for 300 mm rotary piles to ~9 m; calibrate with the piling contractor]
Excavation stage 1 to anchor row 1 (~1211 cum)	12 d	1211 cum / 120 cum per day (1 excavator + tippers, congested urban site) x 1.1
Raft 750 mm (~298 cum), pits and sump, two pours	18 d	298 cum + 29.8 t steel; 2 pours x 9 days
Storey 10: columns and core walls	4 d	typical floor ~39 cum columns + core walls; 4 days
Slab at 11th level: formwork, reinforcement, MEP sleeves	6 d	typical plate ~333 m2: beams ~23 cum + slab ~45 cum; 3 sets of slab formwork; 6 days
Floor 10: masonry (AAC 150 mm), lintels, loft slabs	7 d	55 cum x 0.6 / 6 = 5.5 d x 1.1 [AAC blockwork ~0.6 mason-day/cum (IS 7272 brickwork is 0.94)]
Floor 10: internal plaster (walls and ceilings)	11 d	914 m2 x 0.08 / 8 = 9.1 d x 1.1 [IS 7272: ~0.08 mason-day/m2 for 12-15 mm plaster]
Floor 10: toilet waterproofing, flooring, dado, kitchen platform	13 d	412 m2 x 0.12 / 6 = 8.2 d x 1.1 + 3 d [trade practice ~8 m2 per tiler-day incl. bedding and grout]; +3 d waterproofing and ponding
Floor 10: doors, windows, painting, fixtures	13 d	914 m2 x 0.06 / 6 = 9.1 d x 1.1 + 2 d [trade practice: putty, primer and 2 coats ~0.06 painter-day/m2]; doors, windows and fixtures in parallel, +2 d
External plaster, floors 10-13 (drop, incl. scaffold shifting)	17 d	1611 m2 x 0.10 / 12 masons x 1.1 + 2 d scaffold [IS 7272 ~0.06-0.10]
Terrace waterproofing (brickbat coba + China mosaic) and ponding test	12 d	253 m2 + 48 h ponding; fixed 12 days

Critical path

External plaster, floors 18-21 (drop, incl. scaffold shifting) → External plaster, floors 14-17 (drop, incl. scaffold shifting) → External plaster, floors 10-13 (drop, incl. scaffold shifting) → External plaster, floors 6-9 (drop, incl. scaffold shifting) → External paint, floors 6-9 → External development: compound wall, paving, drainage

Norms: IS 7272 labour outputs for plaster; trade practice for AAC blockwork, tiling and painting; site factor 1.1. Formwork stripping and curing per IS 456:2000 with Amendment 5 (PPC concrete).