SPECIFICATION NOTES

1. General.
This plan to be read in conjunction with the following documents:
- Landscape works specification and other drawings by terra firma
- A.I.A. and Arb method statement report by 'Challice Consulting Ltd.' produced on the 31st October 2024

2. General landscaping.
i. Existing levels to be preserved around retained existing trees and vegetation. Existing trees and vegetation to be retained are to be protected in accordance with BS5837: 2012 during construction or as detailed in Tree Protection Plan 'TPPLP-AR5464 and AR5519'
ii. All landscape works to be undertaken by competent persons, with appropriate training and equipment.
iii. All arisings to be removed from site at contractor's expense unless noted otherwise.

3. Services.
The contractor must ascertain for himself/herself the exact location of underground services before commencing work.

4. Soil Materials Generally.
i. Purity: Soils shall be free from roots, stolons, rhizomes, propagules of perennial or invasive weeds couch grass, bindweed, docks, Japanese knotweed, giant hogweed and horsetail/marestail (Equisetum avense).
ii. Foreign matter: On visual inspection, free from non-soil material, brick and other building materials and wastes, sharps, and any other foreign matter or material or substance that would render the soil or soil ameliorant unsuitable for use.
iii. Contamination: Do not use topsoil, subsoil, sand or compost contaminated with rubbish or other materials that are:
    - Corrosive, explosive or flammable;
    - Hazardous to human or animal life;
    - Detrimental to healthy plant growth.
iv. Give notice: If any evidence or symptoms of soil contamination are discovered on the site or in topsoil, subsoil, sand or compost or other planting media to be used.

5. Soil testing
Each soil source (imported and site-won subsoil and topsoil) shall be analysed by Tim O'Hare Associates, Howbery Park, Wallingford, Oxon OX10 8BA, Tel: 01491 822653, Email: info@toha.co.uk, www.toha.co.uk (or equivalent approved).

6. Subsoil for general planting areas (sample of site-won and/or imported subsoil to be sent for testing to check compliance with parameters below)
Provide subsoil as necessary to make up deficiency on site. Natural or manufactured subsoil (from approved source) will be acceptable (within parameters given below). Subsoil to be tested to determine suitability for proposed use for planting; test report to be submitted for approval and to enable amelioration recommendations. Subsoil should be free from commonly tested contaminants, including asbestos. Subsoil parameters to be within the following:

Parameter	Unit	Lower Limit	Upper Limit
Clay (<0.002mm)	%	5	35
Silt (0.002-0.05mm)	%	0	35
Sand (0.05-2.0mm) of which at least 40% shall fall into fine to medium sand range	%	50	90
Stones (2-50mm)	%DW	--	50
Stones (>50mm)	%DW	--	0
pH Value	Unit	5.5	8.5

7. Subsoil for tree pits (sample of site-won and/or imported subsoil to be sent for testing to check compliance with parameters below)
Provide subsoil as necessary to make up deficiency on site. Natural or manufactured subsoil (from approved source) will be acceptable (within parameters given below). Subsoil to be tested to determine suitability for proposed use; test report to be submitted for approval and to enable amelioration recommendations. Subsoil should be free from commonly tested contaminants, including asbestos. Subsoil parameters to be within the following:

Parameter	Unit	Lower Limit	Upper Limit
Clay (<0.002mm)	%	5	18
Silt (0.002-0.05mm)	%	0	25
Sand (0.05-2.0mm) of which at least 40% shall fall into fine to medium sand range	%	60	90
Stones (2-50mm)	% dry wt.	--	50
Stones (>50mm)	% dry wt.	--	0
pH Value	Unit	5.5	8.5

8. Topsoil for general landscapes (sample of site-won and/or imported topsoil to be sent for testing to check compliance with parameters below and to inform any necessary amelioration)
Existing topsoil to be stripped and re-used, provided soil is within parameters given below when analysed. Imported topsoil to be good quality sandy loam or manufactured topsoil (from approved source, meeting parameters given below). Topsoil (site-won or imported) is to be tested to determine suitability for proposed use and should be free from commonly tested contaminants, including asbestos; test report to be submitted to Landscape Architect for approval and to enable amelioration recommendations to be made:

Parameter	Unit	Lower Limit	Upper Limit
Clay (<0.002mm)	%	5	18
Silt (0.002-0.05mm)	%	0	35
Sand (0.05-2.0mm) of which at least 40% shall fall into fine to medium sand range	%	50	85
Stones (2-20mm)	% dry wt.	0	20
Stones (20-50mm)	% dry wt.	0	15
Stones (>50mm)	% dry wt.	-	0
pH Value	Unit	5.5	8.5

9. Ameliorant: fertilizer and compost (contractor is responsible for submitting a sample of imported or site-won topsoil (to inform requirements).
Topsoil amelioration to be determined by analysis. Once amelioration requirements ascertained as required, approved (peat free) composts to PAS100 and/or fertilizers to be incorporated during cultivation at required rate to full depth of growing medium.

10. Soil handling and depths.
Management of soils to be in accordance with the Construction Code of Practice for the Sustainable Use of Soils on Construction Sites
i. Topsoil and subsoil to be handled (i.e. excavated and/or imported, stored, spread, cultivated) in accordance with method agreed in writing by Landscape Architect prior to work commencing. All topsoil and subsoil areas shall be thoroughly cultivated by hand or suitable machinery to the full depth of the topsoil layer, incorporating ameliorants as required. If compaction is suspected in sub-grade, subsoil or topsoil surfaces, these should be ripped as necessary to decompact and ensure adequate drainage.
ii. Hand cultivations shall be carried out to achieve the required finish on areas where machine cultivation is impossible ie adjacent to kerbs, manholes and footpath junctions, around retained trees etc. Surplus plant matter, rubbish and surface stones having any dimension greater than 25 mm shall be collected and removed from the site. Topsoil and subsoil is to be stored in heaps, maximum of 2m in height, providing soil is reasonably dry and friable during stripping and handling - using a tracked excavator. To protect from wet weather once final height is achieved, an excavator should regrade the sides and top of stockpile to firm surface by tracking across it to form a smooth gradient.
iii. Final topsoil depth (allowing for settlement) to be 300mm for tree pits and general planting areas and 150mm for grass. Finished soil levels to be 25mm above/below adjoining paving or kerbs: not less than 150mm below dpc of adjoining buildings; shrub areas to be higher than adjoining grass areas by 25 mm. Topsoil to be spread in lightly compacted layers, max. 150mm depth, gently firm each layer before spreading the next.

12. Plant handling and establishment.
Plant handling shall be in accordance with 'Handling and establishing landscape plants', published by the CPSE through the JCLI. (https://www.csdhub.com/wp-content/uploads/2014/12/The-National-Plant-Specification-Handling-and-Establishment.pdf). The contractor shall comply with Part 3: Recommendations for plant handling from delivery to site to ensure successful establishment.

13. General planting notes.
Details for tree, hedge and general planting to be finalised once final site conditions are known (i.e compaction and permeability of ground). General plant stock to conform to BS 3936, advanced nursery stock to BS 8545, and planting to BS 4428. Plants shall be first class examples of their species or variety, free from all pests and diseases, with good fibrous root systems and materially undamaged. All planting operations to be in general compliance with BS4428: 'Code of Practice for general landscape operations'.
Only carry out all planting while soil and weather conditions are suitable:
- Do not plant during periods of frost or strong winds. Plant only during the following periods
- Deciduous and conifer trees: Late October to late March (rootball and bare root)
- Container grown plants: At any time if ground and weather conditions are favourable. Ensure that adequate watering is provided

Setting out of planting beds to be approved by Landscape Architect before work commences. Ensure that plant beds are neatly defined, and rise from adjacent paved areas as specified above. All tree pits, tree circles in lawn and planting beds are to be mulched with approved bark mulch to 75mm depth after planting.

14. Plant biosecurity
Plant procurement should follow the latest recommendations from DEFRA and landscape contractors should verify the status of all specified species prior to procuring. Plant material should be sourced from UK growers with a sound Biosecurity Policy and management systems that can demonstrate the traceability of their stock with plant health certificates / plant passports or other documentation (commensurate with the HTA Plant Health Assurance Scheme (still in development phase)).
Selected plants, including trees should be propagated and grown on a UK nursery, or containerised and grown-on in the UK for a minimum of 5 years (trees) or 2 years (shrubs). Any Xylella host plants specified must come from a UK nursery and must not be imported from Europe or anywhere else in the world, directly to site. There must be full traceability on the Xylella host plants (ideally back to its origin). The contractor is responsible for checking compliance of growers and to submit their own Biosecurity Plan with their tender.

15. Tree planting
Any proposed substitutions of species shown on plan to be approved by landscape architect prior to planting. Details for tree planting to comply with BS8545. As a guide all trees to be planted in square pits with base undisturbed unless drainage / compaction problems known. Plant at a depth where the root flare is clearly visible at the soil surface. Where trees have been supplied with the root flare too deep excess soil or fibrous root growth should be removed before planting. All trees to have 'Piddler' tree irrigation/aeration system installed as supplied by Platipus 01737 762300 www.platipus-anchors.com or approved equivalent. Water-in heavily after planting and mulch surface, ensuring mulch is not in contact with trunk of tree. Tree support to comply with BS 8545: RB or CG trees to have double stake and bridge with adjustable tie; for large trees, install wired guying. Any necessary remedial tree works are to be carried out by an approved tree surgeon to BS 3998. Trees planted within grass areas to be set in mulched earth circles, 1m diameter around tree trunk, with turf trimmed neatly to form circle.
i. Trees up to 20cm girth.
   Depth of tree pits to be the same as the rootball and with overall width to be 150mm wider than the diameter of the rootball (75mm min. from rootball edge to tree pit side). Pits to be backfilled with 300mm depth of specified topsoil over subsoil as per spec.
ii. Trees - 20cm girth and above.
   Depth of tree pits to be 200mm deeper than rootball and with overall width to be 150mm wider than the diameter of the rootball (75mm min. from rootball edge to tree pit side). Pits to be backfilled with 400mm depth of specified topsoil over washed medium coarse grade sand to a depth of 200mm below rootball.

16. Native hedges.
Species to be randomly mixed for natural effect, and planted in groups of 3-5 plants of any one species. Depth of planting trench to be same as root system, overall width space 150mm wider than root system (75mm min. from root system edge to sides of trench). Trench to be backfilled with 300mm depth of specified topsoil over subsoil as per spec. Provide and install each plant with an appropriate sized recyclable staked green shrub shelter (available from Tubex Ltd, phone 01621 874201 or similar approved). Position shelter stake on windward side of plant, drive vertically into bottom of pit before planting, to a min. depth of 300mm and consolidate backfill material around stake; attach shelter to stake with a minimum of two ties. Fertiliser to be incorporated as required to ensure establishment and continued thriving of plants - type and application rate to be determined by analysis. Central post and wire supporting to be provided with two line wires and plants to be tied in using horticultural plastic ties. Hedges to be trimmed to 600mm ht. and sides to be trimmed to neat shape where necessary.

17. Native shrubs.
All plants to be planted in cultivated planting beds. Plants to be notch- or pit-planted. Provide and install each plant with an appropriate sized recyclable staked green tree or shrub shelter (available from Tubex Ltd phone 01621 874201 or similar approved). Position shelter stake on windward side of plant, drive vertically into bottom of pit before planting, to a min. depth of 300mm and consolidate backfill material around stake; attach shelter to stake with a minimum of two ties.

18. Shrub and Ground Cover Planting.
All plants to be planted into cultivated planting beds (with 300mm depth specified topsoil) at densities shown in plant schedule, backfilled with same topsoil. Fertiliser to be incorporated as required to ensure establishment and continued thriving of plants - type and application rate to be determined by analysis.

19. Meadow grass areas.
Seeding shall be carried out only during appropriate seasons and while soil and weather conditions are suitable for the relevant operations. Only machinery and tools suitable for the site conditions and the work to be carried out shall be used. Hand tools shall be used around trees, plants and in confined spaces where it is impractical to use machinery. The soil shall be weed free prior to seeding. Contact herbicide as specified should be applied to all areas of weed growth 4-6 weeks before grassing and repeated if necessary to maintain a weed free bed. Where deep rooted weeds are present (docks, thistles etc.) approved Glyphosate-based herbicide should be applied as a spot treatment. Seed shall be laid on prepared, levelled soil (minimum 150mm depth) in the areas indicated on the drawings in accordance with BS 4428:1989 'Code of practice for general landscape operations'.

20. Species-rich grass.
Supplier: Emorsgate Seeds (https://wildseed.co.uk/)
Product reference: EM2f Standard General Purpose Wild Flowers- composed of 100% native wildflower mix to be combined with a suitable grass mix (EG1-recommended).
Best sown in the autumn or in the spring. Bulk up the seed with an inert carrier such as sand to make distribution easier. The seed must be surface sown and can be applied by machine or broadcast by hand. Rolling is not usually necessary.100% wild flower mixtures are best sown into existing grass or combined with a suitable grass seed mix. If they are sown without grass onto bare soil, the spaces left between the flowers will be filled by grasses and other weeds. Hand tools shall be used around trees, plants and in confined spaces where it is impractical to use machinery. The soil shall be weed free prior to turfing and seeding. Contact herbicide as specified should be applied to all areas of weed growth 4-6 weeks before grassing and repeated if necessary to maintain a weed free bed. Where deep rooted weeds are present (docks, thistles etc.) approved herbicide should be applied as a spot treatment. Seed shall be laid on prepared, levelled soil (minimum 150mm depth) in the areas indicated on the drawings in accordance with BS 4428:1989 'Code of practice for general landscape operations'. All species-rich long grass areas to be approved landscape quality seed mix.

21. Plants in Containers.
Containers to be prepared for planting with a 50mm layer of gravel/broken pot in the base to ensure free drainage, followed by peat-free compost. Once planted, the compost is to be topped with a 30mm layer of buff-coloured decorative stone chips, to give a finished level 30mm below the top of the pot. Container plants are to be fed in late March and late June with a general fertilizer.

22. Maintenance.
Establishment maintenance for all planting for 5 years from Practical Completion to include weed control, watering and replacement of failures to original specification in the planting season following failure.
i. All plant material to receive annual pruning and hedges and groundcover to be trained and edged with minimum 2 trims per year.
ii. Check tree stakes and ties annually and after strong winds.
iii. Check shrub shelters at least twice annually to remove weeds and any soil build up inside tube. Shelters to be removed in year 3 and recycled.
iv. Native shrubs plants to be trimmed during winter just after planting, then twice annually in summer and autumn to encourage lower branching and dense growth.
v. Lawn & amenity grass areas - Mowing is to be carried out using approved machinery to maintain the vegetation length within the limits of 30 mm and 50 mm during April to August inclusive and between 50 mm and 70 mm during the rest of the year.
vi. Wildflower meadows:

First Year of Management- After sowing continue mowing or grazing as needed, aiming to keep the grass short (30-50mm). Continue mowing/grazing through winter and early spring as needed. Stop mowing/grazing in April and leave until July/August at which time you can manage the sowing as you would established grassland as described below.
With the exception of yellow rattle most of the sown meadow species are perennial and will be slow to germinate, grow and flower, particularly against the competition from established grasses.
Management Once Established-Established grassland can be managed in a number of ways which, in association with soil fertility, will determine its character. The best results are usually obtained by traditional meadow management based around a main summer hay cut in combination with autumn, and possibly spring, mowing or grazing.
Meadow grassland should not be cut or grazed from spring through to late July/August to give sown species an opportunity to flower.
After flowering in July or August take a 'hay cut': cut back with a scythe, petrol strimmer or tractor mower to c 50mm. Leave the 'hay' to dry and shed seed for 1-7 days then remove from site.
Mow or graze the re-growth through to late autumn/winter to circa 50mm and again in spring if needed.

Plant Schedule

Trees

Species	Girth	Height	Pot Size	Specification	Qty.
Acer campestre	10-12cm	300-350cm	35-45L	Selected Standard: 4 brks: C: Clear Stem min. 200cm	5 -
Carpinus betulus	10-12cm	300-350cm	35-45L	Selected Standard: 4 brks: C: Clear Stem 175-200cm	3 -
Prunus padus	10-12cm	300-350cm	35-45L	Selected Standard: 4 brks: C: Clear Stem 175-200cm	4 -
Tilia cordata	10-12cm	300-350cm	35-45L	Selected Standard: 4 brks: C: Clear Stem 175-200cm	2 -
Ulmus 'Fiorente'		20-30cm	100-200L		1 -
Ulmus 'New Horizon'	12-14cm	350-425cm	45L	Heavy Standard: 5 brks: 3x: B: Clear Stem 175-200cm	2 -
Zelkova serrata	10-12cm	300-350cm	35-45L	Selected Standard: 4 brks: C: Clear Stem 175-200cm	1 -

Conifers

Species	Height	Pot Size	Specification	Qty.
Pinus sylvestris	200-250cm	200L	CG/RB	1 -

Note: Tree support for larger trees to have underground wired guying; details to follow

Native Shrubs

Abbreviation	Species	Height	Specification	Density	Qty.
Cory_avel	Corylus avellana	150-175cm	CG/RB	0.5Ctr	125 -

Native Hedges

Abbreviation	Species	Height	Specification	Mix Species Density	% Mix	Qty.
Ac ca	Acer campestre	40-60cm	1+1: Transplant - seed raised: B	0.5Ctr Double Staggered at 0.25m offset	15%	30 -
Co av	Corylus avellana	40-60cm	1+2: Transplant - seed raised: Branched: 4 brks: B	0.5Ctr Double Staggered at 0.25m offset	10%	20 -
Cr mo	Crataegus monogyna	40-60cm	1+2: Transplant - seed raised: B	0.5Ctr Double Staggered at 0.25m offset	35%	67 -
Il aq	Ilex aquifolium	40-60cm	Leader with Laterals: RB	0.5Ctr Double Staggered at 0.25m offset	10%	20 -
Pr sp	Prunus spinosa	40-60cm	1+2: Transplant - seed raised: Branched: 3 brks: B	0.5Ctr Double Staggered at 0.25m offset	15%	30 -
Vi op	Viburnum opulus	40-60cm	1+2: Transplant - seed raised: Branched: 3 brks: B	0.5Ctr Double Staggered at 0.25m offset	15%	30 -

Ornamental Shrubs

Abbreviation	Species	Height	Pot Size	Specification	Density	Qty.
He re	Hebe 'Red Edge'	20-30cm	3L	Buchy; 5 brks; C	4/m²	11 -
MAREN	Mahonia repens	30-40cm	3L		4/m²	10 -
Pa te	Pachysandra terminalis	30-40cm	3L	Several shoots; 7 brks; C	5/m²	21 -
Sarc_hook	Sarcococca hookeriana	20-30cm	3L	Buchy; 6 brks; C	4/m²	7 -
Vi mi	Vinca minor	30-40cm	3L	Several shoots; 3 brks; C	5/m²	23 -

north

- All dimensions in millimetres unless otherwise indicated. All levels in metres relative to Ordnance Datum and are positive (AOD) unless otherwise indicated.
- Figure dimensions only to be taken from this drawing. Dimensions and levels to be checked on site.
- Do not re-scale this drawing.
- All civil/structural matters including existing and proposed services, sub-base construction, site structures and retaining walls are subject to design/confirmation by an appropriately qualified Engineer. Refer to information by others.
- The original version of this drawing was produced in colour - monochrome copies should not be relied upon to accurately reflect all drawing elements.
- This drawing has been prepared for planning purposes only and should not be used for quantification, tender or construction.

Refer to 1001/ 1002/ 1003 for Landscape GAs

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P01	02/06/25	SM	RB	First issue.

project
URS Building, University of Reading

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title
Planting Schedule +
Landscape Specifications

suitability
Detailed Design

stage
Stage 4

scale @ A1

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