

Z:\2898 Land North of Horsham\2898-5-DESIGN\2898-5-5-VEG-0002-SS-P5 Tree Planting Details.dwg

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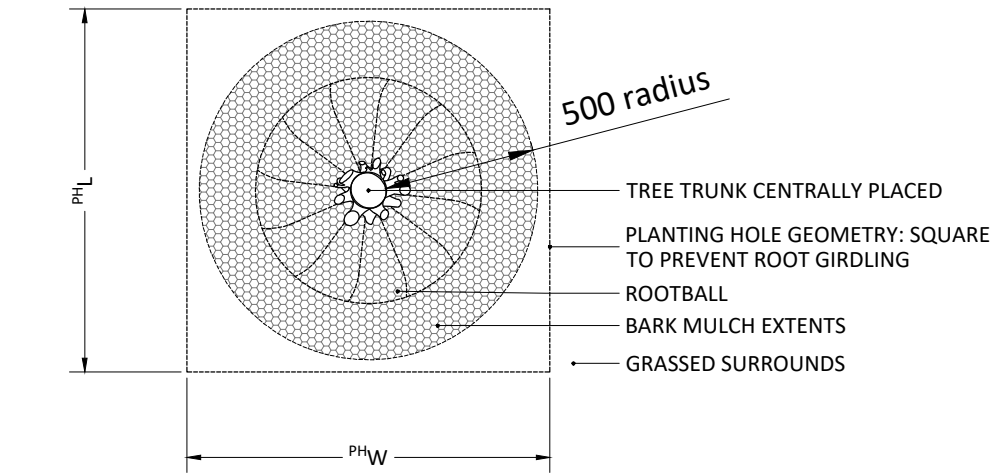
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Scale 1:25

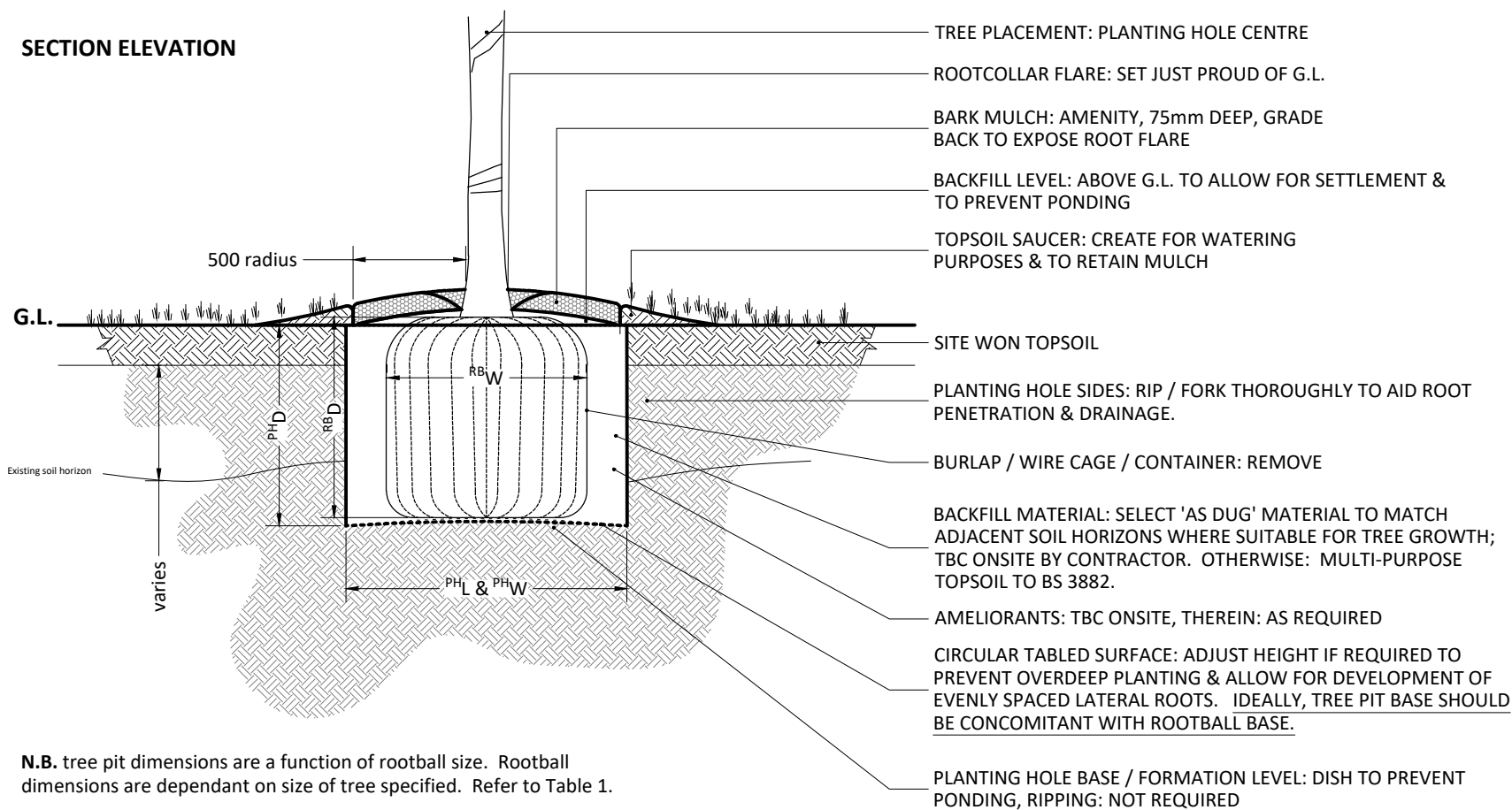
GENERAL TREE PLANTING PRINCIPLES

TREE SUPPORT SYSTEMS & IRRIGATION MEASURES OMITTED FOR CLARITY

TREE PIT: PLAN VIEW



SECTION ELEVATION



N.B. tree pit dimensions are a function of rootball size. Rootball dimensions are dependant on size of tree specified. Refer to Table 1.

N.B.

- BS 8545: 2014 states that, "*Sensible tree pit design begins with intention of doing as little as possible other than digging a pit, planting the tree, and using the existing soil, separated as subsoil and topsoil, as backfill. Each additional level of complexity added to the basic pit design can be related to the amelioration of a particular constraint*".
- Tree shown planted in open ground in optimal conditions with minimal site constraints.
- Tree support systems are omitted for clarity.
- Tree pit dimensions are a function of rootball size. Rootball dimensions are dependant on size of tree specified. Refer to table.

Table 1: TREE PIT DIMENSIONS

FORM	GIRTH	ROOTBALL				
		DIMENSIONS		PLANTING HOLE DIMS		
		(^{RB} Ø)	(^{RB} Dp)	(^{PH} L)	(^{PH} W)	(^{PH} D)
LS	6-8	400	300	700	700	300
S	8-10	400	300	700	700	300
SSe	10-12	400	400	700	700	400
H	12-14	500	400	800	800	400
EH	14-16	600	500	900	900	500
	16-18	600	500	900	900	500
SM	18-20	600	500	900	900	500
	20-25	750	750	1050	1050	750
	30-35	1000	1000	1300	1300	1000

based on: BS 4428: 1989 & BS 8545: 2014, together with: suppliers (James Coles) stated rootball dimensions

where: ^{RB}Ø = Rootball diameter, ^{RB}Dp = Rootball depth,
&: ^{PH}L = Planting Hole length, ^{PH}W = Planting Hole width, ^{PH}D = Planting Hole depth
&: LS = Light Standard, S = Standard, SSe = Selected Standard, H = Heavy Standard, EH = Extra Heavy Standard, SM = Semi Mature

N.B. Stated tree planting hole dimensions to accomodate the rootball are a minimum. Rootball dimensions can, & do, vary: some variance is to be expected naturally between species, tree stock, suppliers and season. In the event that the rootball exceeds the stated dimensions, the contractor shall seek advice from the Landscape Architect before commencing further. Thereafter, the Landscape Contractor shall excavate the hole (in Open Ground) to the advice given in BS 8545: 2014 with the exception of tree pit dimensions which shall be varied to achieve a minimum dimension of 150mm greater** than the rootball. Tree planting hole depth shall generally be no greater than the existing rootball or container depth. The Landscape Contractor shall take care not to damage any underground utilities &/or services.

* where root spread is taken to be rootball size.

**Section 10.5.10 of BS 8545:2014 states that, "Tree pits should have a diameter at least 75mm greater than that of the root system." However, this does not allow adequate space for firming in around the rootball by footfall.

Notes
Information regarding 'Tree Planting in Open Ground, Generally' on this sheet is derived from "BS 8545: 2014 Trees: from nursery to independence in the landscape - recommendations".

While every attempt is made to address the most salient points raised [within the BS], this list should not be considered exhaustive as it is presented in summary format only. For further information, the reader is referred back to the relevant British Standard.

GENERAL TREE PIT PLANTING NOTES:

- SPECIFIED MATERIALS:** all to be installed in accordance with the manufacturer's recommendations and/or instruction.
- PLANTING GENERALLY:** Correct planting depth is critical for transplanting success, with over-deep planting identified as a common cause of failure. The Contractor shall therefore ensure that the natural root flare of the tree is clearly visible at proposed finished soiling surface. To ensure that correct final planting position / depth is achieved, the Contractor shall therefore take care to remove all:
 - soil placed above natural root flare during nursery packaging & production - rootballing, containerization, etc.
 - adventitious roots above the root flare,
 - wire encircling the main stem,
 - wire cage & burlap where possible. Otherwise, peel back and remove once the tree is in the planting pit.
- BACKFILL MATERIAL: *Open ground & Verges*:** select 'as dug' material to be reused taking care to match adjacent soil horizons (where suitability assured for tree growth); TBC onsite by Contractor. All 'as dug' topsoil material to be site won and generally conform to BS 3882:2015 General Purpose Topsoil & shall be reinstated to a depth of no more than 300mm). Remove all deleterious material arising (weeds, broken brick & large stones, etc). Backfill & lift in layers no greater than 150-230mm deep. Compact to between 1.5 - 2.0 mega pascals: tread down using footfall, paying particular attention to the planting hole edges and rootball extents to eliminate voids. Avoid over compaction.
- BACKFILL SOIL AMELIORANTS:** the Contractor shall satisfy himself of the general suitability of the topsoil supplied for long term tree growth. Reason: to ensure the long term longevity of the tree supplied. Thereafter: to suit site conditions. Typically, this may comprise 0.5kg of broadleaf p4 or similar (pre-hydrated with water) thoroughly mixed with the topsoil until the medium is homogeneous.
- ARISINGS:** all deleterious material arising, shall be removed offsite to a licensed tip by the Contractor.
- TREE SUPPORT SYSTEMS:** Unless otherwise stated, all trees in hard surfacing surrounds shall be supported using the underground guying method of support.
 - Irrigation pipes to be installed around the AG tree support system & on top of the the UG tree support system.
- ROOT PROTECTION MEASURES:** supply & install permeable rootbarriers (Terram RootGuard, or equal & approved) to a min. depth of 600mm below ground. *Installation:* as per manufacturer's instruction. *Finished level:* top of barrier to be 10mm above G.L. *Zone of Deployment:* protection of hard surfacing / services lying within a min. 5m radius of the proposed tree and/or as dictated on plan.
- IRRIGATION: *Open ground & Verges*:** Create topsoil chaucer as Detail 1. Water at frequency necessary to ensure establishment & survival.
- DRAINAGE:** the contractor shall satisfy himself that the tree pit is free draining. The contractor shall notify the Contract Administrator of any problem areas and await further instruction before proceeding further. Reason: to ensure the longevity & viability of the tree supplied. TBC onsite.
- GRANULAR SURROUND:** 10mm Ø particle size, buff. Extents: flush w/t aperture surrounds.
- FOUNDATIONS:** Trees are not to effect foundations in accordance with NHBC chapter 4.2.

Drawing Revision				
Rev.	Date	Description	Drawn	Checked
P2	19/03/2023	Amended to client comments	PG	PG
P3	30/03/2023	Amended to client comments	PG	PG
P4	11/08/2023	Amended to client comments	GR	PG
P5	08/09/2023	Amended to client comments	GR	PG

Status

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LAND NORTH OF HORSHAM

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TREE PLANTING DETAILS

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