

**Attachment 3: Replacement Pages of Traffic Impact
Assessment Study**



S16 Application for Layout Plan Submission and Proposed Minor Relaxation of Building Height Restriction for Permitted Flat Use At 131 Pok Fu Lam Road, Hong Kong, RBL 136RP

**Traffic Impact Assessment Study
Final Report
January 2024**

S16 Application for Layout Plan Submission and Proposed Minor Relaxation of Building Height Restriction for Permitted Flat Use At 131 Pok Fu Lam Road, Hong Kong, RBL 136RP

Traffic Impact Assessment Study Final Report January 2024

Contents Amendment Record

This report has been issued and amended as follows:

Revision	Description	Prepared / Date	Checked / Date	Approved / Date
0	Draft Final Report	22/10/2023 CW	27/10/2023 OC	27/10/2023 OC
0a	Final Report	6/11/2023 CW	6/11/2023 OC	6/11/2023 OC
1	Final Report	26/1/2024 CW	31/1/2024 OC	31/1/2024 OC

2.4 Internal Transport Provisions

2.4.1 **Table 2-2** summarizes the car parking and loading/ unloading provisions for the Proposed Development and which accord with the relevant standards and requirements as stipulated in the Hong Kong Planning Standards and Guidelines (HKPSG).

Table 2-2 Proposed Parking and Loading/ Unloading Provisions

Vehicle Type	HKPSG Requirements (Private Housing)		Proposed	Size	Minimum Headroom
	Criteria	Required			
Parking Provisions					
Resident Car Parking	9 nos. of flats with 40-70 m ² Requirement = GPS x R1 x R2 x R3 GPS = 1 space per 4-7 flats R1 = 1.2 ⁽¹⁾ ; R2 = 1.00 ⁽²⁾ ; R3 = 1.10 ⁽³⁾	2 - 3	3	5m x 2.5m	2.4m
	86 nos. of flats with 70-100 m ² Requirement = GPS x R1 x R2 x R3 GPS = 1 space per 4-7 flats R1 = 2.4 ⁽¹⁾ ; R2 = 1.00 ⁽²⁾ ; R3 = 1.10 ⁽³⁾	33 – 57	57	5m x 2.5m	2.4m
	40 nos. of flats with 100-130 m ² Requirement = GPS x R1 x R2 x R3 GPS = 1 space per 4-7 flats R1 = 4.1 ⁽¹⁾ ; R2 = 1.00 ⁽²⁾ ; R3 = 1.10 ⁽³⁾	26 - 46	46	5m x 2.5m	2.4m
Visitor Car Parking	Visitor car parking for private residential developments with less than 75 units per block	To be determined by TD	4 (1 per block)	5m x 2.5m	2.4m
Total		65 - 110	110 (incl. 2 Accessible)	5m x 2.5m (5m x 3.5m)	2.4m
Motorcycle Parking	1 space per 100-150 flats for private residential development	1	1	1m x 2.4m	2.4m
Loading/ Unloading Spaces					
M/HGV	• Minimum of 1 loading /unloading bay for each housing block	4	4	11m x 3.5m	4.7m

Notes: (1) Demand Adjustment Ratio (R1) = 1.2 for 40m² < Flat size ≤ 70m², 2.4 for 70m² < Flat size ≤ 100m², 4.2 for 100m² < Flat size ≤ 130m²

(2) Accessibility Adjustment Ratio (R2) = 1.00 outside a 500m-radius rail station

(3) Development Intensity Adjustment Ratio (R3) = 1.10 for 1.00 < Domestic Plot Ratio ≤ 2.00

2.4.2 Totals of **110** nos. of car parking spaces and one motorcycle parking space will be provided within the development in accordance with the requirements by HKPSG. Also, totals of 4 goods vehicle bays will be provided with one bay located near each residential block. The layout plans for car parking spaces and loading/unloading bays on each respective level with sectional plans are given in **Appendix A** for reference.

2.4.3 Vehicle swept path assessments are undertaken and the results are presented in **Appendix B**.

3.4 Existing Junction Performance

3.4.1 Based on the existing traffic flows, the peak hour performance of the key junctions in the vicinity of the Site on a typical weekday are assessed. The assessment results are indicated in **Table 3-3** and detailed junction calculation sheets are given in **Appendix C**.

Table 3-3 2023 Peak Hour Performance at Key Junctions

Jn. ID.	Survey Date	Location	Type	Capacity Index ⁽¹⁾	AM Peak	PM Peak
J1	5 Sep 2023	Pok Fu Lam Road / Smithfield / Mount Davis Road	Signal	RC ⁽¹⁾	37.8%	31.6%
J2	5 Sep 2023	Pok Fu Lam Road / Bisney Road	Priority	RC	0.29	0.25
J3	5 Sep 2023	Pok Fu Lam Road / Access Road to Queen Mary Hospital	Priority	DFC ⁽²⁾	0.28	0.19
J4	5 Sep 2023	Pok Fu Lam Road / Access Road to Ebenezer New Hope School	Priority	DFC	0.29	0.01
J5	5 Sep 2023	Pok Fu Lam Road / Chi Fu Road (N)	Priority	DFC	0.24	0.14
J6	5 Sep 2023	Pok Fu Lam Road / Chi Fu Road (S)	Priority	DFC	0.45	0.22
J7A	5 Sep 2023	Pok Fu Lam Road / Sassoon Road (W)	Priority	DFC	0.73	0.56
J7B	5 Sep 2023	Pok Fu Lam Road / Sassoon Road (E)	Signal	RC	24.8%	23.5%
J8	5 Sep 2023	Chi Fu Road/ Pok Fu Lam Road/ Claymore Ave	Priority	DFC	0.20	0.16

Notes: (1) The Capacity Index for Signal controlled junction is Reserve Capacity (RC)
(2) The Capacity Index for Priority Junction is Design Flow to Capacity Ratio (DFC)

3.4.2 The Reserve Capacity (RC) of signal-controlled junctions are calculated based on the actual green time for each phase of the traffic signals observed on-site and hence reflect the actual traffic situations at the respective junctions during the AM and PM peak hours. The results reveal that all the key junctions within the Study Area operate satisfactorily during the AM and PM peak hours of a typical weekday in 2023.

3.5 Existing Link Performance

3.5.1 Based on the existing traffic flows, the peak hour performance of the key links in the vicinity of the Site on a typical weekday are also assessed. The assessment results are indicated in **Table 3-4**. The locations of the key links are shown in **Figure 3-2**.

Table 5-2 2037 Peak Hour Road Link Performances

Link ID.	Section	Direction	Design Capacity	Flows (Veh/hr)	Reference		Design	
					AM	PM	AM	PM
L1	Pok Fu Lam Road between Mount Davis Road and Bisney Road	NB	2,800	Flows	2,293	2,035	2,317	2,047
				P/Df	0.82	0.73	0.83	0.73
		SB	2,800	Flows	1,704	1,409	1,714	1,423
				P/Df	0.61	0.50	0.61	0.51
L2	Pok Fu Lam Road between Bisney Road and the Application Site	NB	2,600	Flows	1,260	1,039	1,286	1,053
				P/Df	0.48	0.40	0.49	0.41
		SB	2,600	Flows	881	759	893	774
				P/Df	0.34	0.29	0.34	0.3
L3	Pok Fu Lam Road between the Application Site and Chi Fu Road (North side)	NB	2,600	Flows	1,370	1,081	1,385	1,100
				P/Df	0.53	0.42	0.53	0.42
		SB	2,600	Flows	964	793	976	808
				P/Df	0.37	0.31	0.38	0.31
L4	Pok Fu Lam Road between Chi Fu Road (North side) and Victoria Road	NB	2,600	Flows	1,148	984	1,152	989
				P/Df	0.44	0.38	0.44	0.38
		SB	2,600	Flows	918	690	920	691
				P/Df	0.35	0.27	0.35	0.27
L5	Elevated Chi Fu Road connecting to Pok Fu Lam Road North Bound	WB	475	Flows	303	151	313	165
				P/Df	0.64	0.32	0.66	0.35
		EB	475	Flows	42	50	42	50
				P/Df	0.09	0.11	0.09	0.11

5.2.2 The results show that the key road links in the vicinity of the Application Site operate within capacity during both the AM and PM peak hours in 2037.

5.3 Pedestrian Impact Assessments

5.3.1 **Table 5-3** shows the existing pedestrian flows on the footpath adjacent to the Application Site. It is noted that over 85% of the pedestrians are generated by the existing Ebenezer School & Home for the Visually Impaired in particular during the AM and PM school peak hours. The table also shows the nos. of buses observed at the northbound bus stop adjacent to the Site. It is noted that the nos. of stopped buses increased in proportion to the amount of pedestrians on the footpath adjacent to the Site as almost all the pedestrians access the existing school by buses.

Table 5-3 2023 Hourly Pedestrian Flows and Nos. of Buses Observed the Nearby Northbound Bus stop

Hour	Two-way Pedestrian Flows on footpath adjacent to Site			Nos. of buses stopped at the northbound bus stop adjacent to Site	Pedestrian Assessment			
	To/From Ebenezer School	Others	Total		Peak 15-min Flow	Effective Width of Footpath ⁽¹⁾ (m)	PMM ⁽²⁾	Level of Service (LOS)
7:00-8:00	67	12	79	28	28	1.1	1.70	A
8:00-9:00	116	7	123	28	78	1.1	4.73	A
9:00-10:00	30	3	33	18	12	1.1	0.73	A
10:00-11:00	16	5	21	17	11	1.1	0.67	A
11:00-12:00	15	3	18	15	7	1.1	0.42	A
12:00-13:00	55	6	61	15	29	1.1	1.76	A
13:00-14:00	33	6	39	24	18	1.1	1.09	A
14:00-15:00	26	9	35	14	16	1.1	0.97	A
15:00-16:00	14	6	20	13	13	1.1	0.79	A
16:00-17:00	45	7	52	26	21	1.1	1.27	A
17:00-18:00	130	13	143	45	69	1.1	4.18	A
18:00-19:00	37	18	55	35	18	1.1	1.09	A
Total	584	95	679	278				

Notes: (1) The effective width are derived from actual width of footpath minus 0.5m

(2) The index PMM represents the nos. of pedestrian per meter per minute

5.3.2 As the existing school will be relocated and replaced by the Proposed Development with 135 residential units only, the amount of pedestrians would be reduced significantly. With reference to the observed pedestrian flows recorded at the nearby residential development which is similar to the Proposed Development in terms of accessibility to public transport services available at Pok Fu Lam Road, **Table 5-4** shows the amount of pedestrians to be generated by the Proposed Development.

- 6.1.8 Traffic impact assessments are undertaken by comparing the performances of key junctions and road links of the 2037 Reference scenario (i.e. without the Proposed Development) against the Design scenario (i.e. with the Proposed Development). As the amount of additional traffic to be generated by the Proposed Development is not significant, the differences in junction and road link performances between the Reference and Design Scenarios are small.
- 6.1.9 The assessment results indicate that all assessed junctions and road links in the vicinity of the Site would perform satisfactorily during the AM and PM peak periods for both the 2037 Reference and Design scenarios.
- 6.1.10 Totals of 110 nos. of car parking spaces, 1 no. of motorcycle parking space and 4 nos. of goods vehicle loading and unloading bays will be provided within the development site in accordance with relevant HKPSG requirements.
- 6.1.11 The amount of pedestrians on the nearby footpaths at Pok Fu Lam Road will be reduced after the relocation of the existing Ebenezer School & Home for the Visually Impaired. Coupled with the proposed footpath widening for the benefit of general public, the conditions along the footpaths and at the bus-stop adjacent to the Site would be improved after the development. .

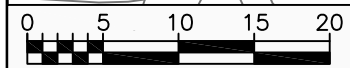
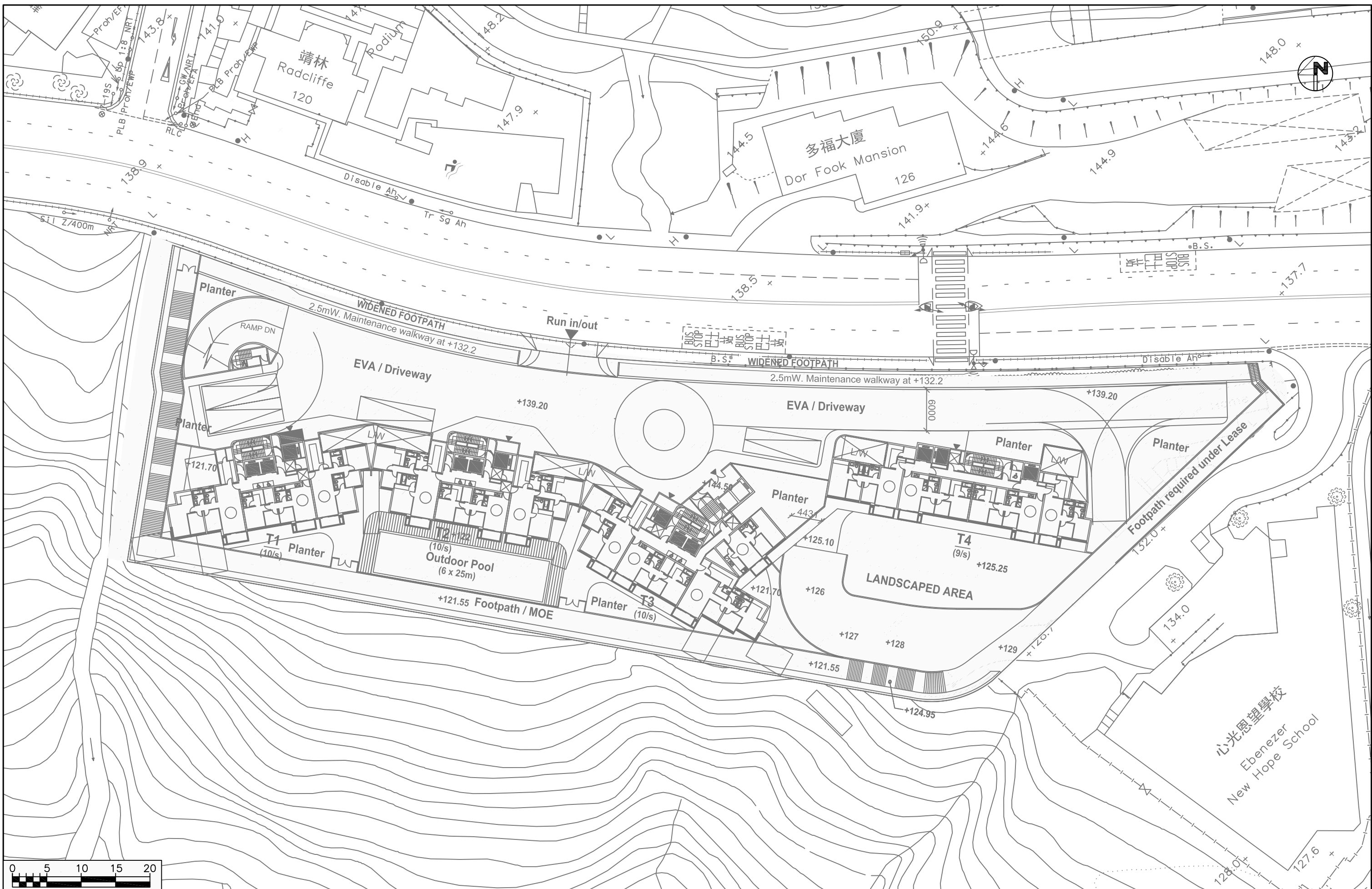
6.2 Conclusions

- 6.2.1 Based on the traffic impact assessment results, it can be concluded that the Proposed Development would not create adverse traffic impact on the surrounding road network.
- 6.2.2 In addition, with the proposed footpath widening adjacent to the Proposed Development, the walking conditions along the footpath will be improved.

Appendix A

Layout Plans and Sectional Plans

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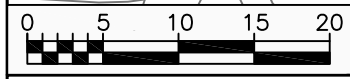
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Layout Plan - G/F

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Layout Plan - B1/F

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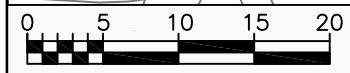
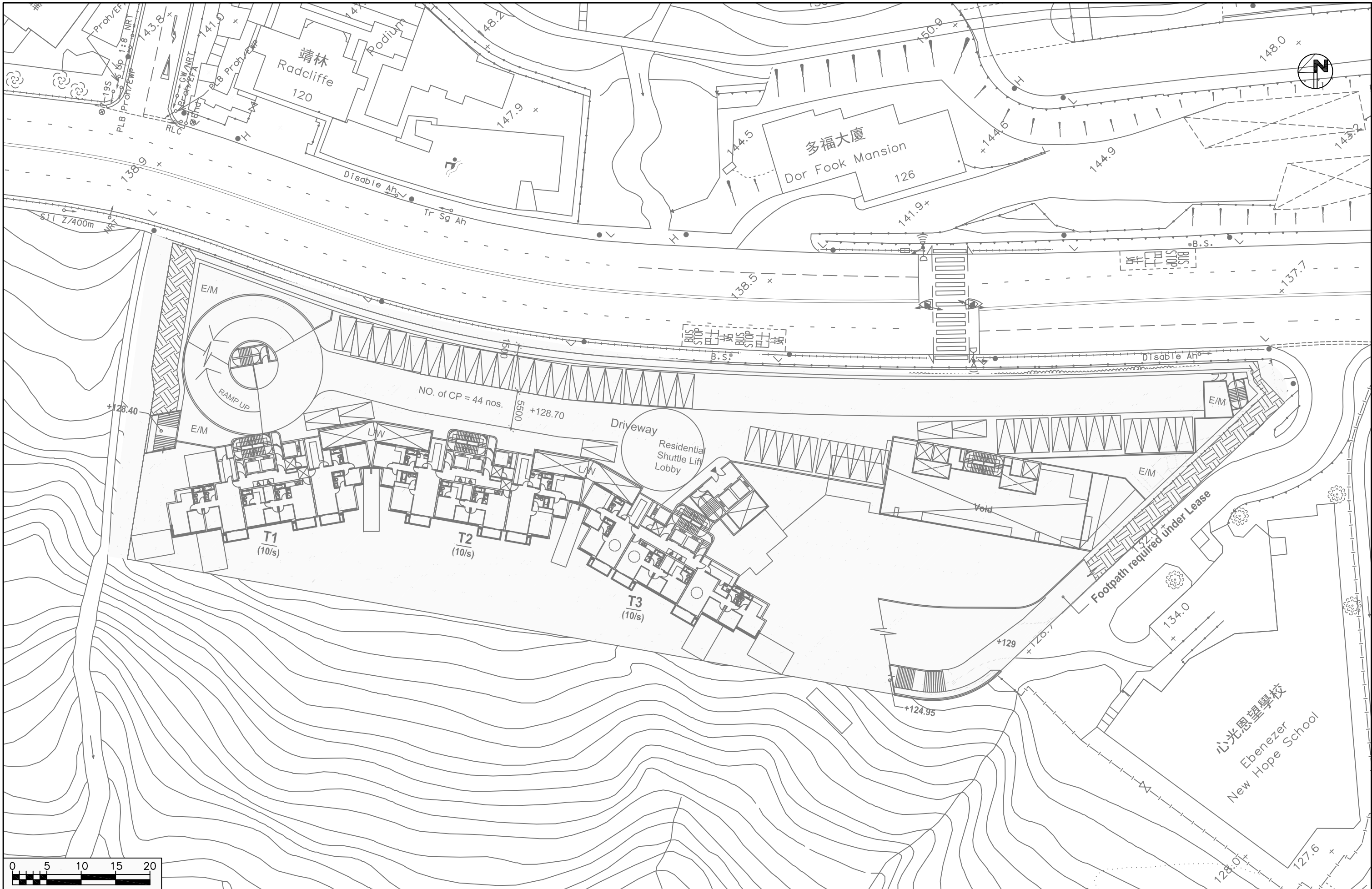
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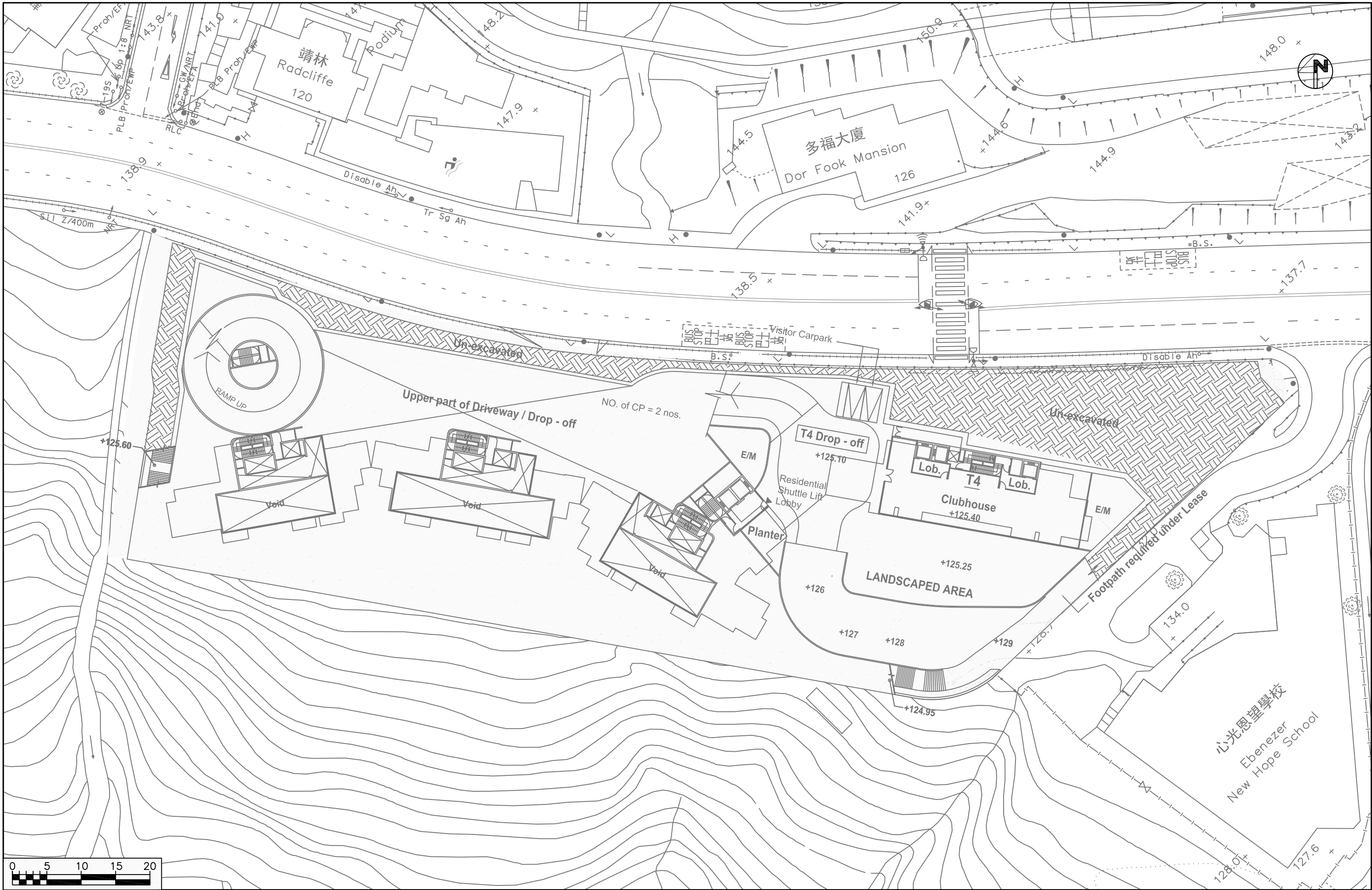
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Layout Plan -B3/F

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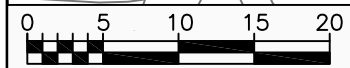
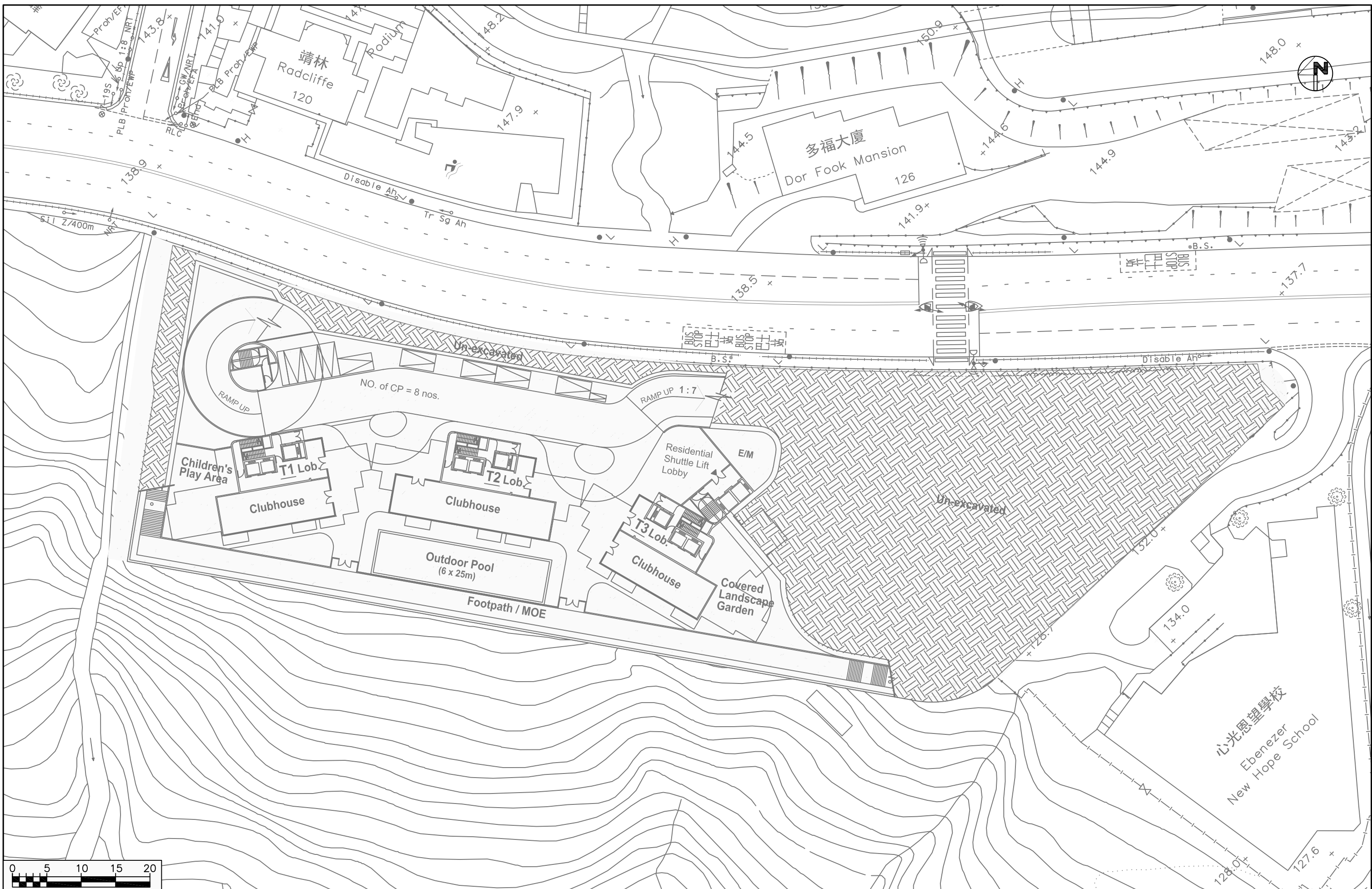


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Project Title
S16 Application for Layout Plan Submission and Proposed Minor Relaxation of Building Height Restriction for Permitted Flat Use At 131 Pok Fu Lam Road, Hong Kong, RBL 136RP
 Layout Plan - LG1/F

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Project Title
S16 Application for Layout Plan Submission and Proposed Minor Relaxation of Building Height Restriction for Permitted Flat Use At 131 Pok Fu Lam Road, Hong Kong, RBL 136RP

Date 18/02/2024 Scale 1:500

Layout Plan - LG2/F

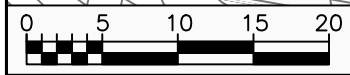
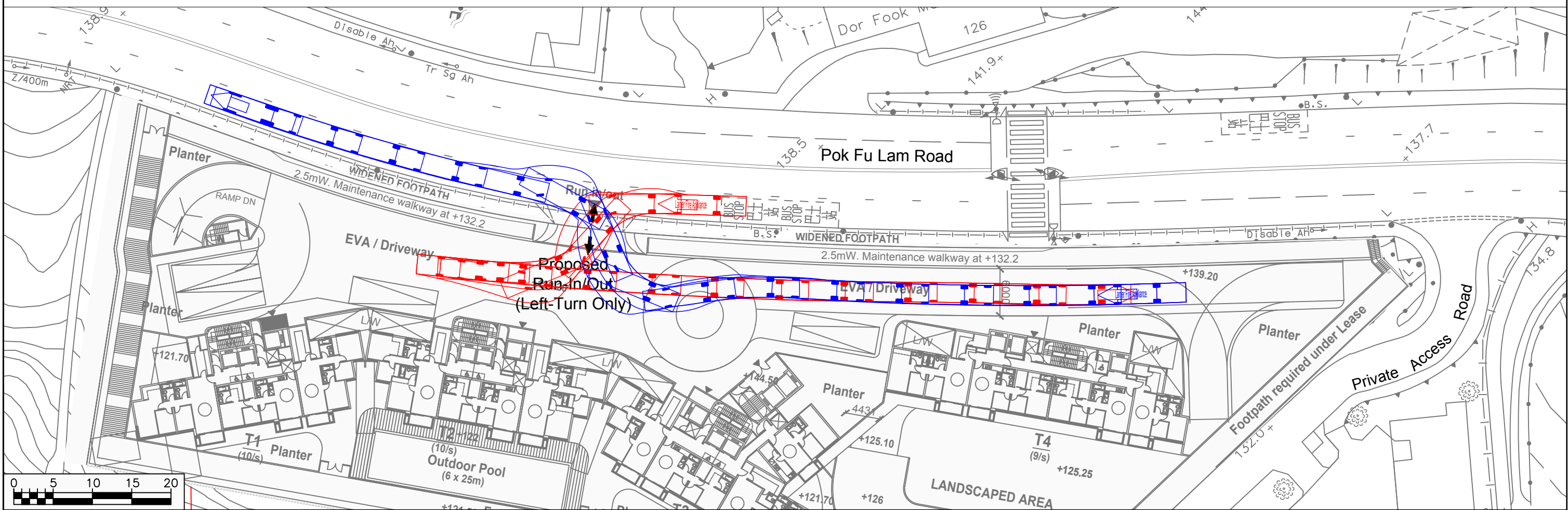
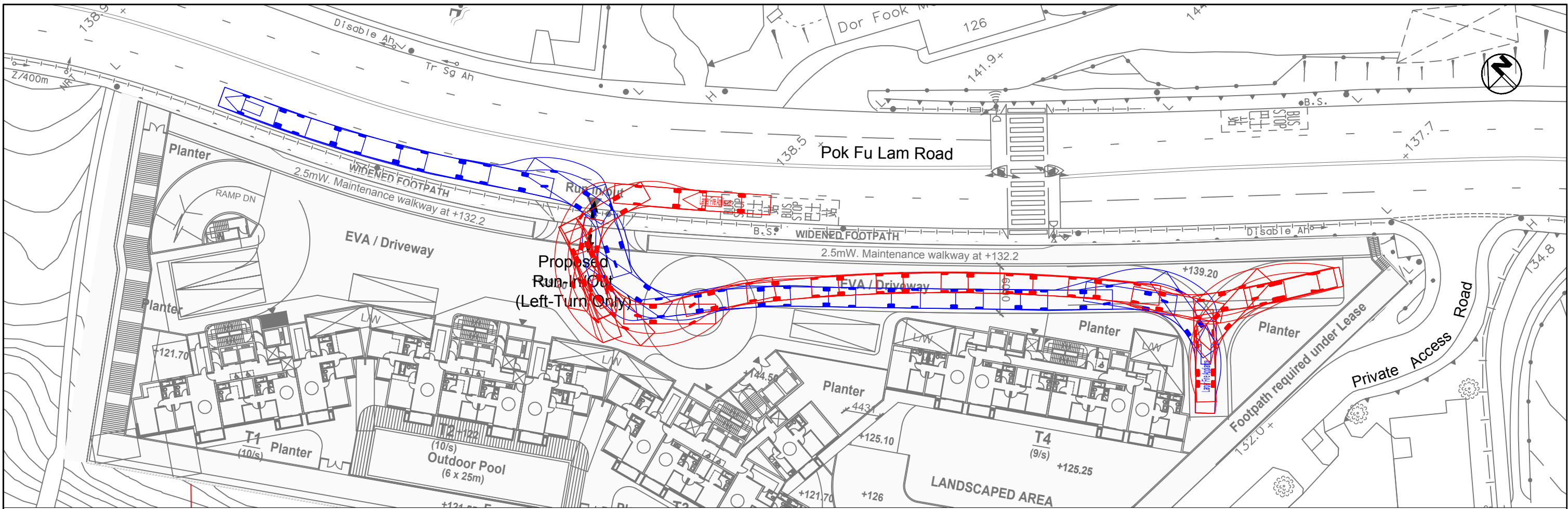
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Dwg No. LG2-Layout	

Appendix B

Vehicle Swept Path Assessment Results

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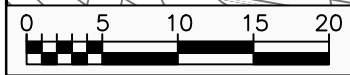
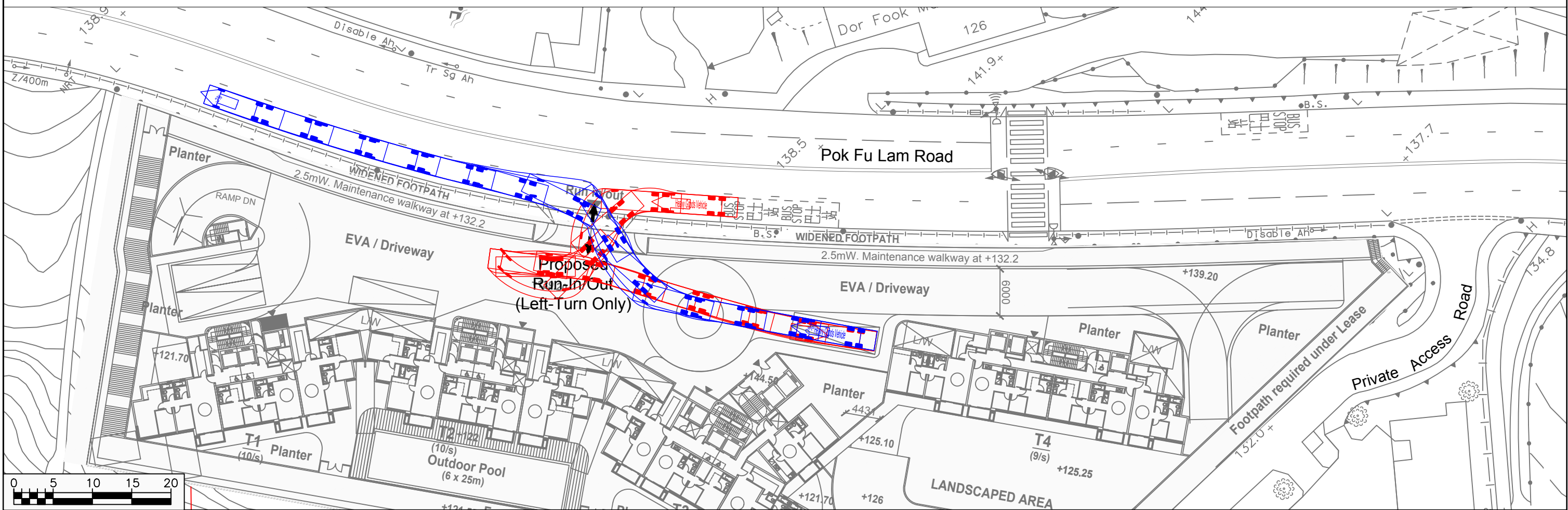
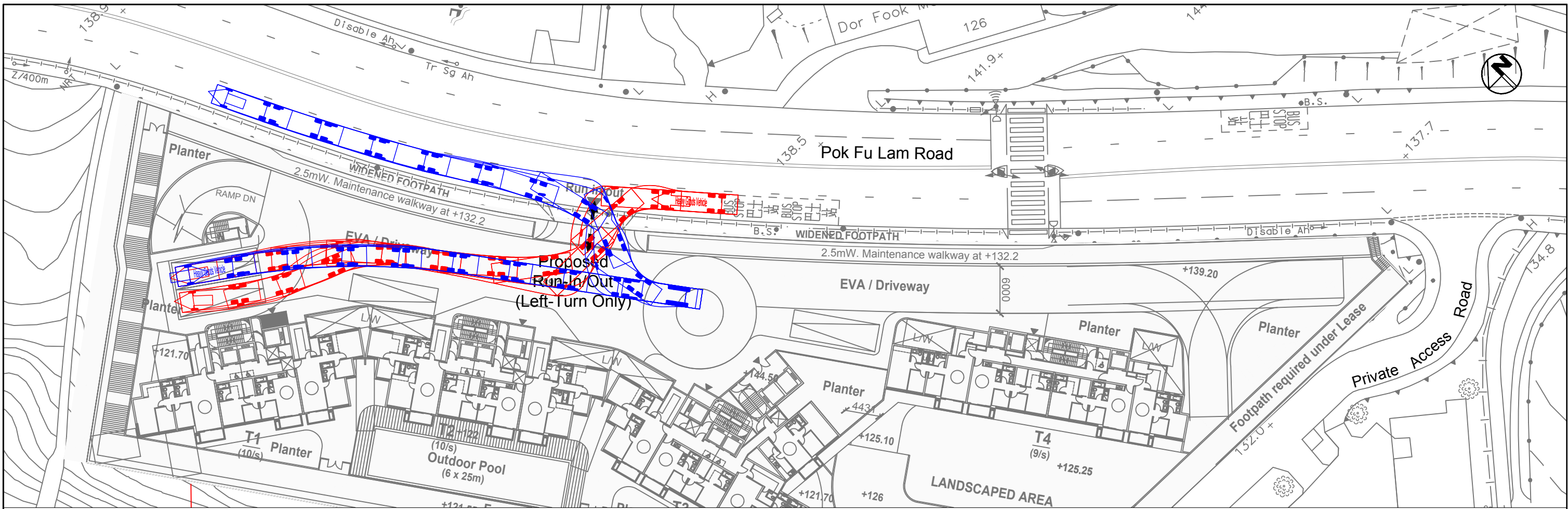
S16 Application for Layout Plan Submission and Proposed Minor Relaxation of Building Height Restriction for Permitted Flat Use At 131 Pok Fu Lam Road, Hong Kong, RBL 136RP
Swept Path Demonstration for Large Fire Engine

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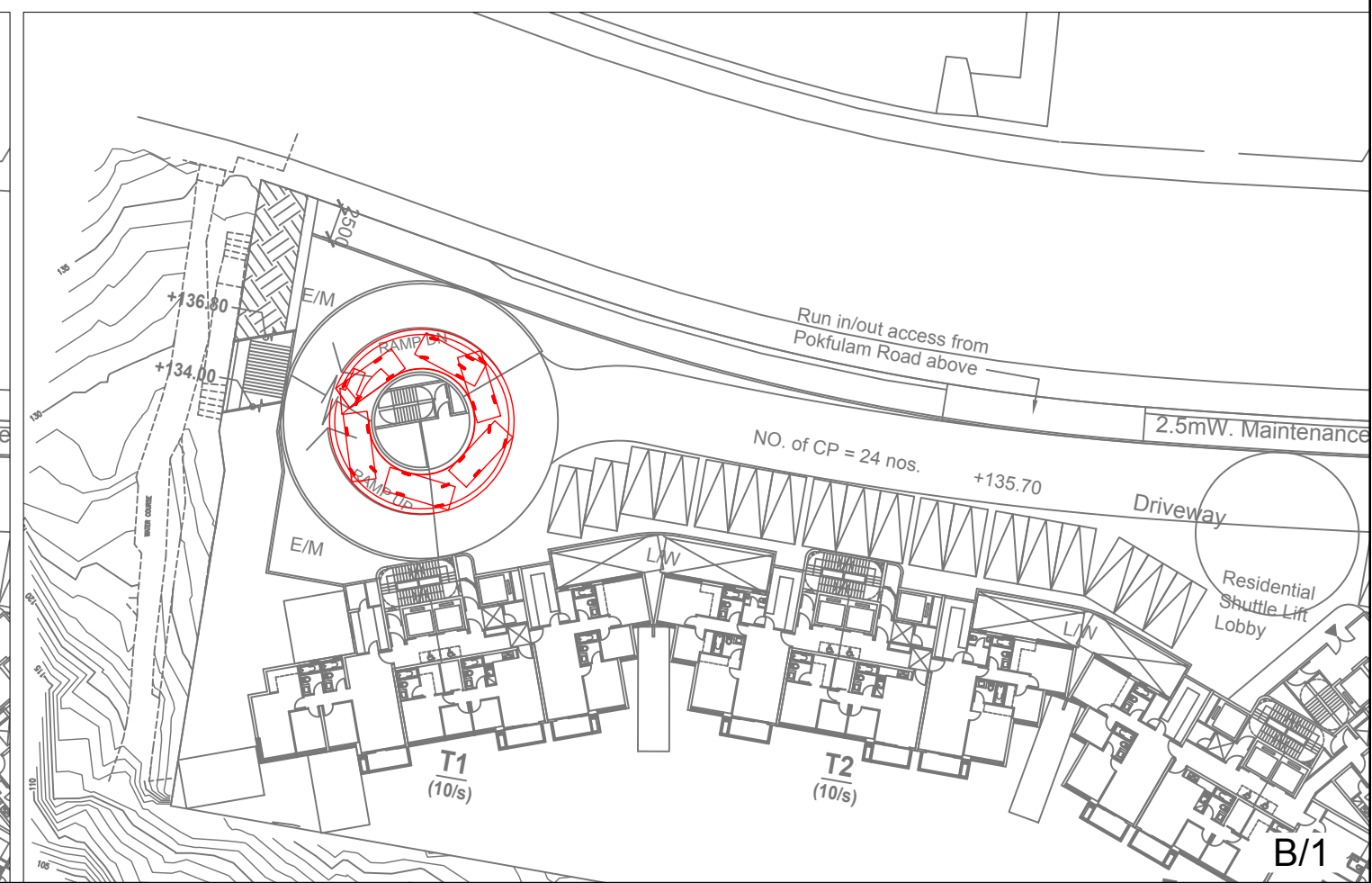
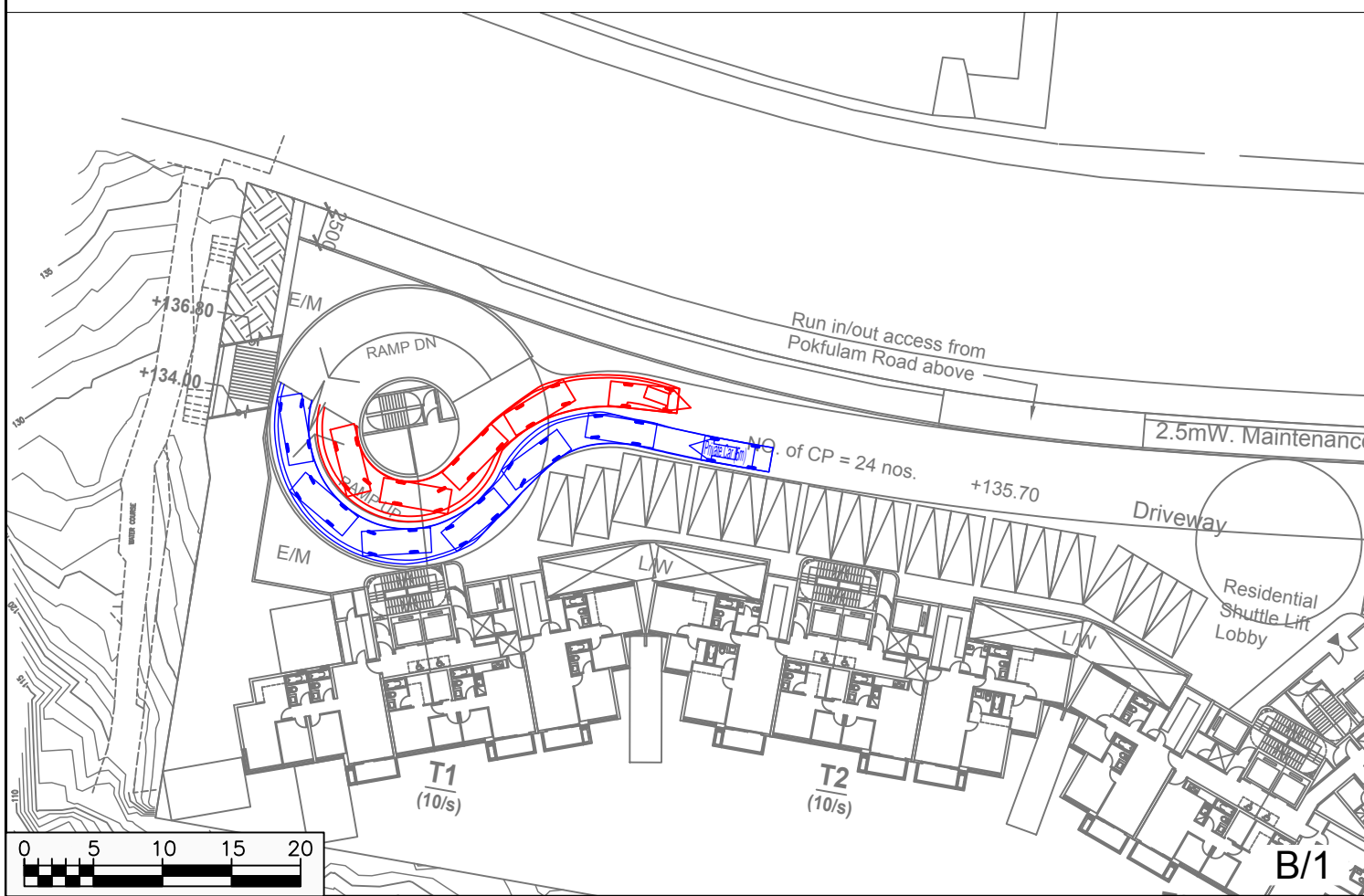
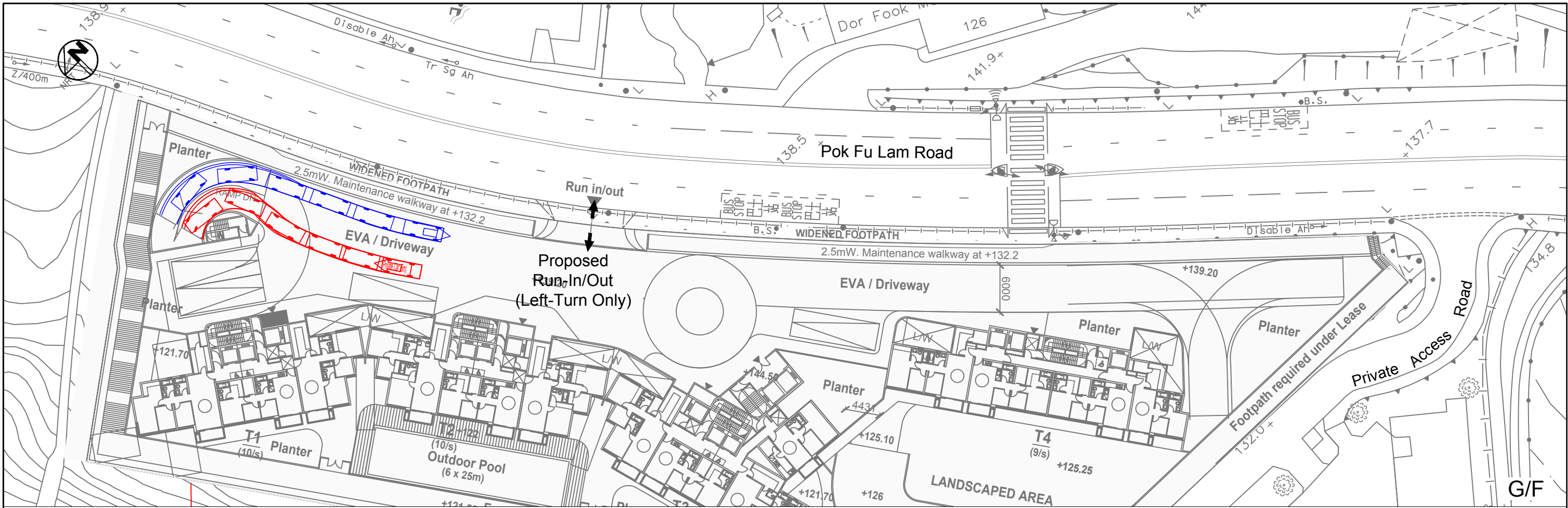
S16 Application for Layout Plan Submission and Proposed Minor Relaxation of Building Height Restriction for Permitted Flat Use At 131 Pok Fu Lam Road, Hong Kong, RBL 136RP

Swept Path Demonstration for 10m Goods Vehicle

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S16 Application for Layout Plan Submission and Proposed Minor Relaxation of Building Height Restriction for Permitted Flat Use At 131 Pok Fu Lam Road, Hong Kong, RBL 136RP
Swept Path Demonstration for 5m Private Car

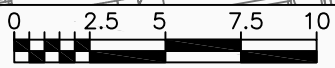
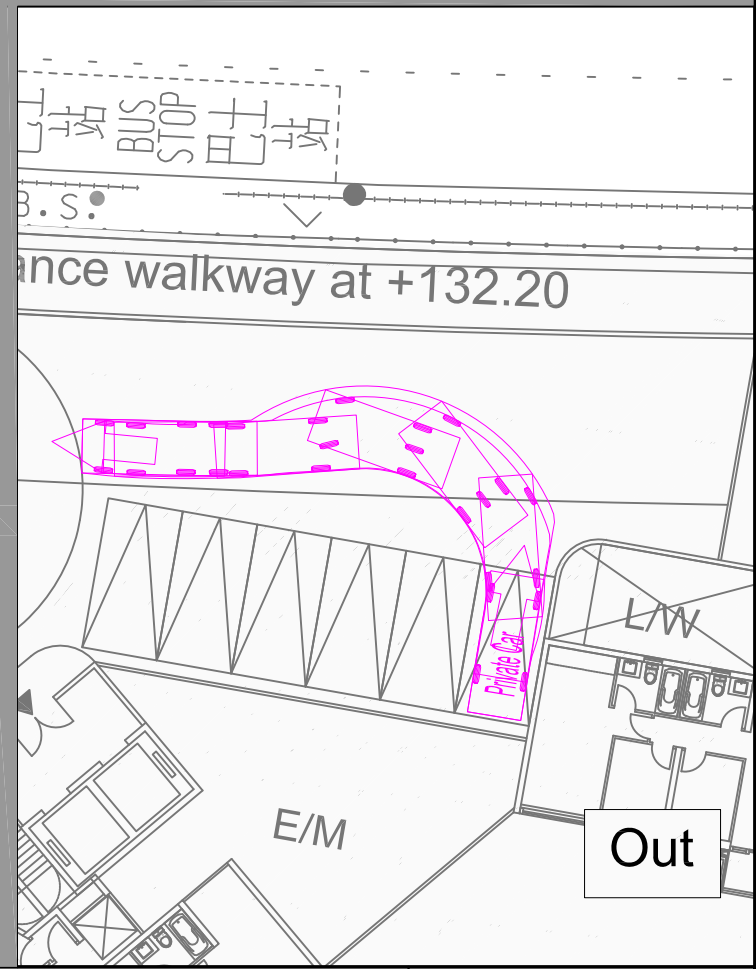
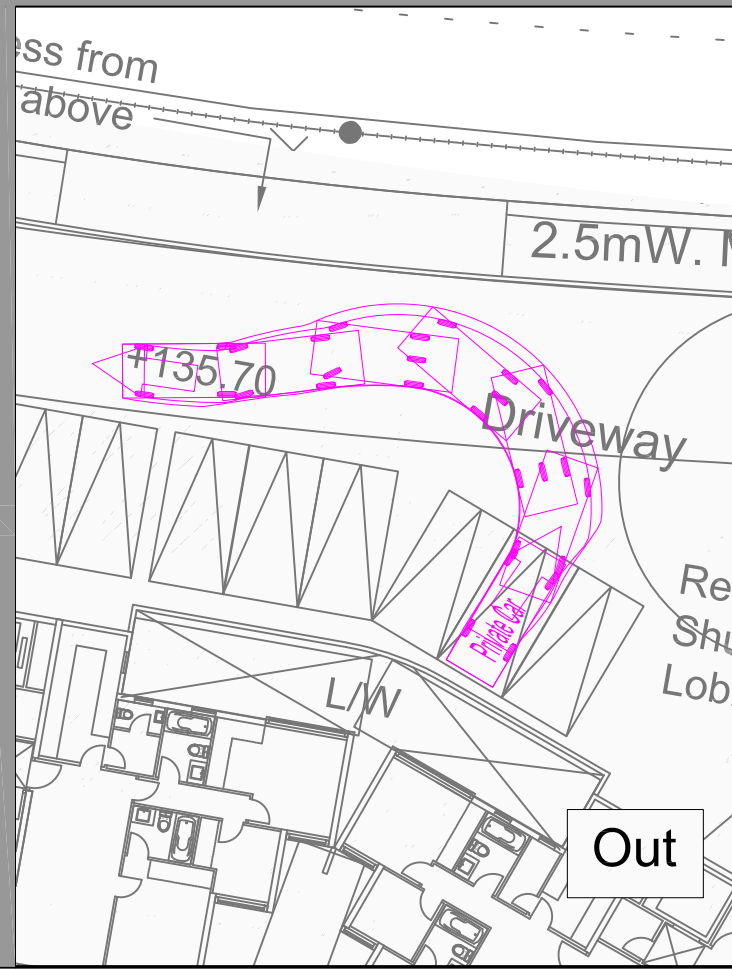
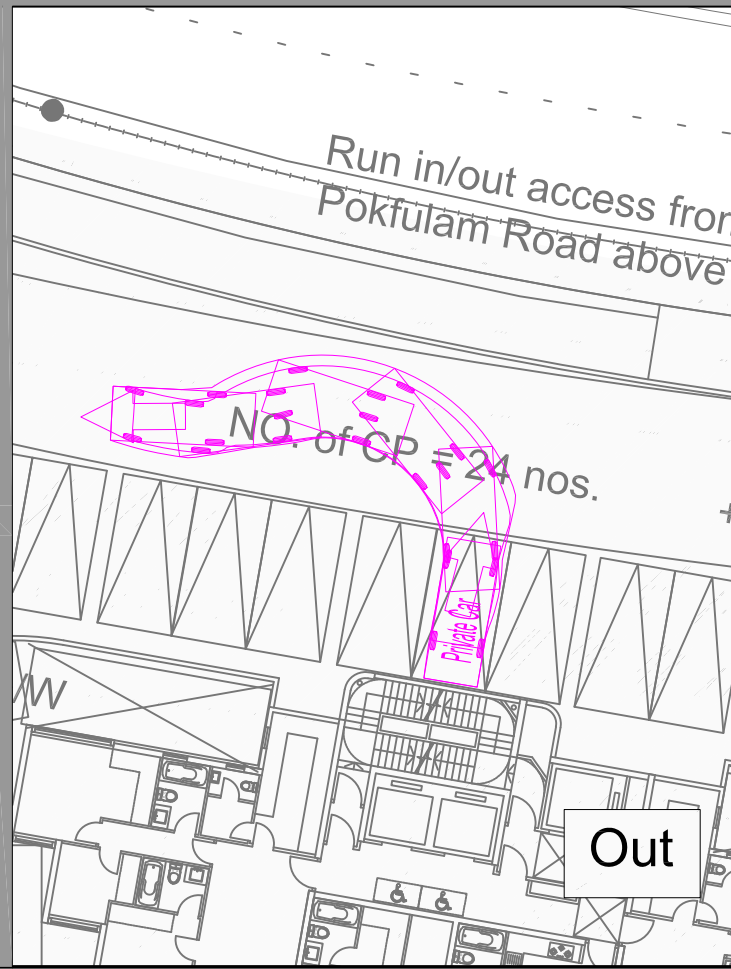
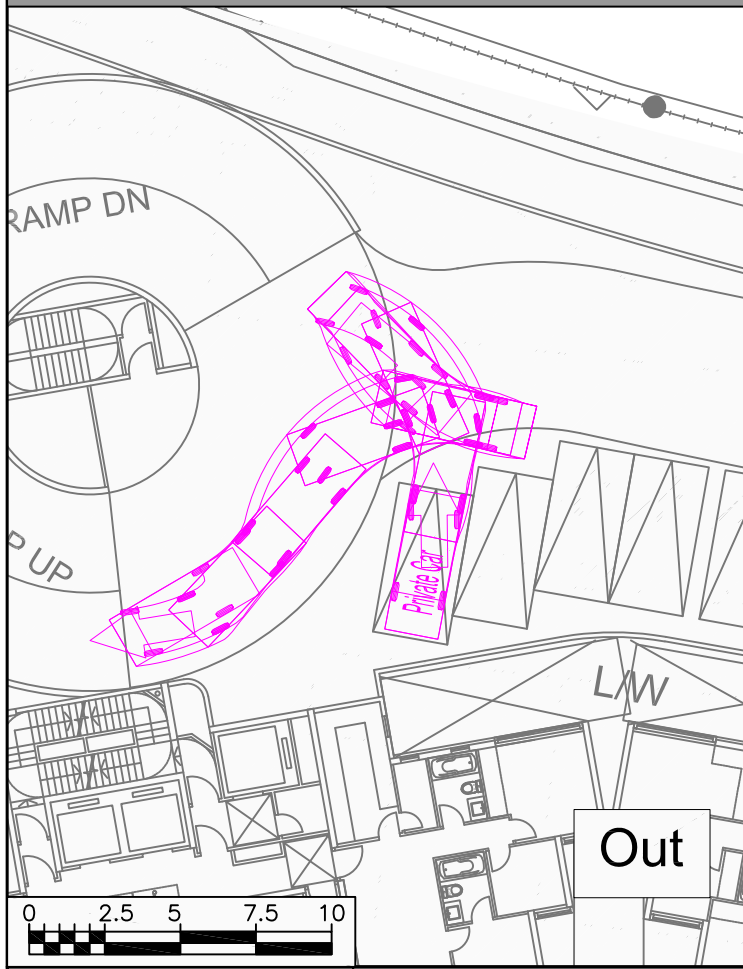
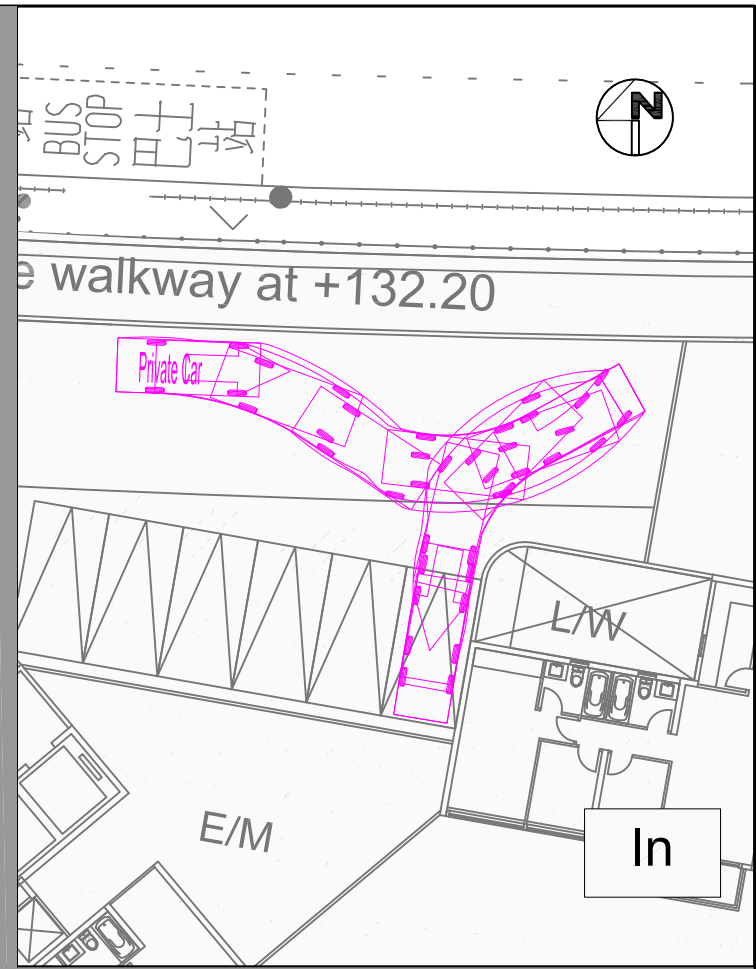
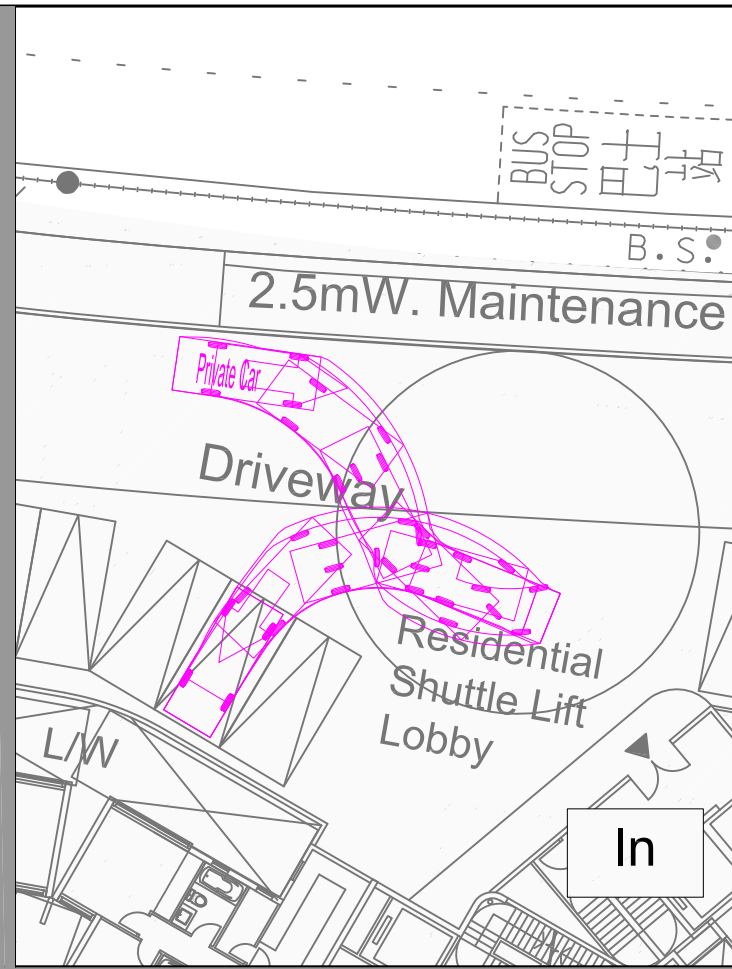
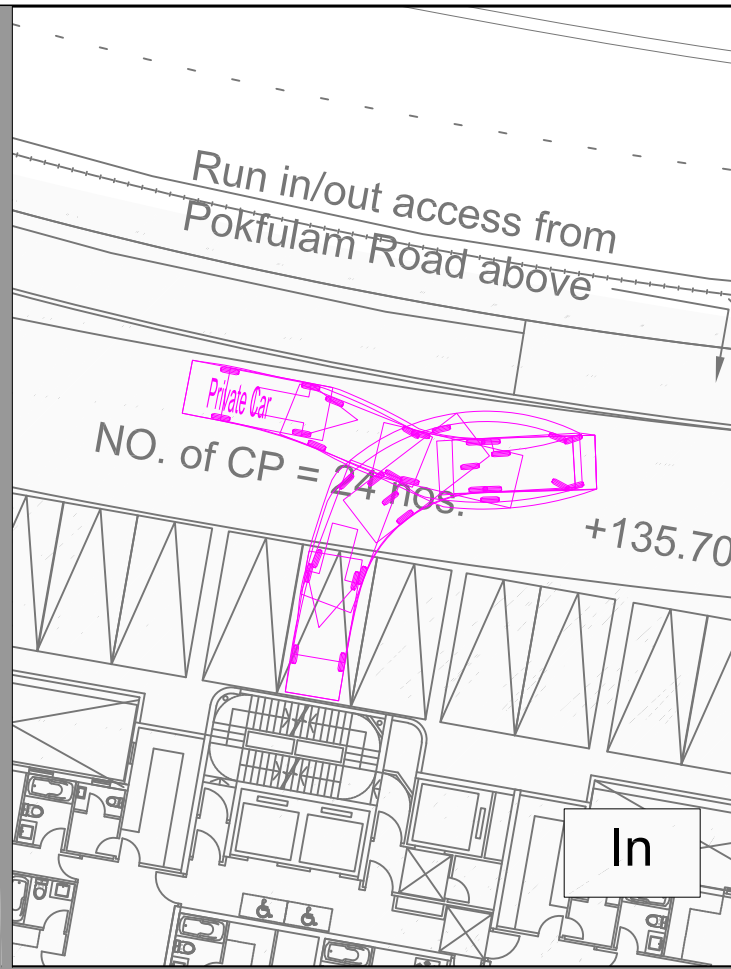
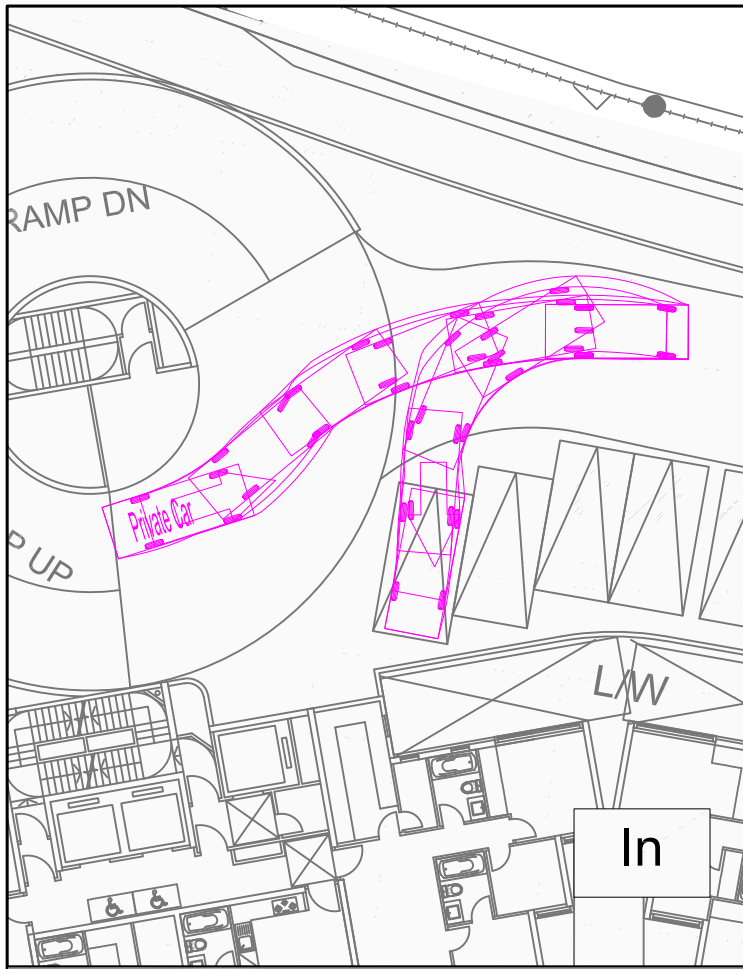


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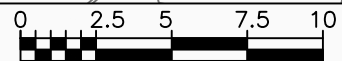
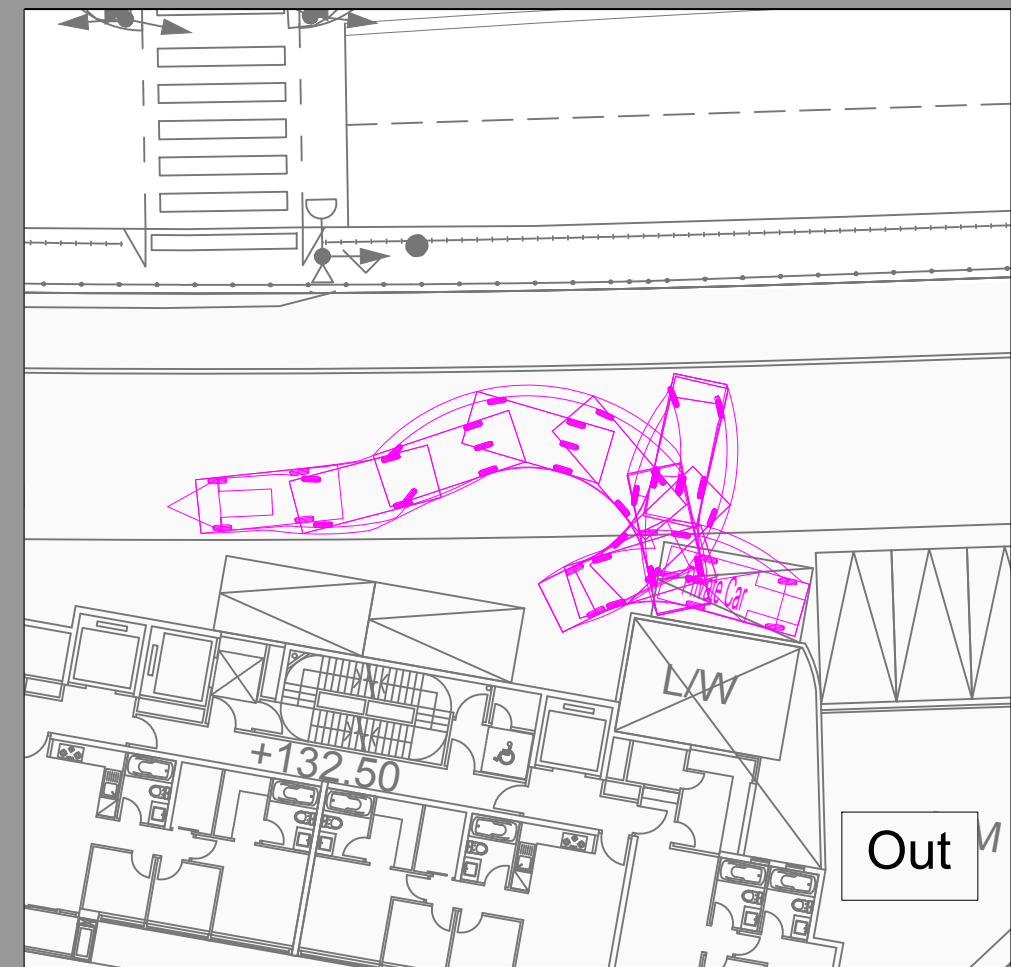
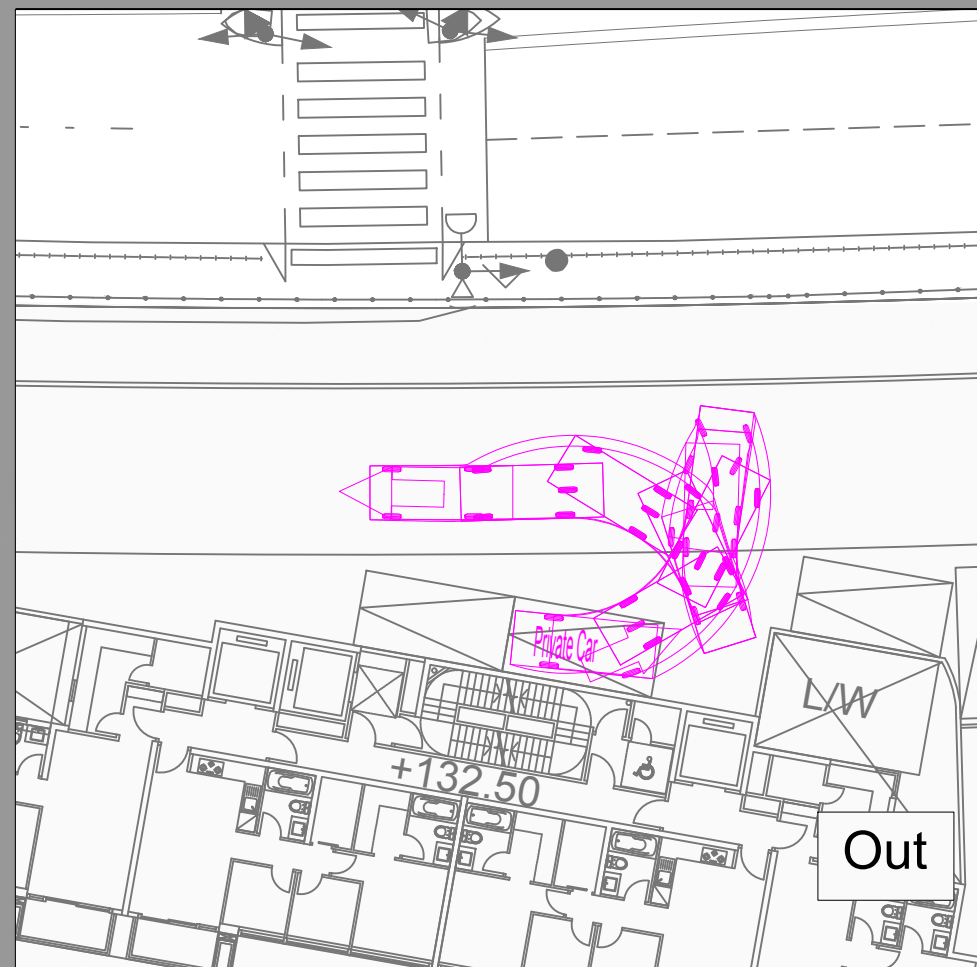
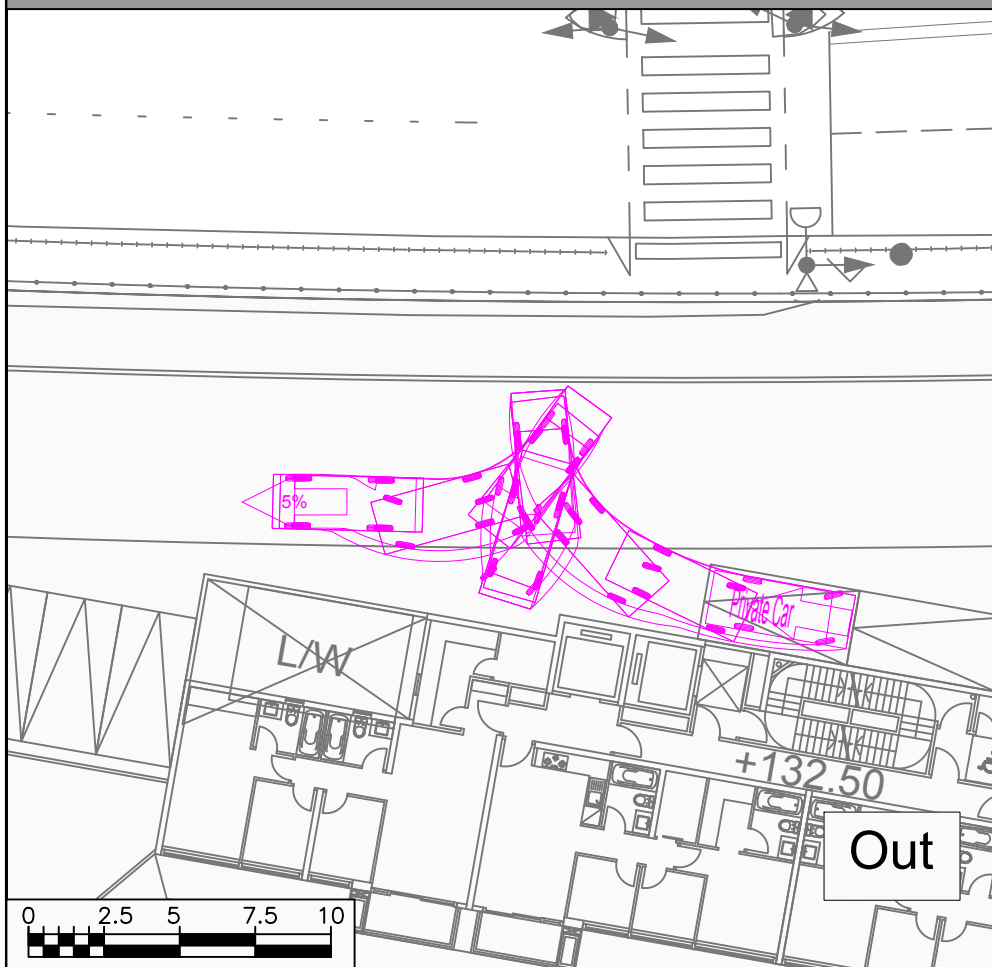
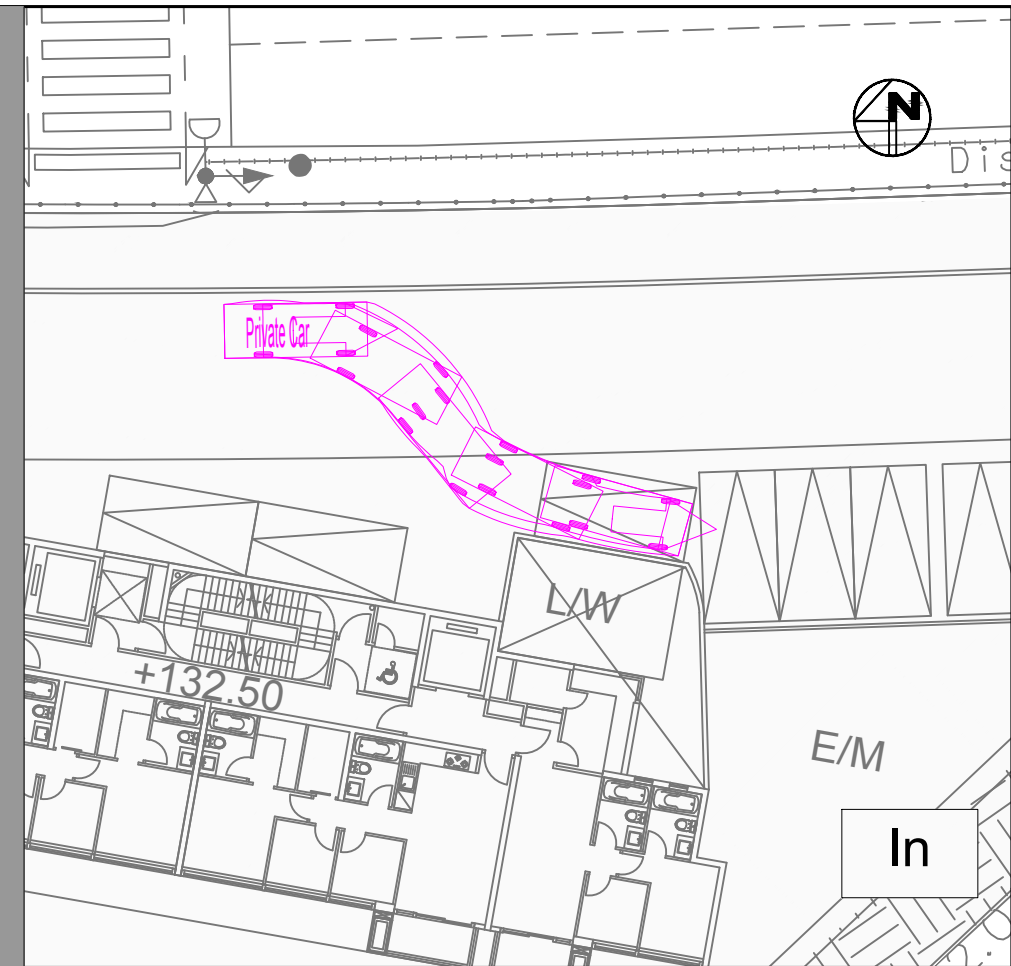
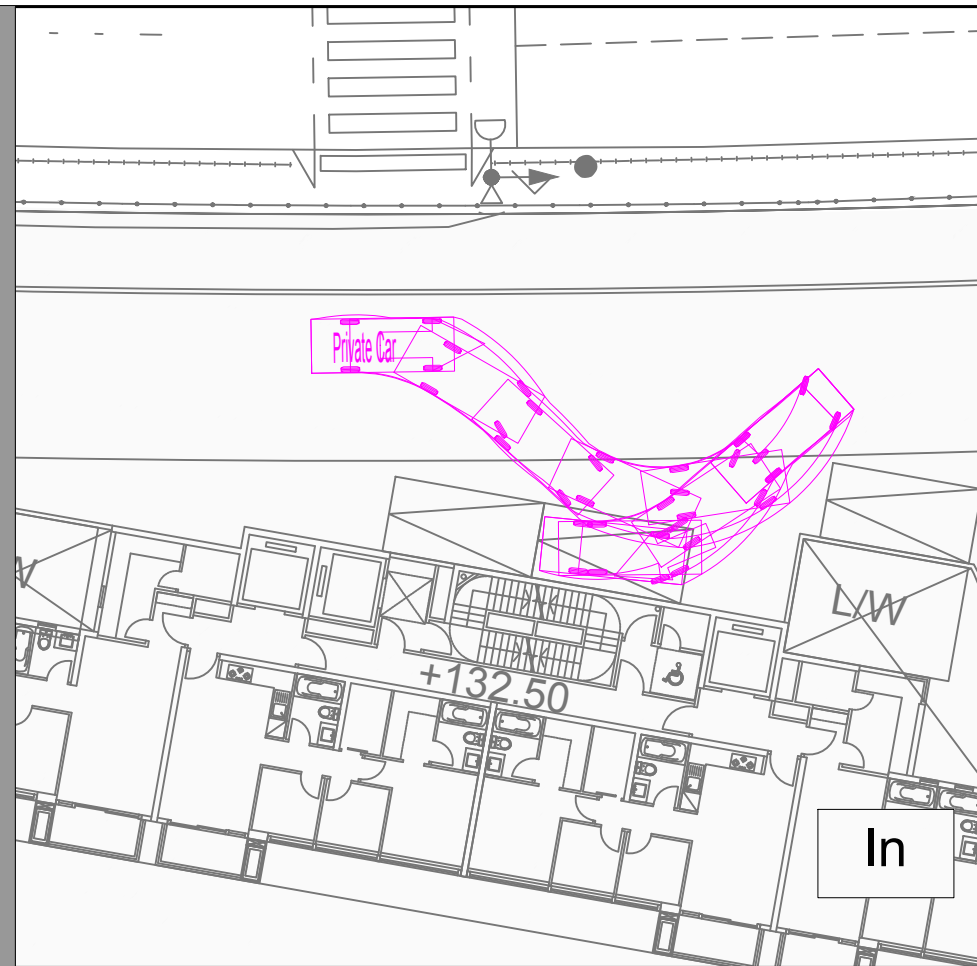
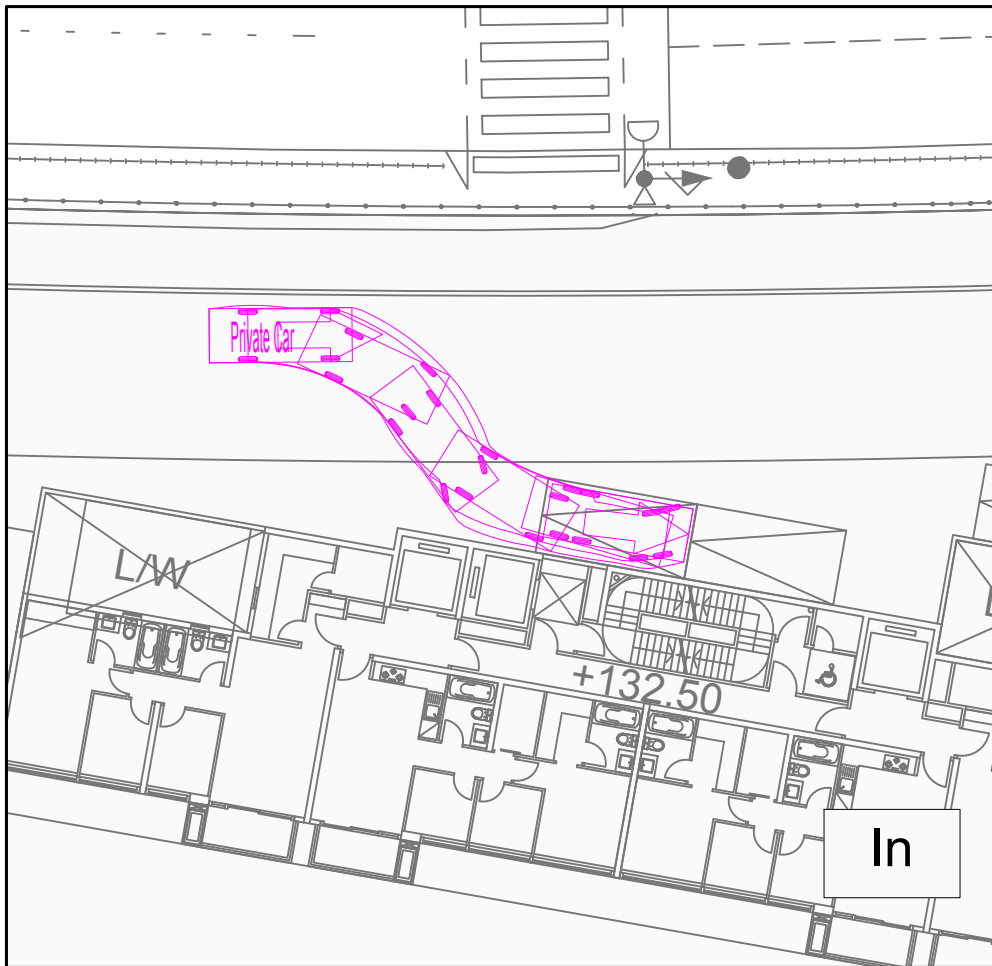
Project Title
S16 Application for Layout Plan Submission and Proposed Minor Relaxation of Building Height Restriction for Permitted Flat Use At 131 Pok Fu Lam Road, Hong Kong, RBL 136RP
 Swept Path Demonstration for Private Car on B1/F

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Project Title

S16 Application for Layout Plan Submission and Proposed Minor Relaxation of Building Height Restriction for Permitted Flat Use At 131 Pok Fu Lam Road, Hong Kong, RBL 136RP

Swept Path Demonstration for Private Car on B2/F



Project No. 82786

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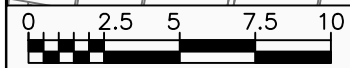
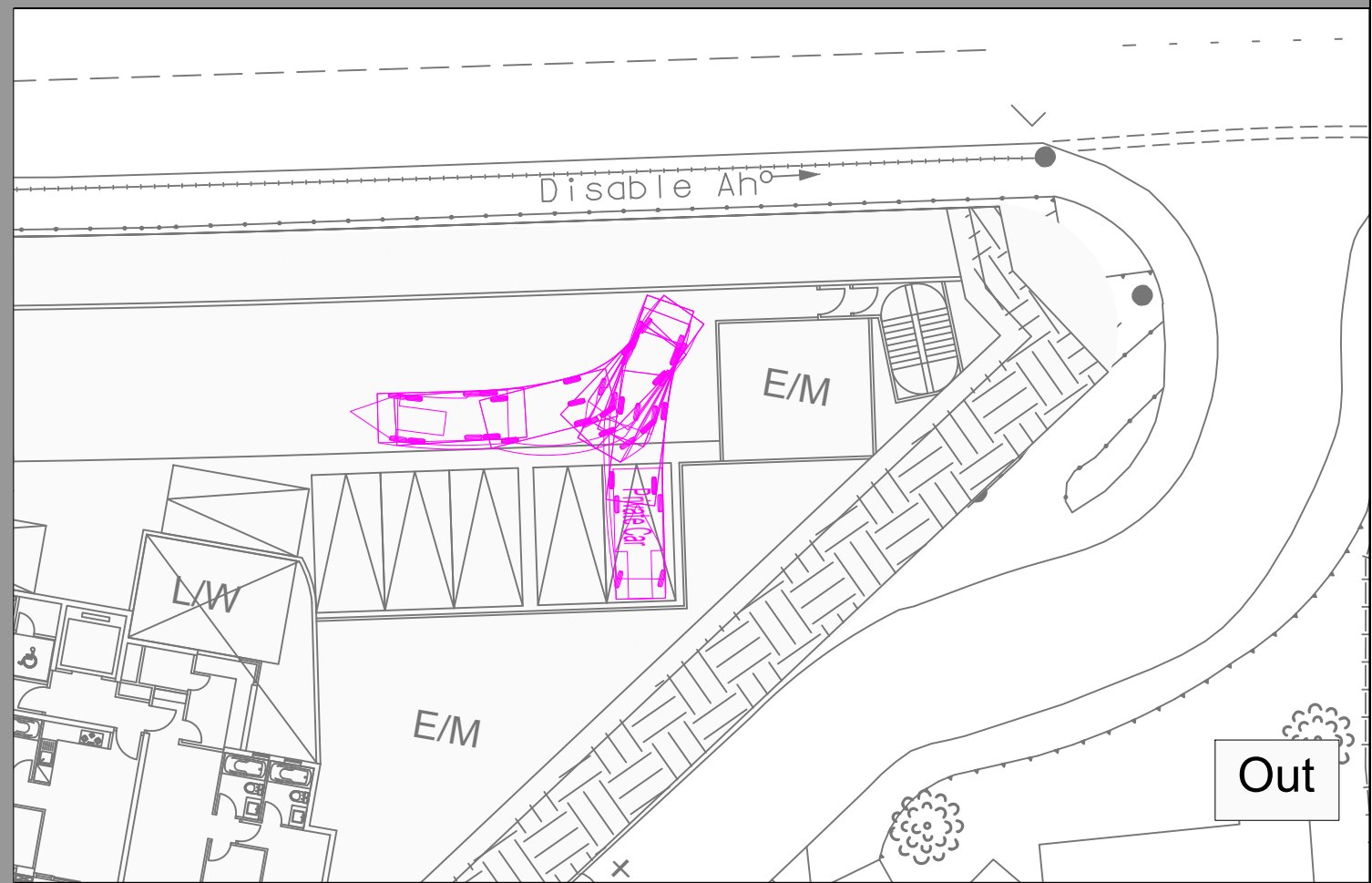
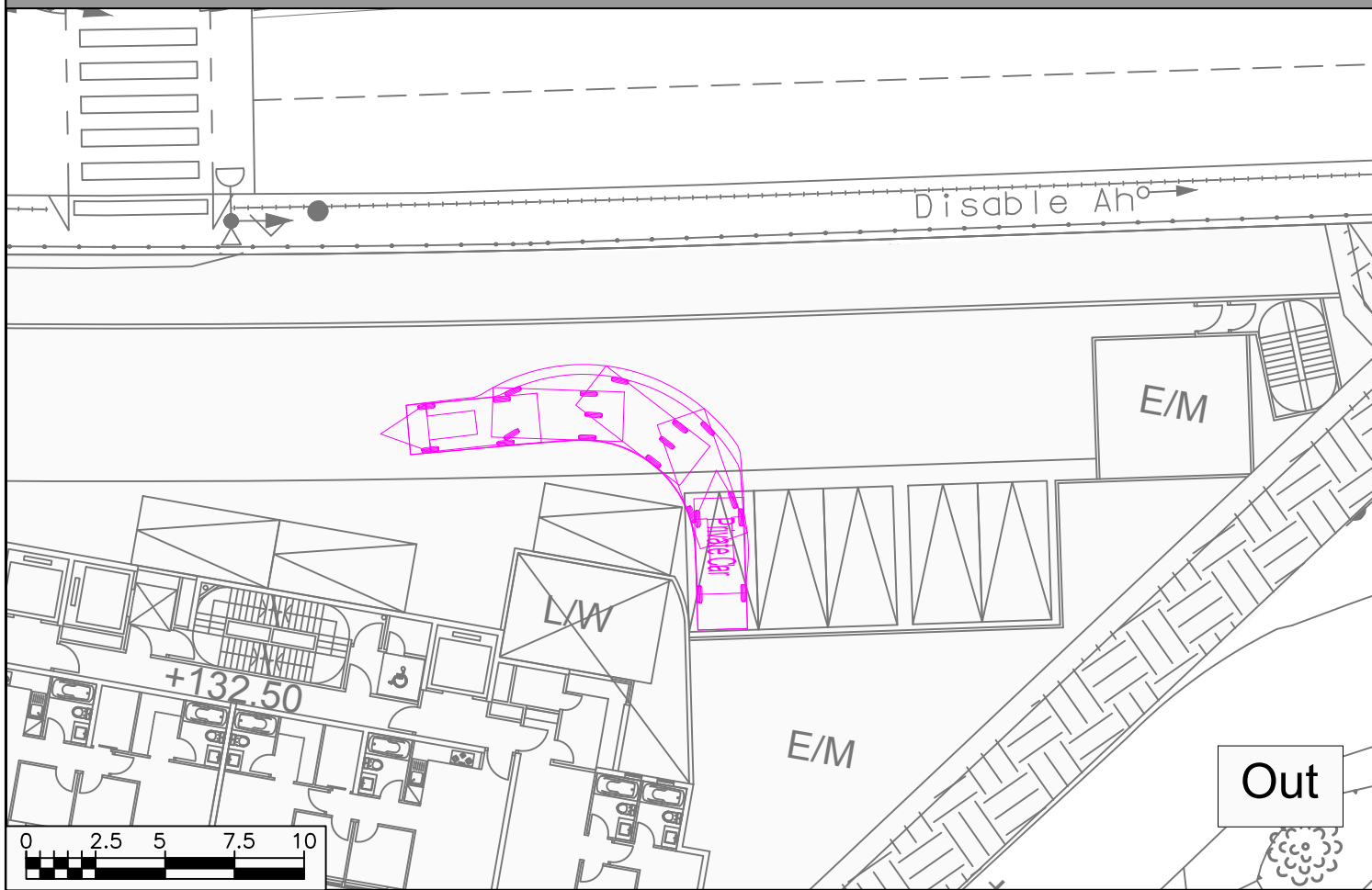
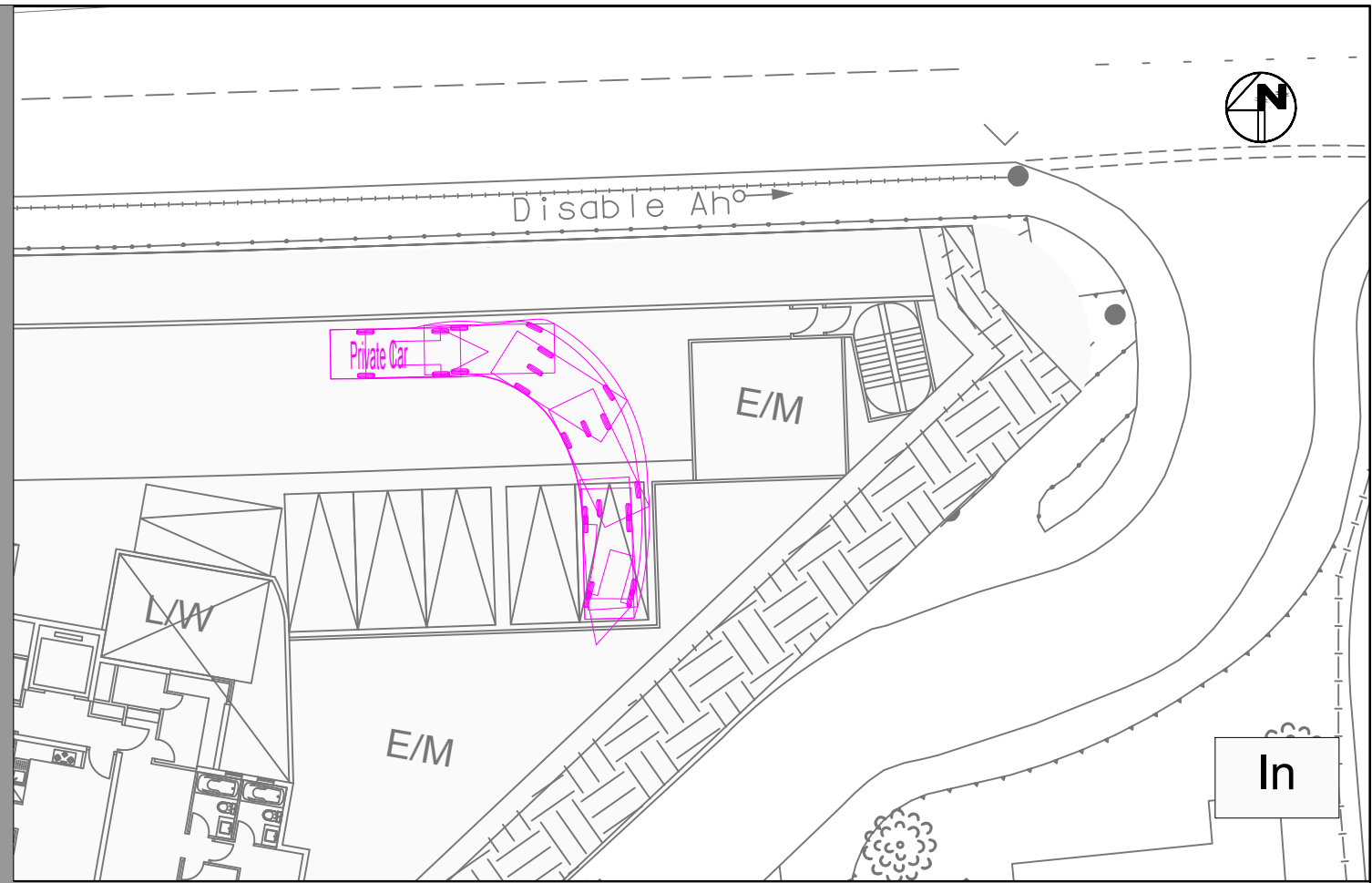
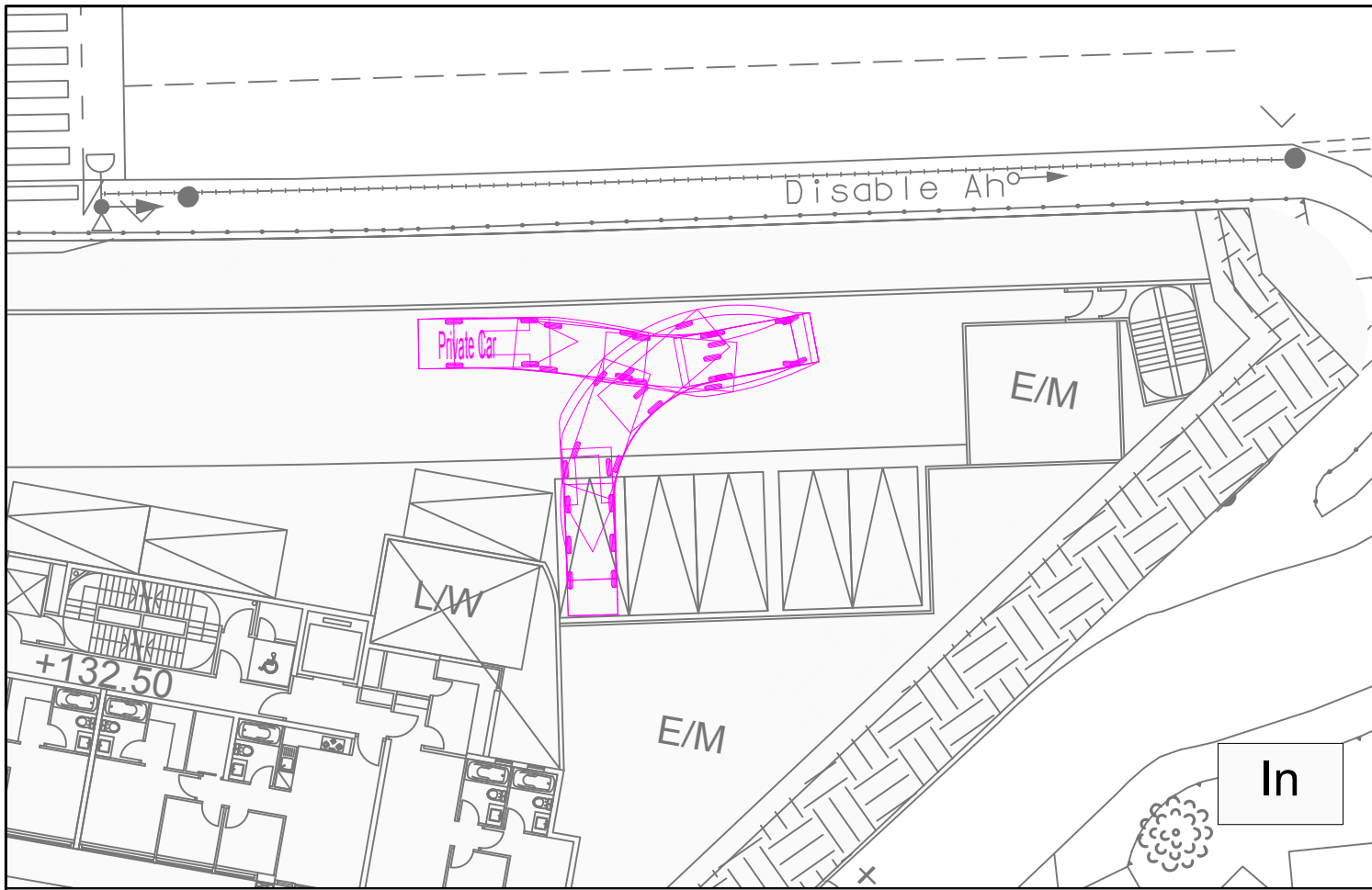
Dwg No. B2-SP1

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Date
18/02/2024

Scale
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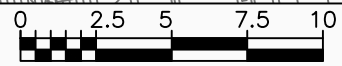
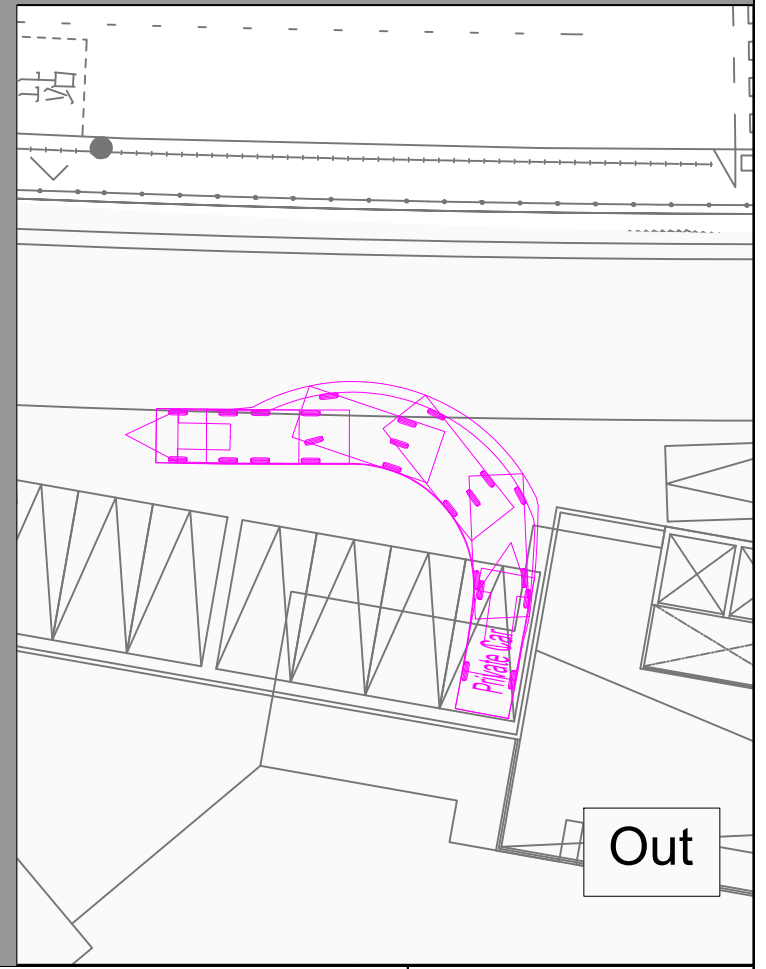
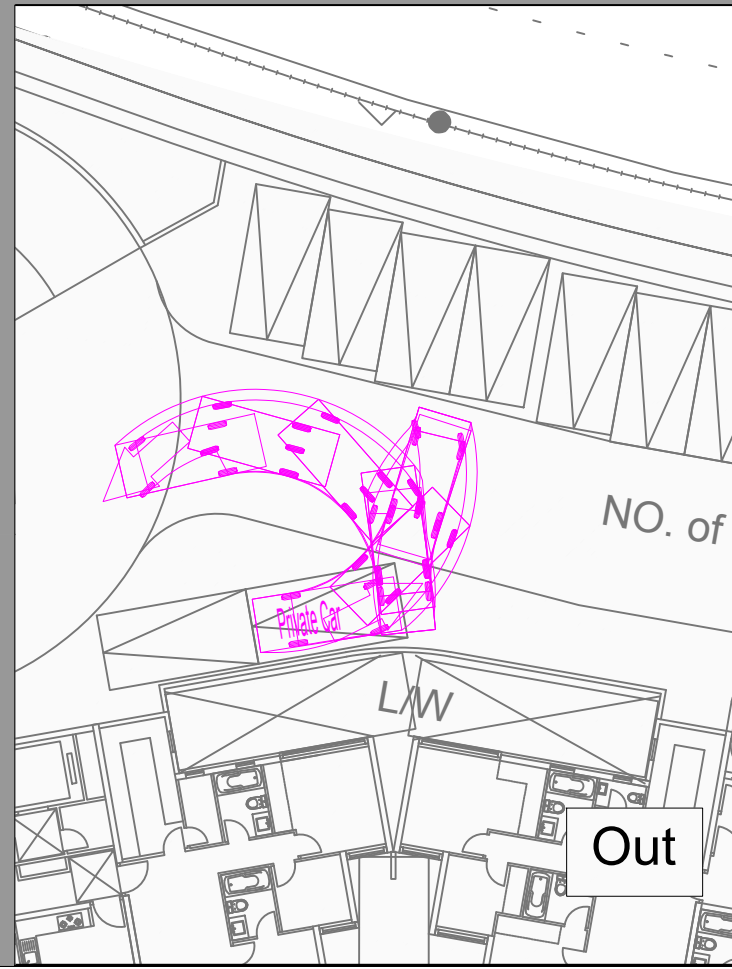
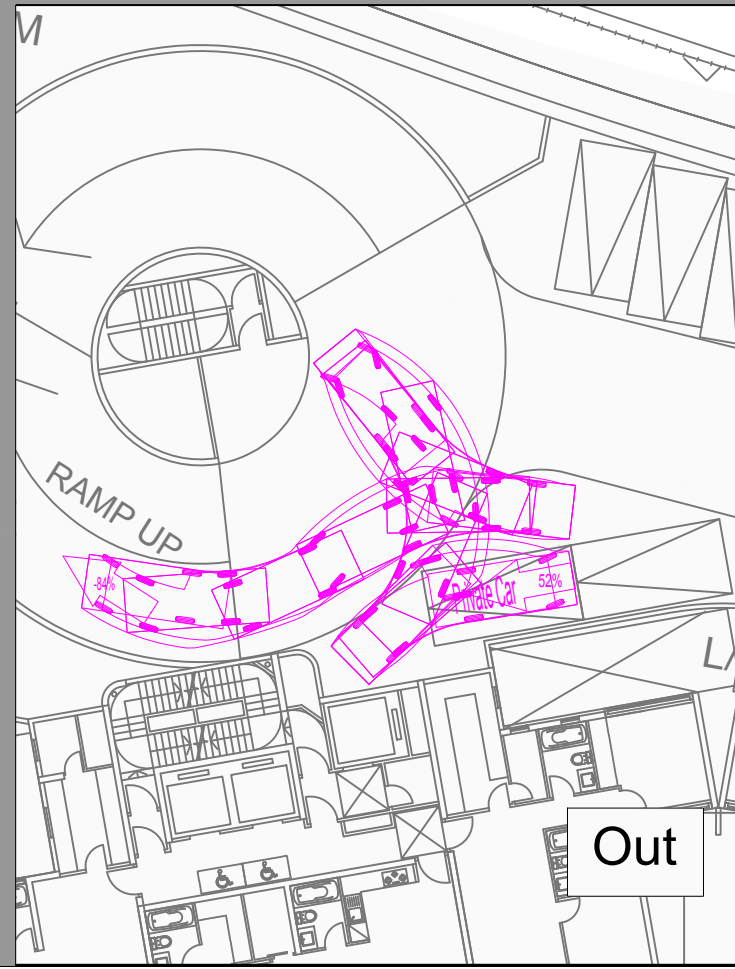
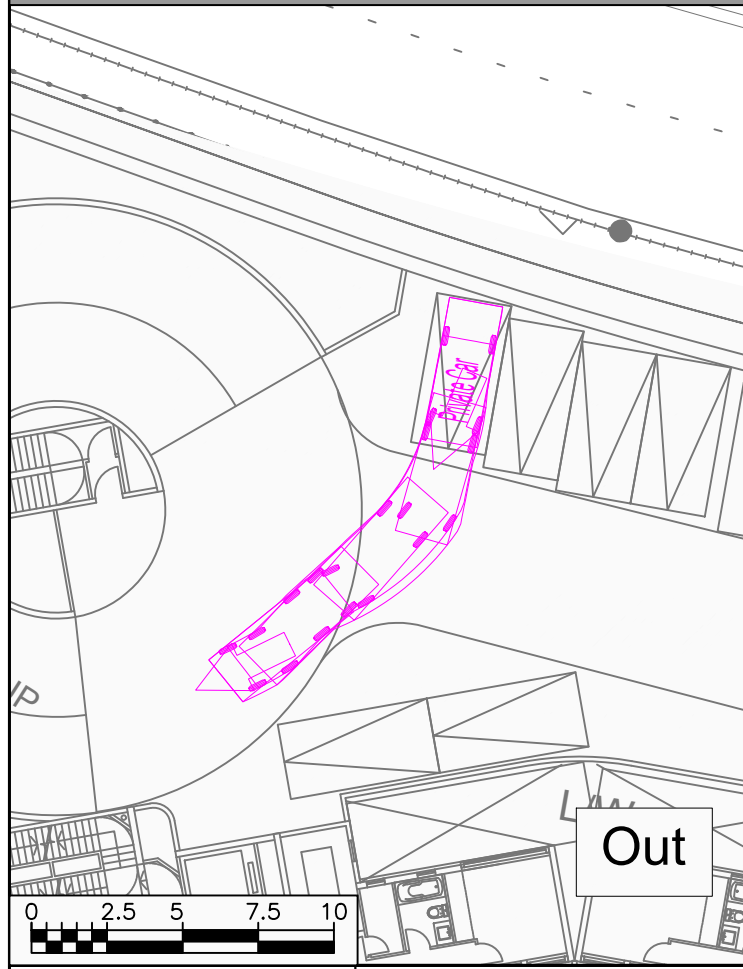
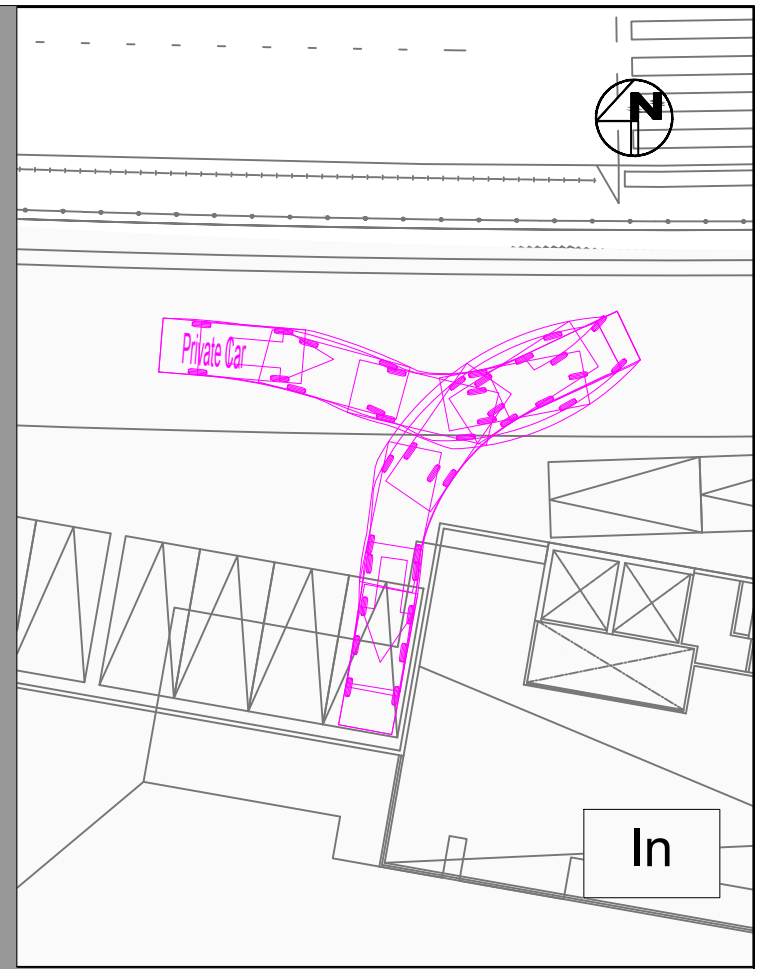
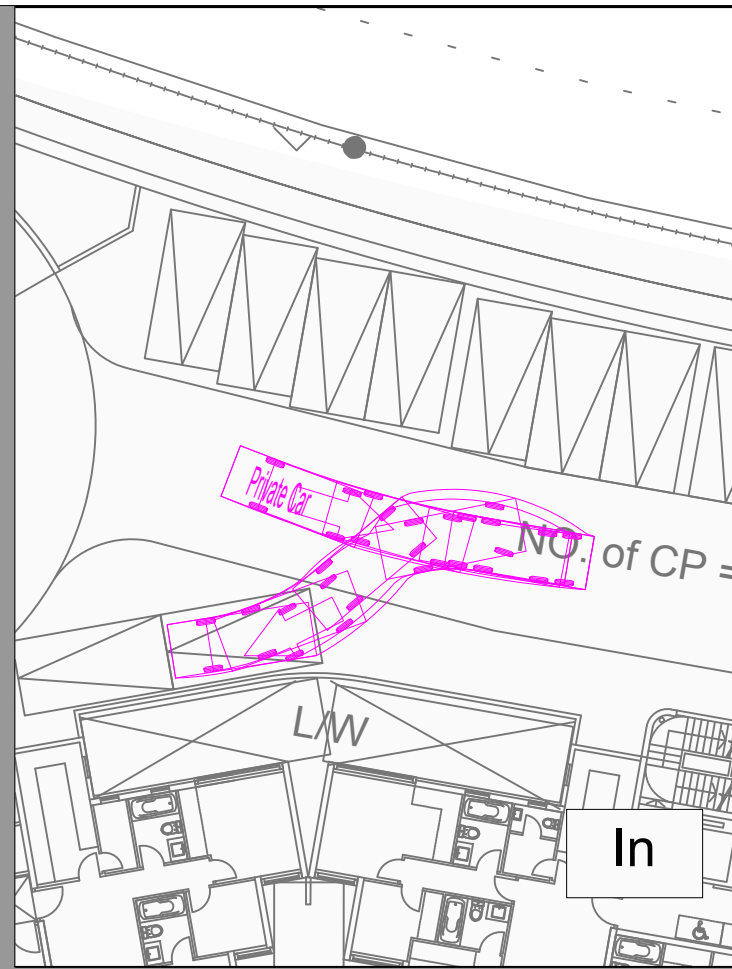
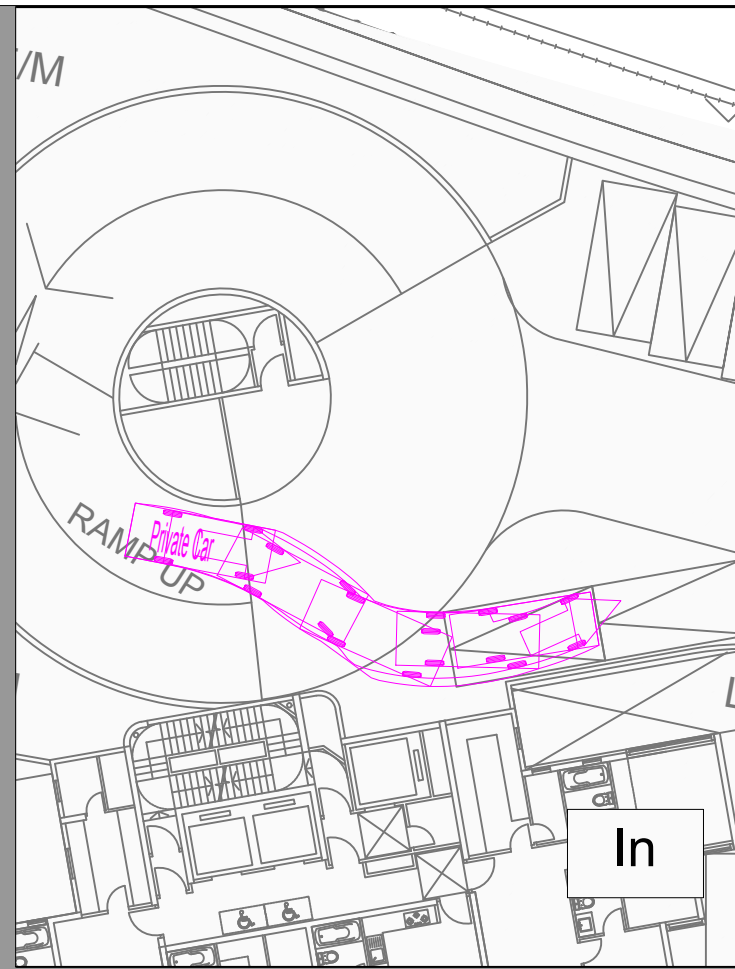
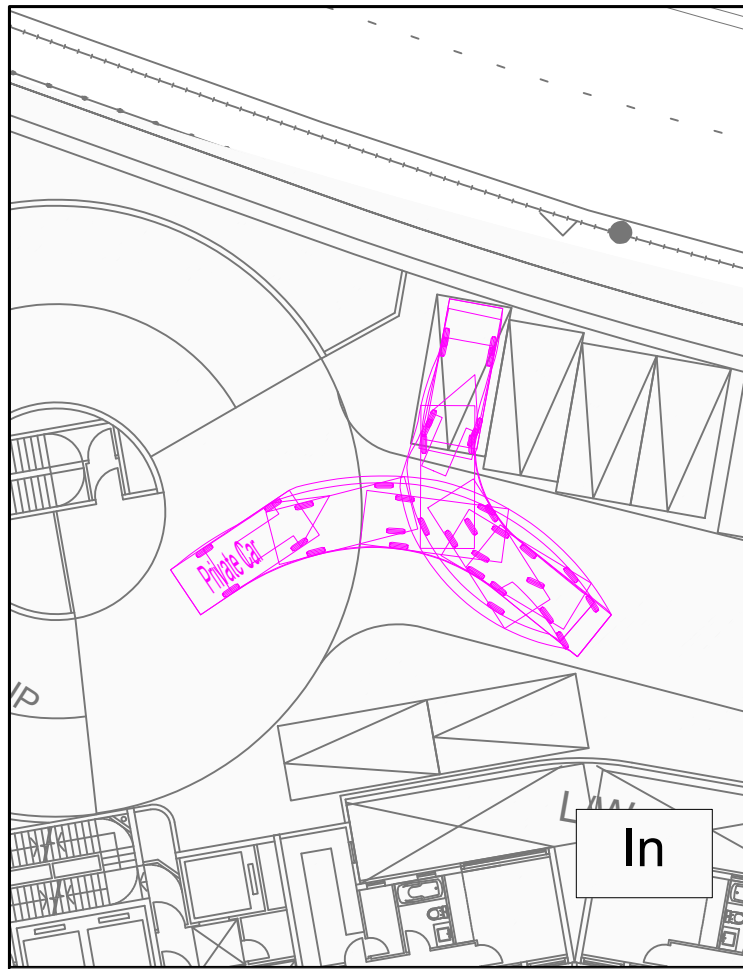
Project Title **S16 Application for Layout Plan Submission and Proposed Minor Relaxation of Building Height Restriction for Permitted Flat Use At 131 Pok Fu Lam Road, Hong Kong, RBL 136RP**

Swept Path Demonstration for Private Car on B2/F

Date 18/02/2024	Scale 1:250
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Project No. 82786	Rev. A
Dwg No. B2-SP2	

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Project Title

S16 Application for Layout Plan Submission and Proposed Minor Relaxation of Building Height Restriction for Permitted Flat Use At 131 Pok Fu Lam Road, Hong Kong, RBL 136RP

Swept Path Demonstration for Private Car on B3/F



Project No. 82786

Rev.

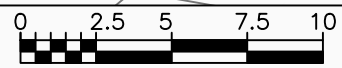
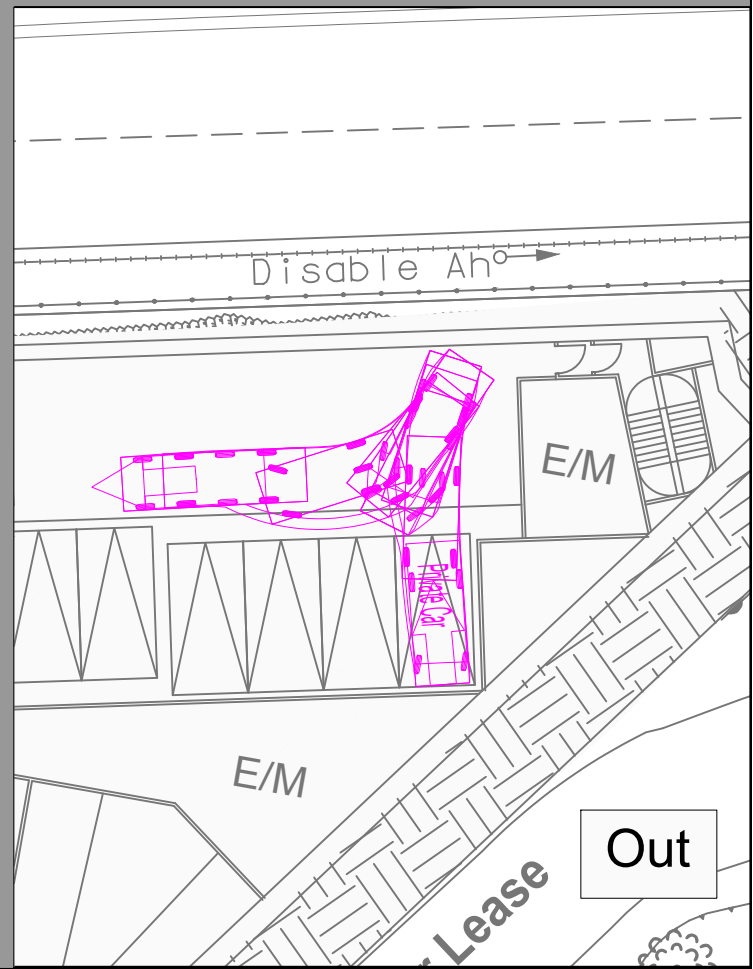
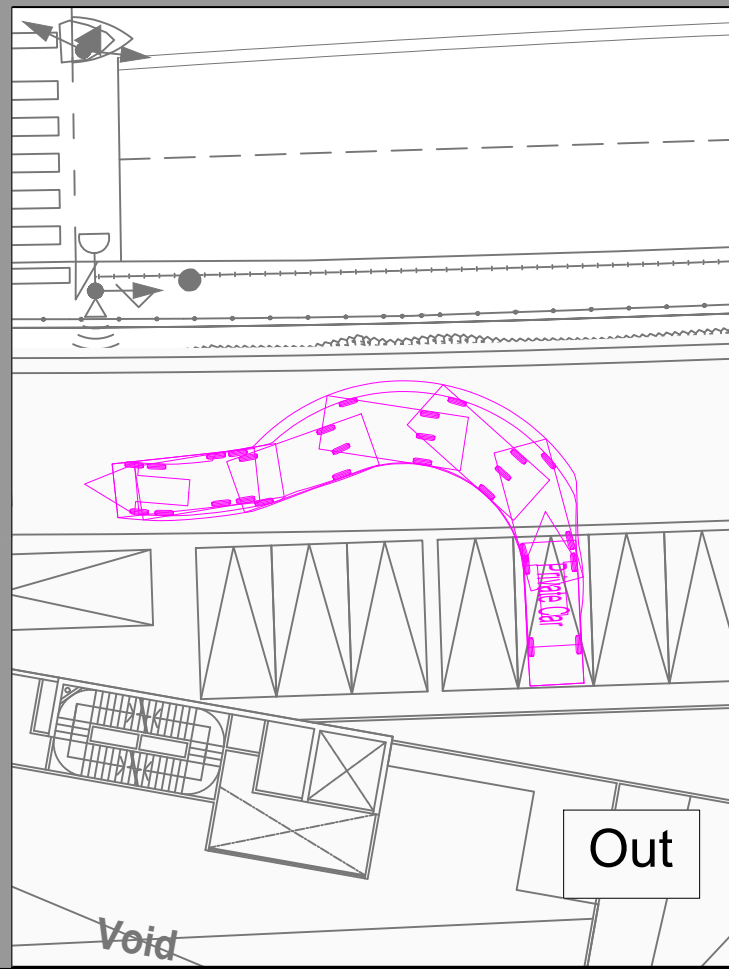
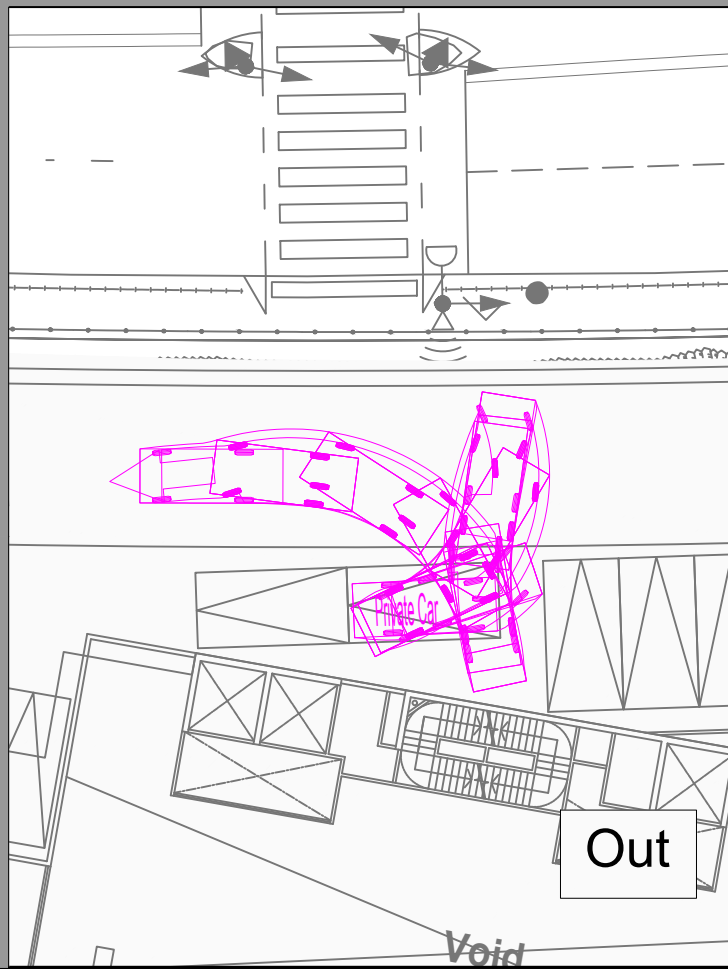
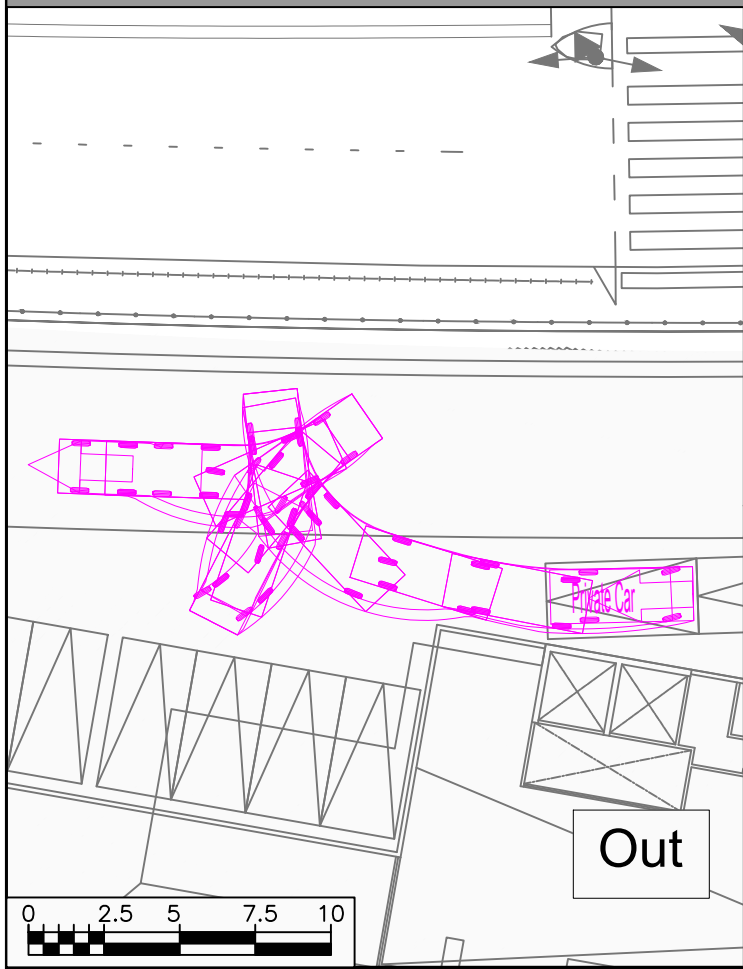
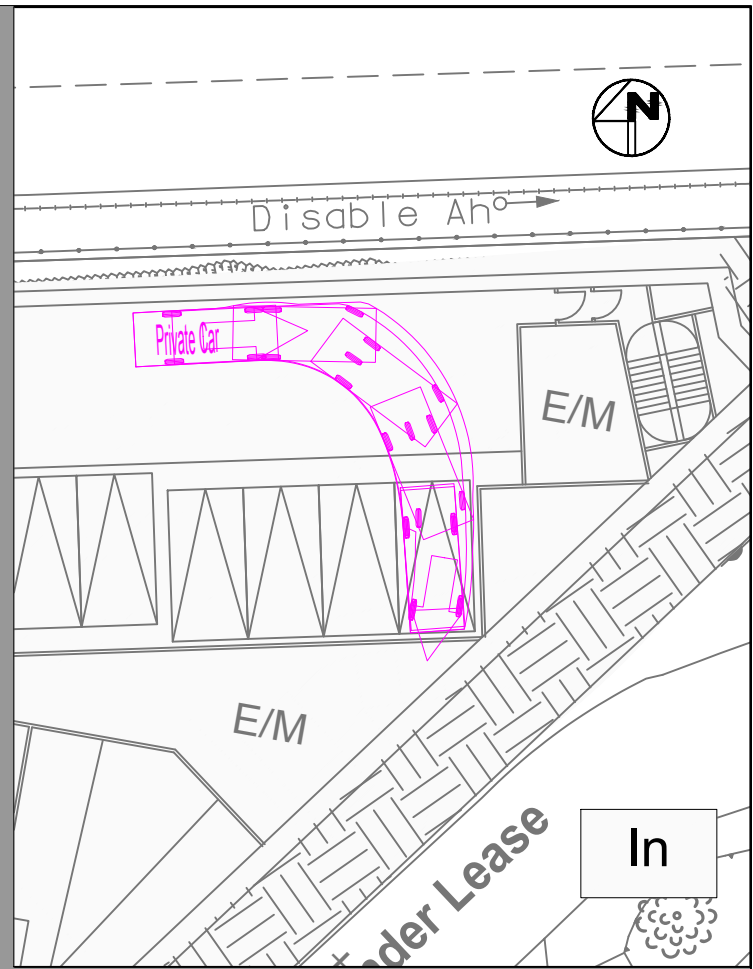
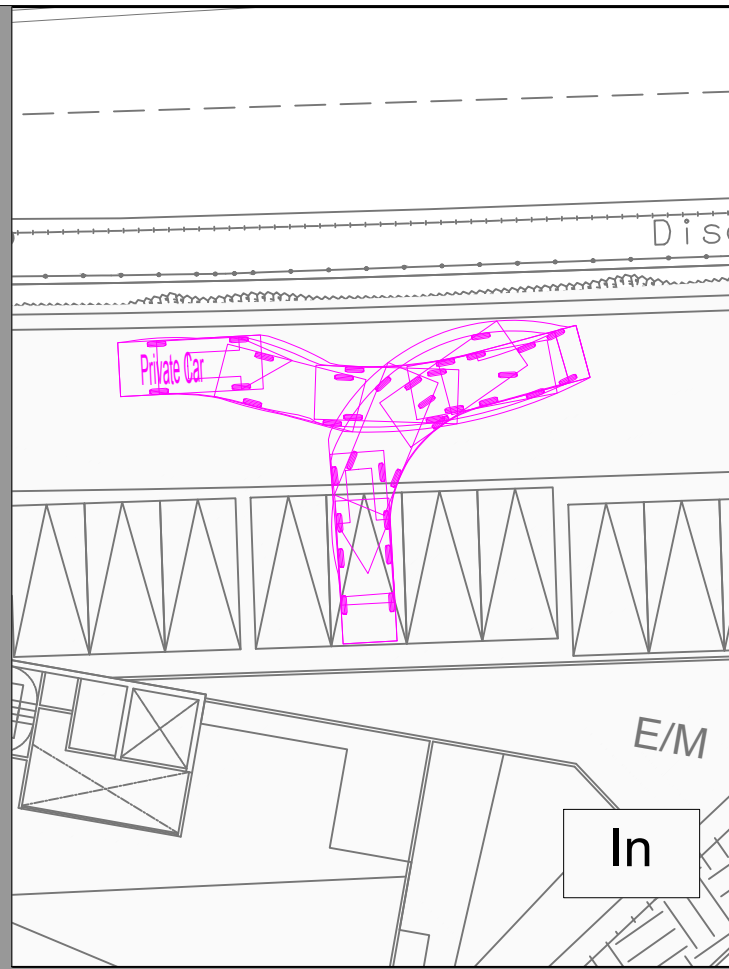
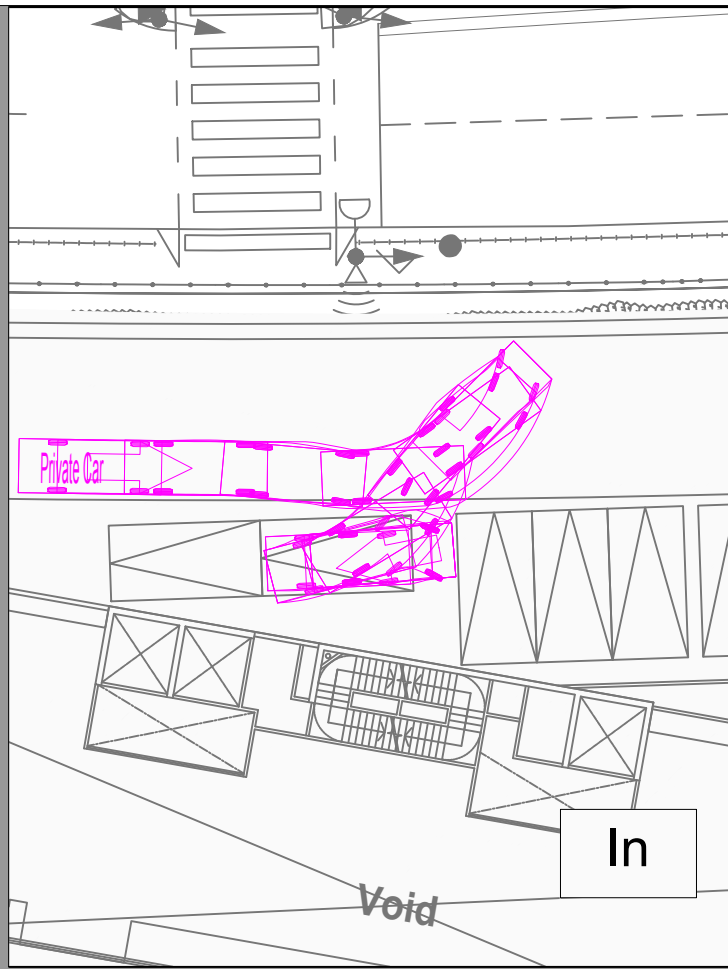
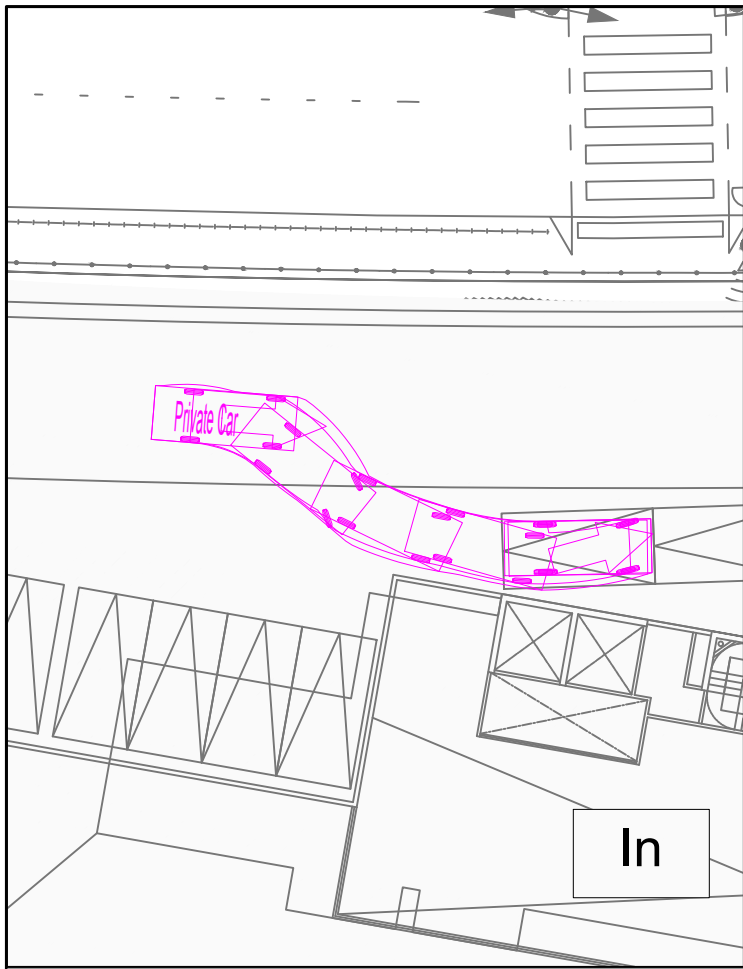
Dwg No. B3-SP1

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Date
18/02/2024

Scale
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Project Title

S16 Application for Layout Plan Submission and Proposed Minor Relaxation of Building Height Restriction for Permitted Flat Use At 131 Pok Fu Lam Road, Hong Kong, RBL 136RP

Swept Path Demonstration for Private Car on B3/F



Project No. 82786

Rev.

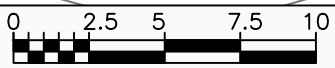
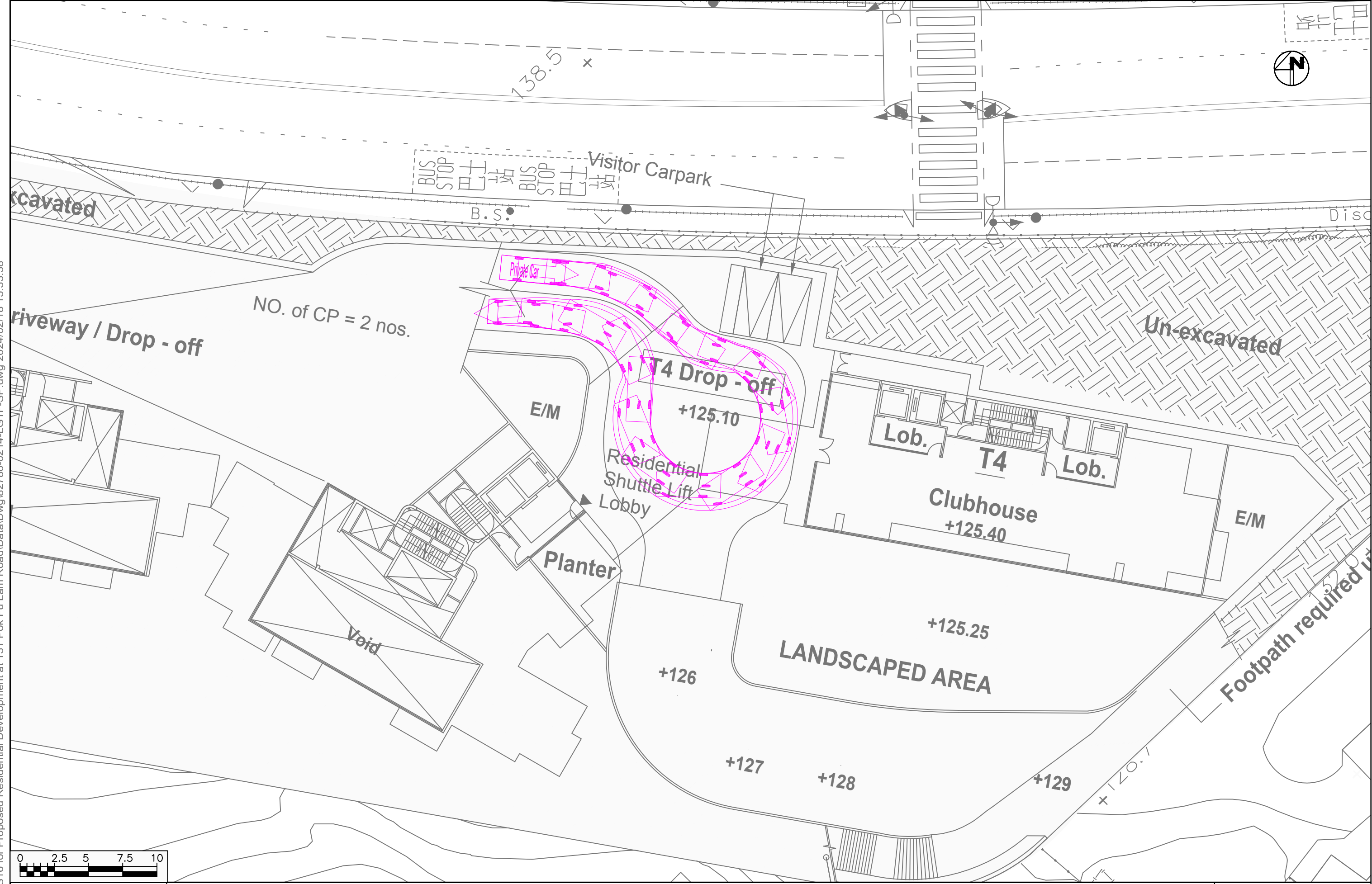
Dwg No. B3-SP2

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Date
18/02/2024

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Project Title

S16 Application for Layout Plan Submission and Proposed Minor Relaxation of Building Height Restriction for Permitted Flat Use At 131 Pok Fu Lam Road, Hong Kong, RBL 136RP

Swept Path Demonstration for Private Car on LG1/F

Date 18/02/2024

Scale 1:250

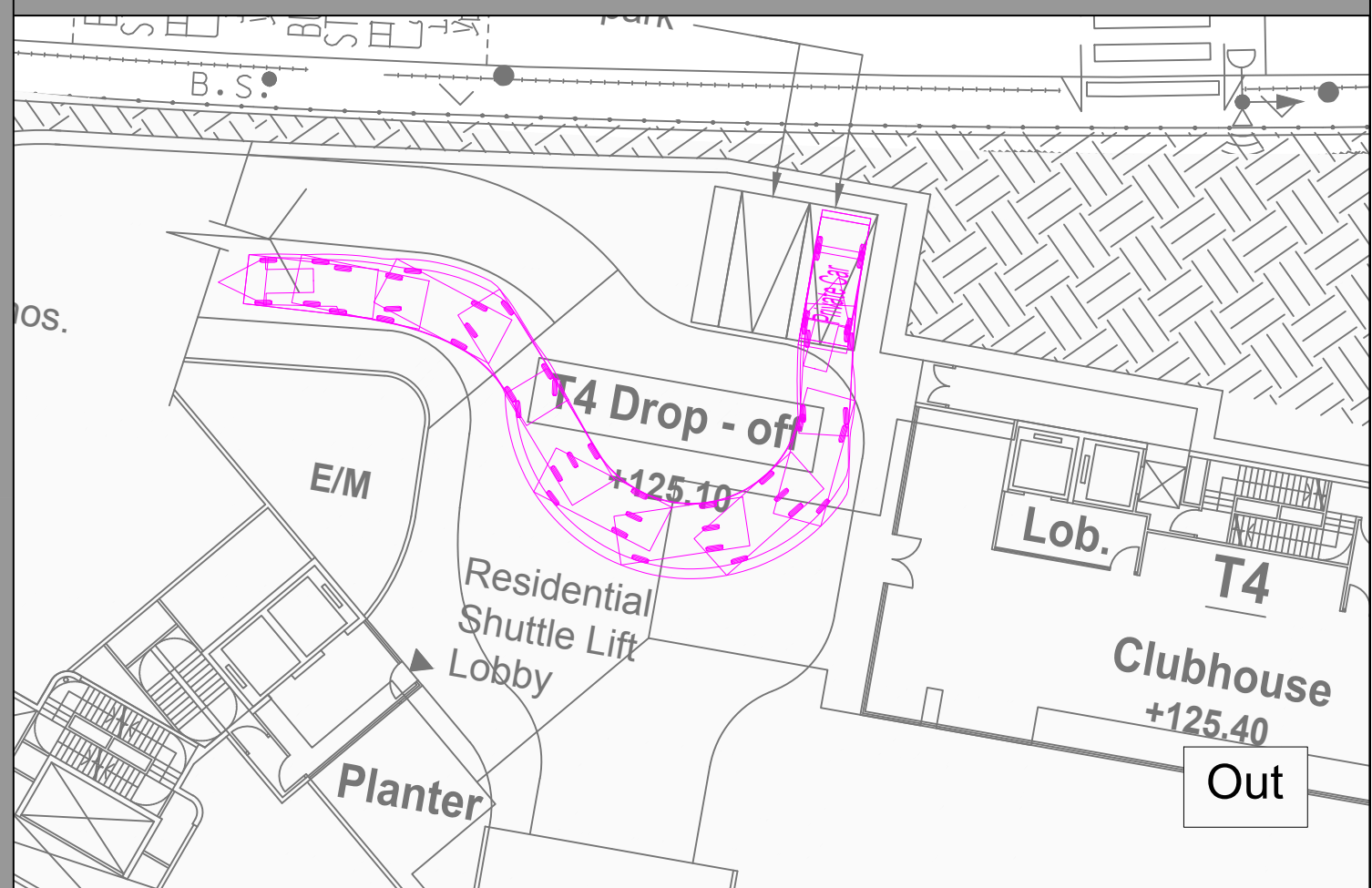
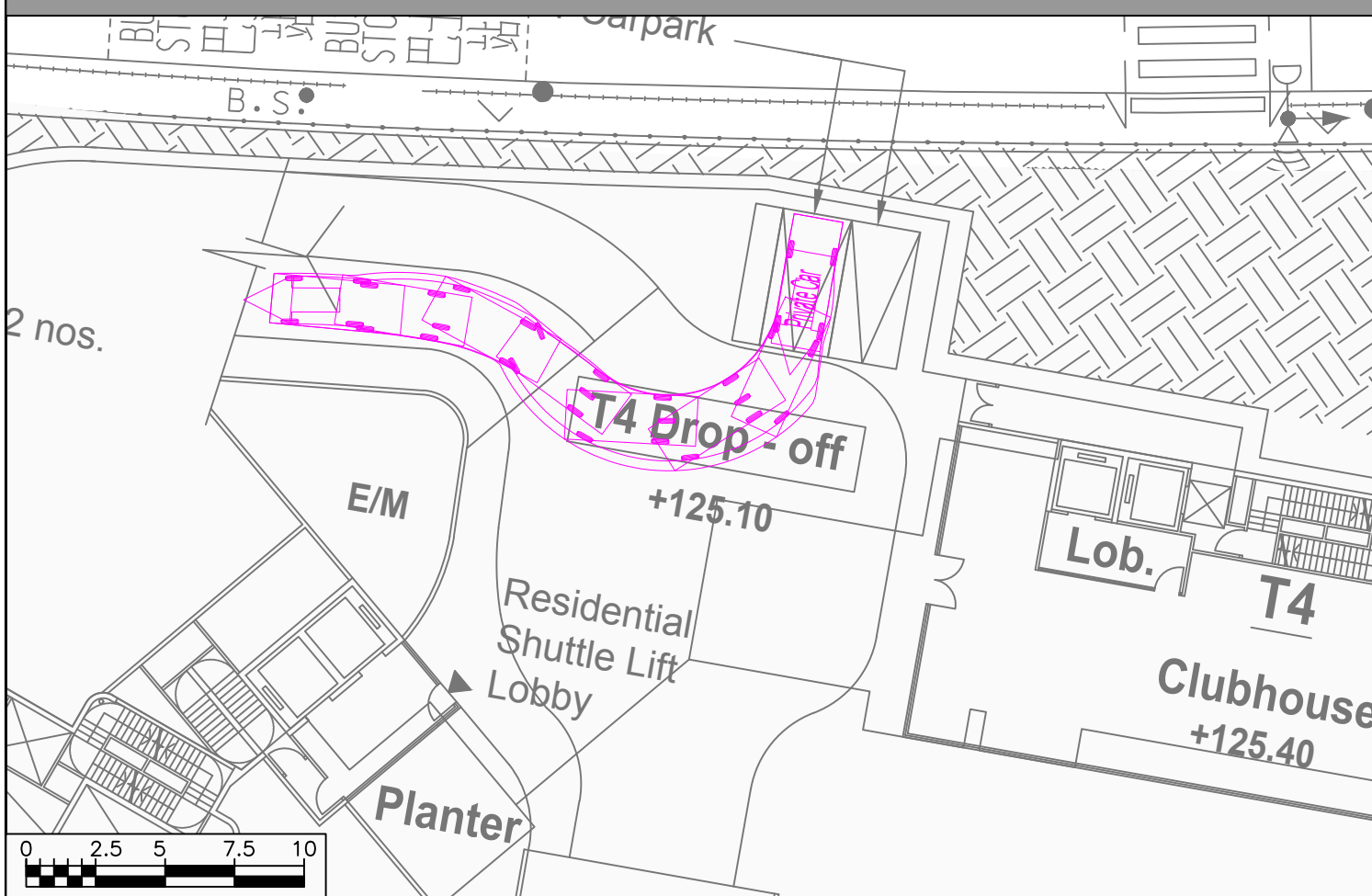
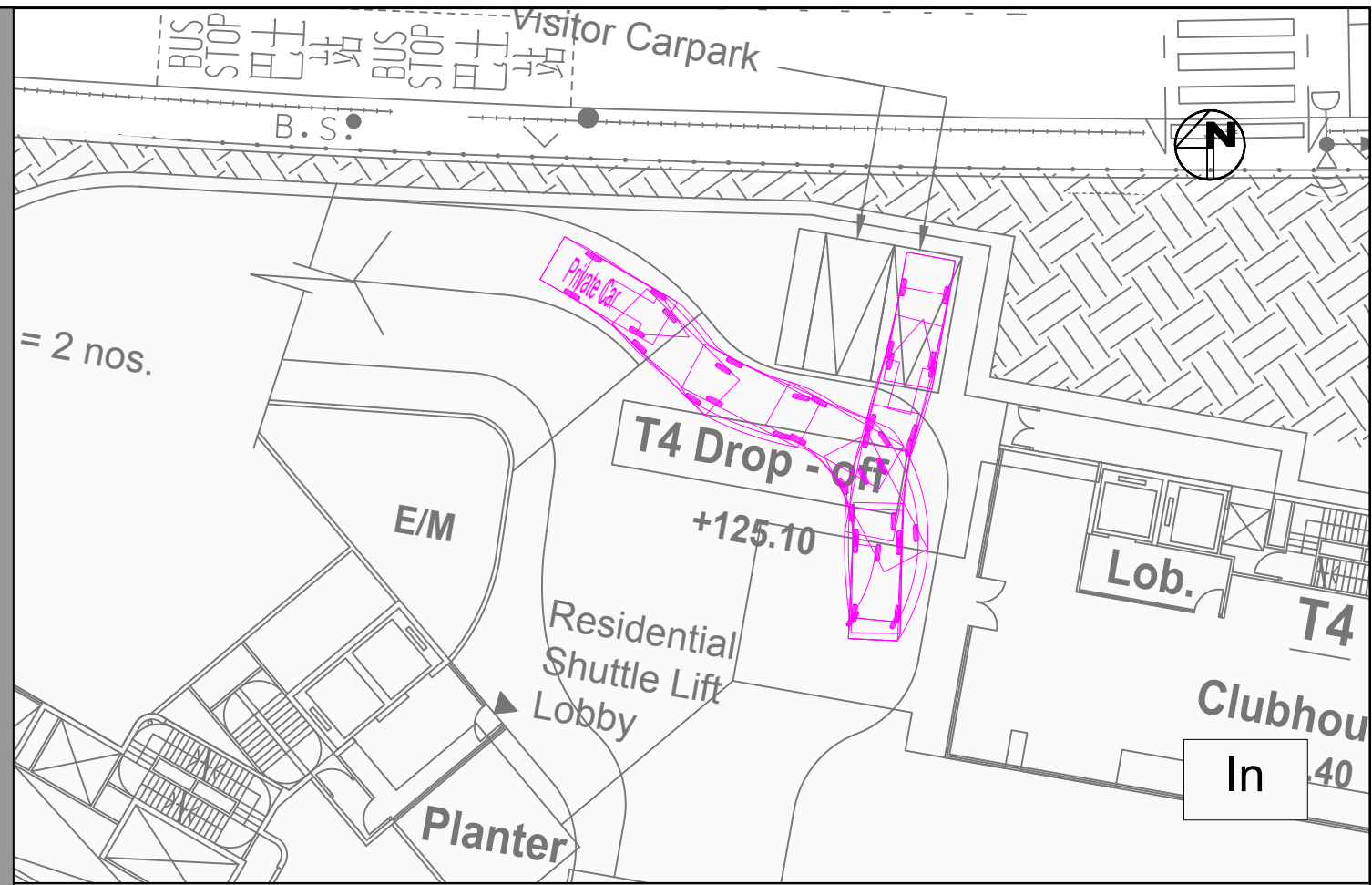
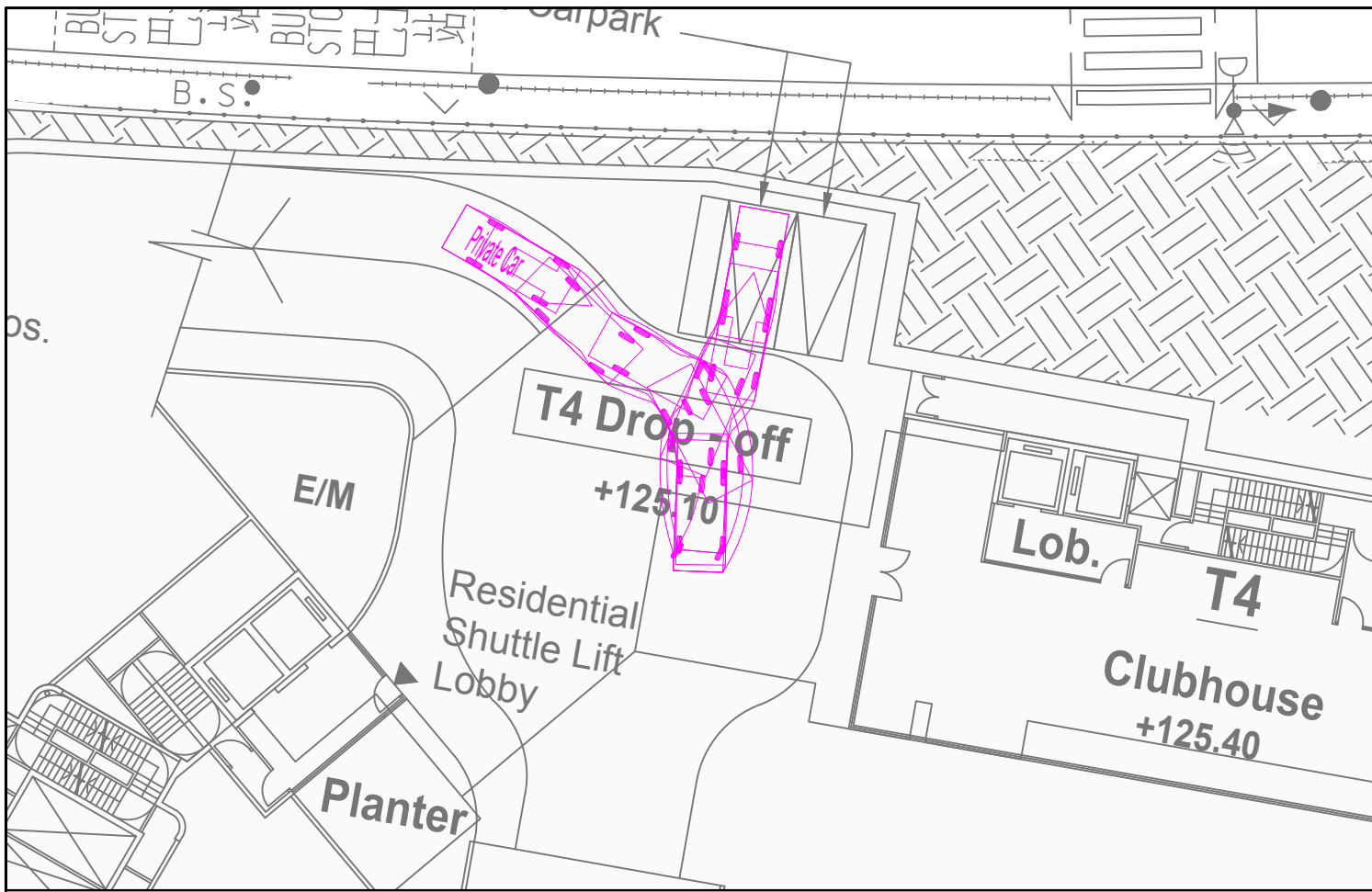
OZZO TECHNOLOGY

Project No. 82786

Dwg No. LG1-SP1

Rev. A

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Project Title

S16 Application for Layout Plan Submission and Proposed Minor Relaxation of Building Height Restriction for Permitted Flat Use At 131 Pok Fu Lam Road, Hong Kong, RBL 136RP

Swept Path Demonstration for Private Car on LG1/F



Project No. 82786

Dwg No. LG1-SP2

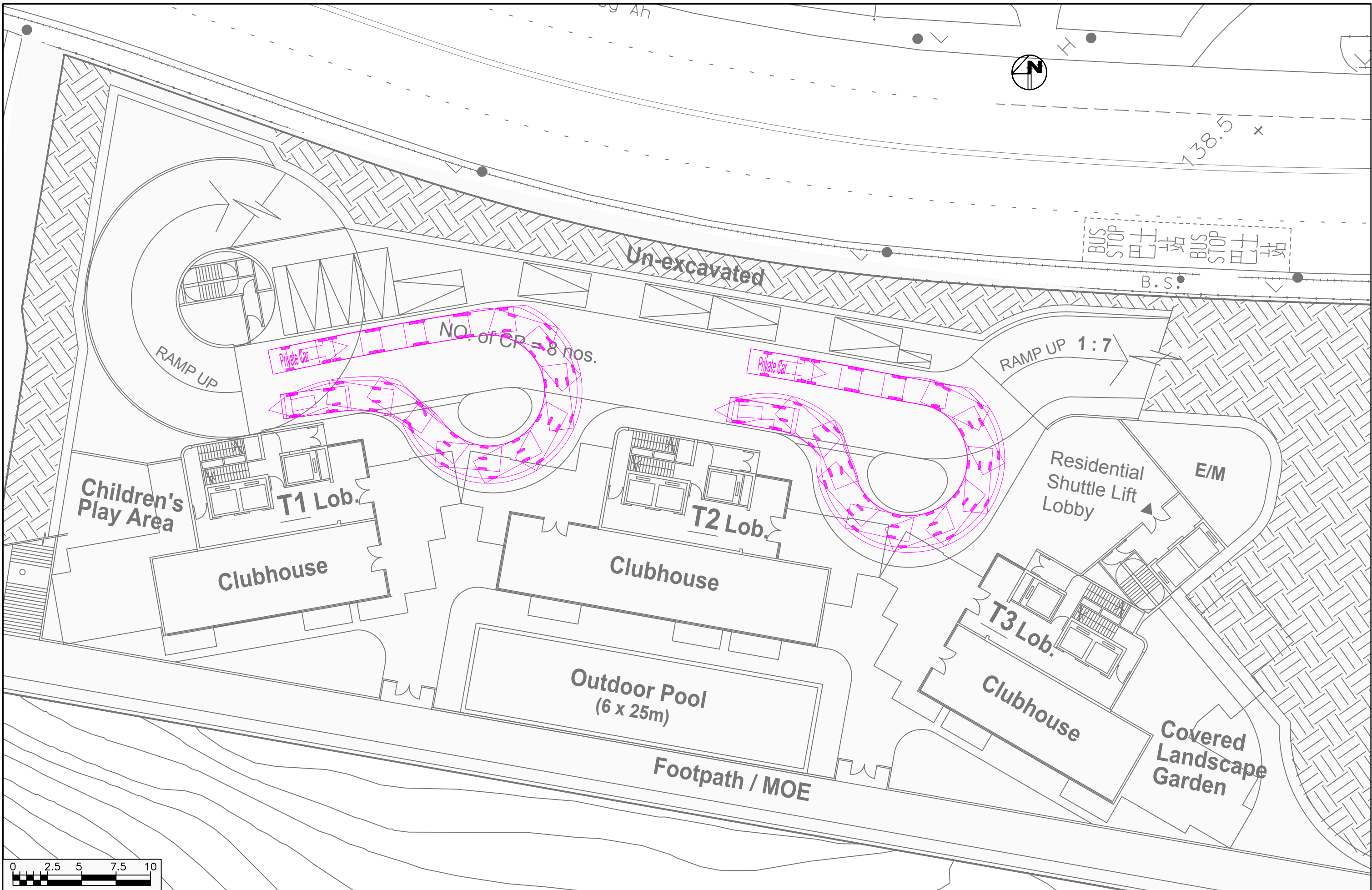
Rev.

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Date
18/02/2024

Scale
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Project Title

S16 Application for Layout Plan Submission and Proposed Minor Relaxation of Building Height Restriction for Permitted Flat Use At 131 Pok Fu Lam Road, Hong Kong, RBL 136RP



Date	Scale
18/02/2024	1:250

Swept Path Demonstration for Private Car on LG2/F

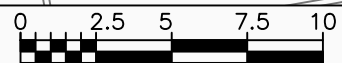
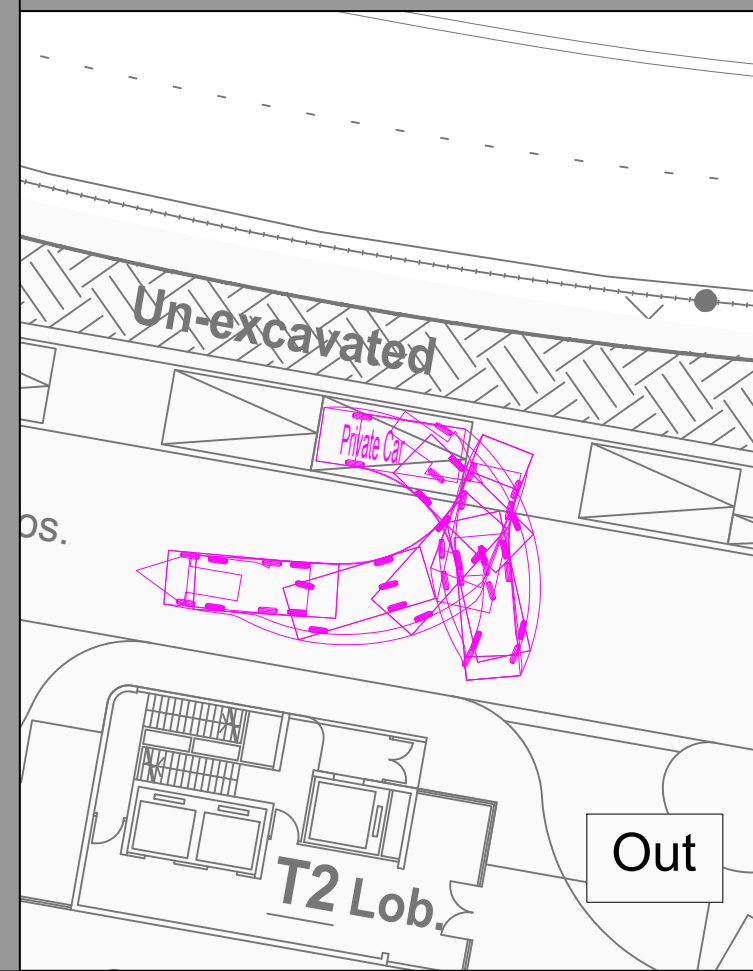
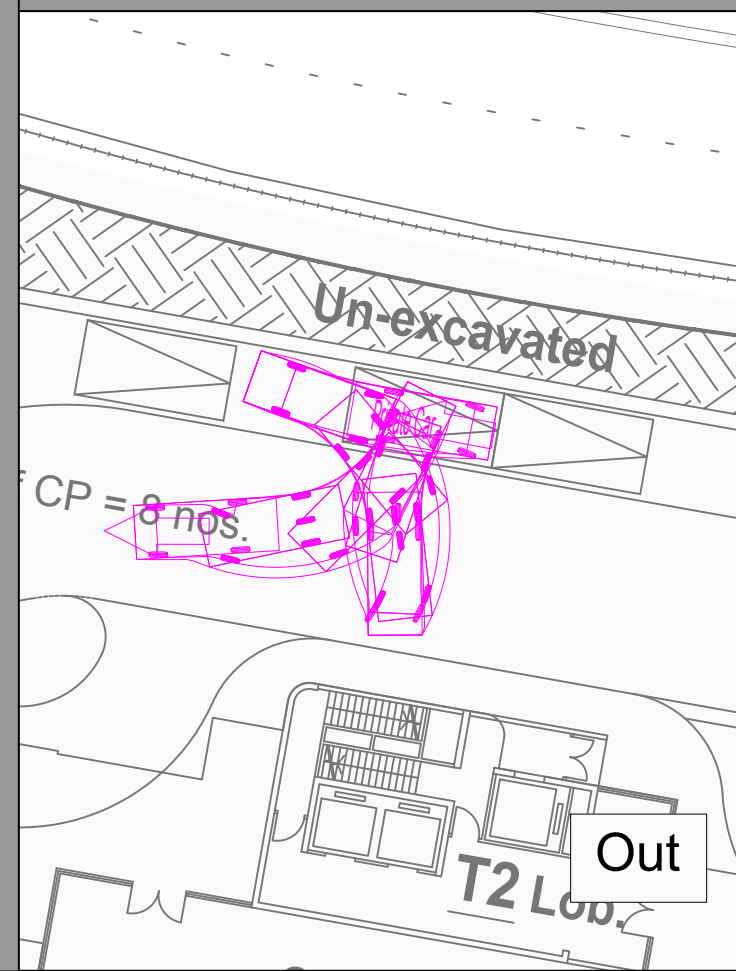
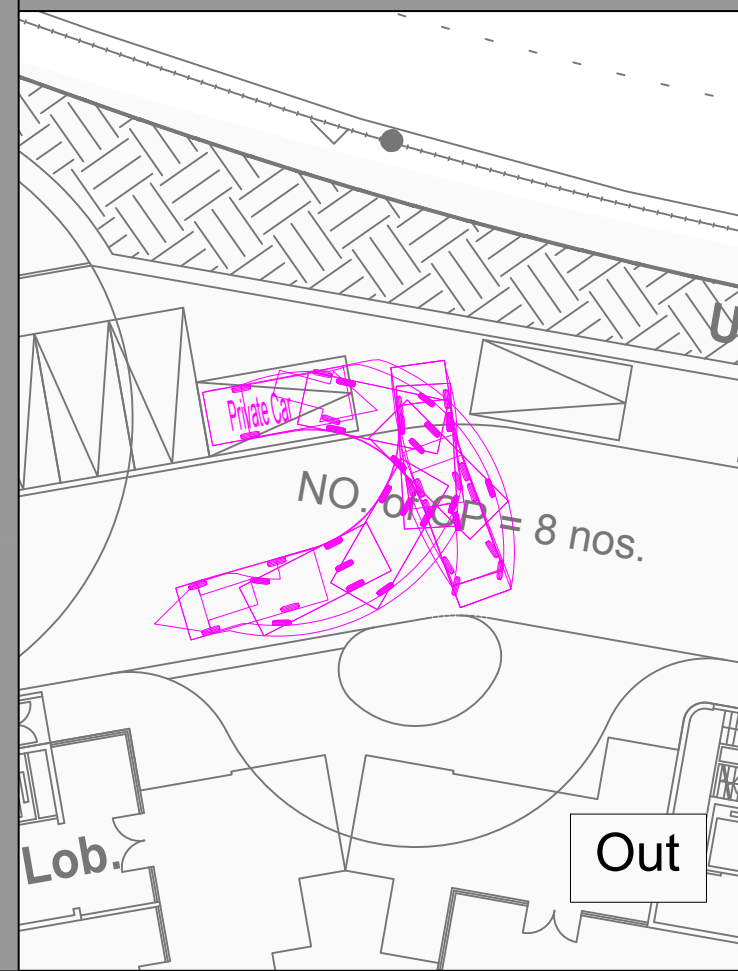
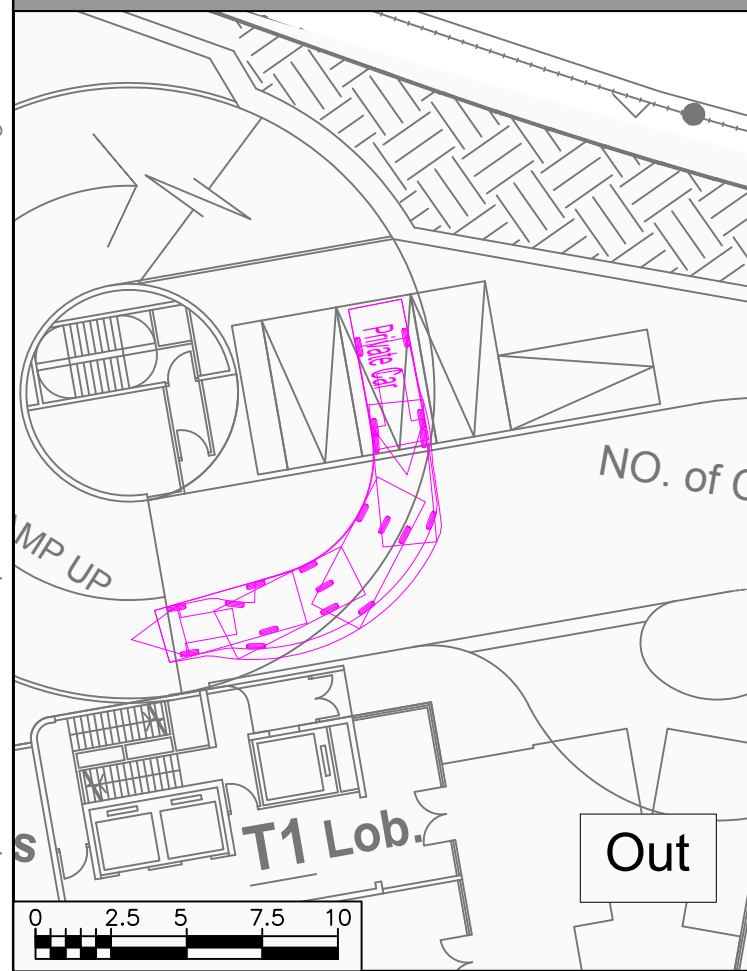
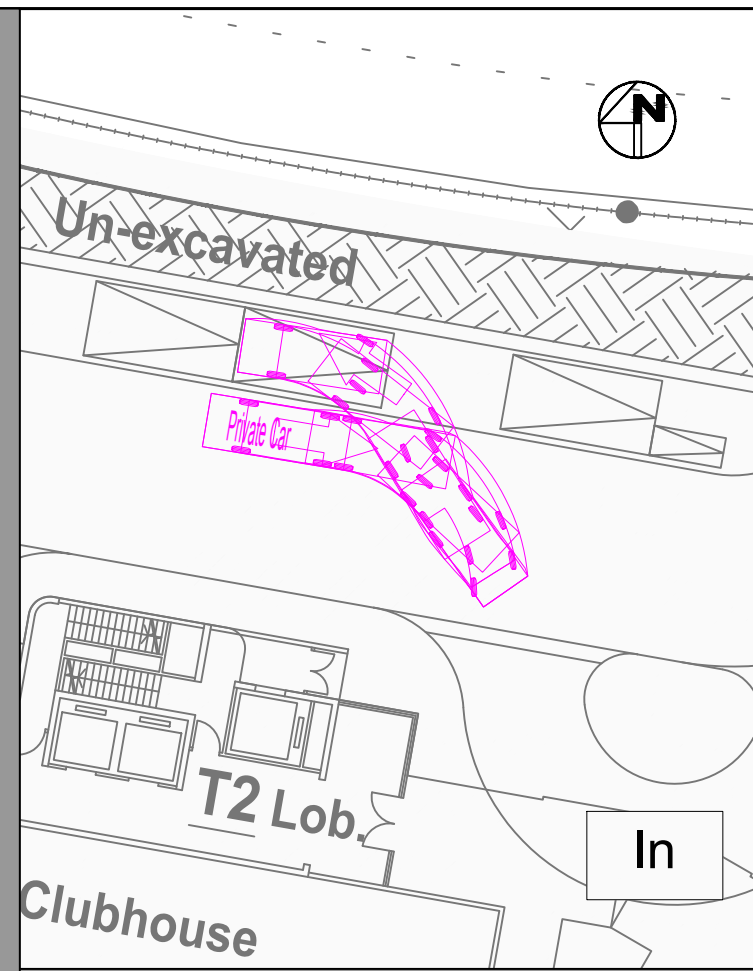
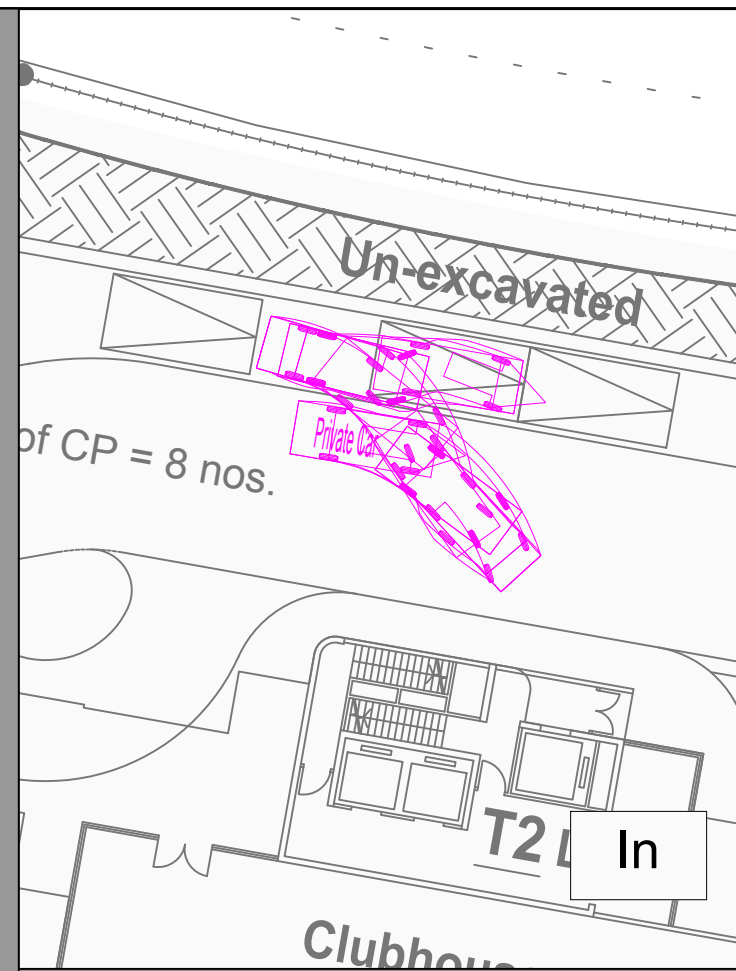
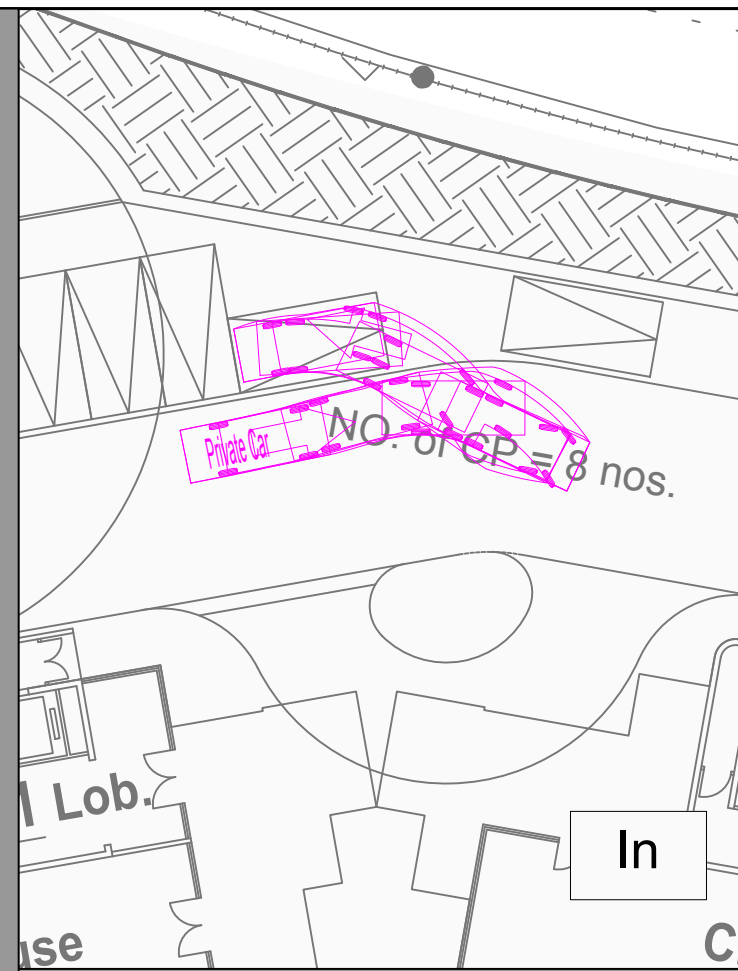
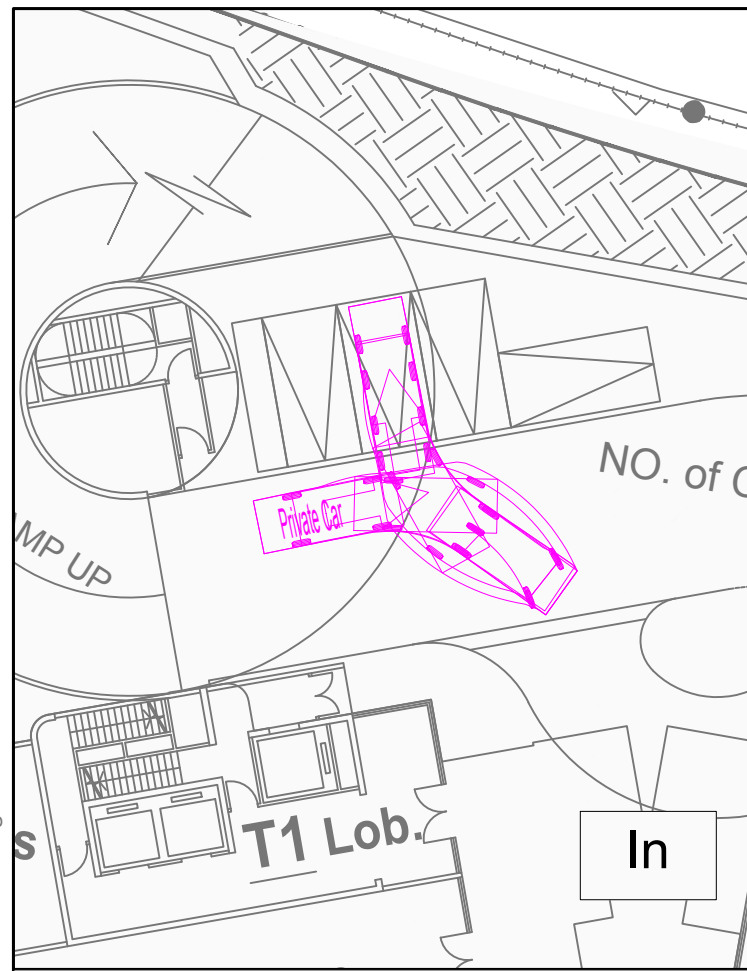
Project No. 82786

Dwg No. LG2-SP1

Rev.

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Project Title

S16 Application for Layout Plan Submission and Proposed Minor Relaxation of Building Height Restriction for Permitted Flat Use At 131 Pok Fu Lam Road, Hong Kong, RBL 136RP

Swept Path Demonstration for Private Car on LG2/F



Project No. 82786

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18/02/2024

Scale
1:250