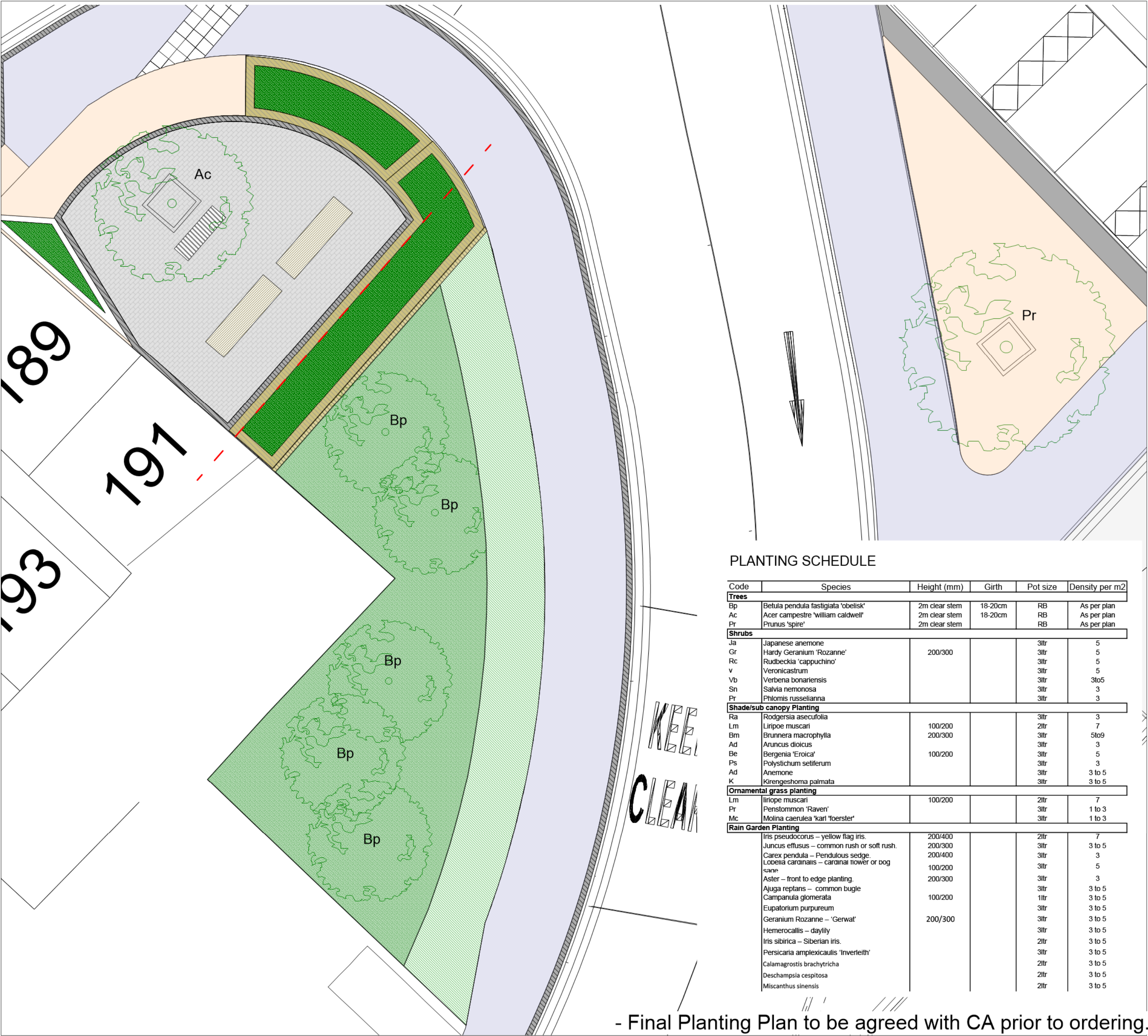




Area A - Scale 1:100

GRASS SEED FOR ALL GRASSED AREAS (NON WILDFLOWER)

The areas to be grassed shall be prepared as described in Appendix 6/8 of specification and receive the following treatment: Topsoil, Fertiliser, and Seeding.

- Supplier: Submit proposals.
- Mixture reference: Submit proposals.
- Application rate: 34-50 g/m².

QUALITY OF SEED FOR ALL GRASSED AREAS

- Freshness: Produced for the current growing season.
- Certification: Blue label certified varieties.
- Standard: EC purity and germination regulations.
- Official Seed Testing Station certificate of germination, purity and composition: Submit when requested.
- Samples of mixtures: Submit when requested. See example table below

The grass seed mixture shall be as Table below or similar approved.

Grass Seed Mixture per 50kg	kg	%
Perennial Rye Grass	12.5	2.5
Strong Creeping Red Fescue	10.0	20
Hard Fescue	15.0	30
Smooth Stalked Meadow Grass	5.0	10
Highland Browntop Bent	5.0	10
Huaia White Clover	2.5	5

Note:

Seed varieties to be from the UK National List where marked "not for fodder production"

SOWING

- General: Establish good seed contact with the root zone.
- Method: To suit soil type, proposed usage, location and weather conditions during and after sowing.
- Distribution: 2 equal sowings at right angles to each other.
- Fertiliser and seed may, unless otherwise stated, be applied by hydraulic mulch.

A general purpose granular fertiliser shall be incorporated into the upper 50mm of soil during final cultivation at a rate of 75 g/m².

GRASS SOWING SEASON

- Grass seed generally: April to June or August to October.

PLANTING

External planting

GENERAL INFORMATION/ REQUIREMENTS

1. SITE CLEARANCE GENERALLY

- General: Remove rubbish, concrete, metal, glass, decayed vegetation and contaminated topsoil.
- Stones: Remove those with any dimension exceeding 50 mm.
- Contamination: Remove material containing toxins, pathogens or other extraneous substances harmful to plant, animal or human life.
- Vegetation: Clear scrub to ground level by flail mowing and remove arisings; retain and protect trees.
- Large roots: Grub up and dispose of without undue disturbance of soil and adjacent areas.
- Additional requirements: Remove remnants of old fence posts and mesh.

2. SOIL CONDITIONS

- Soil for cultivating and planting: Moist, friable and (excepting marginal planting) not waterlogged.
- Frozen or snow covered soil: Give notice before planting. Provide additional root protection. Prevent planting pit sides and bases and backfill materials from freezing.

3. CLIMATIC CONDITIONS

- General: Carry out the work while soil and weather conditions are suitable.
- Strong winds: Do not plant.

4. TIMES OF YEAR FOR PLANTING

- Deciduous trees and shrubs: Late October to late March.
- Conifers and evergreens: September/ October or April/ May.
- Herbaceous plants (including marginal): September/ October or March/ April.
- Container grown plants: At any time if ground and weather conditions are favourable.
- Watering and weed control: Provide as necessary.
- Wildflower plugs: Late August to mid November or March/ April.

5. MECHANICAL TOOLS

- Restrictions: Do not use within 100 mm of tree and plant stems.

6. WATERING

- Quantity: Wet full depth of topsoil.
- Application: Even and without damaging or displacing plants or soil.
- Frequency: As necessary to ensure establishment and continued thriving of planting.

7. WATER RESTRICTIONS

- General: If water supply is or is likely to be restricted by emergency legislation, do not carry out planting until instructed. If planting has been carried out, obtain instructions on watering.

8. NOTICE

- Give notice before:
- Setting out.
- Applying herbicide.
- Applying fertilizer.
- Delivery of plants/ trees.
- Planting shrubs.
- Planting trees into previously dug pits.
- Watering.
- Visiting site during maintenance period.
- Period of notice: One week.

9. PREPARATION, PLANTING AND MULCHING MATERIALS

- General: Free from toxins, pathogens or other extraneous substances harmful to plant, animal or human life.
- Certification of source, analysis, suitability for purpose and absence of harmful substances: Submit.
- Certified materials: Submit proposals. Give notice before ordering or using.

10. PLANTS/ TREES - GENERAL

- Condition: Materially undamaged, sturdy, healthy and vigorous.
- Appearance: Of good shape and without elongated shoots.
- Hardiness: Grown in a suitable environment and hardened off.
- Health: Free from pests, diseases, discoloration, weeds and physiological disorders.
- Budded or grafted plants: Bottom worked.
- Root system and condition: Balanced with branch system.
- Standard: The National Plant Specification.
- Species: True to name.
- Origin/ Provenance: British grown.

Definition: Origin and Provenance have the meaning given in the National Plant Specification.

11. PLANTS/ TREES - SPECIFICATION CRITERIA

- Name, form, dimensions, provenance and other criteria: As scheduled and defined in the National Plant Specification.

12. CONTAINER GROWN PLANTS/ TREES

- Growing medium: With adequate nutrients for plants to thrive until permanently planted.
- Plants: Centred in containers, firmed and well watered.
- Root growth: Substantially filling containers, but not root bound, and in a condition conducive to successful transplanting.
- Hardiness: Grown in the open for at least two months before being supplied.
- Containers: With holes adequate for drainage when placed on any substrate commonly used under irrigation systems.

13. LABELLING AND INFORMATION

- General: Provide each plant/ tree or group of plants/ trees of a single species or cultivar with supplier's labelling for delivery to site, showing:
 - Full botanical name.
 - Total number.
 - Number of bundles.
 - Part bundles.
 - Supplier's name.
 - Employer's name and project reference.
- Plant specification: in accordance with scheduled National Plant Specification categories.
- Additional information: Submit on request.
- Country of origin;
- Potting dates;
- Propagation method and dates;
- Pruning dates; and
- Type of container.

14. PLANTS/ TREES RESERVED AT SUPPLIER'S PREMISES

- Types/ Species: As plant schedule.
- Predelivery inspection: Give notice.
- Labelling: Identify inspected plants/ trees as reserved for use on this project.

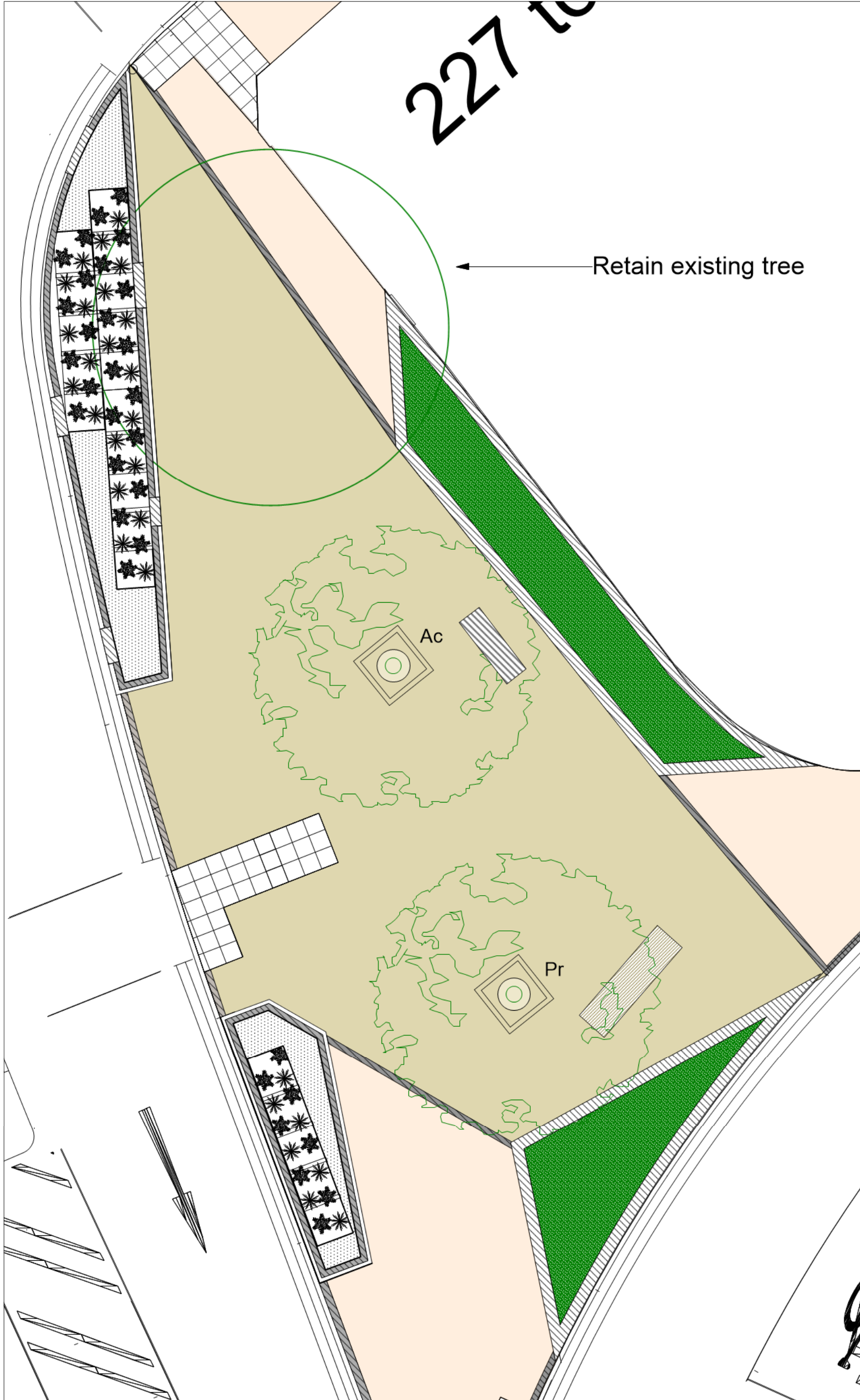
15. PLANT/ TREE SUBSTITUTION

- Plants/ trees unobtainable or known to be likely to be unobtainable at time of ordering: Submit alternatives, stating:
 - Price.
 - Difference from specified plants/ trees.
- Approval: Obtain before making any substitution.

PLANTING SCHEDULE

Code	Species	Height (mm)	Girth	Pot size	Density per m2
Trees					
Bp	Betula pendula fastigata 'obelix'	2m clear stem	18-20cm	RB	As per plan
Ac	Acer campestre 'William Caldwell'	2m clear stem	18-20cm	RB	As per plan
Pr	Prunus 'spire'	2m clear stem	18-20cm	RB	As per plan
Shrubs					
Ja	Japanese anemone			3lt	5
Gr	Hardy Geranium 'Rozanne'	200/300		3lt	5
Rc	Rubus 'cappuccino'			3lt	5
V	Veronicastrum			3lt	5
Vb	Verbena bonariensis			3lt	3to5
Sn	Salvia nemorosa			3lt	3
Pr	Philomis russeliana			3lt	3
Shade/sub canopy Planting					
Ra	Rodgersia aescutifolia			2lt	3
Lm	Liriope muscari	100/200		2lt	7
Bm	Brunnera macrophylla	200/300		3lt	5to9
Ad	Anemone dioica			3lt	3
Be	Bergenia 'Etna'	100/200		3lt	5
Ps	Polystichum setiferum			3lt	3
Ad	Anemone			3lt	3 to 5
K	Koenigseckia palmata			3lt	3 to 5
Ornamental grass planting					
Lm	Liriope muscari	100/200		2lt	7
Pr	Penstemon 'Raven'			3lt	1 to 3
Mc	Meibomia caerulea 'Karl Foerster'			3lt	1 to 3
Rain Garden Planting					
	Iris pseudocorus - yellow flag iris	200/400		2lt	7
	Juncus effusus - common rush or soft rush.	200/500		3lt	3 to 5
	Carex pendula - Pendulous sedge.	200/400		3lt	3
	Loxia carolinensis - carolina flower or dog	100/200		3lt	5
	Aster - front to edge planting.	200/300		3lt	3
	Aluga reptans - common bugle			3lt	3 to 5
	Campanula glomerata	100/200		1lt	3 to 5
	Eupatorium purpureum			3lt	3 to 5
	Geranium Rozanne - 'Gerwat'	200/300		3lt	3 to 5
	Hemerocallis - daylily			3lt	3 to 5
	Iris sibirica - Siberian iris.			2lt	3 to 5
	Persicaria amplexicaulis 'Inverletty'			2lt	3 to 5
	Galium aparine 'brevifolium'			2lt	3 to 5
	Deschampsia cespitosa			2lt	3 to 5
	Miscanthus sinensis			2lt	3 to 5

- Final Planting Plan to be agreed with CA prior to ordering.



Area B - Scale 1:100

16. PLANT HANDLING, STORAGE TRANSPORT AND PLANTING

- Standard: To HTA 'Handling and establishing landscape plants'.
- Frost: Protect plants from frost.
- Handling: Handle plants with care. Protect from mechanical damage and do not subject to shock, e.g. by dropping from a vehicle.
- Plant packaging: Coextruded polyethylene bags with black interior and white exterior.
- Root system and condition: Balanced with branch system.
- Transplants should be supplied with shoots and roots fully enclosed in the bag, whereas larger shrubs and trees should have only the root system enclosed. The bag should be coextruded polythene bags with black interior and white exterior with larger trees packaged as follows:
 - 6-8cm and 8-10cm girth trees = 3lt trees per bag
 - All plants shall be adequately packaged and protected during transportation from source to planting on site. To minimise storage of plant stock, operations are to be arranged so that trees and shrubs are planted immediately after each planting pit is prepared.
 - Packaging of bulk quantities: Pallets or bins sealed with polyethylene and shrink wrapped.
 - Storage: Plants and trees to be stored in a secure and protected from site operations and over exposure to adverse weather conditions.
 - Planting: Upright or well balanced with best side to front.

17. TREATMENT OF TREE WOUNDS

- Cutting: Keep wounds as small as possible.
- Cut cleanly back to sound wood using sharp, clean tools.
- Leave branch collars. Do not cut flush with stem or trunk.
- Set cuts so that water will not collect on cut area.
- Fungicide/ Sealant: Do not apply unless instructed.

18. SURPLUS MATERIAL

- Subsoil, stones, debris, wrapping material, canes, ties, temporary labelling, rubbish, prunings and other arisings: Remove.

PREPARATION OF PLANTING BEDS/ PLANTING MATERIALS

19. HERBICIDE TO CLEAR OVERGROWN BEDS

- Locations: All planting areas.
 - Type: Suitable for suppressing perennial weeds.
 - Timing: Allow fallow period before cultivation.
 - Duration (minimum): As manufacturer's recommendation.
20. WEED CONTROL FOR INVASIVE NON-NATIVE WEEDS
- Locations: All planting areas.
 - General: Prevent weeds from seeding and perennial weeds from becoming established, in accordance with the Environment Agency 'Managing Japanese knotweed on development sites. The knotweed code of practice'.

21. CULTIVATION

- Compact topsoil: Break up to full depth.
- Cultivation: Loosen, aerate and break up soil into particles of 2-8 mm.
- Depth: 350 mm.
- Timing: Within a few days before planting.
- Weather and ground conditions: Suitably dry.
- Surface: Leave regular and even.
- Levels:
 - 25 mm above adjoining paving or kerbs;
 - 50 mm above adjoining lawns; and
 - Minimum 150 mm below dpc of adjoining buildings.
- Undesirable material brought to the surface: Remove visible weeds, roots and large stones with any dimension exceeding 30 mm.
- Soil within root spread of trees and shrubs to be retained: Do not dig or cultivate.

22. NATURALIZED HEDGES

- Planting: In trenches large enough to take full spread of roots. Set out plants evenly.

23. FENCING SUPPORT FOR NEW HEDGES

- Type: Timber post and general pattern wire mesh.
- Standard: To BS 1722-2.
- Height: 600 mm.
- Timing: Before planting hedge.
- Support: Lightly secure hedge plants to fence wires at appropriate intervals.

24. STAKING GENERALLY

- Stakes: Softwood, peeled chestnut, larch or oak, straight, free from projections and large or edge knots and with pointed lower end.
- Preservative treatment: [Not required]
- Nails: To BS 1202-1, galvanized, minimum 25 mm long and with 10 mm diameter heads.
- Stake size (minimum): 75 mm diameter. Ideally 1.8 metres above ground for semi-mature trees.

25. AFTER PLANTING

- Watering: Immediately after planting, thoroughly and without damaging or displacing plants or soil.
- Firms: Lightly firm soil around plants and fork and/ or rake soil, without damaging roots, to a fine tilth with gentle cambers and no hollows.
- Top dressing: Not required.
- Depth: N/A.



Location plan : Scale 1:1000

Key

Proposed kerb - british standard kerb

Proposed edging - Marshalls pcc Conservation X Textured River Block 120x160x60 Charcoal. Or similar approved

Proposed footway paving - Marshalls charnwood buff 450 x 450 slabs. Laid in stretcher bond pattern. Or similar approved.

Proposed tarmac surface finish

Proposed Marshalls Myriad - mixed size. Mixed colour Moonlight and Sunlight. Or similar approved

Proposed permeable footways - Marshalls Myriad priora - morning light - or similar approved.

Proposed rain gardens - See Dwg LAD.418.LA05 for further details.

Proposed planting/ornamental grasses - See Dwg LAD.418.LA03 for further details.

Proposed sub-canopy habitat planting

Proposed grass margin.

Proposed sedum carpet

Proposed informal stone seating. See Dwg LAD.418.LA04 for details.

Broxap Hopetoun Stainless steel bench with arm rests. BX47 4001-SS AR or similar approved

Existing trees

Proposed trees - Blue Green Urban - detail GBU 2105. See dwg LA02 for detail



Flint Street, Huddersfield HD1 6LG

Client

Kirklees Council Highways and Operations

Project

Lockwood Bar Junction

TENDER DRAWING

Drawing Title

Planting plan and schedule

Scale	Drawn	Checked
A1	AR	
See scales	July 2020	
Cad Ref	c:\users\adamrout\Desktop\LockwoodBar	
Project No.	Drawing No.	Revision
LAD.418	LA03	F