

# What highway engineers need to understand about planting highway trees in hard and soft landscapes

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Living our values every day



Accountable



Integrity



Empower



Respect



Excellence



# What highway engineers need to understand about planting highway trees in hard and soft landscapes

How to be sure the right tree is planted in the right place in the right way for it to thrive.



# The 4 S's

1. Space
2. Species
3. Soil
4. Support



# Space



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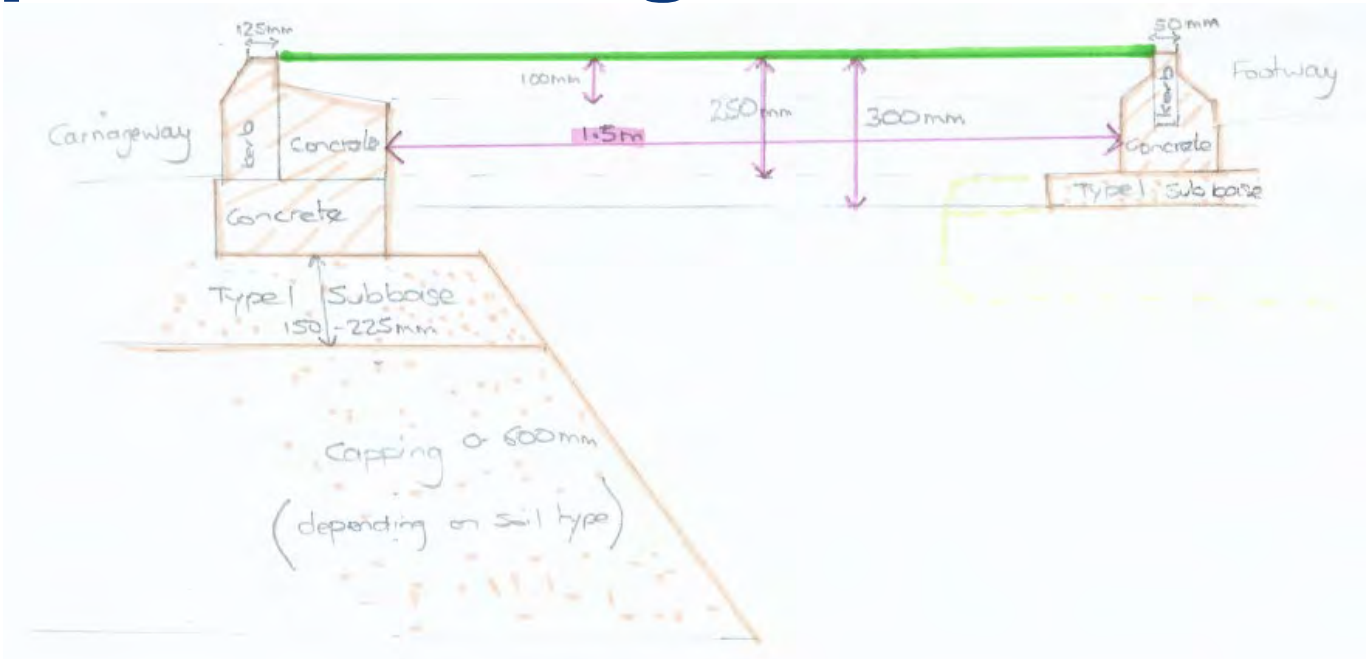
Excellence



# Space- above ground

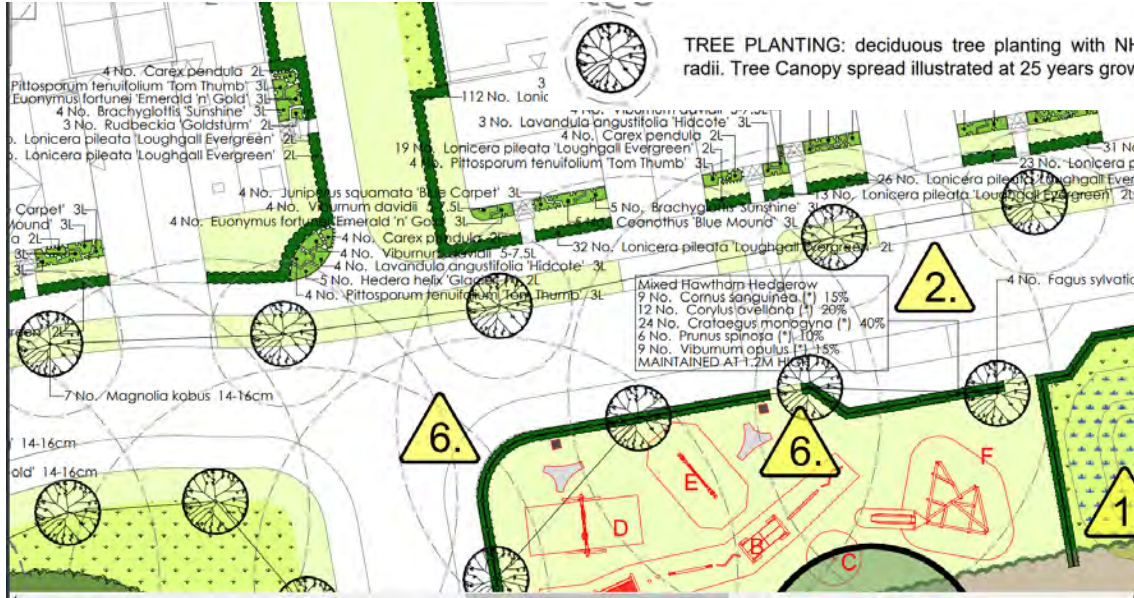


# Space - underground





# Species



## Plant Schedule: Complete Schedule

Trees		
No.	Species Name	Spe
3	Acer campestre	3x :
6	Acer platanoides 'Crimson King'	3x :
3	Alnus glutinosa	3x :
4	Betula pendula	3x :
10	Betula utilis jacquemontii	3x :
11	Corylus colurna	3x :
45	Crataegus monogyna (*)	1+1
14	Fagus sylvatica 'Dawyck Gold'	3x :
1	Liriodendron tulipifera	3x :
32	Magnolia kobus	3x :
3	Malus trilobata	3x :
2	Prunus 'Sunset Boulevard'	3x :
5	Sorbus aria	3x :
8	Sorbus aucuparia	3x :

# Species – RHS guide

### Size

↑ **Ultimate height**  
8–12 metres

🕒 **Time to ultimate height**  
20–50 years

↔️ **Ultimate spread**  
4–8 metres

### Growing conditions

🌱 Chalk
🏜️ Sand
🏠 Clay

**Moisture**  
Moist but well-drained

**pH**  
Acid, Alkaline, Neutral

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### Colour & scent

	Stem	Flower	Foliage	Fruit
Spring		❄️	🌱	
Summer			🌱	
Autumn			🌱 🍂	🍒
Winter				

### Position

☀️ Full sun
☁️ Partial shade

**Aspect**  
South-facing or West-facing

**Exposure**  
Sheltered

**Hardiness** ⓘ  
H6



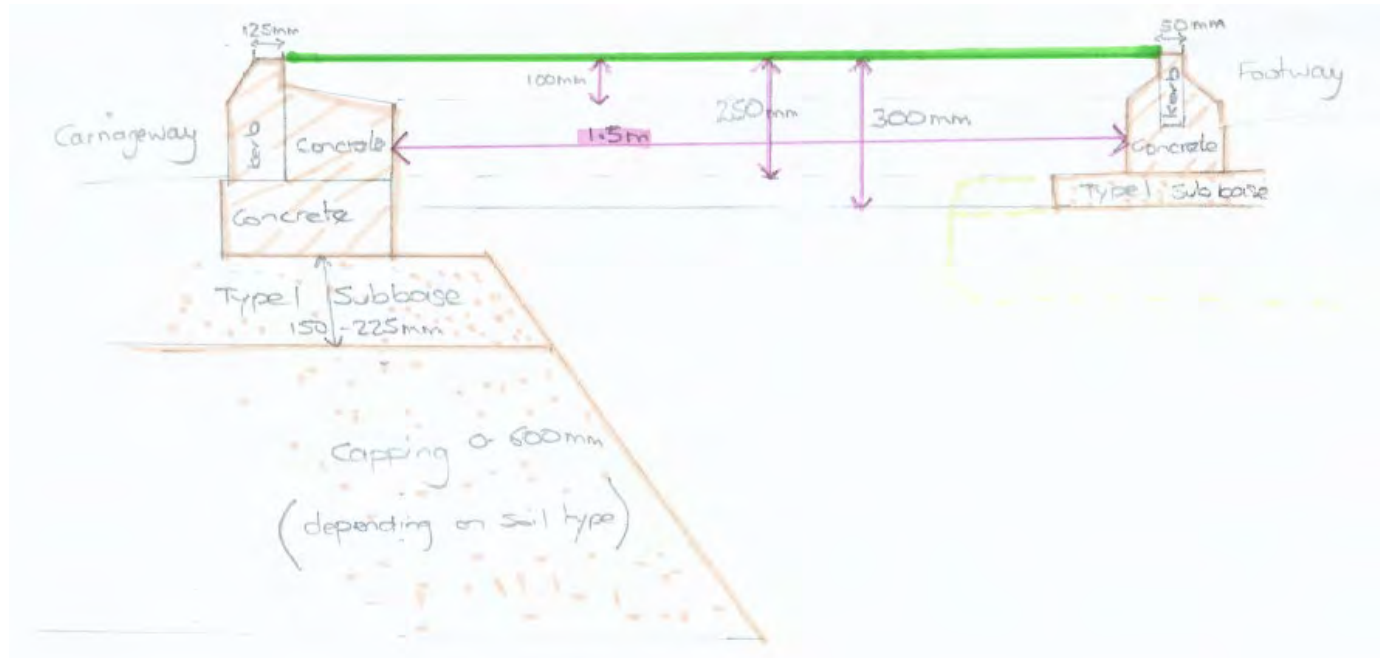
# Tree roots

Magnolia tree  
root system.

Rough measurement.  
Roots = 10 X trunk



# Space - underground



# Soil



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# Support - Stakes, guards, grills and Watering





# Support – maintenance



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# Support – commuted sums

Item	Rate
Trees - new	£1,121.90 per tree

Landscaping	Trees	Item	£700
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Tree inspection	Routine	3	75	25	£691.44
Tree maintenance	Routine	1	100	100	£2,765.74

Small Tree	Item	718.23
Medium Tree	Item	938.61

Asset Type – verges and Landscaped Areas		
Element	Unit	Rate
Trees	number	£300

# Street trees - what do highway engineers need to understand?

1. Space – is there enough?
2. Species – is it right for the space? Resilience?
3. Soil – is the tree planting method suitable?
4. Support – what support and maintenance is needed short and long term? Who will pay?

