

# **Great North Road Solar and Biodiversity Park**

**Environmental Statement** 

Volume 4 - Technical Appendices

Technical Appendix A14.1 - Transport Statement - Part 7 of 9

Document Reference - EN010162/APP/6.4.14.1

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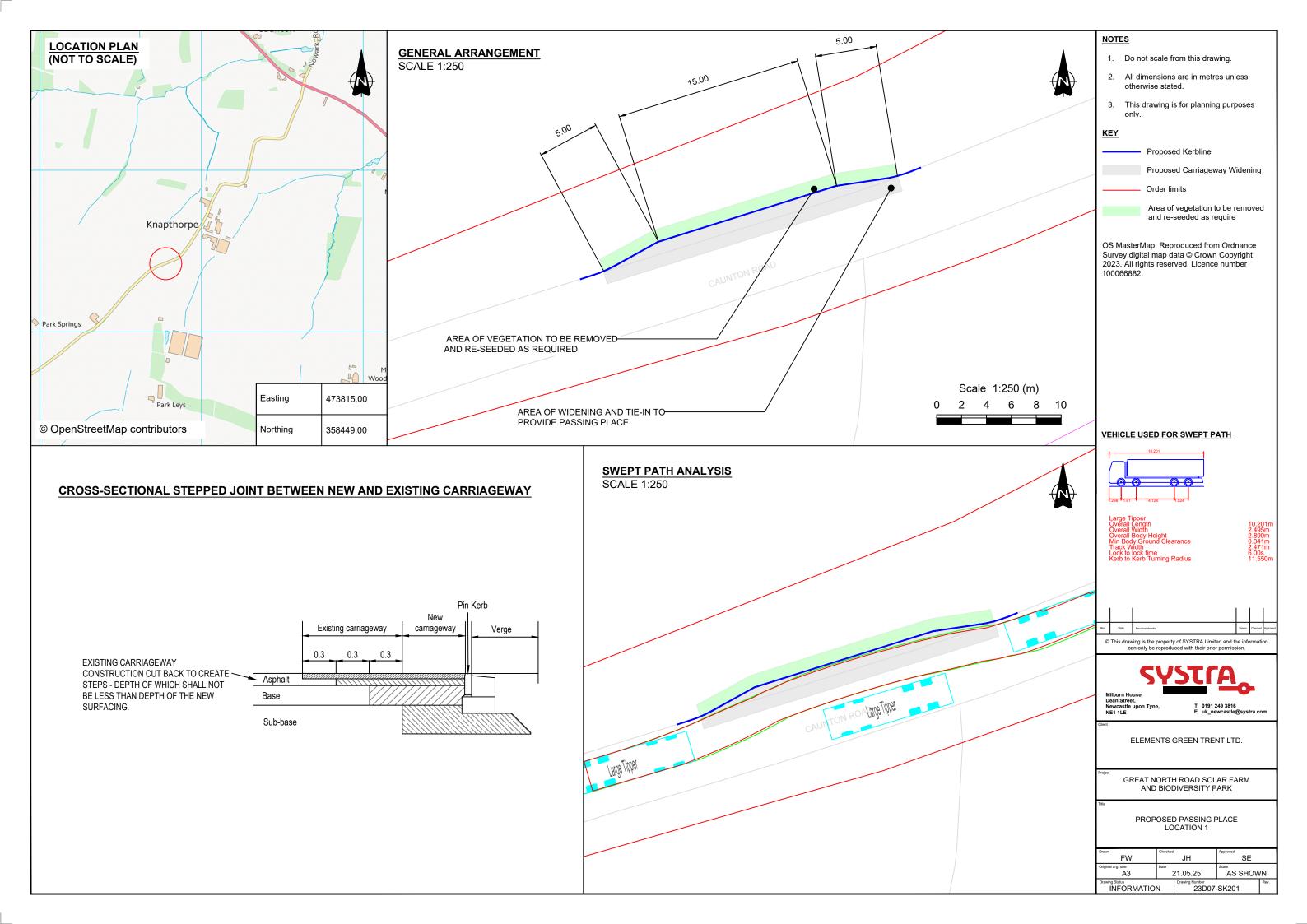
Infrastructure Planning (Applications: Prescribed Forms and Procedure) Regulations 2009, APFP Regulation 5(2)(o)

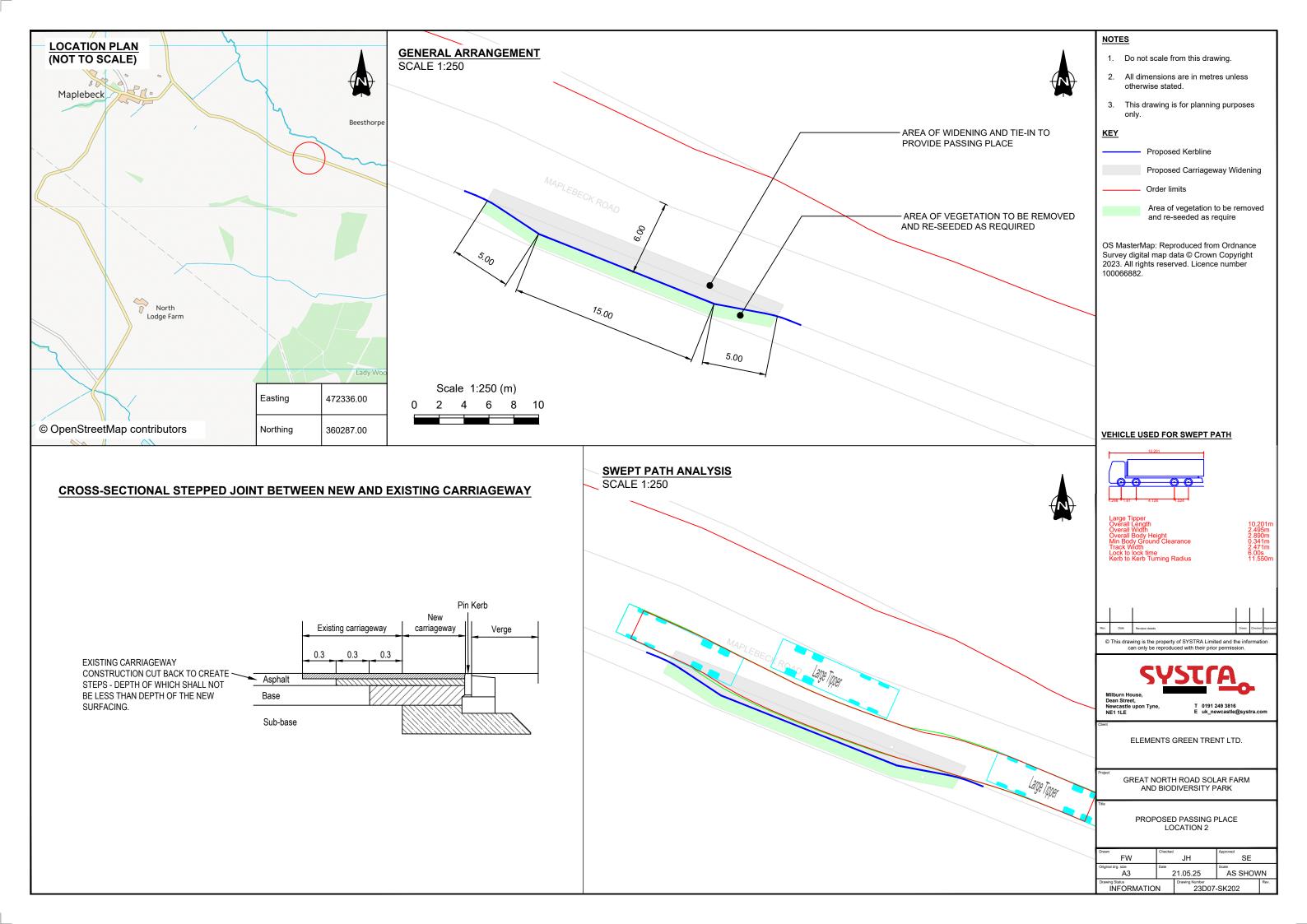
Environmental Statement Project Reference EN010162 6.4.14.1 – Technical Appendix A14.1 – Transport Statement

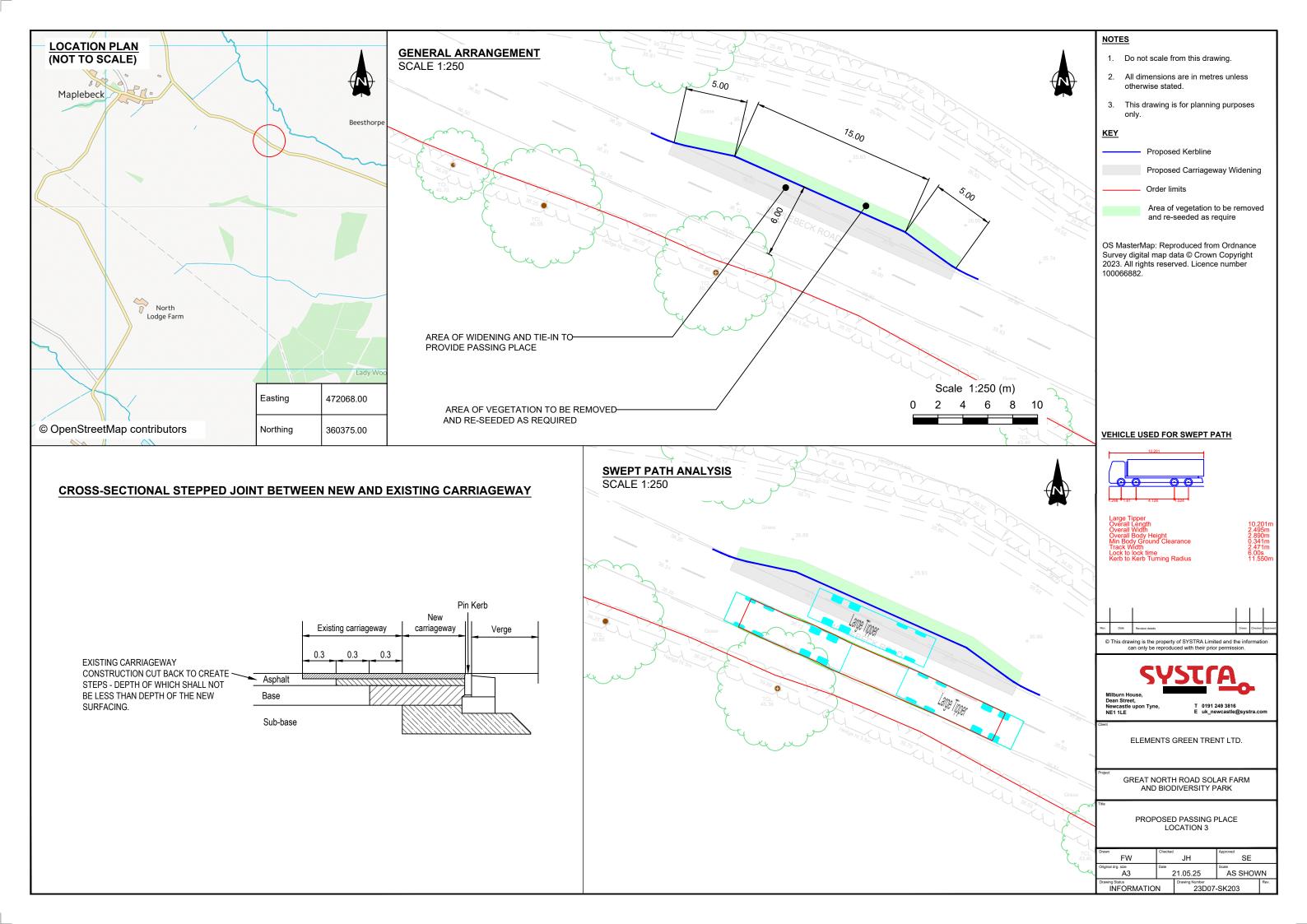


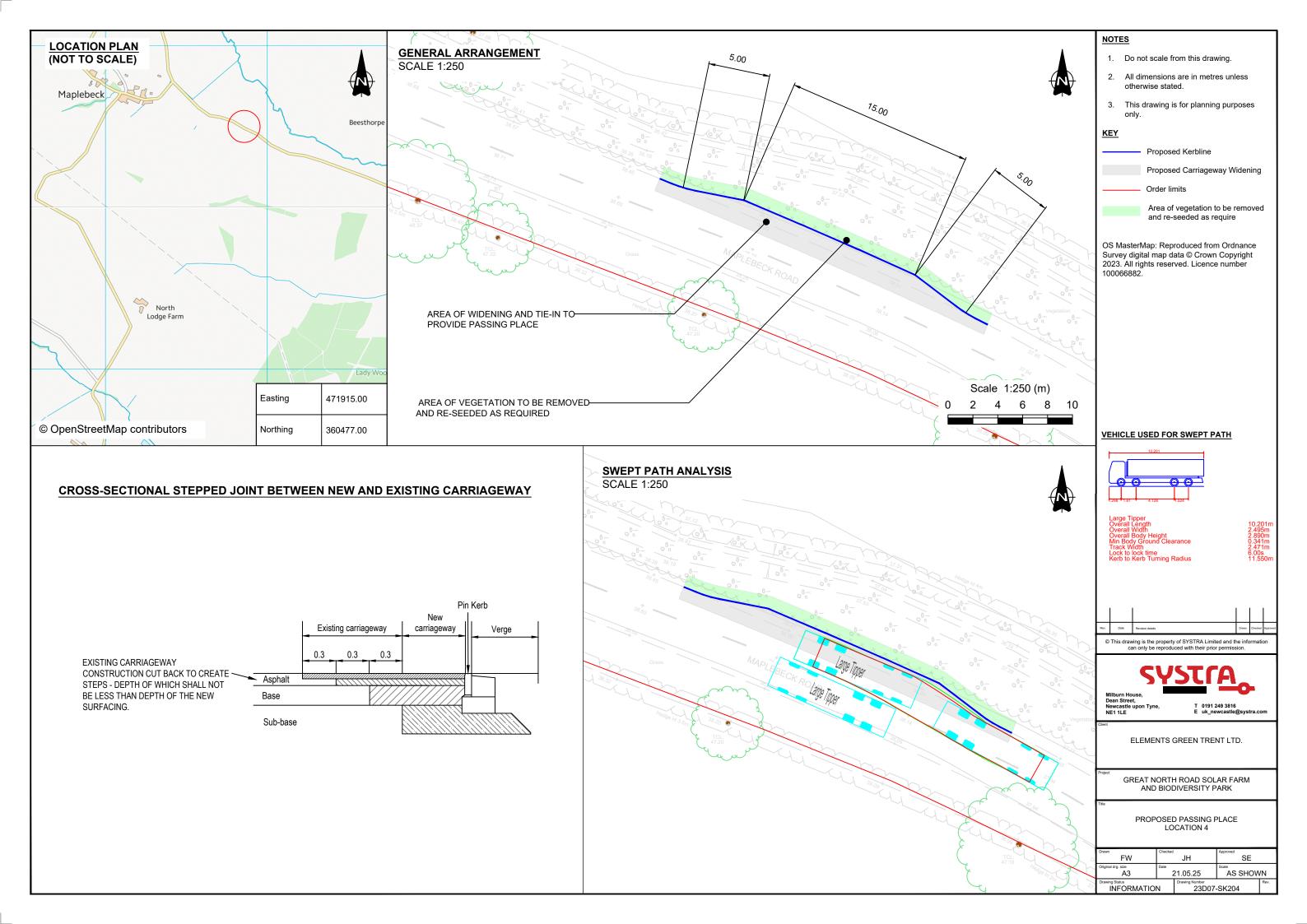
## A14.1.13 APPENDIX E – PASSING PLACE DRAWINGS

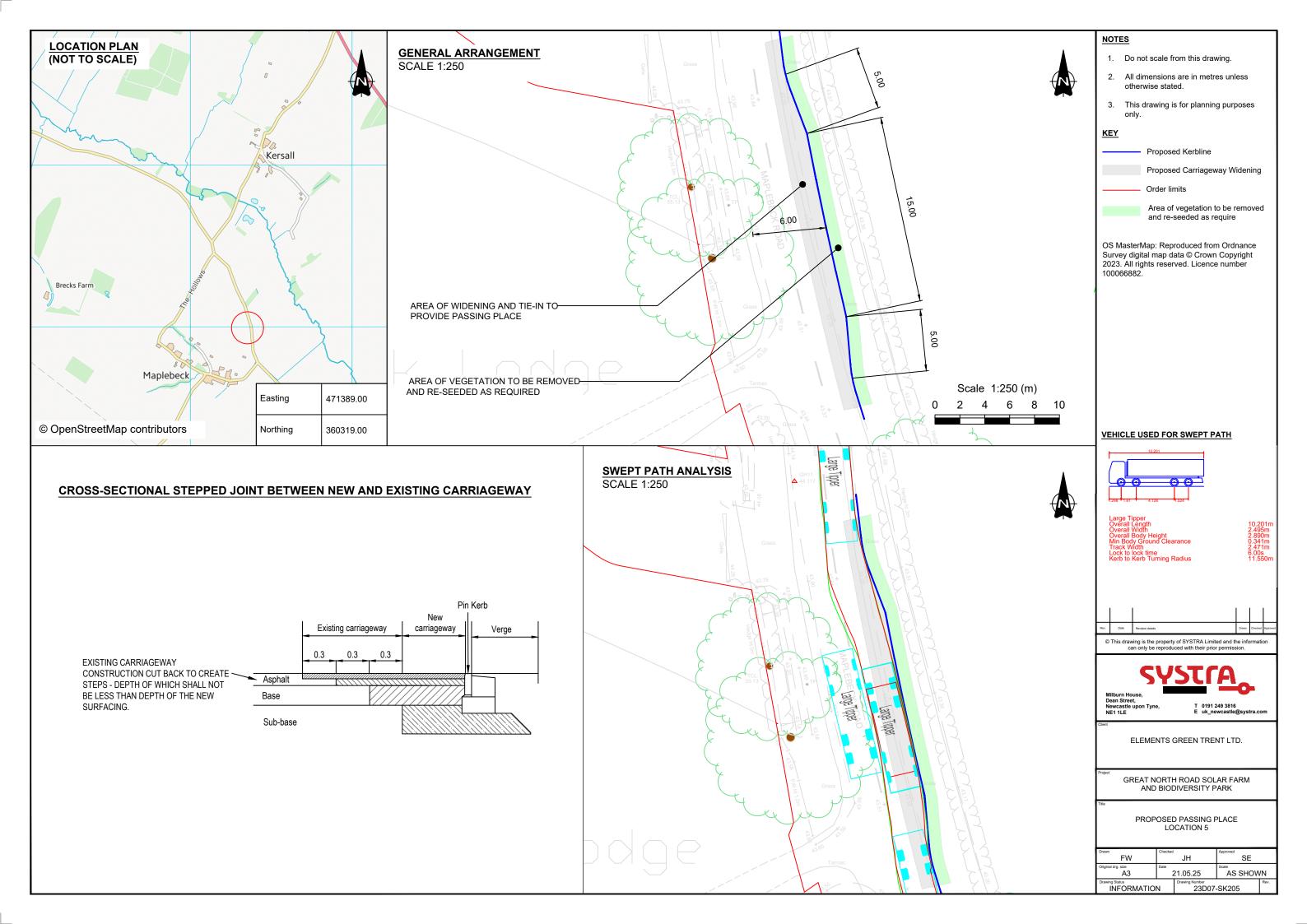
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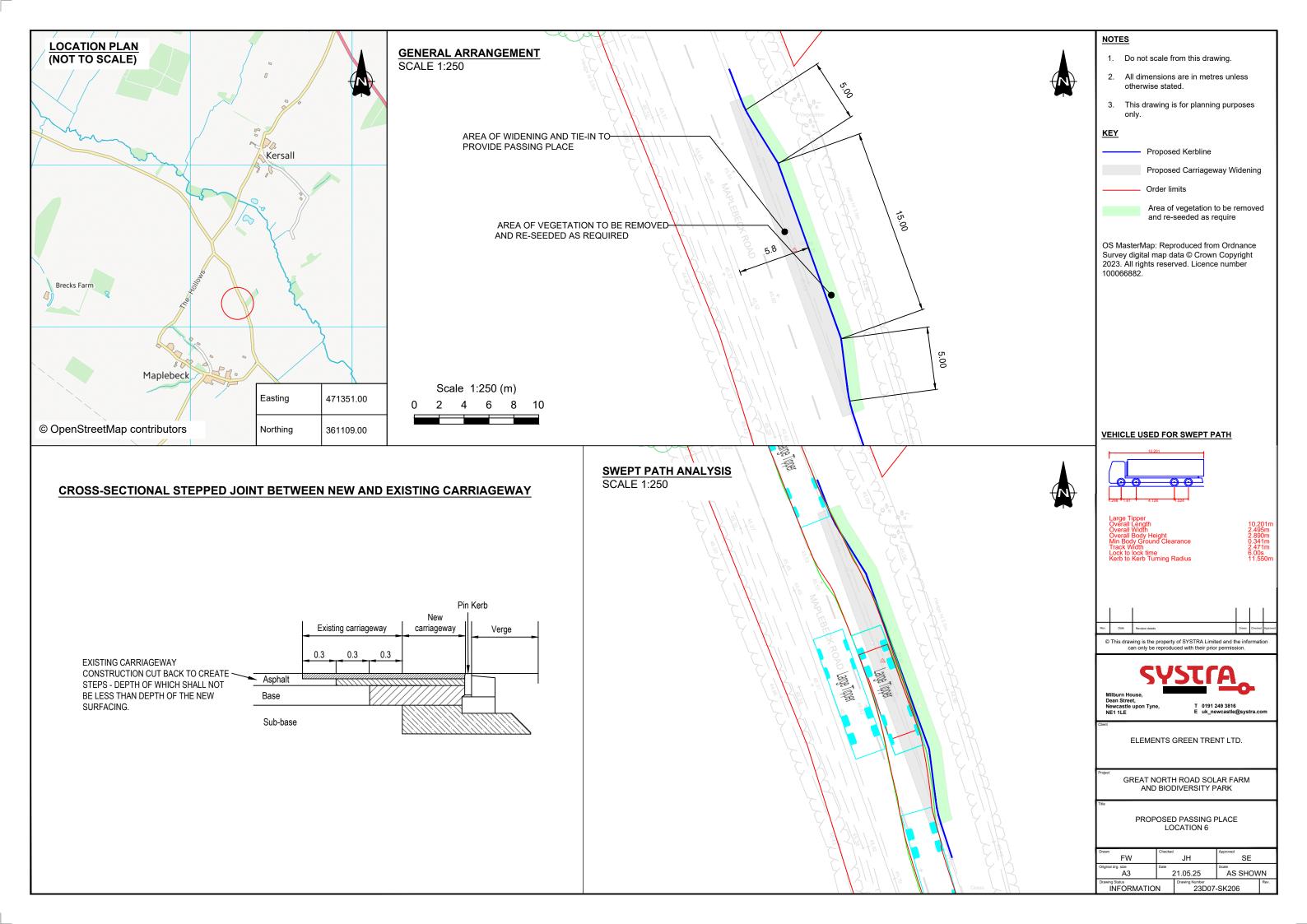


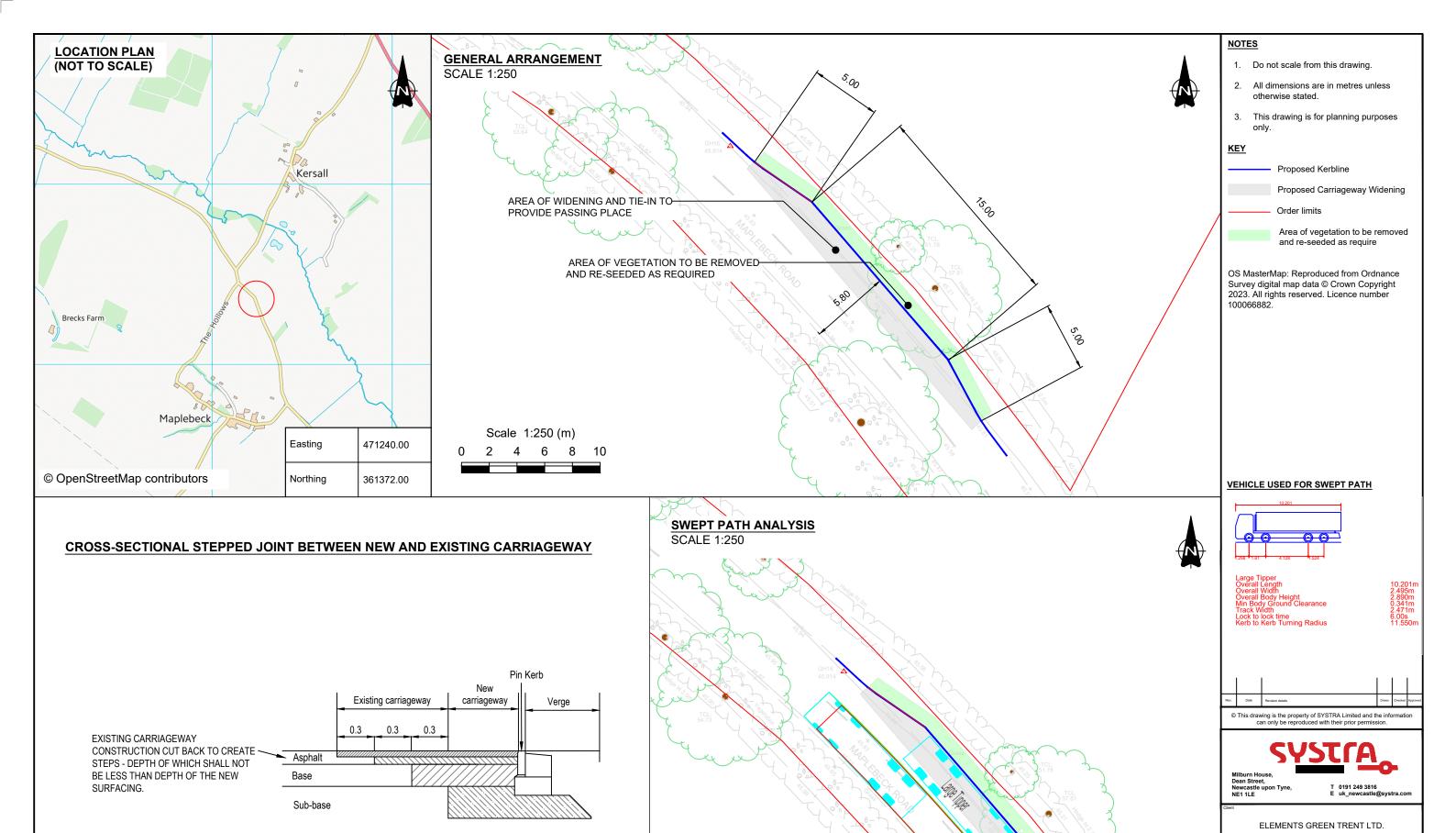








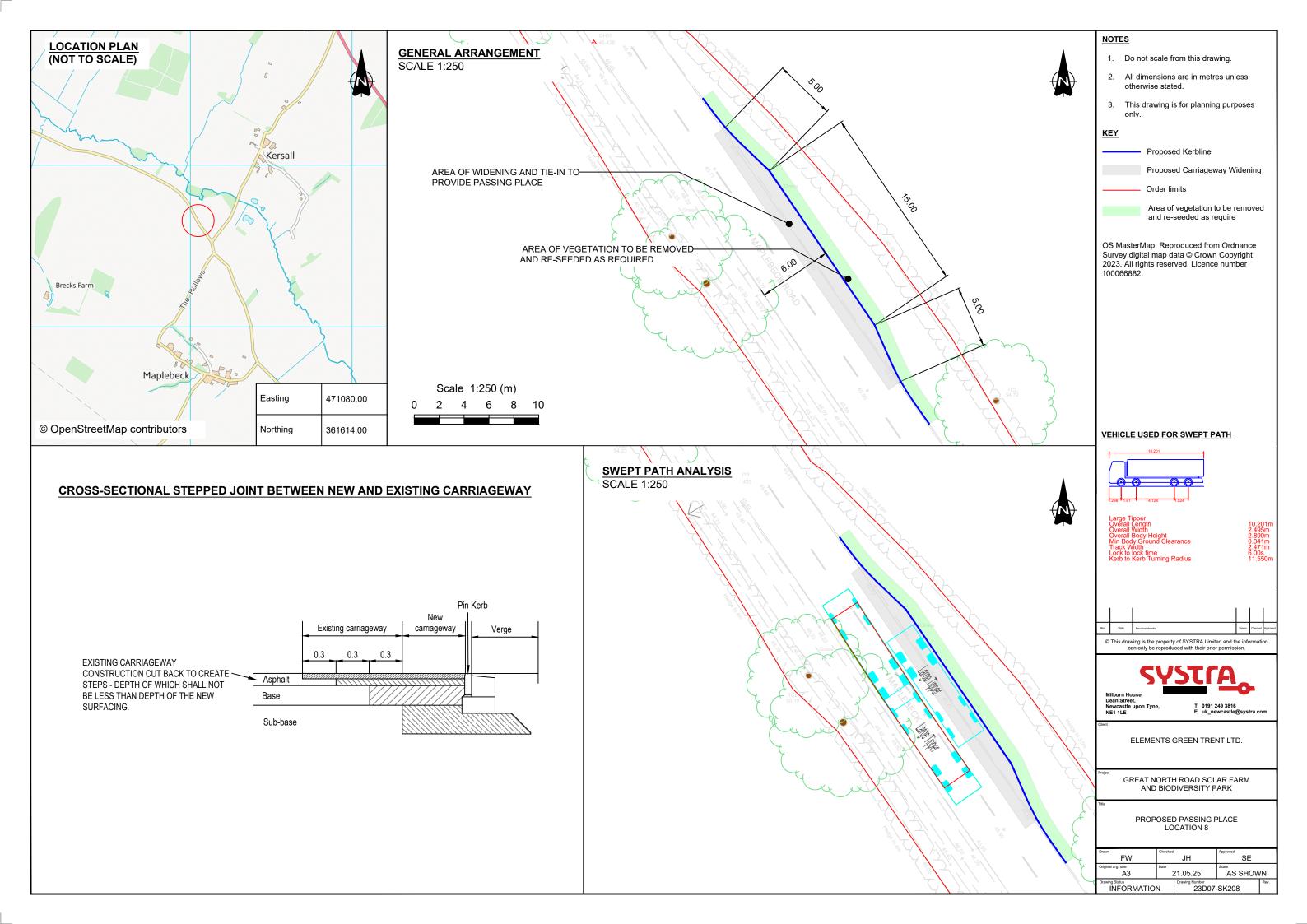


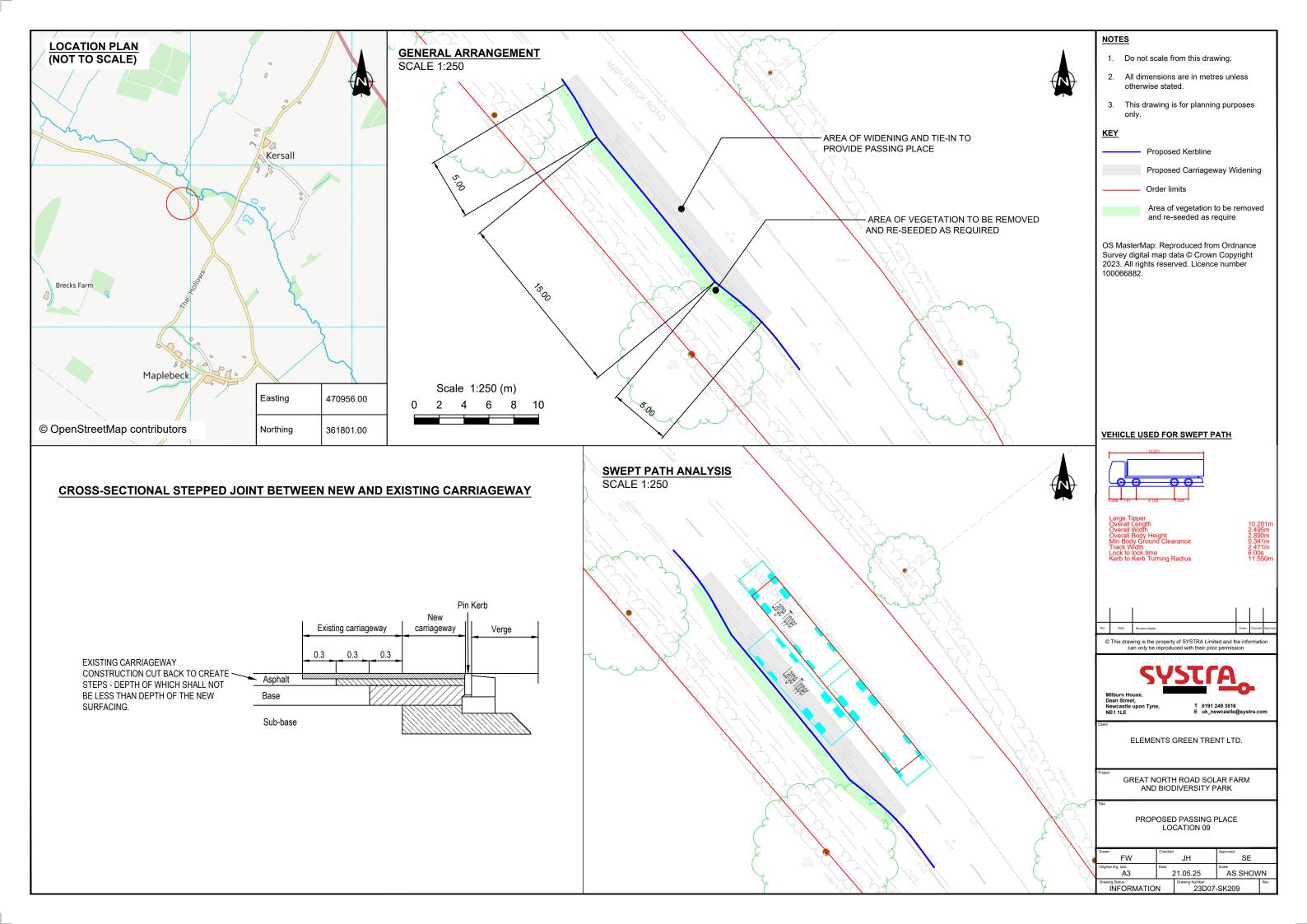


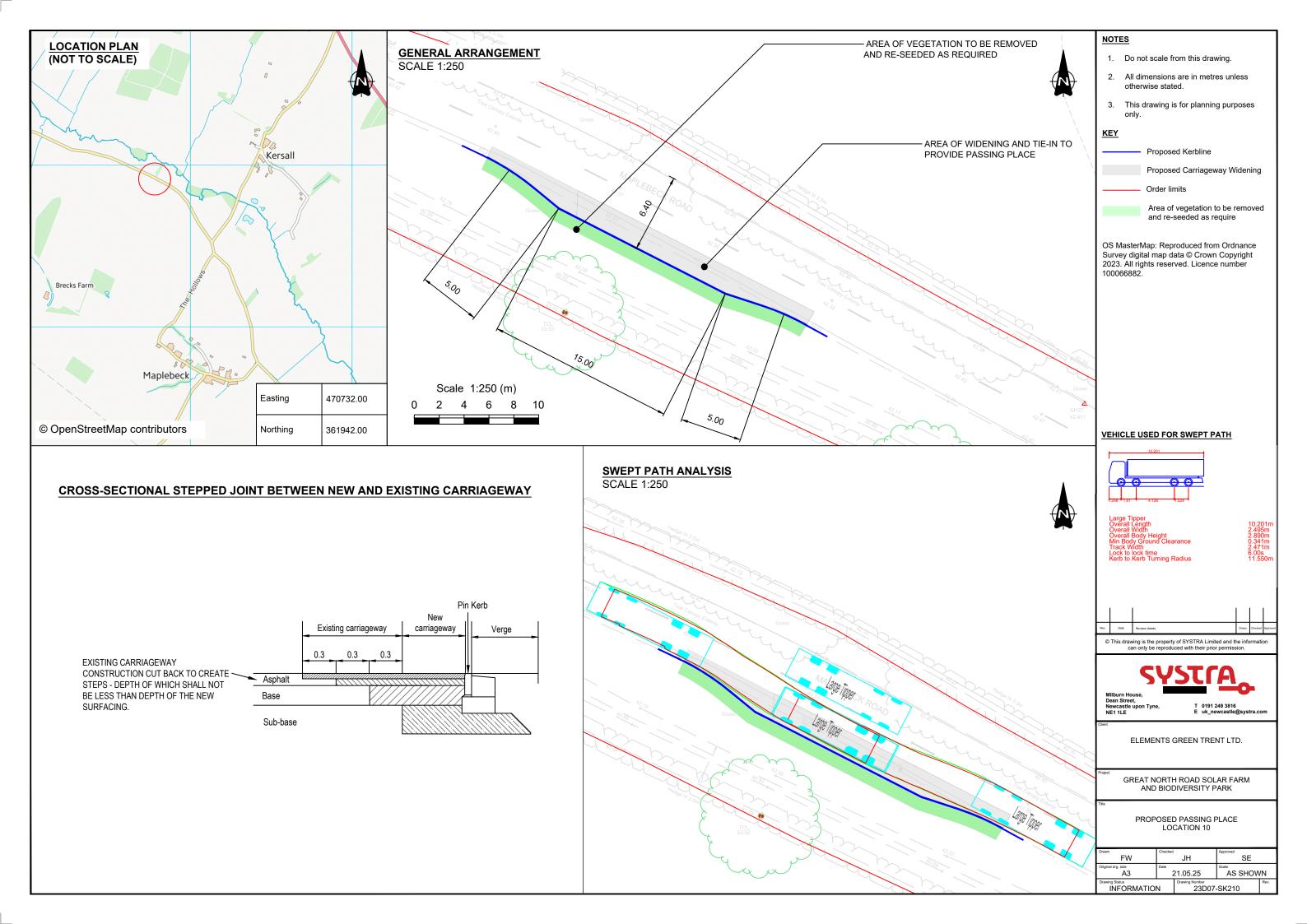
GREAT NORTH ROAD SOLAR FARM AND BIODIVERSITY PARK PROPOSED PASSING PLACE

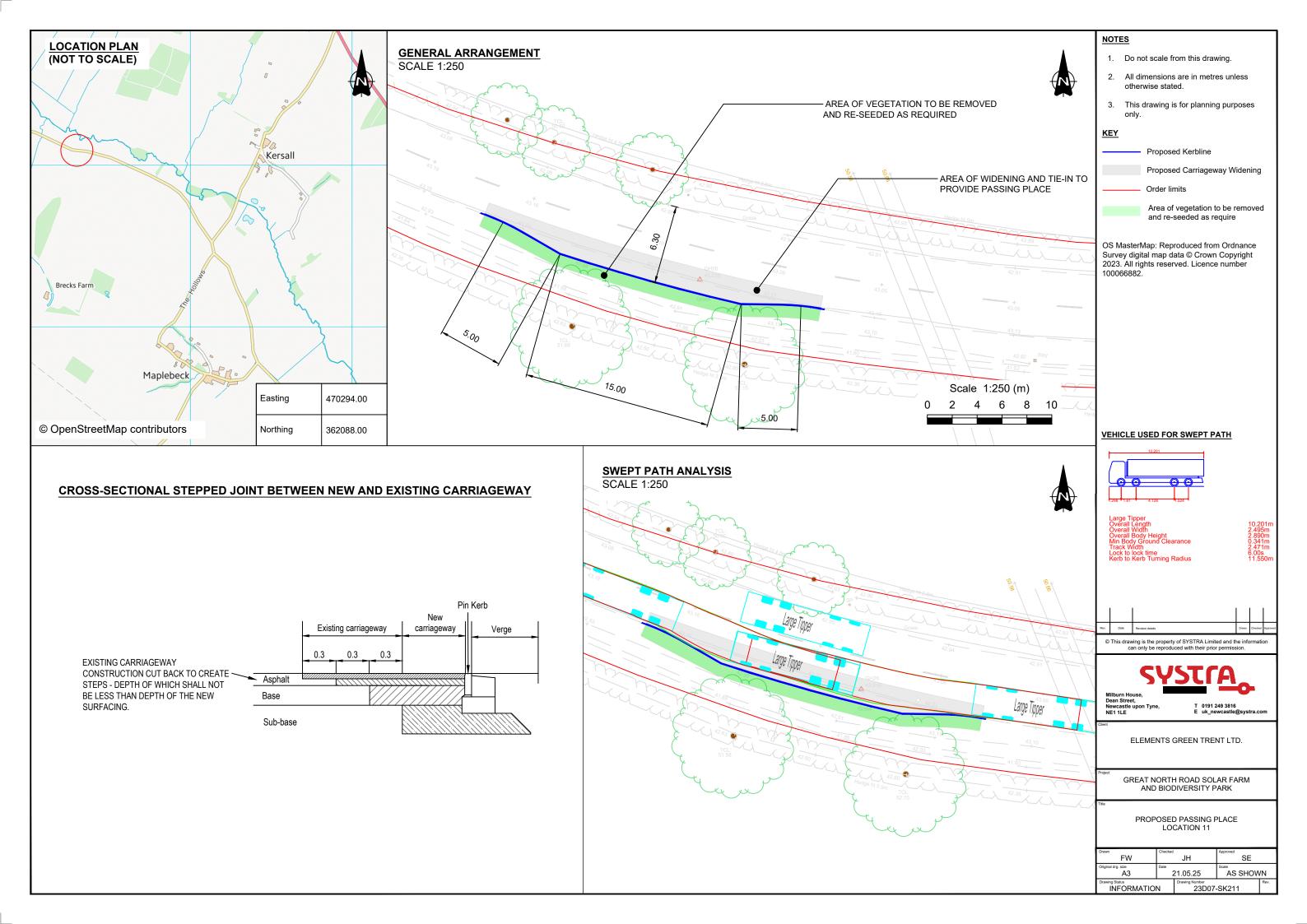
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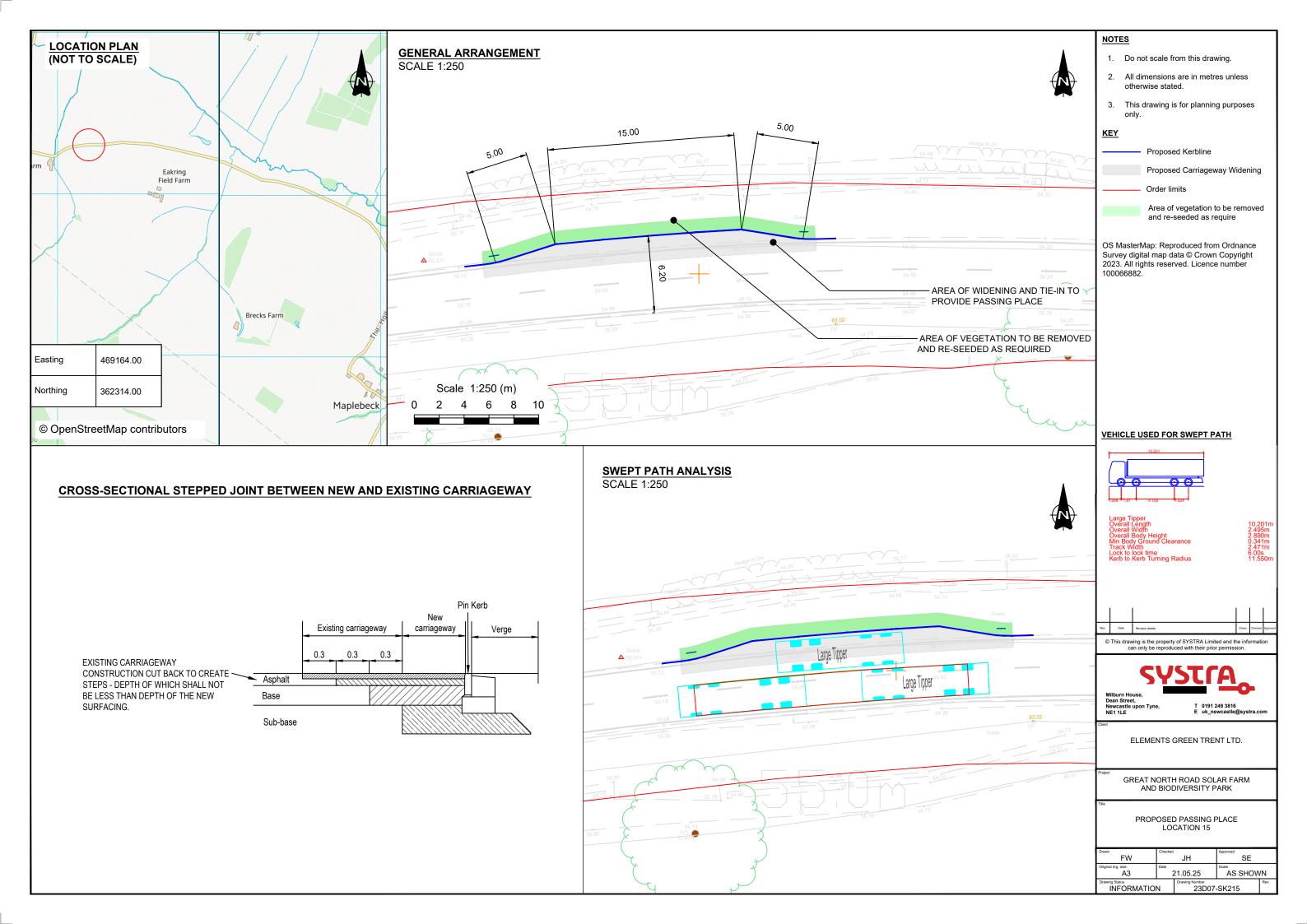
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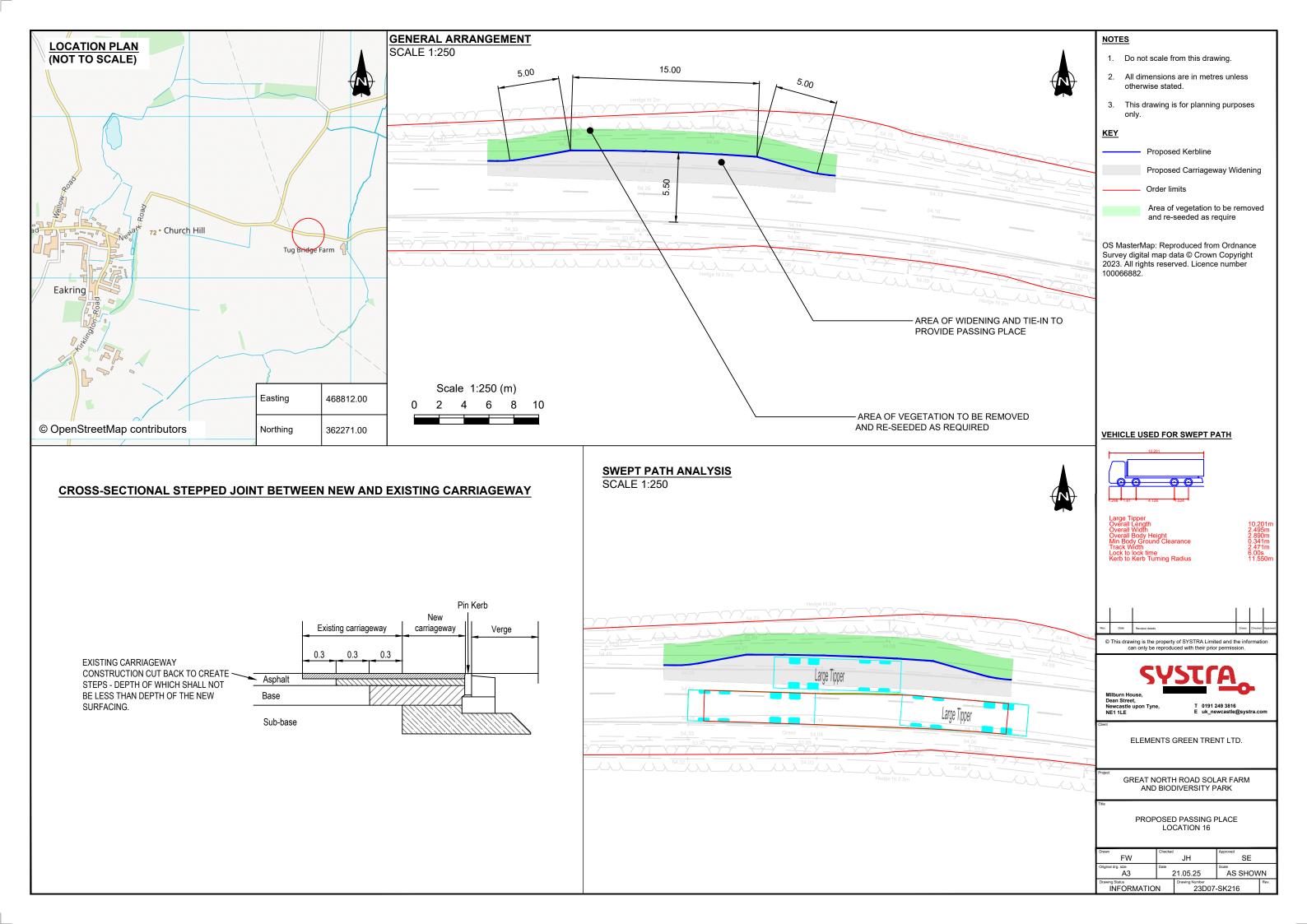


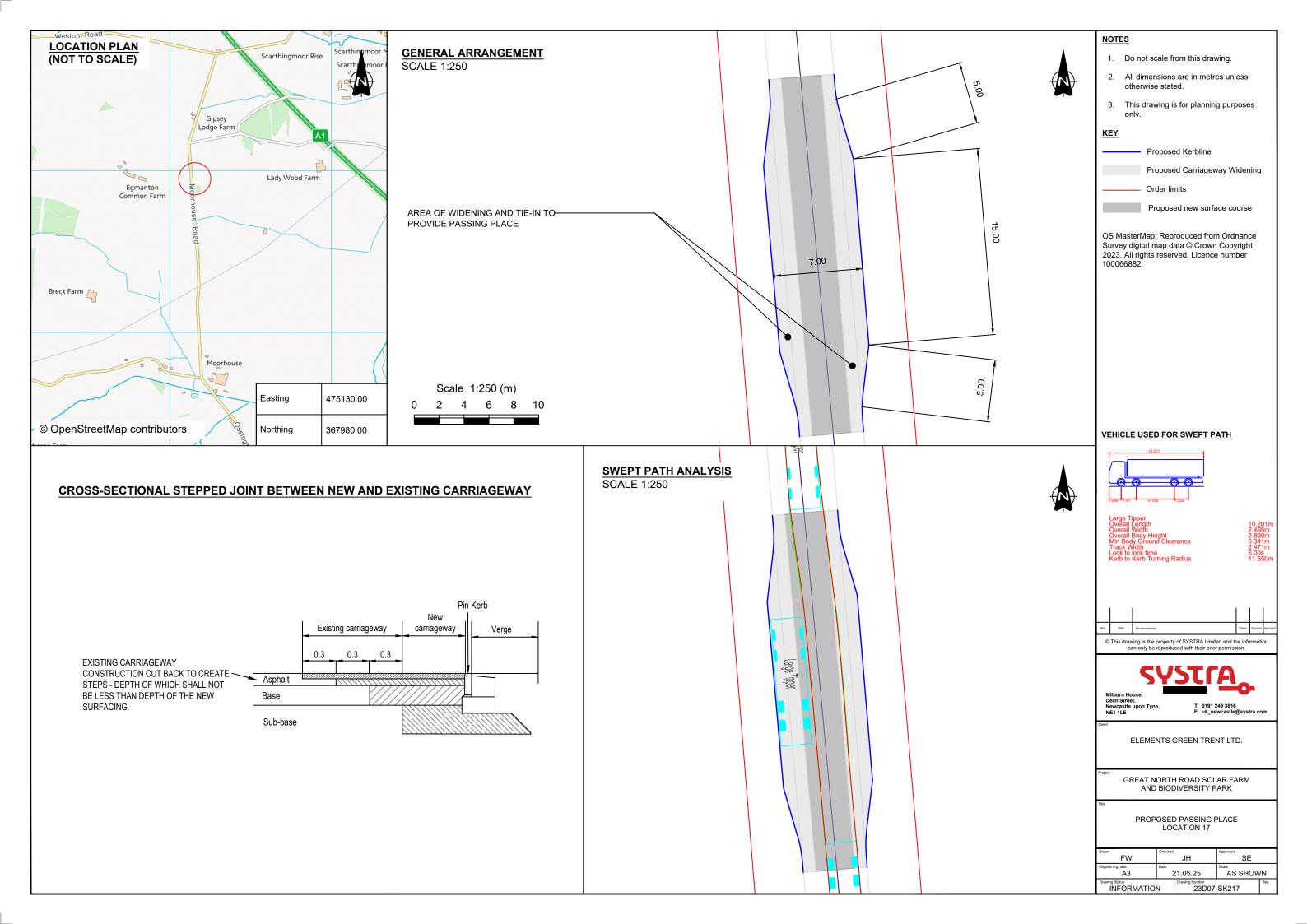


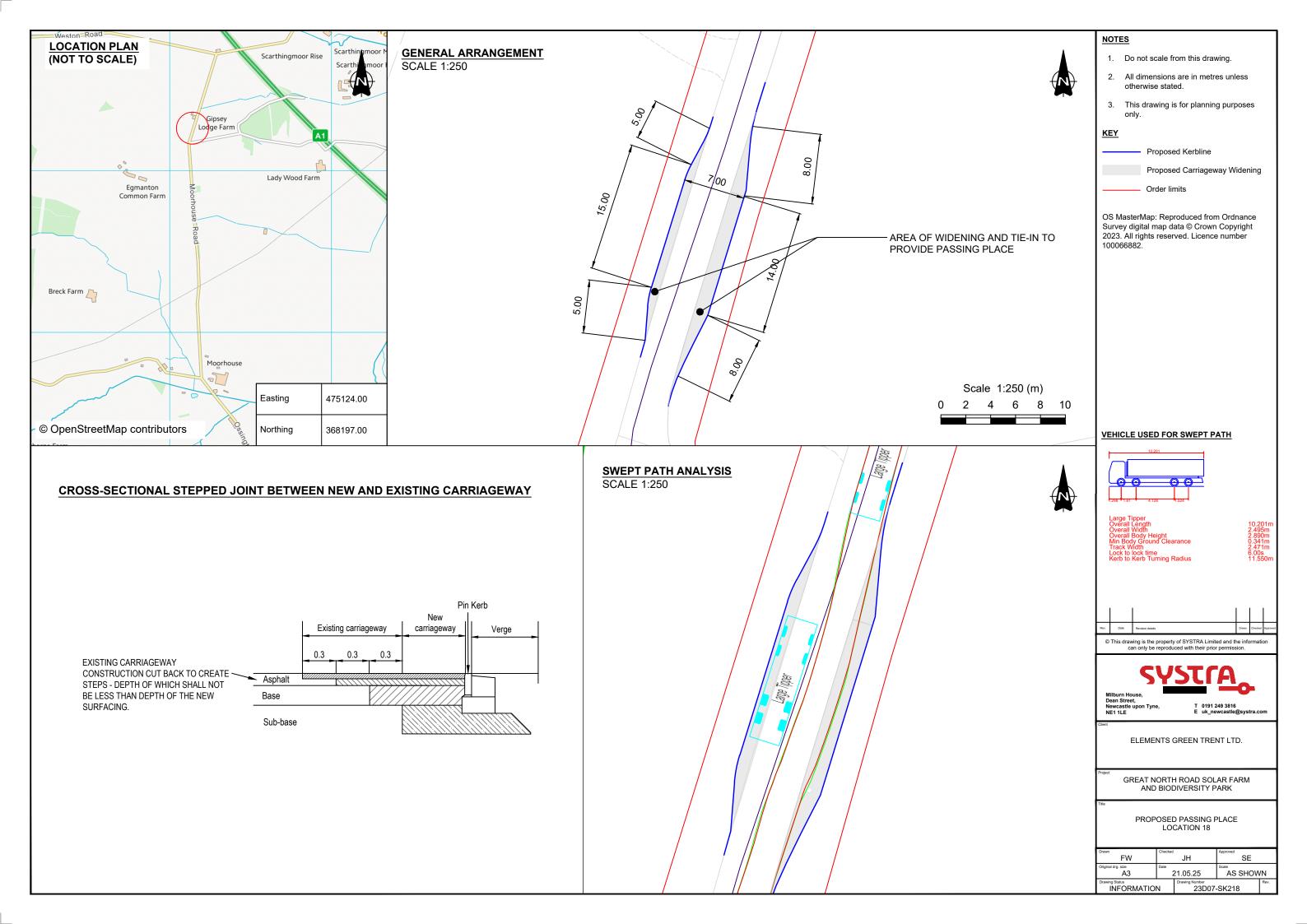


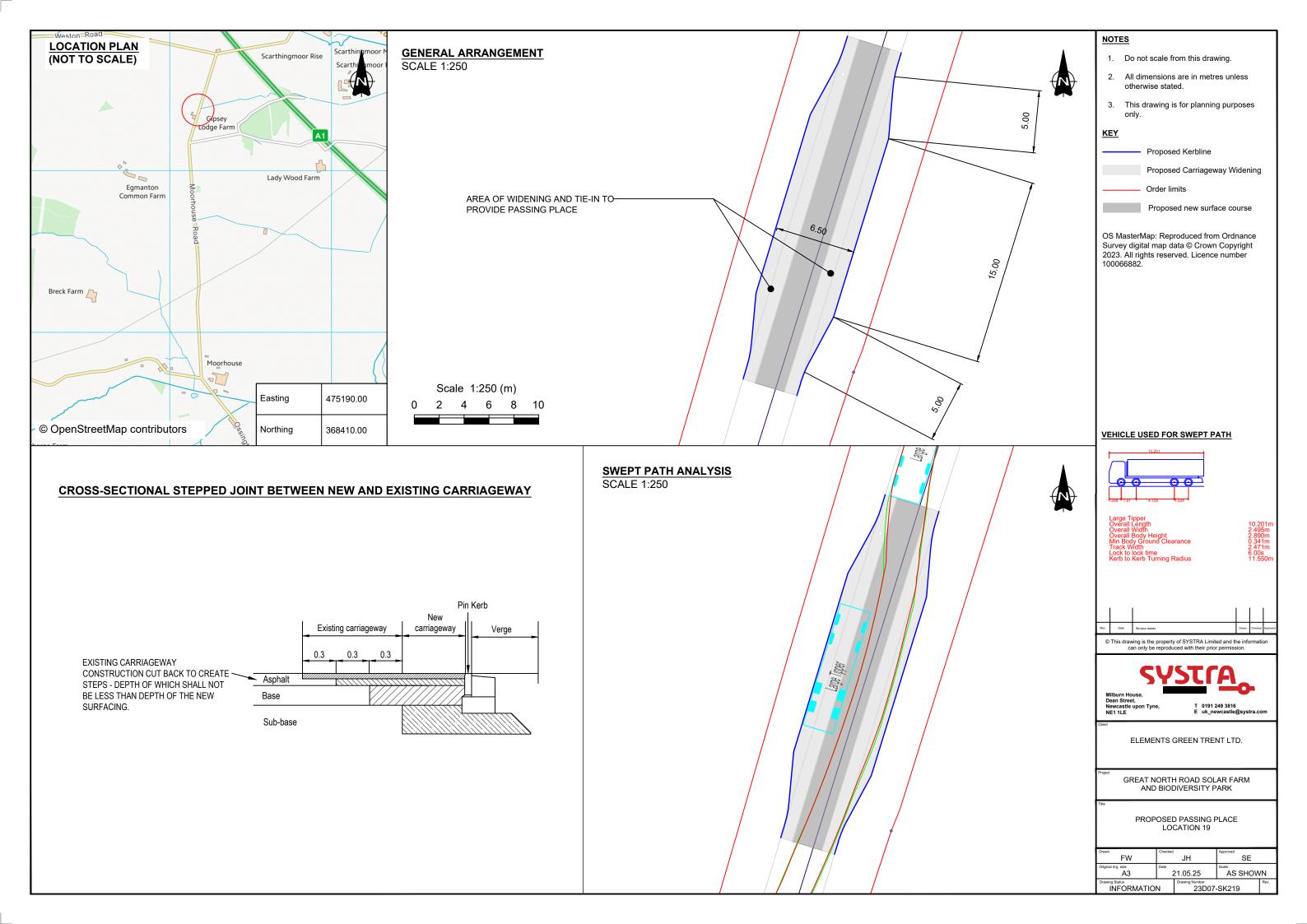


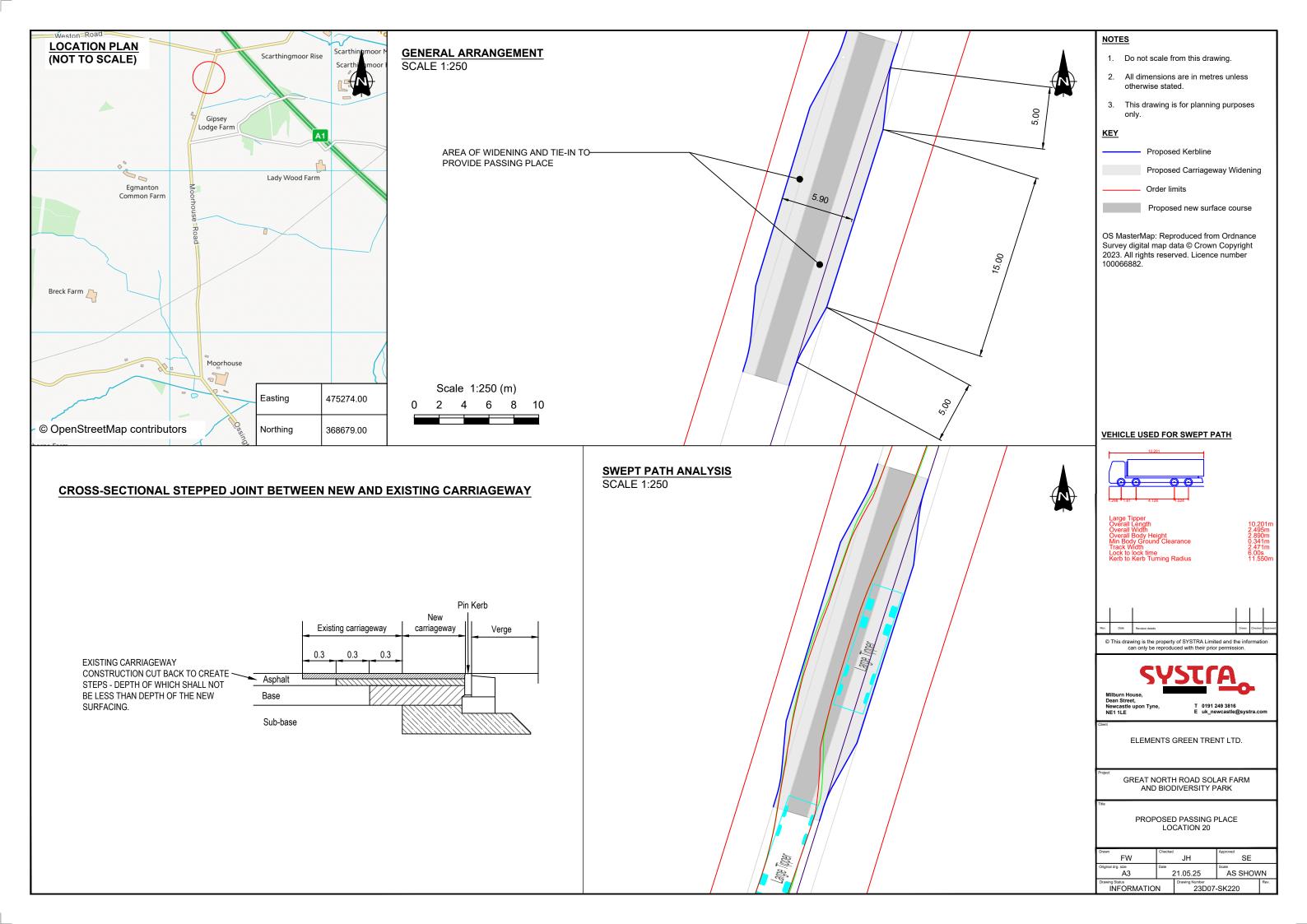


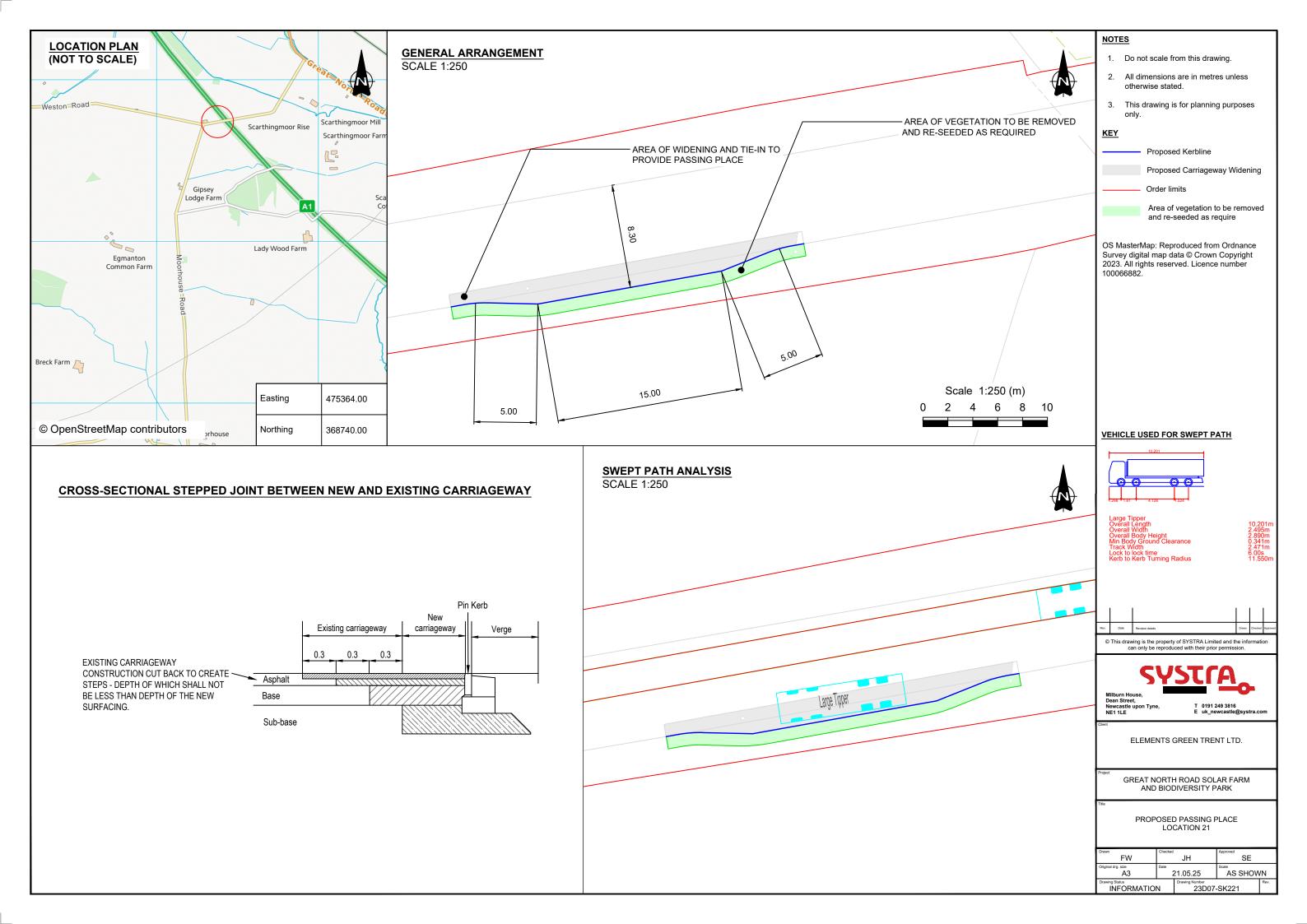


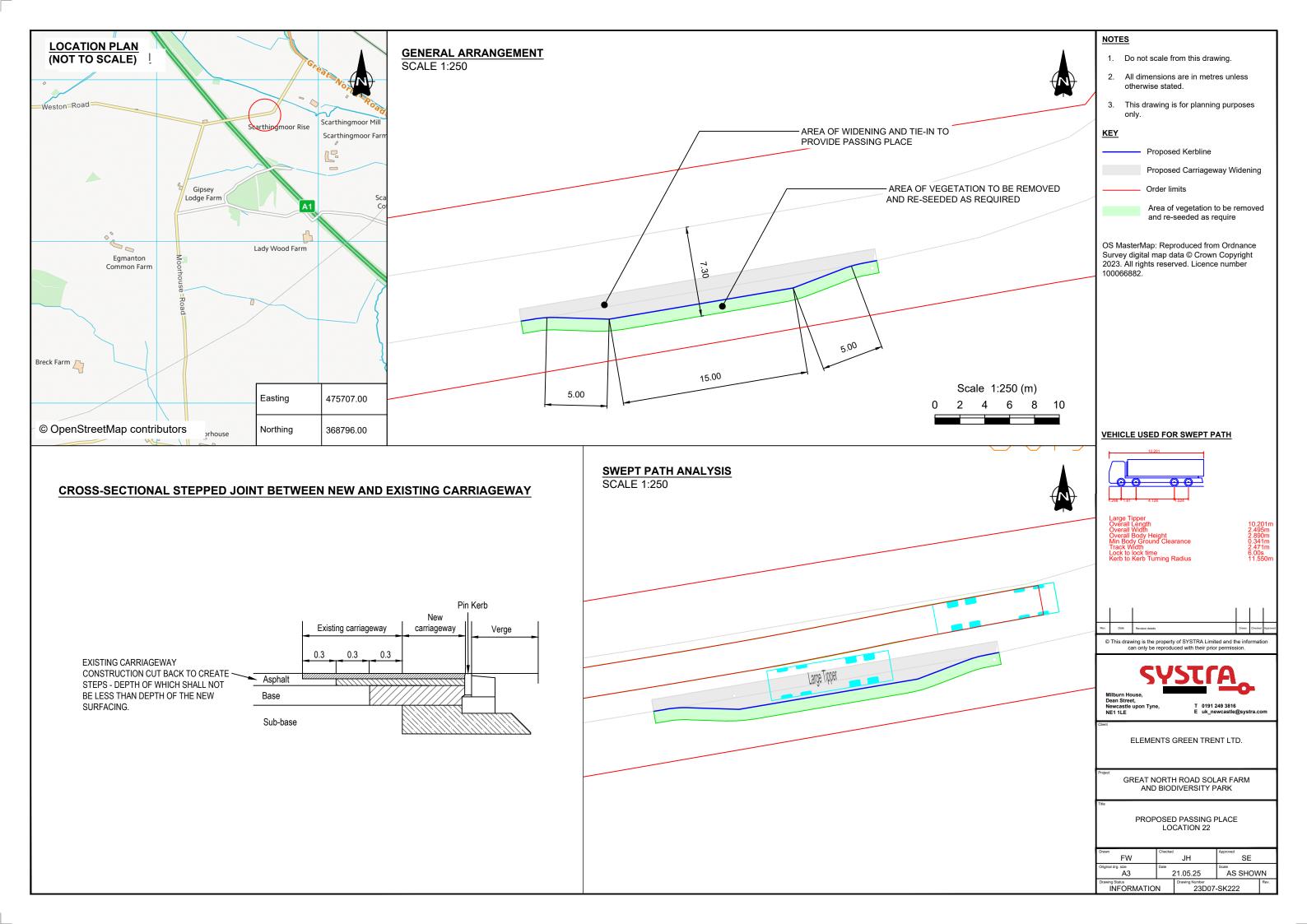


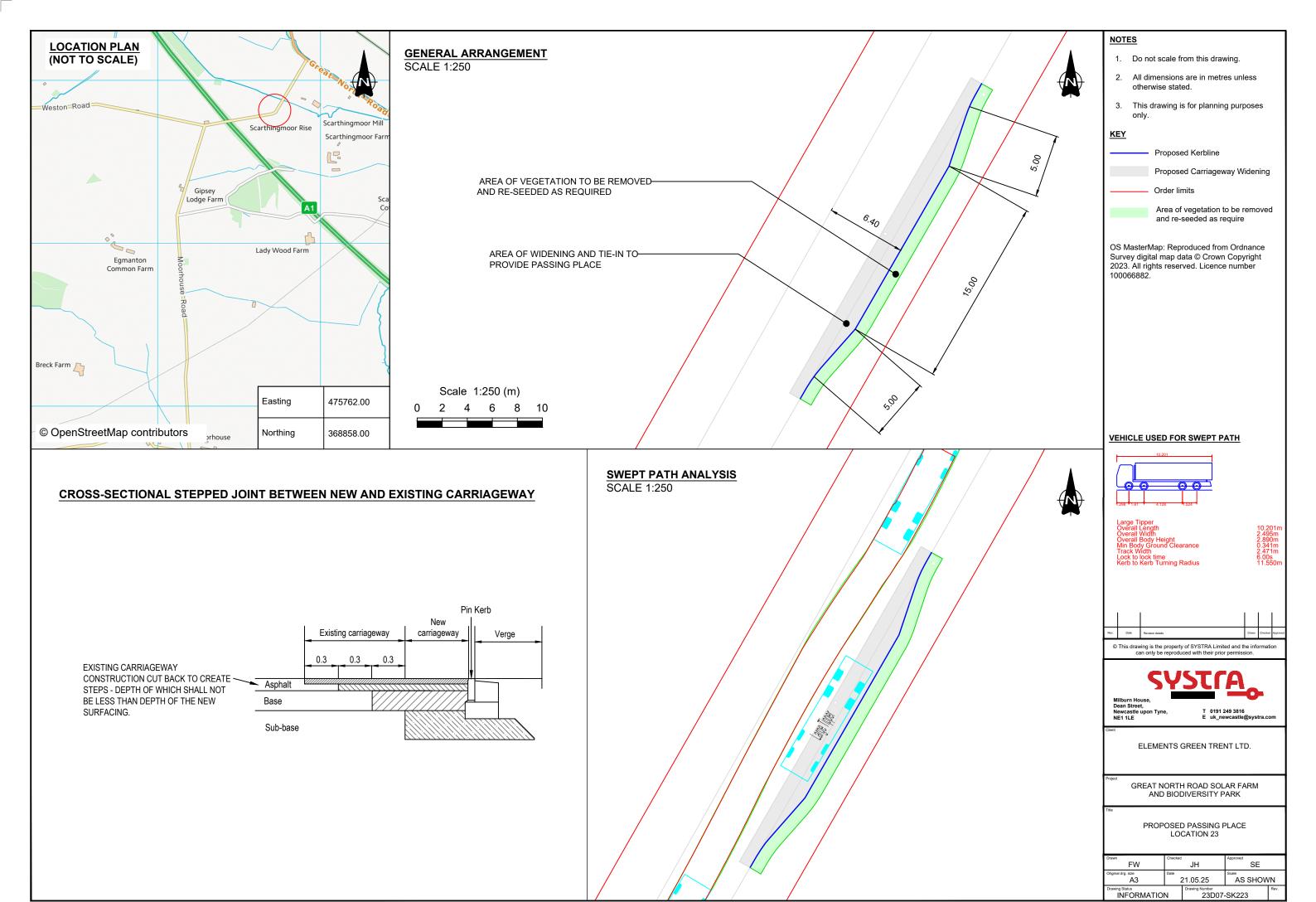


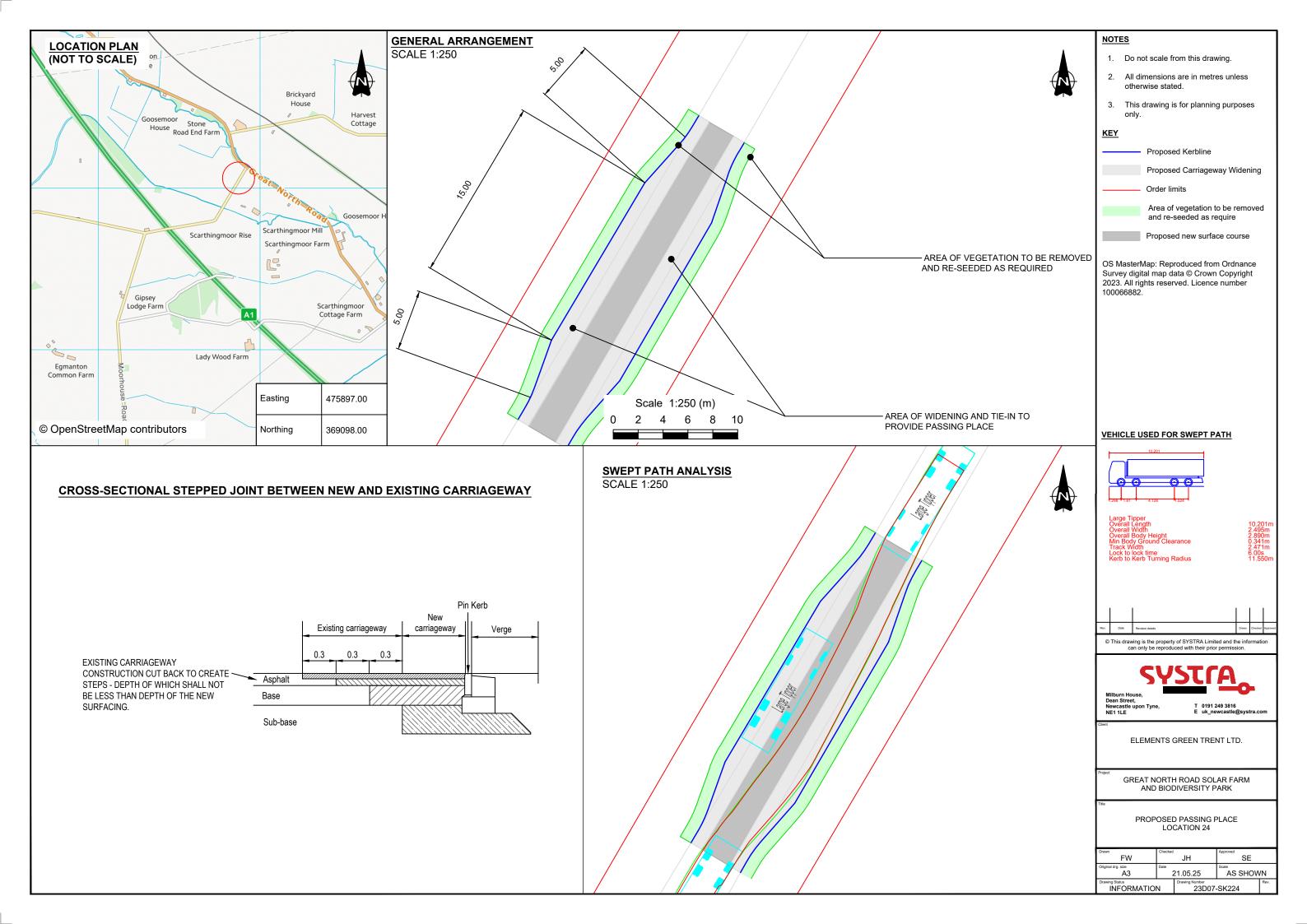


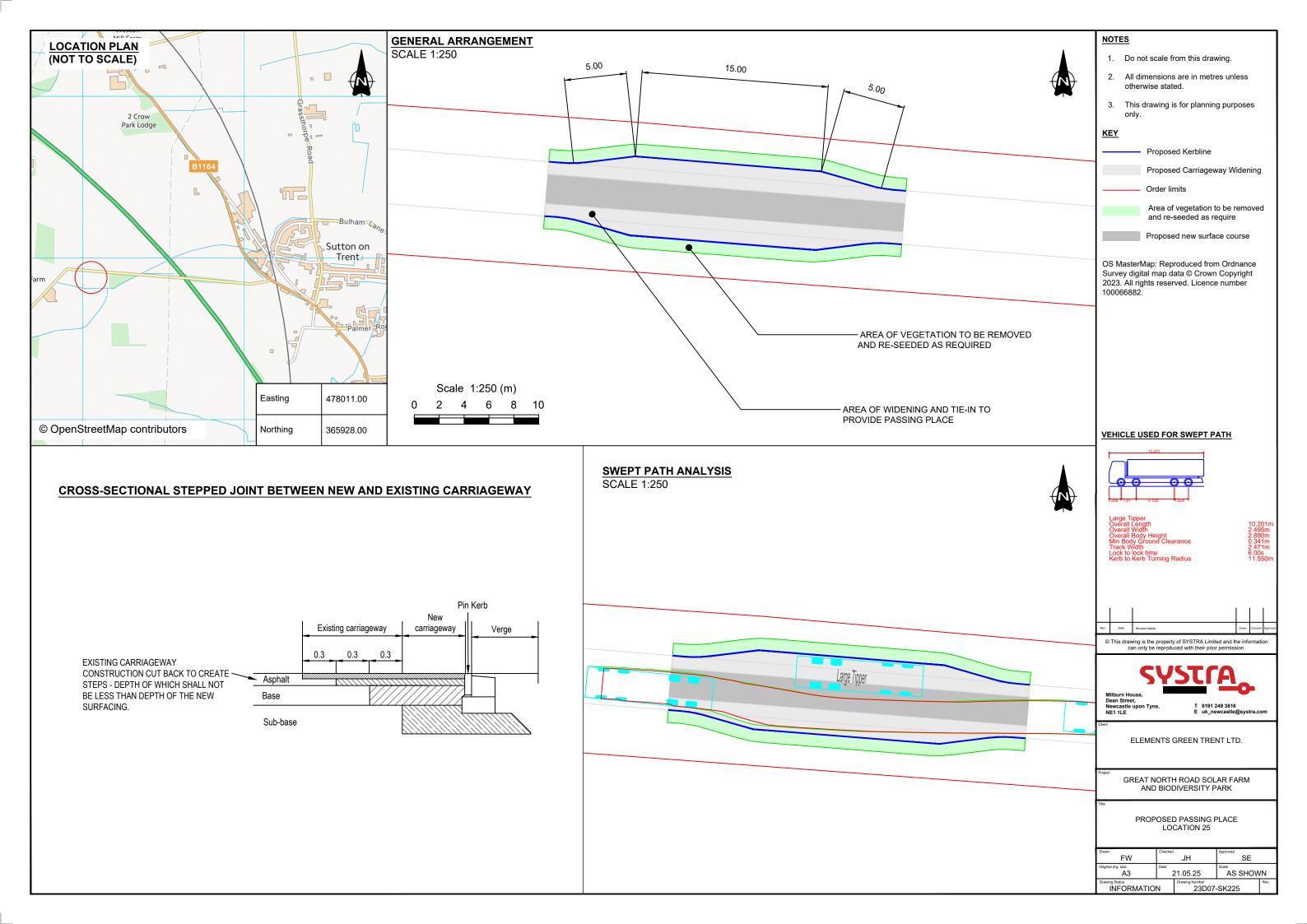


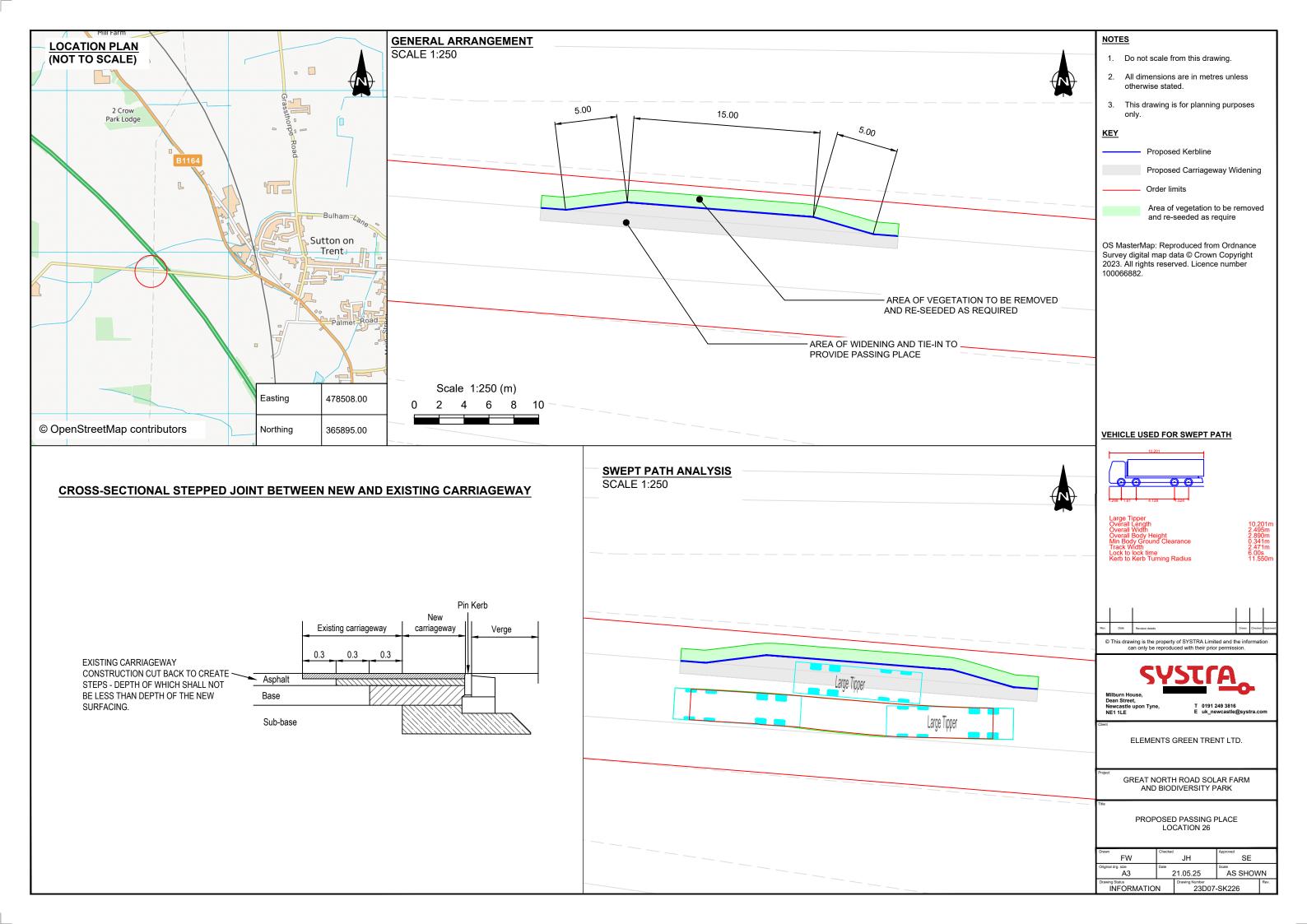


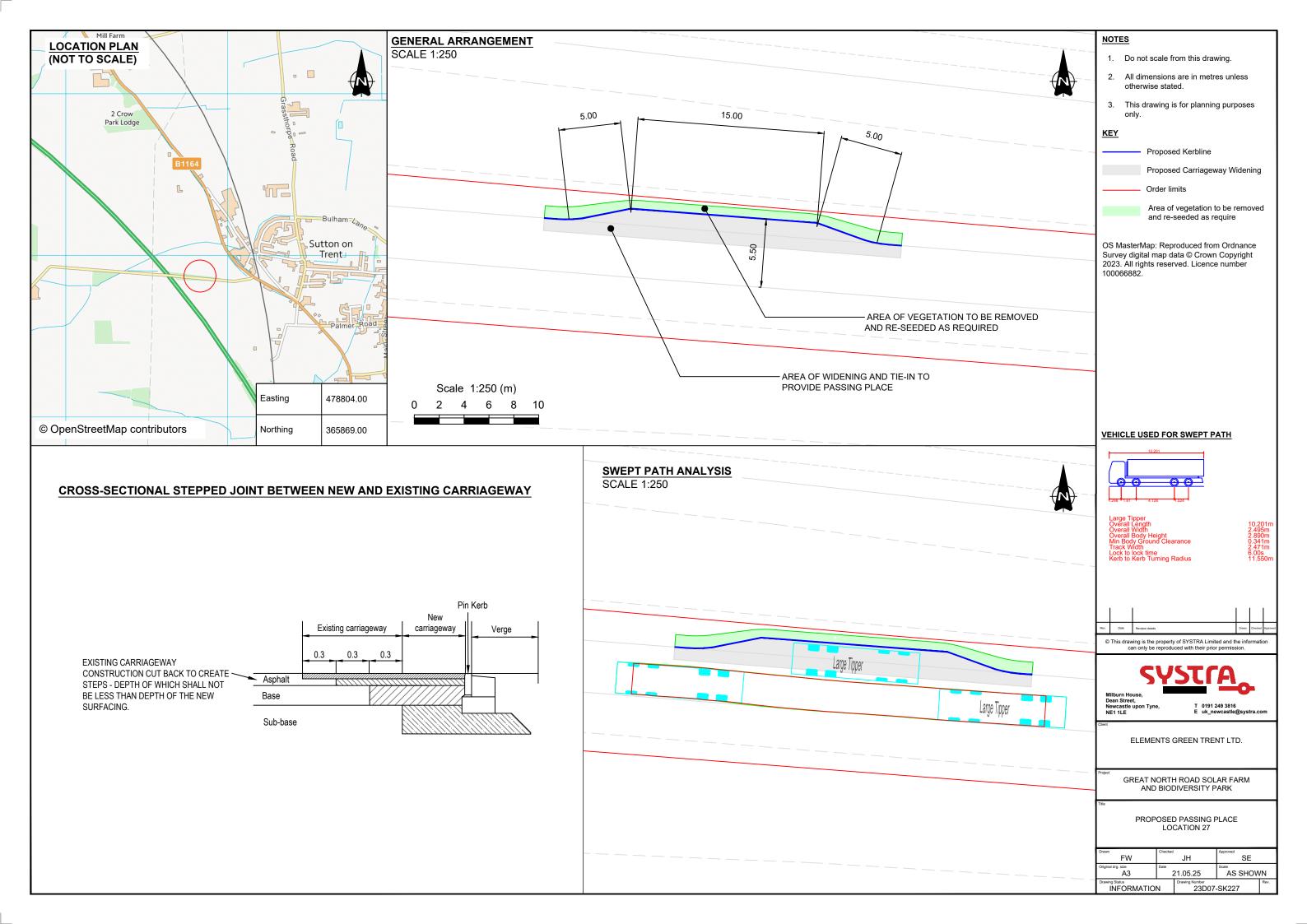


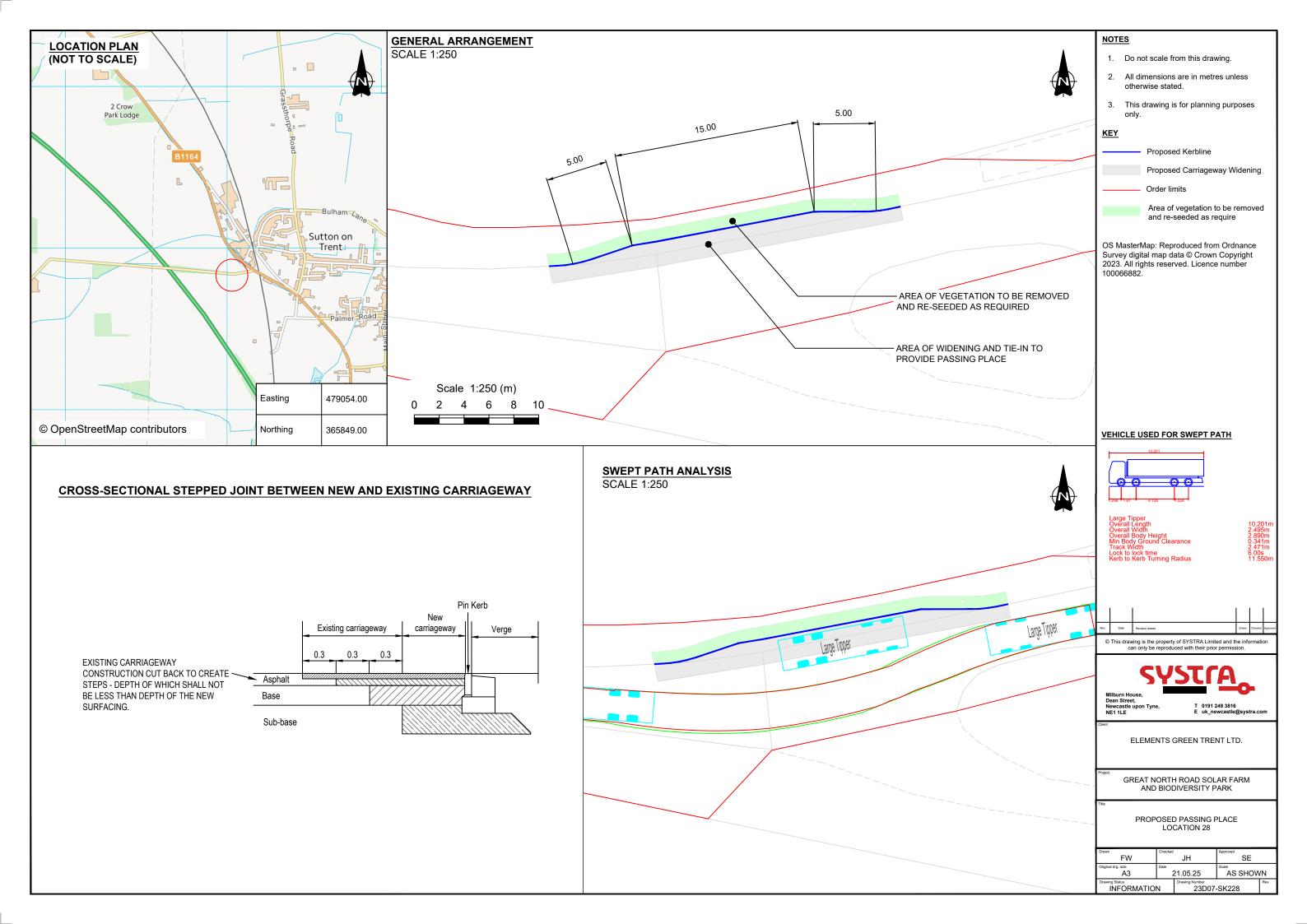


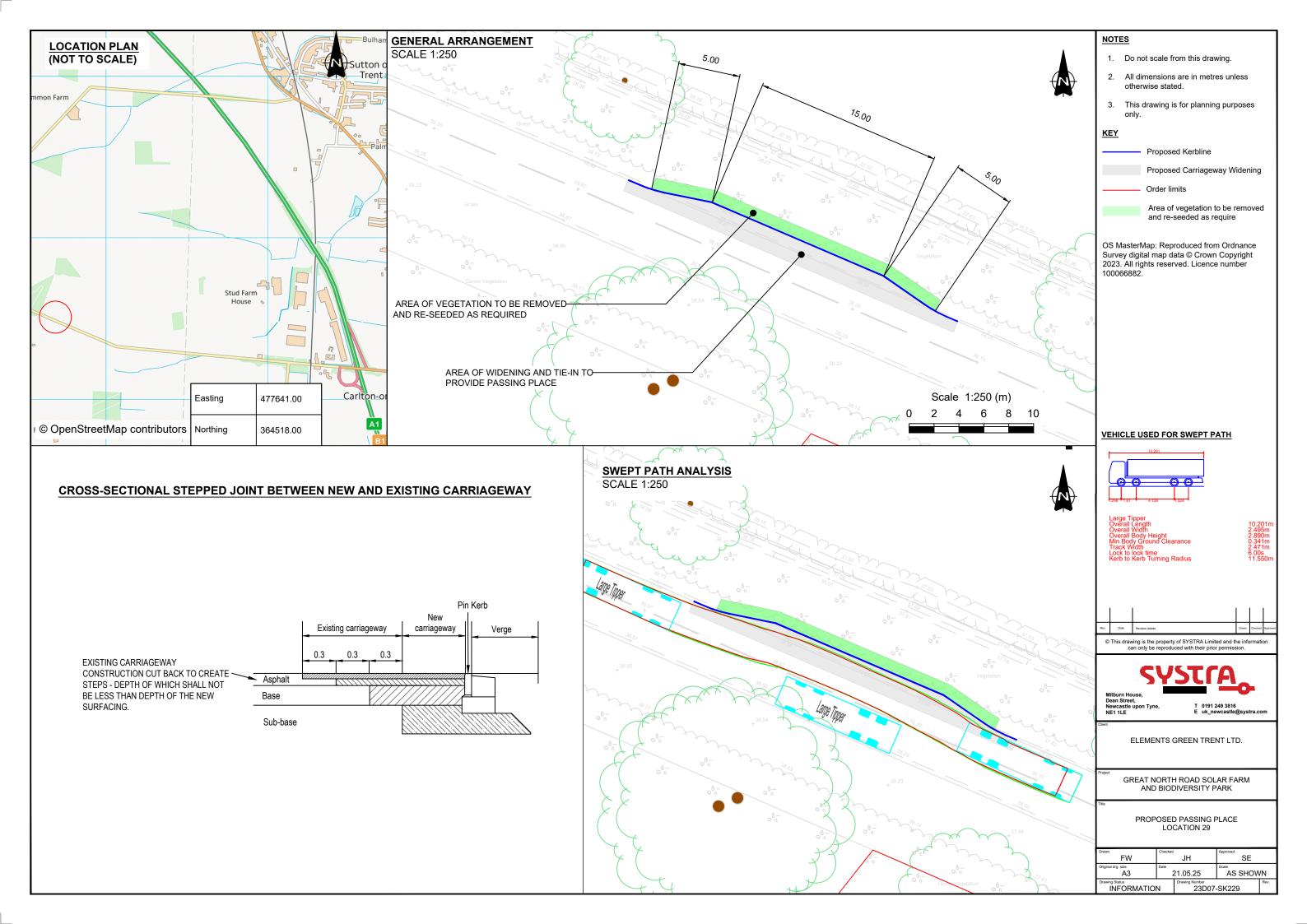


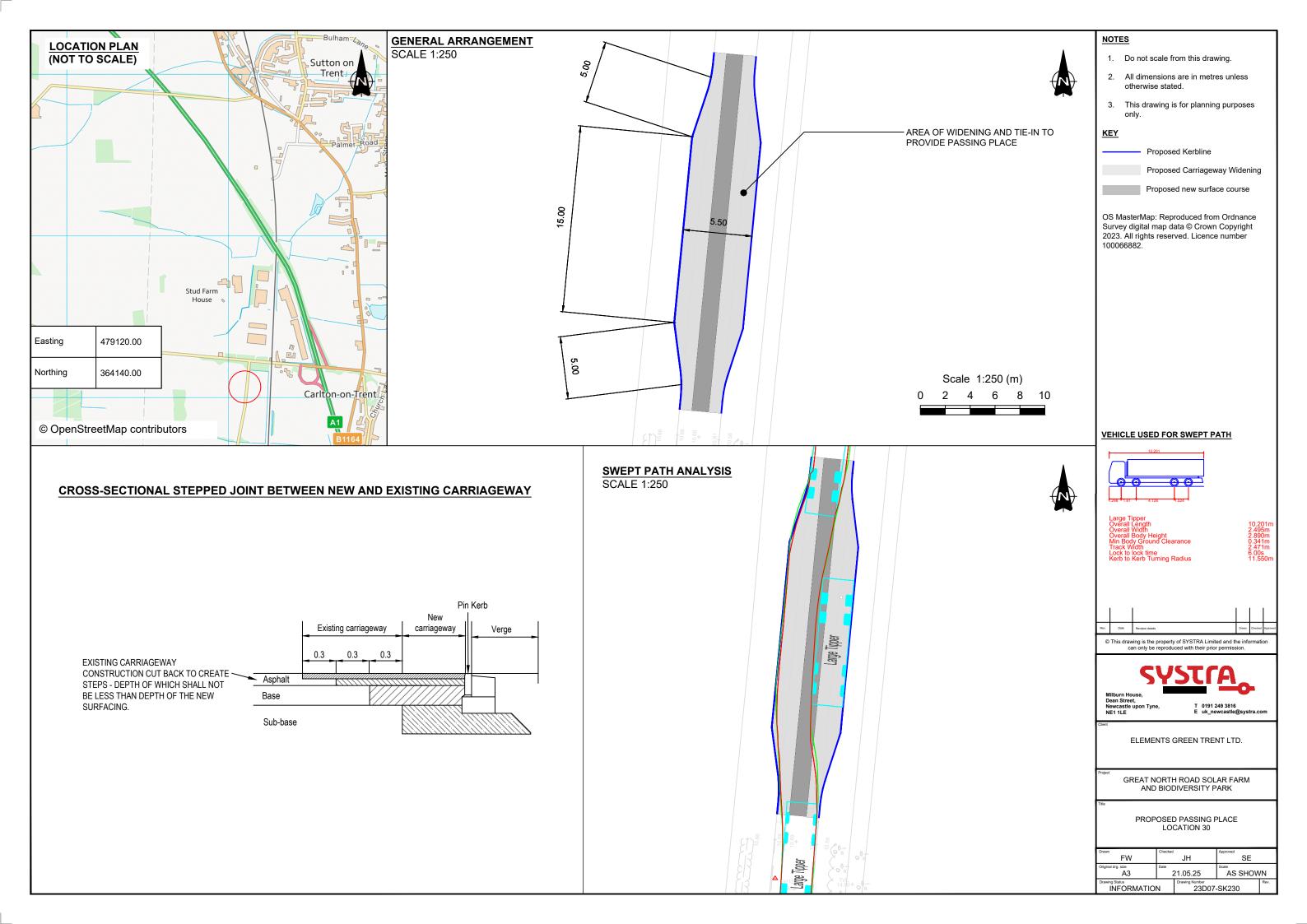












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## A14.1.14 APPENDIX F - TRIP GENERATION CALCULATIONS

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### Calculation Inputs & Assumptions

Item	Value
Total area of modules & mounting structures	550 ha
Total length of access tracks (Tarmac)	3 km
Total length of access tracks (Stone)	50 km
Area of compound areas	2 ha each
Total length of fencing	145 km
Site accesses to construct	41 No.
Construction vehicles required per access	5 HGV
Solar modules size range	3 sqm
Solar modules per container	620 No.
Frames per module factor	0.1
Storage units per substation	1 each
Vehicles required per storage unit	300
Number of substations	4 No.
Number of battery containers	754
Number of passing places to construct	40 No.
Internal stone track width	4 m
Internal stone track depth	0.15 m
Internal tarmac track width	5 m
Internal tarmac track depth	0.02 m
Density tarmac	2.3 t/m3
Density stone	1.8 t/m3
Truck capacity	20 t
Compound Areas	19
Length of fencing per HGV load	100m
Number of construction workers	2000 total
Number of construction workers	500 per phase
% of workers travelling to site by shuttle bus	50%
Number of workers per bus	20
Workers car share ratio	1.5
General Mitigation	100

Phase	% of Total Site Area
Phase 1 - South West	30.1%
Phase 2 - South East	20.6%
Phase 3 - North East	28.9%
Phase 4 - North West	20.5%

#### Phase / Area Summaries

Item	Phase 1 - South	Phase 2 - SouthWest	Phase 3 - NorthWest	Phase 4 - North	Phase 5	Total
No. Site Accesses	5	9	12	14	1	41
Area of Solar PV	204.92	208.37	227.14	384.64	20.69	1045.76
Percentage of Total	20%	20%	22%	38%		1
No. Compounds	3	3	5	8	0	19
Intenal Substations	1	1	1	1		4

#### Total and Peak Month

nase	Activity	TOTAL HGV	PEAK MONTH HGV
	Site access points	25	0
	Roads and tracks	547	55
	Construction compounds	810	486
Fencing and CCTV		290	14
Phase One	Solar PV poles, modules, inverters and transformers	1068	50
Cabling Intermediate substation BESS/400 kV compound		600	28
		100	0
		145	0
	Connection to network at Staythorpe	0	0
	Mitigation/enhancement planting	20	2
	Site access points	45	0
	Roads and tracks	556	56
	Construction compounds	810	486
Phase Two	Fencing and CCTV	295	14
Pilase I WO	Solar PV poles, modules, inverters and transformers	1086	51
	Cabling	610	29
	Intermediate substation	100	0
	Mitigation/enhancement planting	20	2
	Site access points	60	0
	Roads and tracks	606	61
	Construction compounds	1350	810
Phase Three	Fencing and CCTV	322	15
riiase Tillee	Solar PV poles, modules, inverters and transformers	1184	55
	Cabling	665	31
	Intermediate substation	100	0
	Mitigation/enhancement planting	22	2
	Site access points	70	0
	Roads and tracks	1026	103
	Construction compounds	2160	1296
Phase Four	Fencing and CCTV	545	26
Filase Foul	Solar PV poles, modules, inverters and transformers	2005	94
	Cabling	665	31
	Intermediate substation	100	0
	Mitigation/enhancement planting	22	2
Phase Five	Battery installation	75	5
		18104	3803

#### Phase 1 - South

Construction Access ID	P2	P3
Area (Ha) served by access	170.6	34.3
Percenatge of Total	16.6%	3.4%
Percentage of Phase	83.2%	16.8%
Construction Period (Working Days)	238	48
TOTAL HGV	528	106
Total HGV per day	22	4
2-Way Total HGV per day	44	9
TOTAL LGV / Car per day	149	30
2-Way Total LGV / Car per day	298	60
TOTAL 2-way TRAFFIC per day	343	69

#### Phase 2 - South West

i ilase z - south west				
Construction Access ID	P4	P5	P6	J
Area (Ha) served by access	155.9	28.3	24.1	
Percenatge of Total	15.2%	2.8%	2.4%	
Percentage of Phase	74.8%	13.6%	11.6%	
Construction Period (Working Days)	214	39	33	
TOTAL HGV	477	87	74	
Total HGV per day	20	4	3	
2-Way Total HGV per day	40	7	6	
TOTAL LGV / Car per day	134	24	21	
2-Way Total LGV / Car per day	268	49	41	
TOTAL 2-way TRAFFIC per day	308	56	48	

#### Phase 3 - North West

P7	P8	P9	P10	P11
62.6	25.6	27.2	61.2	50.6
6.1%	2.5%	2.7%	6.0%	4.9%
27.6%	11.3%	12.0%	26.9%	22.3%
79	32	34	77	64
269	110	117	263	217
11	5	5	11	9
23	9	10	22	18
49	20	21	48	40
99	40	43	97	80
121	50	53	119	98
	62.6 6.1% 27.6% 79 269 11 23 49	62.6 25.6 6.1% 2.5% 27.6% 11.3% 79 32 269 110 11 5 23 9 49 20 99 40	62.6         25.6         27.2           6.1%         2.5%         2.7%           27.6%         11.3%         12.0%           79         32         34           269         110         117           11         5         5           23         9         10           49         20         21           99         40         43	62.6         25.6         27.2         61.2           6.1%         2.5%         2.7%         6.0%           27.6%         11.3%         12.0%         26.9%           79         32         34         77           269         110         117         263           11         5         5         11           23         9         10         22           49         20         21         48           99         40         43         97

#### Phase 4 - North

Construction Access ID	P12	P13	P14	P15	P16	P17
Area (Ha) served by access	69.0	113.6	28.5	35.9	32.1	105.4
Percenatge of Total	6.7%	11.1%	2.8%	3.5%	3.1%	10.3%
Percentage of Phase	17.9%	29.5%	7.4%	9.3%	8.4%	27.4%
Construction Period (Working Days)	51	84	21	27	24	78
TOTAL HGV	278	458	115	145	130	425
Total HGV per day	12	19	5	6	5	18
2-Way Total HGV per day	23	38	10	12	11	36
TOTAL LGV / Car per day	32	53	13	17	15	49
2-Way Total LGV / Car per day	64	106	27	33	30	98
TOTAL 2-way TRAFFIC per day	88	144	36	46	41	134