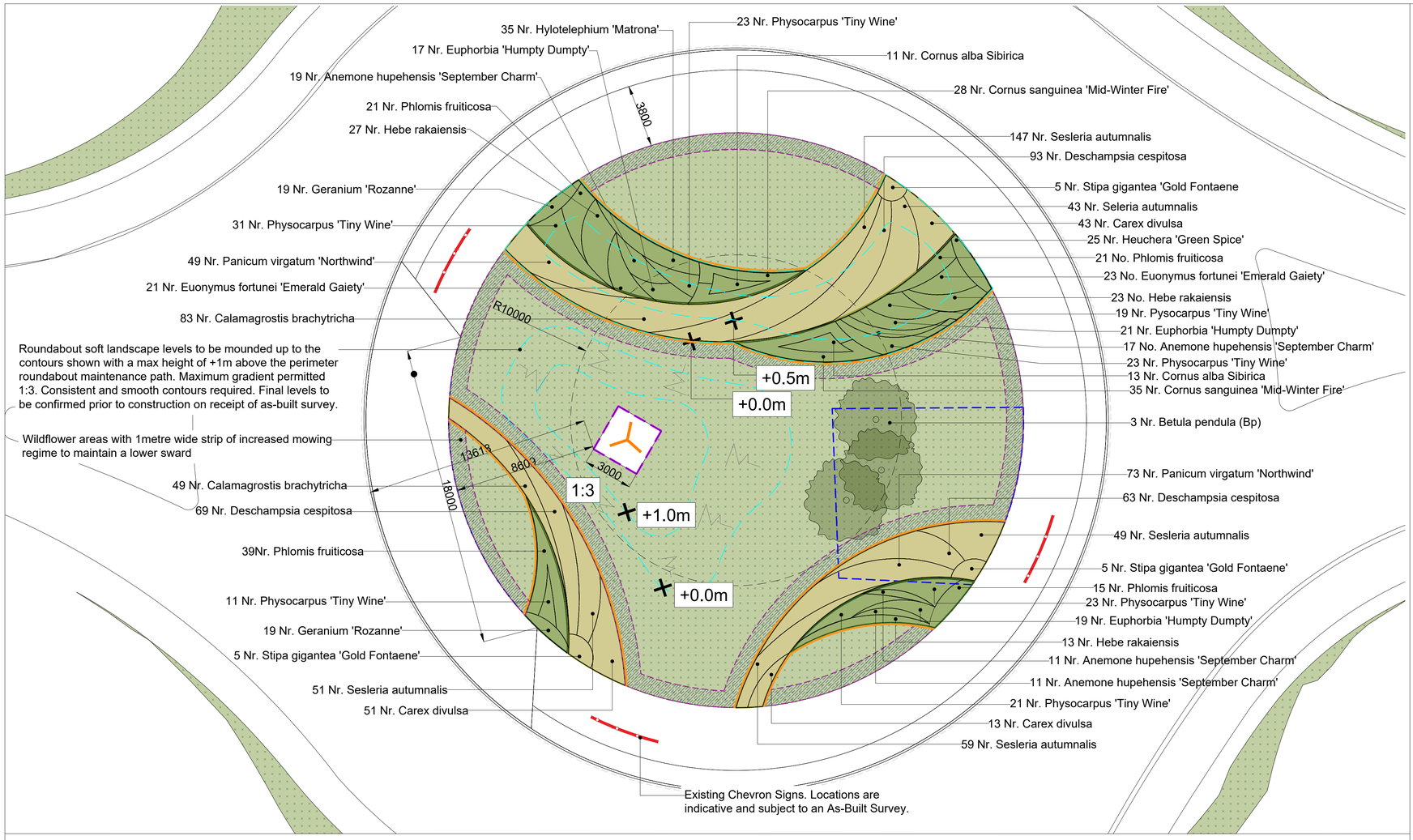

SOFTWORKS SPECIFICATION NOTES

The contractor is responsible to ensure that no products or practices are to be used that do not comply with relevant British Standards, Codes of Practice and Construction Regulations. Contractor to be fully satisfied with locations and off sets of services prior to excavations.

Site clearance generally: Where necessary remove rubbish, concrete, metal, glass, decayed vegetation and contaminated topsoil. Remove stones exceeding 50 mm. Remove material containing toxins, pathogens or other extraneous substances harmful to plant, animal or human life.

SOIL
Soil specification below is indicative for tender purposes only. Final soil strategy to be confirmed by landscape architect prior to construction on receipt of soil survey results.

Site preparation: Where required all existing topsoil and subsoil shall be stripped and stored separately on site. Heaps must not exceed 3m in height and should be used within 12 months in accordance with BS 4425 (Code of practice for general landscape operations).

Soil Sampling - Existing topsoil and inert sub soils, shall be analysed in accordance with BS 3882 to determine available nutrients, texture, organic matter content and pH. Where require, existing soils are to be improved in accordance with BS 3882:2015
Cultivation - Flail existing ruderal vegetation to ground level and remove arisings prior to cultivation. All areas to receive final layers of topsoil are to be de-compacted prior to spreading. Earth works vehicles to be small scale and tracked (loose-tipping) to minimise compaction, however chosen method for decompaction will be site specific dependant on size and soil conditions. Additional care must be taken as to not damage soil structure. All objects and stones over 75mm brought to the surface during decompaction are to be removed from the prepared surface layer. If existing subsoil horizon is found to consist of heavy clay, all proposed seeded areas to be tine ripped to 200mm depth at 300mm centres to increase drainage. Areas to be seeded to be chain harrowed to a fine tilth and lightly rolled to provide firm seed bed. Remove all stones over 30mm dia in any direction. Imported soil material: Import as necessary to make up any deficiency of topsoil and/or subsoil existing on site to complete the work and mitigate deficiencies. All imported material must conform with industry standards BS 8601 (Subsoil), BS 3882 Topsoil) and CLEA limits on heavy metals. Topsoil to be General purpose, 10mm screened and locally sourced (unless otherwise stated)

Soil build up: Existing topsoil and subsoil to be retained and reused on site within the landscape scheme where possible. Prior to spreading all topsoil to be screened to remove large stones and other deleterious materials, such as plant roots, leaves and clay. Topsoil to be loose-tipped and spread over de-compacted subsoil/receiving area. The total minimum rooting depth for planting, after settlement, should be: Grass 450mm; Planted areas 600mm; Refer to soft landscape details PWP 694 200 for tree pit soil depth requirements for Trees. Topsoil depths for these areas should not normally exceed 300mm with the following minimum depths for each area: Grass 150mm; Planted areas 300mm; Trees 300mm. Meadow & wildflower seeding to be sown directly onto prepared subsoil.

Finished level of topsoil after settlement: Above adjoining paving or kerbs: 25 mm; Below dpc of adjoining buildings: Not less than 150 mm; Shrub areas: Higher than adjoining grass areas by 50 mm; Within root spread of existing trees: Unchanged; Adjoining soil areas: Marry in; Thickness of turf or mulch: Included.)

LEVELS
All soft landscape levels to be built up flush to the edge of the perimeter maintenance footpath.

ADDITIVES
Compost to tree/shrub pits: To be as per BS PAS 100: well rotted sterilised spent mushroom compost max. pH 6.7 or Target Treestart compost. The contractor shall provide a Certificate of Analysis to show that the material being supplied complies with the above criteria. Incorporate spent mushroom compost or equivalent approved peat free compost into tree and planting pits at a rate of 4 parts topsoil to 1 part compost, thoroughly mixed together. Mix Root Grow Professional Mycorrhizal fungi into topsoil in line with manufacturer's instructions.

Fertiliser to tree and shrub beds - Apply slow release fertiliser, Scotts 'Enmag' 4.19.10 NPK or equivalent approved at a rate of 50 gms/sq. metre over topsoil surface and fork into top 225mm spit.

PLANTING
Generally: Minimise trafficking of graded slopes. All plants to be preferably planted between Nov. - March. Nursery stock trees and shrubs to be in accordance with BS 3936 and BS 8545, to be supplied and planted in accordance with British Standards and the Horticultural Association's Plant Handling Guide. Container grown shrubs to be thoroughly watered before planting; trees and bare root shrubs watered after planting.

Times of year for planting: Deciduous Trees, hedges and shrubs: Late October to late March. Evergreen hedges and shrubs: September/ October or April/ May. Container grown plants: At any time if ground and weather conditions are favourable. Watering and weed control to be provided as necessary.

Shrub/Hedge planting pits: Timing: Excavate 1-2 days (maximum) before planting. Pit sizes: Wide enough to accommodate roots/toughs when fully spread and 75 mm deeper than root system. Pit bottom improvement Break up to a depth of 150 mm, incorporating 25g of slow-release fertiliser per planting pit. Where existing planting and roots are present plants are to be notch planted to minimise disruption/root damage. Backfilling material: Reuse excavated material. Watering: Immediately after planting, thoroughly and without damaging or displacing plants or soil. Firming: Lightly firm soil around plants and fork and/ or rake soil, without damaging roots, to a fine tilth with gentle cambers and no hollows.

Tree pit sizes: Standard trees excavate to the size shown on Typical Softworks Details PWP 694 200. Break up sides and bottom of pits to a depth of 100mm to ensure free drainage.Tree pit treatment: Soil ameliorant worked into pit bottoms. Pit sides to be scarified and backfilling material to be in accordance with topsoil and subsoil specification. Drainage Layer: Provide 200mm layer washed, clean gravel to base of pits to aid drainage (tree pit to be actively drained if poor draining soil or clay discovered by contractor). Final drainage solution subject to site soil surveys.

Tree Tagging: Give notice to landscape architect / client and arrange nursery visit and/or photographic approval for landscape architect to inspect and select / tag specific trees for use on this project. Final process to be agreed with client and landscape architect prior to placing orders.Tagging must take place during growing season while trees are in leaf.

Labelling: Identity inspected trees / plants as reserved for use on this project

Tree Accessories: Underground guying is required for all trees. Tree pit accessories by Green Tech or similar: Underground guying: Tree Anchor Rootball Drop-Man System or equal and approved. To be installed as per manufacturer's guidelines.

Water reservoir: AquaMax Water Reservoir AMGR325Z (black) and AquaMax Water Reservoir Coupling 30-3. To be installed as per manufacturer's instructions and per PWP 694 200 soft landscape details. Size to suit diameter of rootball. Contractor to install 1 example tree for approval of landscape architect prior to planting the rest of the scheme.

Root Barriers: Locations shown on location plan.Product: Green Blue Urban ReRoot. 600mm depth. Installed as per manufacturer's guidance.

Mulching: Approved medium course chipped tree bark composted for at least 4 weeks. Particle size 25-75mm dia, max. 20% fines, pest and disease free and free of Methyl Bromide contamination. Clear any weeds, ensure soil is thoroughly moistened prior to applying mulch. All planting areas inc. trees, hedges and planting beds should receive an even 75mm depth of bark mulch, adjoining edge of mulch to be 15mm min. below adjacent hardstanding to avoid spillage. 50mm depth of mulch is only suitable for higher quality ornamental bark (<5% fines, 5-35mm size etc.). All bark should be FSC certified. Option to use biodegradable mulch mats to control moisture, soil temperature, erosion and weeds. All trees within grass are to have a 1.5m diameter mulch circle.

Seeding and making good existing grass areas: Steep embankments to be hydroseeded where required. After cultivating, grading and fertilizing prepare seed bed to fine, firm tilth with good crumb structure (Depth: 25 mm). Rake to a true, even surface, friable and lightly firmed but not over compacted. Remove surface stones/earth clods. Extend cultivation into existing adjacent amenity grassed areas sufficient to ensure full marrying in of levels where required. Evenly distribute seeds at an application rate of 35g/m² or as per supplier recommendations. Establish good seed contact with the root zone to promote healthy, consistent growth. Lightly harrow or rake to cover seed. Thoroughly water completed seeding until germination as necessary to keep the surface damp and soil most but not water logged.

Cutting In: Where cutting planting beds into existing grassed areas, the surrounding grass shall be protected and made good as necessary. These areas to be made good by preparing and re-seeding area. Seed mixes: John Chambers Lawn/Meadow seed or similar approved.

Seed Preparation and Implementation for Wildflower Areas: No addition of nutrient to soil required, subject to soil survey. Method to suit soil type, proposed usage, location and weather conditions during and after sowing. A friable firm seed bed required, weed free, alleviation of compaction to a depth of 100-200mm, sowed on a firm and fine tilth. Seed bed preparation to be conducted in dry conditions, close to the time of sowing Remove surface stones/earth clods. Marry in with adjacent levels where required. Evenly distribute seeds at the manufacturers recommended application rate. Establish good seed contact with the root zone to promote healthy, consistent growth. Lightly harrow or rake to cover seed. Thoroughly water completed seeding.

MAINTENANCE: Refer to Landscape Management Plan PWP 694 500 T02 for full details.
1 year Defects Liability Period applies. All dead or failing plants to be replaced the following growing season. Maintain a weedfree bare earth area within resevoirs around individual trees. Herbicide shall only be used where necessary and if use is required it should be a non-residual translocated herbicide and spot applied/applied with spray guard. Application and use to be in accordance with EA guidance. Prior to spraying ensure all spirals are tight to ground level and leaves within spray range are fully enclosed. Arisings: Remove. Trim all edges. Weed control: Substantially free of broad leaved weeds. Method: Application of a suitable selective herbicide. Remove any stones 25 mm in any dimension brought to the surface. Watering: To ensure establishment.

NOTE: Works to be carried out in accordance with the most up to date and current British Standards referenced within this specification.

NOTE: Refer to Barnsley Council Roundabout Extents Plan HD/A635.69/3000/1 for full details of below ground utilities easements and visibility constraints.

Key:

Soft Landscaping / Artwork

Large Feature Trees (planted in ground)
Advanced Extra Heavy Standard, Girth 18-20cm
Height 500-600cm

Species rich wildflower meadow seeding
Refer to Meadow Mix for specification

Wildflower meadow seeding mowing strip
With 1m Mown strip with increased mowing regime.
Refer to Landscape Management Plan.

Ornamental grasses
Refer to Planting Schedule

Biodiverse Ornamental Planting
Refer to Planting Schedule

Root barriers
Green Blue Urban 'ReRoot', depth 600mm

Timber Edging
Refer to drawing PWP 694 200 Typical Soft Landscape Details

Concrete Foundation Slab for artwork
Refer to Engineer's design and specification.
Shown for reference and coordination only. Not included in landscape package.

Feature Artwork
Refer to Artist's design and specification.
Shown for reference and coordination only.
Not included in landscape package.

Raised Contour Mounding
Contour max height of +0.1m. Maximum gradient 1:3.
With consistent and smooth contours

PLANTING SCHEDULE

Tree Schedule:

To be planted as per specification.

TREES				
Species	**Height cm**	**Girth cm**	**Size**	**Spec.**
Betula pendula (Bp)	500-600	18-20	A-EHS	Root Ball, Clear stem min 200cm

TREES
All trees to have well developed branching heads with a single, central leader and healthy, fibrous root systems. Trees shall be planted into pits of an appropriate size accommodating and not restricting the root system. Pits are to be backfilled with a 4:1 topsoil:compost mix. Rabbit protection shall be provided where required.

Herbaceous Schedule:

To be planted as per specification.

ORNAMENTAL GRASSES					
Number	Species	Spec.	Pot Size	Planting size cm	Density/m²
132	Calamagrostis brachytricha	C	3L	40-60	5
107	Carex divulsa	C	3L	20-30	7
225	Deschampsia cespitosa	C	3L	40-60	7
122	Panicum virgatum 'Northwind'	C	5L	60-80	5
306	Sesleria autumnalis	C	3L	30-40	7
15	Stipa gigantea 'Gold Fontaene'	C	5L	100-120	3

HERBACEOUS PLANTING					
Number	Species	Spec.	Pot Size	Planting size cm	Density/m²
64	Anemone hupehensis 'September Charm'	C	3L	30-50	5
57	Euphorbia 'Humpty Dumpty'	C	3L	30-40	5
38	Geranium 'Rozanne'	C	3L	20-30	7
25	Heuchera americana 'Green Spice'	C	3L	20-30	7
47	Hylotelephium 'Matrona'	C	3L	20-30	5

Shrub Schedule:

To be planted as per specification.

SHRUB PLANTING					
Number	Species	Spec.	Pot Size	Size cm	Density/m²
24	Cornus alba 'Siberica'	C	5L	60-80	4
63	Cornus sanguinea 'Midwinter Fire'	C	5L	60-80	4
44	Euonymus fortunei 'Emerald Gaiety'	C	3L	30-40	5
63	Hebe rakaiensis	C	3L	30-40	4
96	Phlomis fruiticosa	C	3L	30-40	5
151	Physocarpus 'Tiny Wine'	C	5L	50-60	5

Flowering Lawn Mix:

Total Area: 703m²
To be sown as per suppliers recommendations.

SPECIES RICH MEADOW MIX
John Chambers Heritage Butterfly Meadow 80% Grass Seed Wildflower Mix
Sowing rate @ 5g/m²

NOTES:

Trees & Services

- Where paths and hard surfacing is proposed within close proximity to trees all construction is to be in accordance with BS 5837: 2012
- Root barriers / root protection measures are to be incorporated where required in accordance with guidelines where existing and proposed trees and vegetation are within 2m of proposed building or trees are in close proximity to services (details to be agreed).
- Tree and shrub planting proposed within drainage easements to be approved by local water authority. Planting to incorporate root protection measures around services or planting pits to ensure the sewer system is resistant to tree root ingress in accordance with the current Code for Design.
- Contractor shall comply with NJUG publication, volume 4 'Guidelines For The Planning, Installation And Maintenance Of Utility Services In Proximity To Trees' together with BS 5837:2012 Trees in Relation to Construction. Where conflict arises refer to the British Standard.

Project: ES10 GOLDTHORPE ROUNDABOUT

Client: BARNSLEY METROPOLITAN BOROUGH COUNCIL

Title: PLANTING PLAN AND SCHEDULES

Drawn:	Chk'd:	App'd
NS	RW	SH

Drawing Number: PWP 694 010

Revision: T03

Drawing Scale: 1:150@ A1

Rev	Date	Detail	Made	Chk'd	App'd
T03	30/06/25	Revised scheme, first issue for comment	NS	RW	SH
T02	10/03/23	Trees in raised planters removed	RW	SH	SH
T01	29/09/22	DRAFT - First tender issue for comment	RW	SH	SH

Notes:
1. For Tender purposes only
2. Not for construction all dimensions to be confirmed on site
3. Based on Layout Drawing - **HD/A635.69/3000/1 ES10 A635 Goldthorpe Roundabout Easement**
4. Refer to engineers drawings for hard landscape, boundary treatments, site levels and drainage.
5. Build ups/footings to engineers specification.
6. Contractor to be fully satisfied with locations of services prior to excavations.
7. All existing trees to be protected to BS 5837.
8. **Crown copyright and database rights 2022.**

Scale 1:150
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