

**28791 EAST READING MASS RAPID TRANSIT SCHEME**

**LANDSCAPE AND  
ECOLOGY STRATEGY**

CONTENTS

- 2 Introduction
- 3 Description of Landscape Strategy
  - Existing landscape context
  - Landscape design principles
  - Planting strategy
  - Planting constraints
  - Landscape elements
  - Access
  - Additional wildlife features
- 4-5 Landscape and Ecology Strategy Plan
  - Dwg 28791-3008-002
- 6-8 Planting Plans
  - Dwg 28791-3008-003
  - Dwg 28791-3008-004
  - Dwg 28791-3008-005
- 9 Plant Schedules

INTRODUCTION

This document sets out the Landscape and Ecological Strategy for the East Reading Mass Rapid Transit Scheme. A description of the landscpe strategy is provided, followed by an illustrative plan of the scheme.

Planting plans and plant schedules are also included.

# DESCRIPTION OF LANDSCAPE STRATEGY

## Existing landscape context

The site is located on low lying landform, adjacent to the southern bank of the River Thames, that runs to the north of the site. The confluence between the River Kennet and the River Thames, falls roughly within the middle of the site. To the south, the Great Western Main Line Railway is raised on an embankment. Overall, the site has a sense of enclosure and a sense of being part of the River Thames corridor through the urban area, with few views out to adjacent areas. Its character is of urban open space and river-edge. There are strong influences from the railway and infrastructure corridor to the south of the site boundary, with views of the railway, moving trains, gantries and overhead cables; which counteracts the calmer and more attractive River Thames to the north of the tow path.

A Public Right of Way (PRoW), the Thames Path National Trail and National Cycle Routes 4 and 5 (Thames Valley) pass through the site, on the route of the towpath adjacent to the River Thames. National Cycle Route 4 turns southwards off from the River Thames towpath and follows the alignment of the River Kennet.

Broad-leaved woodland is present in the western section of the site, which lies within a Local Wildlife Site (LWS). There are also scattered trees, and some areas of dense scattered scrub, throughout the site. A small area of acid grassland is located in the western area of the site, near to Napier Road and the nearby retail superstore.

A number of individual and group Tree Preservation Orders (TPOs) and a woodland TPO cover trees within the western part of the site, along the River Thames, within the LWS and within the Tesco carpark. There are no TPOs upon the eastern part of site within the Borough of Wokingham.

## Landscape design principles

The proposed East Reading Mass Rapid Transit (East MRT) will provide an efficient commuter route, comprising a fast-track public transport, pedestrian and cycle route. It will connect the A3290 at Thames Valley Park, to Napier Road, Reading town centre and the railway station, with part of the route raised on bridge and viaduct.

To the north of the proposed East MRT route, the existing section of Thames Path and National Cycle Route will remain at ground level, following the towpath of the River Thames. In contrast to the swift conveyance of the East MRT route, the landscape strategy seeks to create a place around the existing pedestrian and cycle path, and reinforce this existing connection as an alternative, 'slow' leisure route.

The design intention, for a slow leisure route and low key intervention landscape design approach, pays respect to the time layers of transportation routes along this stretch of the Thames and engineered crossings of the Kennet Mouth. The proposed East MRT creates a 21st Century bridge, viaduct and transport route. The engineering detail of which is visible from the towpath, and seen in juxtaposition to the slower, more leisurely route of the towpath.

The landscape strategy is based on the principle of retaining existing trees and areas of habitat, as far as possible, and supplementing these with new native tree planting and integrated ecological enhancement. It seeks to provide low key interventions, suited to the river edge and urban open space context of the site, which would promote the existing leisure activities, and encourage pausing and resting within the area.

- The overall aims of the landscape strategy are therefore to:
- Enhance the experience of using the Thames Path and National Cycle Route through the site;
  - Improve the interface of the site with the River Thames;
  - Provide landscape and ecological mitigation and enhancement; and
  - Create pocket places, for stopping and sitting, and for community uses.

## Planting strategy

The planting strategy comprises a combination of managing and supplementing existing areas of trees and vegetation, creating new areas of habitat, and providing structural and feature planting.

### Existing habitat

Broadleaved woodland within the Local Wildlife Site will be managed to include selective removal of non-native species, and the additional planting of native trees and understorey species.

The area of acid grassland at the western end of the site will be managed, and its extent sought to be increased. Scattered planting of acid tolerant tree species will create a glade.

### New areas of habitat

Seed mixtures will be used to create swathes of grassland, providing connectivity across the site. A tussocky grassland mixture will be used for the majority of the site, to the north and south of the East MRT route. Wildflower grassland will also be included, upon the embankment to the west of the Kennet Mouth, and on the verge between the East MRT route and the Tesco access road.

Copses of native trees and shrubs will be created, particularly in the east of the site, and native hedgerows will provide boundary treatments, where appropriate.

Rafts or coir rolls will be installed along the edge of the River Thames in front of the existing hard engineered retaining wall, to create a strip of new riparian habitat, suitable for softening the current hard river edge. Species will be selected to complement the existing riparian habitat located to the west of the Kennet. Gaps will be provided where there are moorings or pontoons, maintaining access for boats to the river.

### Structural / feature planting

Green panels will be positioned within the area to the east of the Kennet Mouth. These will comprise living willow panels, woven from Salix viminalis, or more permanent sculptural features with native climbers, set at an angle to East MRT bridge. These provide filtering of the views of the East MRT structure from the River Thames and the Thames Path, soften its visual effects and draw focus to the river corridor.

To the east of these panels, a willow fedge will be created. This woven willow hedging helps to visually mitigate views from the towpath by foreshortening / softening views, and drawing the eye to either the river corridor or up to the engineered detail of the viaduct. The woven lower part allows views through to the grassland and helps with security; whilst allowing the willow to sprout and grow upwards will provide some screening of the lower elements of the viaduct structure and undercroft fencing.

Feature trees, such as the Paperbark Maple, Walnut and Cherry, will be planted in small groups to provide focal points, and mark thresholds within the site.

## Planting constraints

Proposed tree planting has been positioned taking into account services and maintenance access. Services and utilities have been re-routed to the narrow corridor to the south of the proposed East MRT route. This enables replacement tree planting to take place free from services and utilities constraints to the north of the structure and in the area used by people.

In order to accommodate maintenance access for the East MRT bridge, a 3m wide strip to the north is kept clear of trees above ground, however this area may contribute to the rooting zone of the trees.

## Landscape elements

New seating will be provided at suitable points within the site, for example amongst the area of green panels, and where views of the river may be enjoyed.

Reclaimed boats will be incorporated within the scheme to act as raised beds for urban food growing and provide opportunities for community groups.

## Access

The Thames Path National Trail and National Cycle Routes will continue on their existing routes through the site on completion of the scheme.

A new footpath link will connect the East MRT route to the Thames Path, through the Coal Woodland. This will be routed through gaps and where Category U trees are to be removed, to minimise the impact on existing trees.

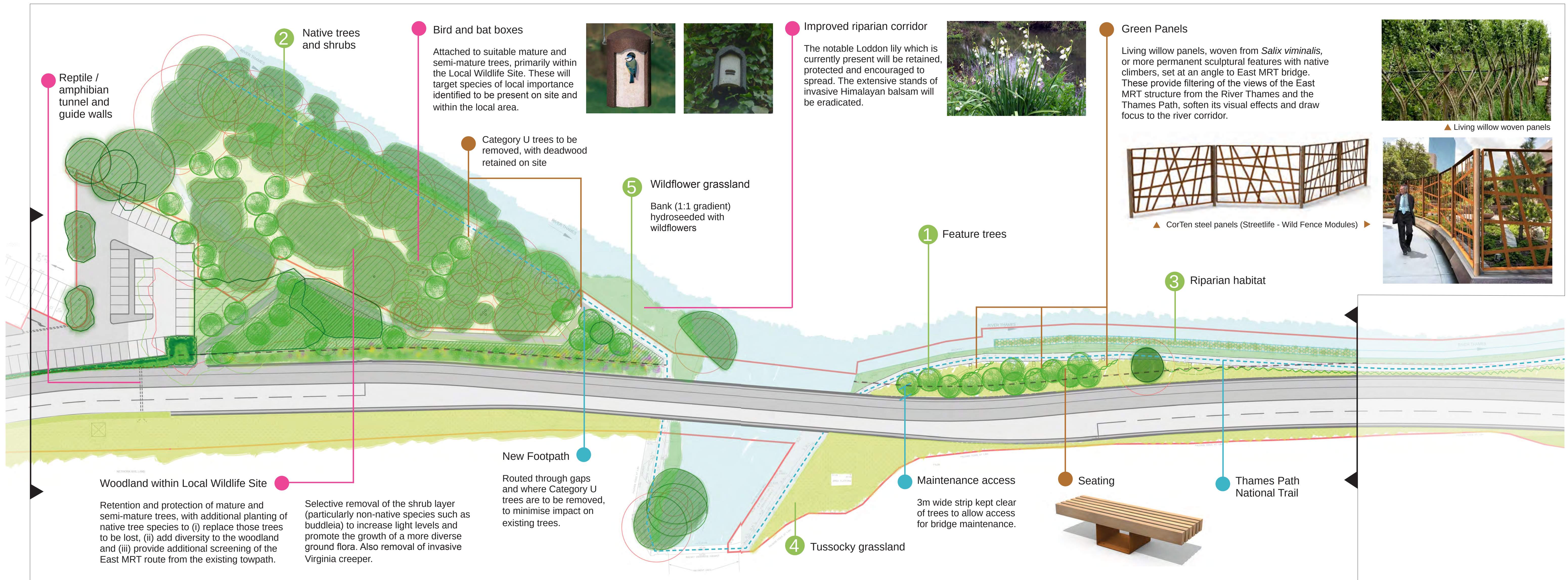
## Additional wildlife features

Night scented species - Nectar-rich plant species that are attractive to night-flying insects are included within planting scheme to enhance foraging opportunities for bats.

Reptile / amphibian tunnels and guide walls - Tunnels and guide walls installed to provide north-south habitat connectivity across the site. These allow reptiles and amphibians to cross beneath the East MRT, minimising the risk of mortality from attempts to cross the carriageway.

Bird and bat boxes - Attached to suitable mature and semi-mature trees, primarily within the Local Wildlife Site. These will target species of local importance identified to be present on site and within the local area.

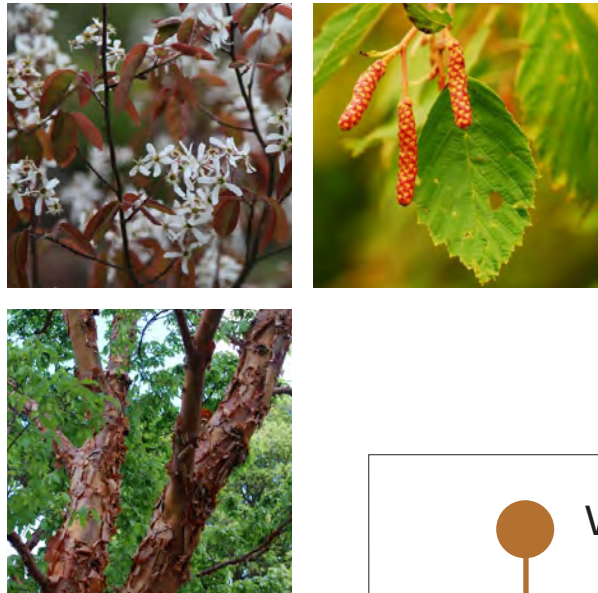
Hibernacula - Features suitable for use by hibernating reptiles and amphibians, and also of value to invertebrates, will be created. These will comprise deadwood features and rubble piles, and utilise trees and materials removed from the site to facilitate works.



Planting palette

1 Feature trees

Acer griseum  
Alnus incana 'Aurea'  
Amelanchier lamarckii  
Juglans regia  
Prunus avium



2 Native trees and shrubs

Acer campestre  
Alnus glutinosa  
Betula pendula  
Carpinus betulus  
Cornus sanguinea  
Corylus avellana  
Crataegus laevigata  
Crataegus monogyna \*  
Lonicera periclymenum \*  
Prunus spinosa  
Salix alba  
Sambucus nigra \*  
Sorbus aucuparia  
Viburnum lantana  
Viburnum opulus

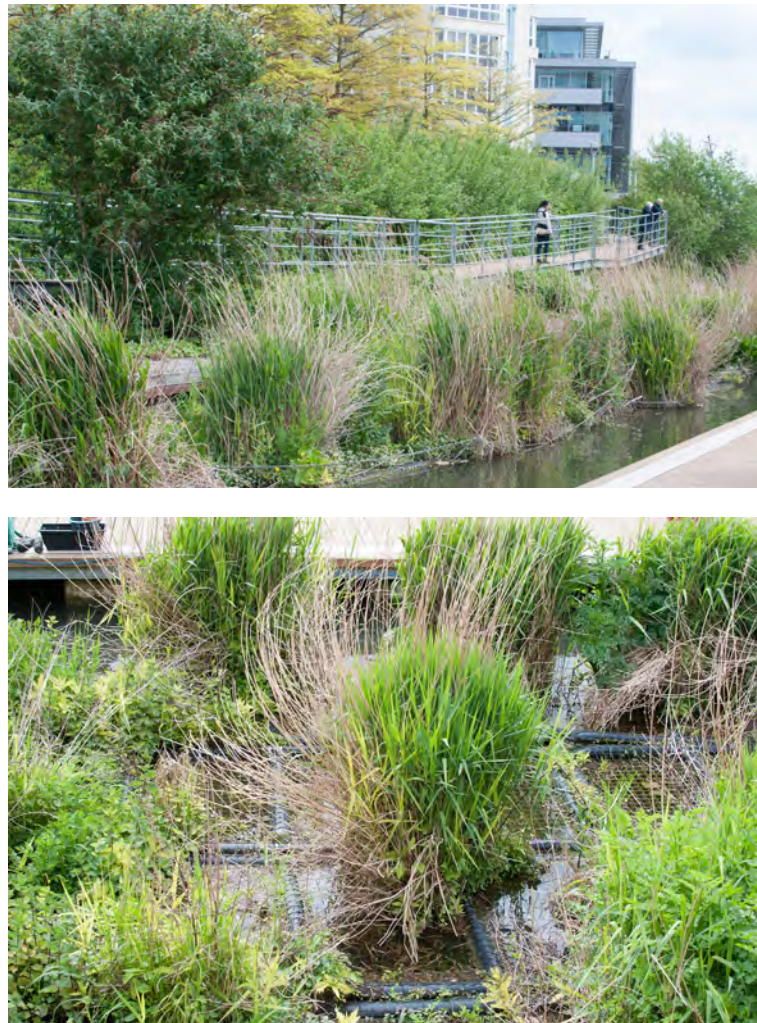
\* Night scented species

Nectar-rich plant species that are attractive to night-flying insects are included within planting scheme to enhance foraging opportunities for bats.



3 Riparian habitat

Rafts or coir rolls will be installed along the edge of the River Thames in front of the existing hard engineered retaining wall, to create a strip of new riparian habitat, suitable for softening the current hard river edge. Species will be selected to complement the existing riparian habitat located to the west of the Kennet. Gaps provided where there are moorings or pontoons, maintaining access for boats to the river.

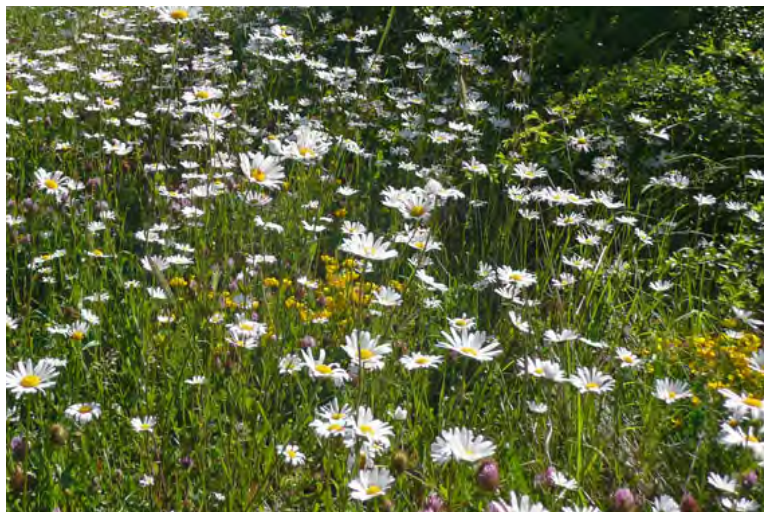


4 Tussocky grassland

A swathe of grassland between the river and the bridge, tolerant of partially shaded conditions, containing a mixture of wild flowers and grasses, such as Emorsgate Seed Mix EM10 – Tussock mixture:

Yarrow | Agrimony | Lesser Burdock | Common Knapweed | Greater Knapweed | Wild Carrot | Wild Teasel | Hedge Bedstraw | Meadow Cranesbill | Oxeye Daisy | Wild Parsnip | Ribwort Plantain | Common Fleabane | Red Campion | Upright Hedge-parsley | Tufted Vetch | Common Vetch

Meadow Foxtail | Crested Dogtail | Cocksfoot | Tufted Hair-grass | Strong-creeping Red-fescue | Yorkshire Fog | Tall Fescue | Meadow Fescue



5 Wildflower grassland

A mixture of wild flowers and grasses, such as Emorsgate Seed Mix EM2 – Standard General Purpose Meadow mixture:

Yarrow | Common Knapweed | Lady's Bedstraw | Oxeye Daisy | Birdsfoot Trefoil | Ribwort Plantain | Hoary Plantain | Cowslip | Selfheal | Meadow Buttercup | Yellow Rattle | Common Sorrel | Wild Red Clover

Common Bent | Crested Dogtail | Slender-creeping Red-fescue | Smaller Cat's-tail

Willow fedges

Woven willow hedging helps to visually mitigate views from the towpath by foreshortening / softening views. The woven lower part allows views through to the grassland and helps with security; whilst allowing the willow to sprout and grow upwards will provide some screening of the lower elements of the viaduct structure. (Subject to detail design to agree landscape maintenance strategy and to meet access requirements for maintenance of the East MRT bridge).



Hibernacula

Features suitable for use by hibernating reptiles and amphibians, and also of value to invertebrates, will be created. These will comprise deadwood features and rubble piles, and utilise trees and materials removed from the site to facilitate works.



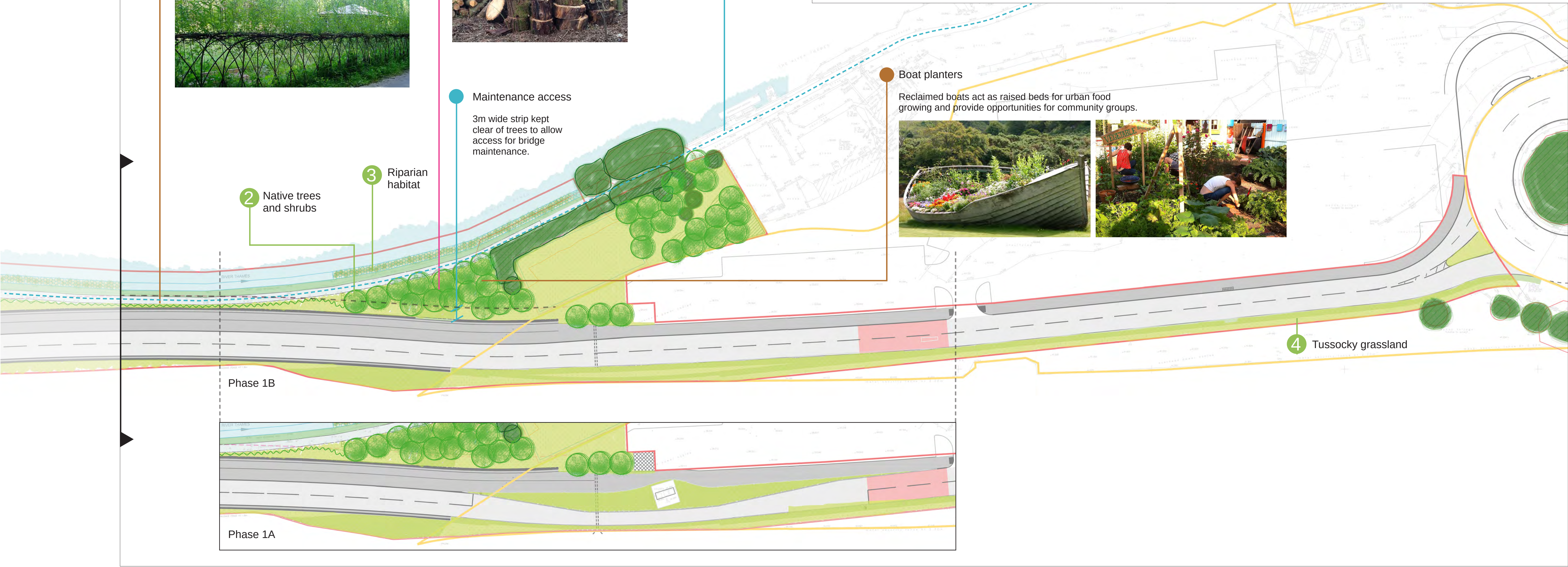
Thames Path National Trail

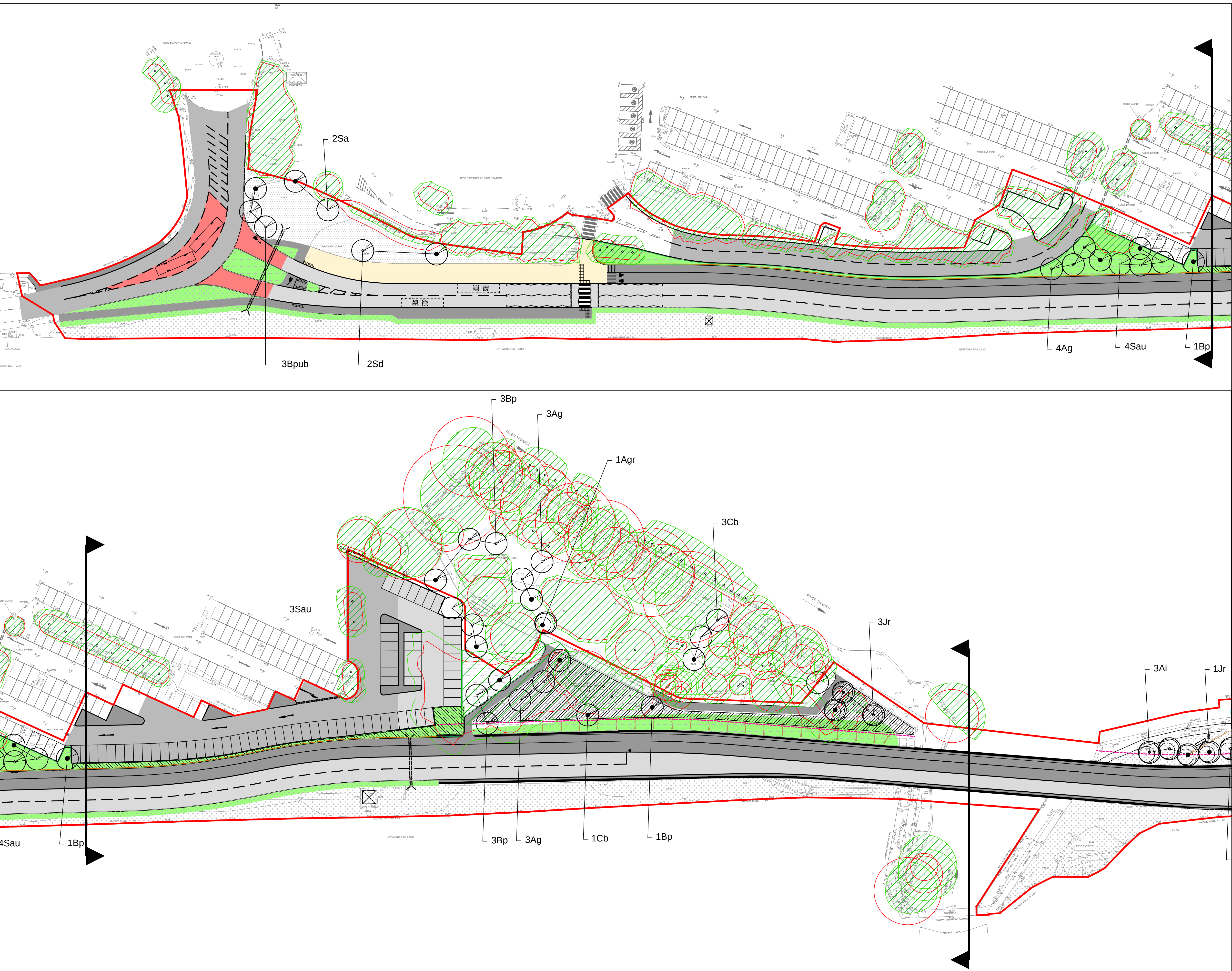
Maintenance access

3m wide strip kept clear of trees to allow access for bridge maintenance.

Boat planters

Reclaimed boats act as raised beds for urban food growing and provide opportunities for community groups.





LEGEND

- MRT East site boundary
- Thames Valley Park and Ride site boundary
- 3m planting offset from MRT structure, to allow for maintenance access
- Acid grassland retained
- Existing tree retained
- Root protection area for retained tree
- Seed mixes**
  - Tussocky grassland  
*Emorsgate EM10 - Tussock mixture, or similar approved*
  - Wildflower grassland  
*Emorsgate EM2 - Wildflower grassland, or similar approved*

- Tree and shrub planting**
  - Heavy standard tree
  - Feathered tree
  - Woodland shrub and understorey planting
  - Native hedgerow
- Riparian habitat**
  - Habitat rafts
- Green panels**
  - Woven willow panels
  - Willow fedge
- Hard landscape elements**
  - Bench
  - Post and rail fence
  - Boat planter

|      |                  |          |       |      |      |
|------|------------------|----------|-------|------|------|
|      |                  |          |       |      |      |
| A    | Minor amendments | 04.07.17 | RJ    | NJ   | NJ   |
| Mark | Revision         | Date     | Drawn | Chkd | Appd |

SCALING NOTE: Do not scale from this drawing. If in doubt, ask.  
UTILITIES NOTE: The position of any existing public or private sewers, utility services, plant or apparatus shown on this drawing is believed to be correct, but no warranty to this is expressed or implied. Other such plant or apparatus may also be present but not shown. The Contractor is therefore advised to undertake their own investigation where the presence of any existing sewers, services, plant or apparatus may affect their operations.

|                      |              |
|----------------------|--------------|
| Drawing Issue Status | FOR PLANNING |
|----------------------|--------------|

East Reading MRT  
Planting Plan - West of the Kennet Mouth  
Phases 1A and 1B  
Sheet 1/3

Client

Reading Borough Council

|                                  |                |                |
|----------------------------------|----------------|----------------|
| Date of 1st Issue<br>20.06.2017  | Designed<br>RJ | Drawn<br>RJ    |
| A1 Scale<br>1:500                | Checked<br>NJ  | Approved<br>NJ |
| Drawing Number<br>28791/3008/003 | Revision<br>A  |                |



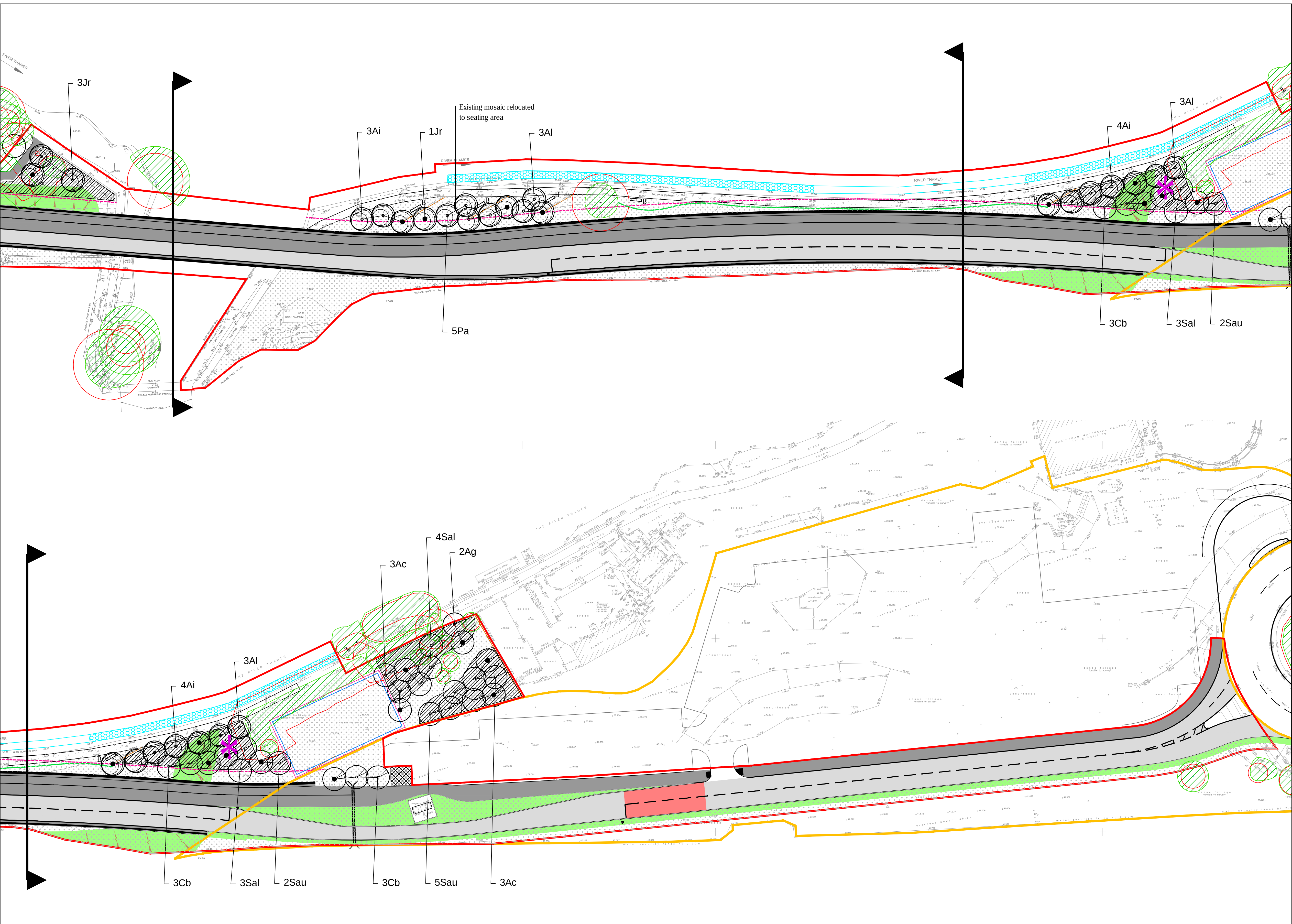
Offices throughout  
the UK and Europe

**www.peterbrett.com**

© Peter Brett Associates LLP

BRISTOL  
Tel: 01173 327 840

NOTES:  
All tree planting subject to developed service and utility plans  
Refer to PBA engineer drawings for structural design of bridge



LEGEND

- MRT East site boundary
- Thames Valley Park and Ride site boundary
- 3m planting offset from MRT structure, to allow for maintenance access
- Acid grassland retained
- Existing tree retained
- Root protection area for retained tree
- Seed mixes**
  - Tussocky grassland  
*Emorsgate EM10 - Tussock mixture, or similar approved*
  - Wildflower grassland  
*Emorsgate EM2 - Wildflower grassland, or similar approved*
- Tree and shrub planting**
  - Heavy standard tree
  - Feathered tree
  - Woodland shrub and understorey planting
  - Native hedgerow
- Riparian habitat**
  - Habitat rafts
- Green panels**
  - Woven willow panels
  - Willow fedge
- Hard landscape elements**
  - Bench
  - Post and rail fence
  - Boat planter

|      |                |          |       |      |      |
|------|----------------|----------|-------|------|------|
|      |                |          |       |      |      |
| A    | Phase 1A shown | 04.07.17 | RJ    | NJ   | NJ   |
| Mark | Revision       | Date     | Drawn | Chkd | Appd |

SCALING NOTE: Do not scale from this drawing. If in doubt, ask.  
UTILITIES NOTE: The position of any existing public or private sewers, utility services, plant or apparatus shown on this drawing is believed to be correct, but no warranty to this is expressed or implied. Other such plant or apparatus may also be present but not shown. The Contractor is therefore advised to undertake their own investigation where the presence of any existing sewers, services, plant or apparatus may affect their operations.

|                      |
|----------------------|
| Drawing Issue Status |
| FOR PLANNING         |

East Reading MRT  
Planting Plan - East of the Kennet Mouth  
Phase 1A  
Sheet 2/3

NOTES:  
All tree planting subject to developed service and utility plans  
Refer to PBA engineer drawings for structural design of bridge

Client  
Reading Borough Council

Date of 1st Issue  
20.06.2017

Designed  
RJ

Drawn  
RJ

A1 Scale  
1:500

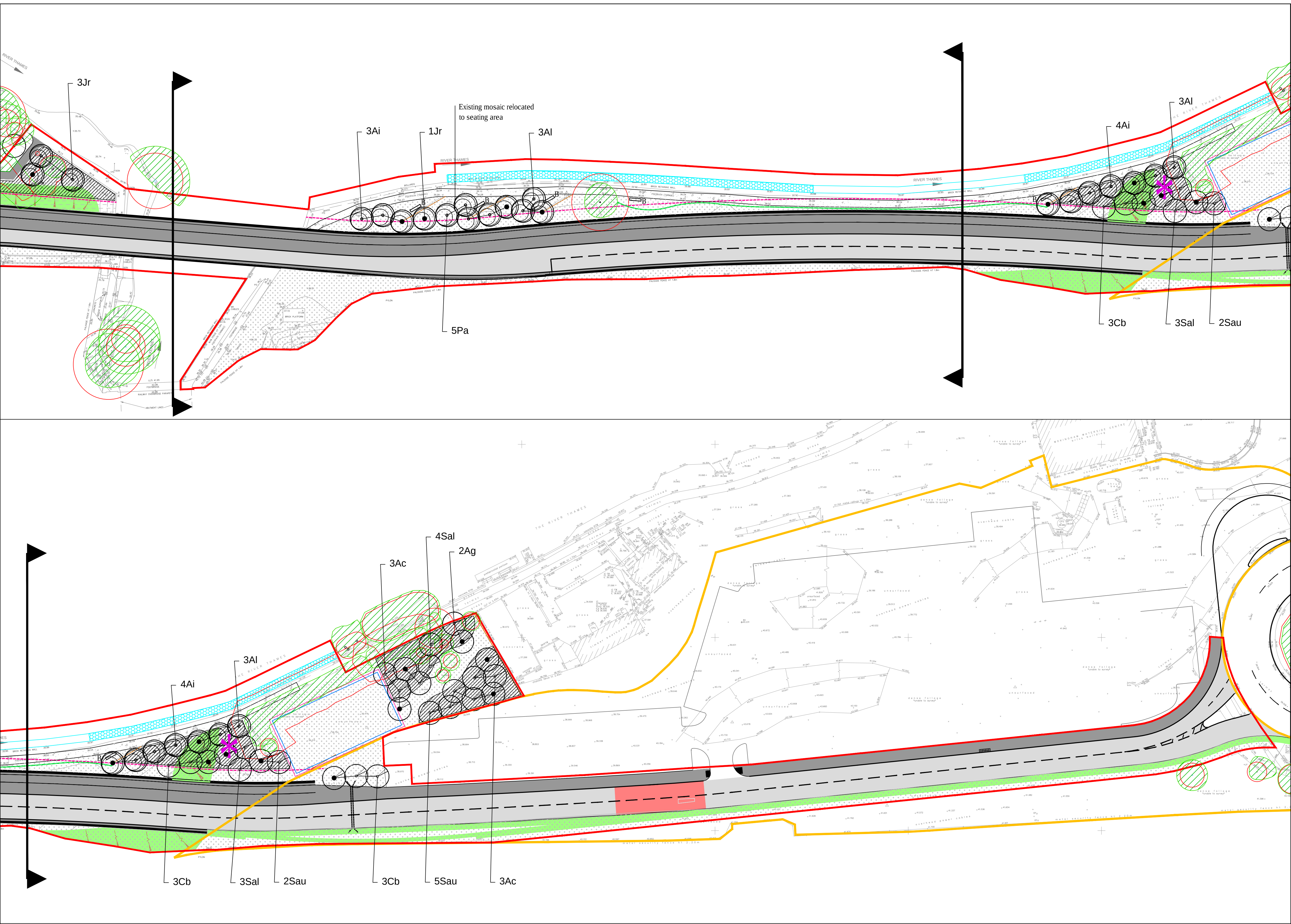
Checked  
NJ

Approved  
NJ

Drawing Number  
28791/3008/004

Revision  
A

Offices throughout the UK and Europe  
**www.peterbrett.com**  
© Peter Brett Associates LLP  
BRISTOL  
Tel: 01173 327 840



LEGEND

- MRT East site boundary
- Thames Valley Park and Ride site boundary
- 3m planting offset from MRT structure, to allow for maintenance access
- Acid grassland retained
- Existing tree retained
- Root protection area for retained tree

Seed mixes

- Tussocky grassland  
*Emorsgate EM10 - Tussock mixture, or similar approved*
- Wildflower grassland  
*Emorsgate EM2 - Wildflower grassland, or similar approved*

Tree and shrub planting

- Heavy standard tree
- Feathered tree
- Woodland shrub and understorey planting
- Native hedgerow

Riparian habitat

- Habitat rafts

Green panels

- Woven willow panels
- Willow fedge

Hard landscape elements

- Bench
- Post and rail fence
- Boat planter

NOTES:  
All tree planting subject to developed service and utility plans  
Refer to PBA engineer drawings for structural design of bridge

|      |          |  |      |       |      |
|------|----------|--|------|-------|------|
|      |          |  |      |       |      |
|      |          |  |      |       |      |
|      |          |  |      |       |      |
| Mark | Revision |  | Date | Drawn | Chkd |

SCALING NOTE: Do not scale from this drawing. If in doubt, ask.  
UTILITIES NOTE: The position of any existing public or private sewers, utility services, plant or apparatus shown on this drawing is believed to be correct, but no warranty to this is expressed or implied. Other such plant or apparatus may also be present but not shown. The Contractor is therefore advised to undertake their own investigation where the presence of any existing sewers, services, plant or apparatus may affect their operations.

|                      |
|----------------------|
| Drawing Issue Status |
| FOR PLANNING         |

East Reading MRT  
Planting Plan - East of the Kennet Mouth  
Phase 1B  
Sheet 3/3

Client

Reading Borough Council

|                                  |                |                |
|----------------------------------|----------------|----------------|
| Date of 1st Issue<br>04.07.2017  | Designed<br>RJ | Drawn<br>RJ    |
| A1 Scale<br>1:500                | Checked<br>NJ  | Approved<br>NJ |
| Drawing Number<br>28791/3008/005 |                | Revision<br>-  |



Offices throughout  
the UK and Europe

**www.peterbrett.com**

© Peter Brett Associates LLP

BRISTOL  
Tel: 01173 327 840

PLANT SCHEDULES

Seed mixtures

Tussocky grassland  
Emorsgate EM10 – Tussock mixture, or similar approved. Sowing rate in accordance with supplier’s recommendation.

Wildflower grassland  
Emorsgate EM2 – Standard General Purpose Meadow mixture, or similar approved. Sowing rate in accordance with supplier’s recommendation.

Riparian habitat

Salix coir pallets made from coir fibre planted with native wetland species, or similar approved, to create habitat rafts: <https://www.salixrw.com/product/coir-pallets/>

Feature trees

| Code | Species Name                 | Common name     | Form              | Girth    | Height    | Root condition |
|------|------------------------------|-----------------|-------------------|----------|-----------|----------------|
| Agr  | <i>Acer griseum</i>          | Paperbark maple | 3X Heavy standard | 12-14 cm | 3.5-4.2 m | RB             |
| Ai   | <i>Alnus incana</i> ‘Aurea’  | Golden alder    | 3X Heavy standard | 12-14 cm | 3.5-4.2m  | RB             |
| Al   | <i>Amelanchier lamarckii</i> | Snowy mespilus  | 3X Heavy standard | 12-14 cm | 2.5-3.5 m | RB             |
| Jr   | <i>Juglans regia</i>         | English walnut  | 3X Heavy standard | 12-14 cm | 3.5-4.2m  | RB             |
| Pa   | <i>Prunus avium</i>          | Wild cherry     | 3X Heavy standard | 12-14cm  | 3.5-4.2m  | RB             |

Native trees

| Code | Species Name            | Common name  | Form    | Height     | Root condition |
|------|-------------------------|--------------|---------|------------|----------------|
| Ac   | <i>Acer campestre</i>   | Field maple  | 2X Fthr | 1.5-1.75m  | RB             |
| Ag   | <i>Alnus glutinosa</i>  | Common alder | 2X Fthr | 1.75-2.0 m | RB             |
| Bp   | <i>Betula pendula</i>   | Silver birch | 2X Fthr | 1.75-2.0m  | RB/CG          |
| Cb   | <i>Carpinus betulus</i> | Hornbeam     | 2X Fthr | 1.5-1.75m  | RB/CG          |
| Sal  | <i>Salix alba</i>       | White willow | 2X Fthr | 2.0-2.5m   | RB             |
| Sau  | <i>Sorbus aucuparia</i> | Rowan        | 2X Fthr | 1.75-2.0m  | RB             |

Tree species for acid soil

| Code | Species Name            | Common name  | Form    | Height    | Root condition |
|------|-------------------------|--------------|---------|-----------|----------------|
| Bpub | <i>Betula pubescens</i> | Downy birch  | 2X Fthr | 1.2-1.5m  | RB/CG          |
| Sa   | <i>Salix aurita</i>     | Eared willow | 2X Fthr | 1.75-2.0m | RB             |
| Sd   | <i>Sorbus domestica</i> | Service tree | 2X Fthr | 1.75-2.0m | RB/CG          |

Woodland shrub and understorey planting

Native shrub species to be planted as transplants at 1m centres, where space allows within retained vegetation, in single species groups of 3-5no. *Lonicera* to be planted singly.

| Species Name                   | Common name        | %  | Height    | Root condition |
|--------------------------------|--------------------|----|-----------|----------------|
| <i>Acer campestre</i>          | Field maple        | 15 | 400-600mm | BR             |
| <i>Cornus sanguinea</i>        | Common dogwood     | 10 | 400-600mm | CG             |
| <i>Corylus avellana</i>        | Hazel              | 15 | 400-600mm | BR             |
| <i>Crataegus laevigata</i>     | Midland hawthorn   | 10 | 400-600mm | BR             |
| <i>Lonicera periclymenum</i> * | Common honeysuckle | 5  | 600-900mm | CG             |
| <i>Prunus spinosa</i>          | Blackthorn         | 10 | 400-600mm | BR             |
| <i>Sambucus nigra</i> *        | Common elder       | 5  | 400-600mm | CG             |
| <i>Viburnum lantana</i>        | Wayfaring tree     | 15 | 400-600mm | BR             |
| <i>Viburnum opulus</i>         | Guelder rose       | 15 | 400-400mm | CG             |

\* Night scented species

Native hedgerow

Native shrub species to be planted as transplants in single species groups of 3-7no. Where space is limited along the back edge of parking bay, shrubs to be planted at 300mm centres in two staggered rows 300mm apart; elsewhere, shrubs to be planted at 600mm centres.

| Species Name                | Common name     | %  | Height    | Root condition |
|-----------------------------|-----------------|----|-----------|----------------|
| <i>Acer campestre</i>       | Field maple     | 20 | 400-600mm | BR             |
| <i>Corylus avallana</i>     | Hazel           | 15 | 400-600mm | BR             |
| <i>Crataegus monogyna</i> * | Common hawthorn | 20 | 400-600mm | BR             |
| <i>Prunus spinosa</i>       | Blackthorn      | 15 | 400-600mm | BR             |
| <i>Viburnum lantana</i>     | Wayfaring tree  | 15 | 400-600mm | BR             |
| <i>Viburnum opulus</i>      | Guelder rose    | 15 | 400-400mm | CG             |

\* Night scented species