



Madingley Road Landscape Appraisal

MRC-ATK-XX-XX-RP-L-0001
SEPTEMBER 2019

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Notice

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Document History

Revision	Purpose Description	Originated	Checked	Reviewed	Authorised	Date
P01	INFORMATION	BC	JH	NM	NM	02.05.2019
P02	INFORMATION	BC	JH	NM	NM	20.09.2019

Introduction

The purpose of this technical note is to provide a 'high-level' review of the proposals submitted for development of a new two-way cycle lanes along Madingley Road in Cambridge.

The aim of the note is to identify any opportunities / constraints that could require further development ahead of proposals being submitted to planning.



Outline route for proposed cycle lane



Background



Image taken in 1945



Image taken in 2006



Image taken in 1999



Image taken in 2015

Existing Arrangement

The aerial image shows Madingley Road running approximately West to East between the Park & Ride and Cambridgeshire city centre.

The image shows a large amount of green space and mature vegetation alongside or in proximity to Madingley Road. This results in a relatively low density.

It also shows a mix of uses (residential, educational institutions, commercial).



Conservation Areas:

Conduit Head Road Conservation Area

A conservation area appraisal has been carried out by Cambridge City Council in 2009. Some key considerations of relevance to this proposed scheme are outlined below:

- Trees and vegetative cover have a major impact on the character of the area
- The vegetation is higher, and of a more varied character than that found in the surrounding area
- the tree line of the area is visible within the surrounding landscape.
- Trees and vegetative cover have a major impact on the character of the area
- The vegetation acts to enclose the area, screening views into the surrounding landscape.
- Vegetation also reduces views through to the private garden spaces and buildings, emphasising the privacy of these areas.
- The majority of buildings screened from the road
- Many individual and group TPOs.
- The area includes five Listed Buildings and two buildings identified as Buildings of Local Interest
- Views are directed along the tree-lined portion of Conduit Head Road, from the junction with Madingley Road and out of the Conservation Area along Madingley Road itself.
- A strategy for the retention, protection and replacement of trees, which includes regular inspection and maintenance of all trees within the Conservation Area will maintain the character of the area.

- ■ ■ Extent of proposed scheme (approx)
- Conduit Head Road Conservation Area
- Individual TPO
- TPO Area
- Listed Building 1
- Listed Building 2*
- Listed Building 2
- Buildings of Local Interest



Conservation Areas:

West Cambridge Conservation Area

A conservation area appraisal has been carried out by Cambridge City Council in 2011. Some key considerations of relevance to this proposed scheme are outlined below:

- The abundance of mature gardens provide a vital green corridor linking the field hedgerows into the city.
- The Conservation Area is notable for its many open spaces and for its variety of large gardens, most of them enclosed by high walls and planting.
- The trees within private gardens are very important in the way they frame views and the buildings
- There are many fine mature trees, which are often grouped together to form attractive wooded areas. These make a very important contribution to the character of the Conservation Area
- There are 68 Listed Buildings in the Conservation Area
- **Character Area 1.** Huntingdon Road to Madingley Road;
 - The preservation of the existing open green spaces, particularly in Churchill College;
 - The care and improvement of the many trees in the Conservation Area;

- ■ ■ Extent of proposed scheme (approx)
- Existing Conservation Area Boundary
- Previous Conservation Area Boundary
- Grade II* Listed Buildings
- Grade II Listed Buildings
- Buildings of Local Interest (BLI's)
- Positive Unlisted Buildings
- Late 20th Century Housing
- Negative Buildings
- Important Trees / Tree Groups
- Important Positive Views
- Existing Conservation Area Boundary
- Previous Conservation Area Boundary
- Protected Open Space



Conservation Areas:

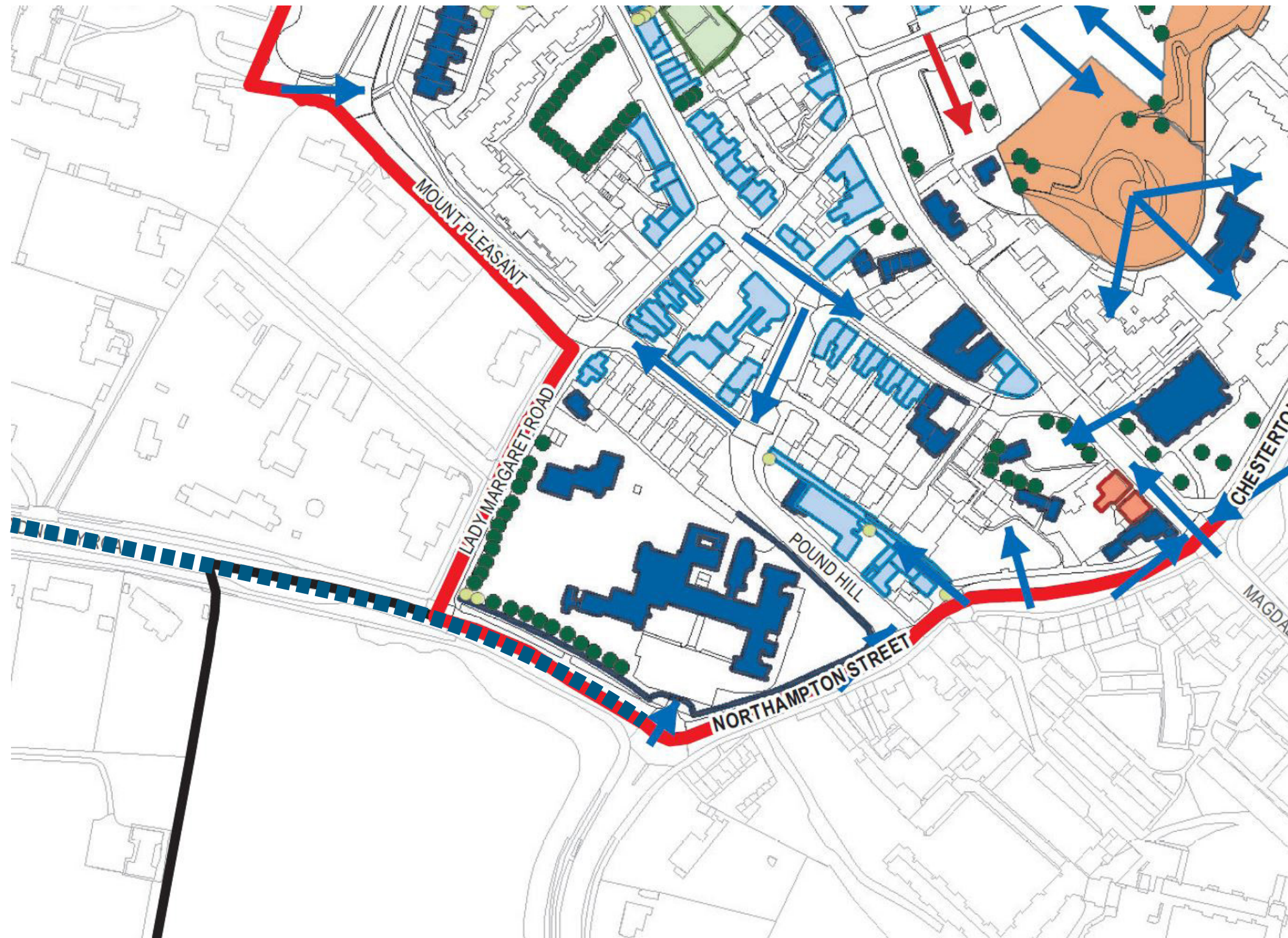
Castle and Victoria Road Conservation Area

A conservation area appraisal has been carried out by Cambridge City Council in 2012. Some key considerations of relevance to this proposed scheme are outlined below:

- A backcloth of trees runs along the edges of the area, as along Madingley and Huntingdon Roads, Chesterton Lane and Jesus Green.
- The area includes several Listed Buildings including Westminster and Cheshunt College, and the main and secondary gateway to Madingley Road and the boundary wall.
- There are individual TPOs at the corner of Lady Margaret Road.

■ ■ ■ Extent of proposed scheme (approx)

- Conservation Area
- Previous Conservation Areas
- Outside Conservation Areas
- Listed Buildings
- Buildings of Local Interest
- Proposed Buildings of Local Interest
- Buildings Important to the Character
- Buildings which Detract
- Scheduled Ancient Monument
- Historic Park and Garden
- TPO Areas (Boundaries)
- Individual TPO's
- Other Trees
- ➡ Important Positive View
- ➡ View which Detracts



Conservation Areas:

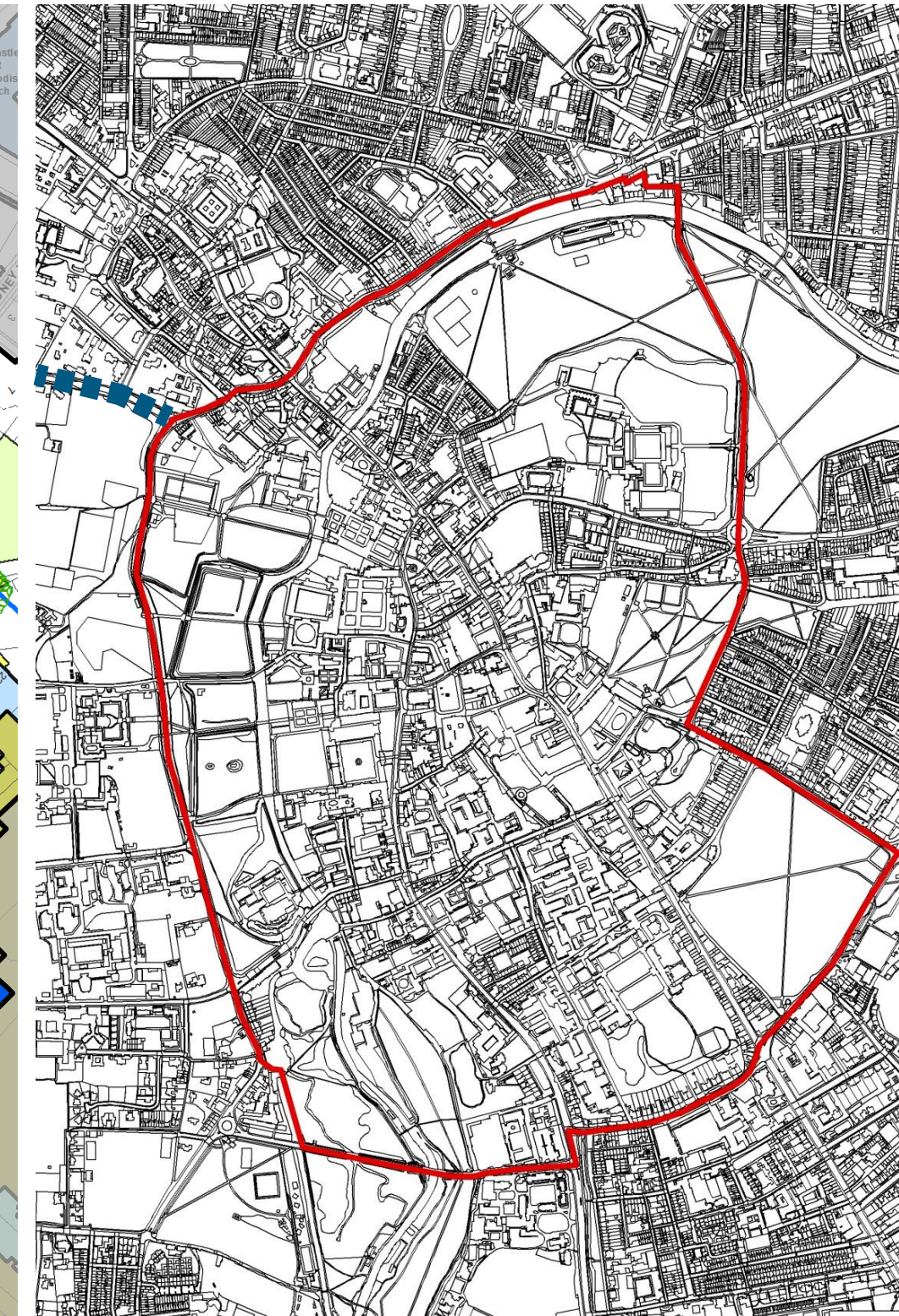
Historic Core Conservation Area

A conservation area appraisal has been carried out in 2016. Some key considerations of relevance to this proposed scheme are outlined below:

- The curve of Northampton Street and the strong sense of enclosure creates a series of unfolding views.
- Greenery in the grounds of Westminster College contributes to the enclosure of Northampton Street.
- The area includes several Listed Buildings including 32-38, Northampton Street (opposite the end of Madingley Road)

■ ■ ■ Extent of proposed scheme (approx)

- Grade I Listed Building
- Grade II* Listed Building
- Grade II Listed Building
- Positive Building/Structure
- Building of Local Interest
- ➡ Key Positive view
- ➡ Key Negative view
- Positive building/structure
- Historic shopfront
- Grade II* Historic Park & Garden
- Grade II Historic Park & Garden
- Area of Quality Paving
- Positive Green Space
- TPO Areas (Boundaries)
- Individual TPO
- important trees
- ★ Focal feature
- Poor Quality Features



Landscape Constraints Analysis & Mitigation and Enhancement Appraisal

The character of Madingley Road is predominantly green and leafy and can be described as three distinct character areas:

Character Area 1 - Predominantly residential

Character Area 2 - predominantly University buildings of mixed uses

Character Area 3 - transitional from city to countryside

The landscape mitigation and enhancement will proposals have the intent to provide net gain on green areas and features along the road, thereby maintaining and enhancing the green and leafy character.

In order to achieve a net gain of green features along the road a landscape strategy will be developed, to comprise:

- Retention and protection of existing trees, hedges and vegetation wherever possible. Mitigation measures to be employed where necessary to facilitate maximum retention.

- Suitable mitigation planting for any trees or vegetation that are unable to be retained.

- Enhancement planting along the verge areas, to feature three different types appropriate for the three distinct character areas along the road.

PROPOSED LANDSCAPE ENHANCEMENT



LANDSCAPE ENHANCEMENT TYPE A:
WILD FLOWER MEADOW

(REFER TO PAGE 22)



LANDSCAPE ENHANCEMENT TYPE B:
TALL ORNAMENTAL GRASSES

(REFER TO PAGE 23)



LANDSCAPE ENHANCEMENT TYPE C:
FLOWERING SEASONAL INTEREST

(REFER TO PAGE 24)

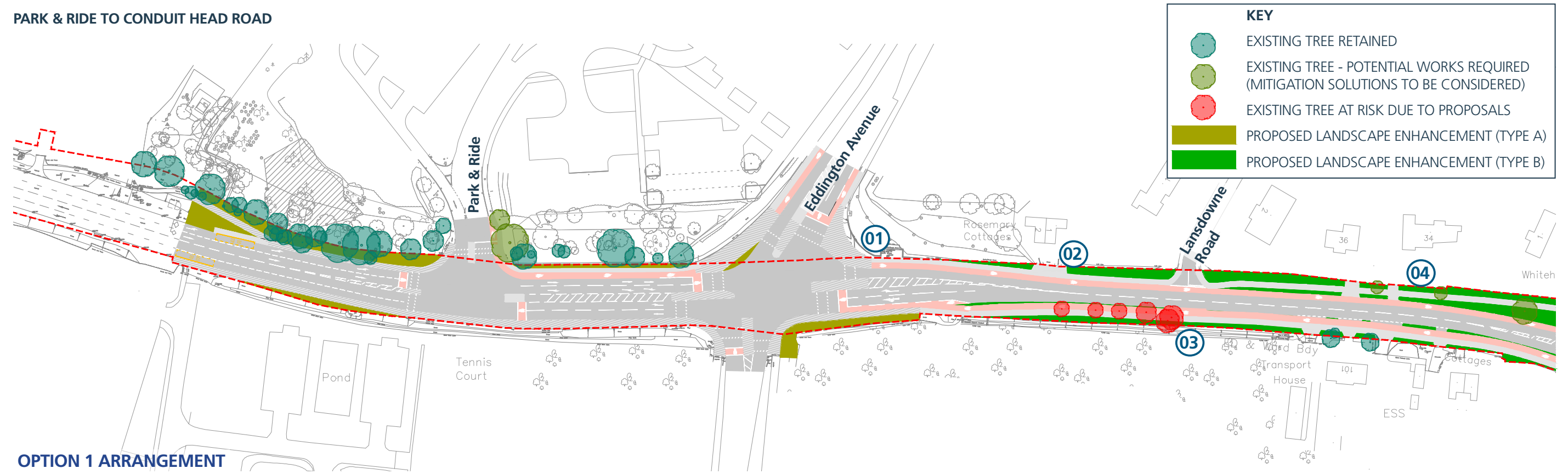


GENERAL LANDSCAPE MITIGATION

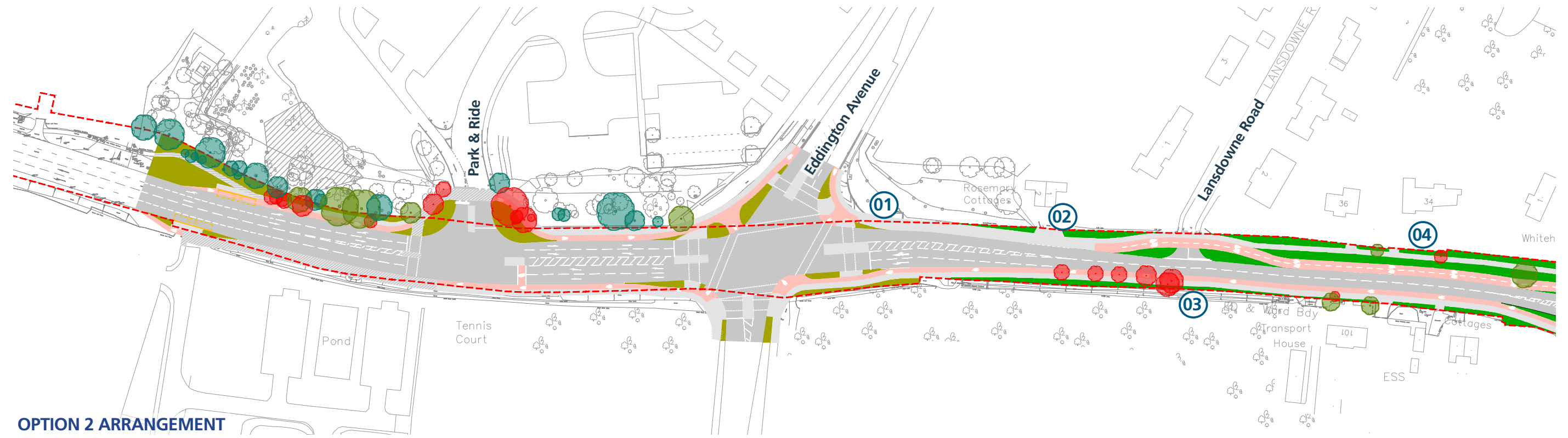
(REFER TO PAGE 21)

Landscape Constraints Analysis & Mitigation and Enhancement Appraisal

PARK & RIDE TO CONDUIT HEAD ROAD



OPTION 1 ARRANGEMENT



OPTION 2 ARRANGEMENT

Review of landscape features between Park & Ride and Conduit Head Road.



01 Eddington Avenue - looking East
 Limited opportunity for landscape screening due to available space. Any soft landscape feature would need to be planted offsite with agreement with 3rd parties.



02 Eddington Avenue to Lansdowne Road - looking East
 Dense vegetation provides screening for Rosemary Cottages. Vegetation appears to be located on both sides of the boundary fence. Careful design required to ensure screening benefits are retained.



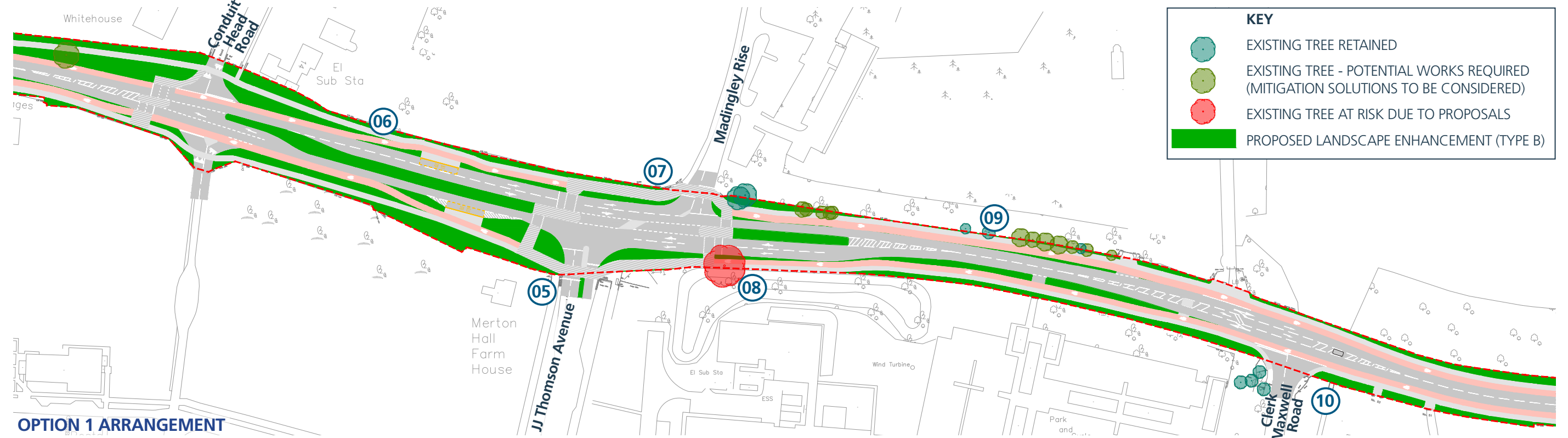
03 Opposite Lansdowne Road - looking West
 Likely loss of selected mature boundary trees are anticipated. A ditch runs along the boundary and proposed cycle lane will need to consider level change and drainage implications.



04 Lansdowne Road to Conduit Head Road - looking East
 Large coniferous hedge and tree planting (TPO Cedar) located along boundary, providing screening for properties. Vegetation will need regularly maintenance and canopy lifted to ensure cyclist are not impeded. Ditch located along boundary. Works maybe with tree Root Protection Areas.

Landscape Constraints Analysis & Mitigation and Enhancement Appraisal

PARK & RIDE TO CONDUIT HEAD ROAD



Review of landscape features between Conduit Head Road and Hedgerley Close.



05 JJ Thomson Avenue - looking West
Large verges allow room for cycle route with setback hedges providing screening. However, verges narrow and create 'pinch points' at specific locations with likely loss of boundary tree planting and impact on Root Protection Areas



06 Conduit Head Road to Madingley Rise Entrance - looking East
Native hedge and tree planting along boundary provide screening and green corridors. Works proposed likely to be within Root Protection Areas (RPAs) of offsite trees.



07 Madingley Rise - looking East
Large mature trees on boundary to be retained. Consideration to the Root Protection Areas required to ensure minimal damage to long term health of trees. Existing vegetation provides screening and wildlife benefits.



08 Clerk Maxwell Road - looking West
Existing scrub vegetation overhanging into footpath and need to be removed. Careful design required to protect roots of larger trees located near fence-line boundary. Some larger trees at risk for Option 1.



09 Madingley Rise to Observatory Drive - looking East
Offsite planting provides screening and wildlife benefits. Some minor cut back to scrub could be implemented provided no detrimental impact to offsite 3rd party trees.



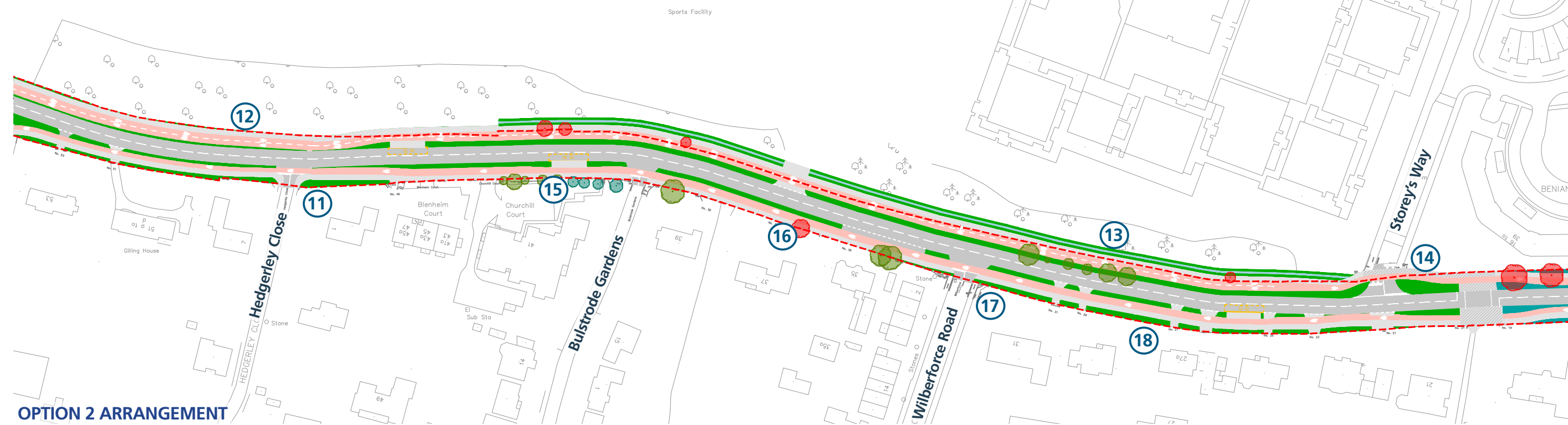
10 Clerk Maxwell Road - looking West
Some vegetation and tree roots located close to junction and potentially restrict width of foot-way and cycleway.

Landscape Constraints Analysis & Mitigation and Enhancement Appraisal

PARK & RIDE TO CONDUIT HEAD ROAD



OPTION 1 ARRANGEMENT



OPTION 2 ARRANGEMENT

Review of landscape features between Hedgerley Close and Storey's Way.



11 Hedgerley Close- looking West
Dense vegetation on corner may need to be cut back to improve sight lines near crossing



12 Observatory Drive to Storey's Way - looking East
Verge to be retained, but requires realignment of ditch to ensure sufficient space for footpath and cycleway. Consideration to location of bus stop required to most suitable position.



13 Observatory Drive to Storey's Way - looking East
Trees in verge to be retained if possible. Offer screening and landscape benefits. Ditch in verge to be realigned to ensure sufficient width and minimise impact on verge tree planting



14 Storey's Way - looking East
Planting near junction may need to cut back to improve sight lines. Hedge planting may need to be removed due to earth works. Consideration required relating to 3rd party tree roots.



15 Bulstrode Gardens to Hedgerley Close - looking West
Potential opportunity to screen existing fences and add in green elements to the landscape.



16 Wilberforce Road to Bulstrode Gardens - looking West
Some trees on 3rd party land will need to be have canopies lifted to ensure sufficient space and height for cycle route



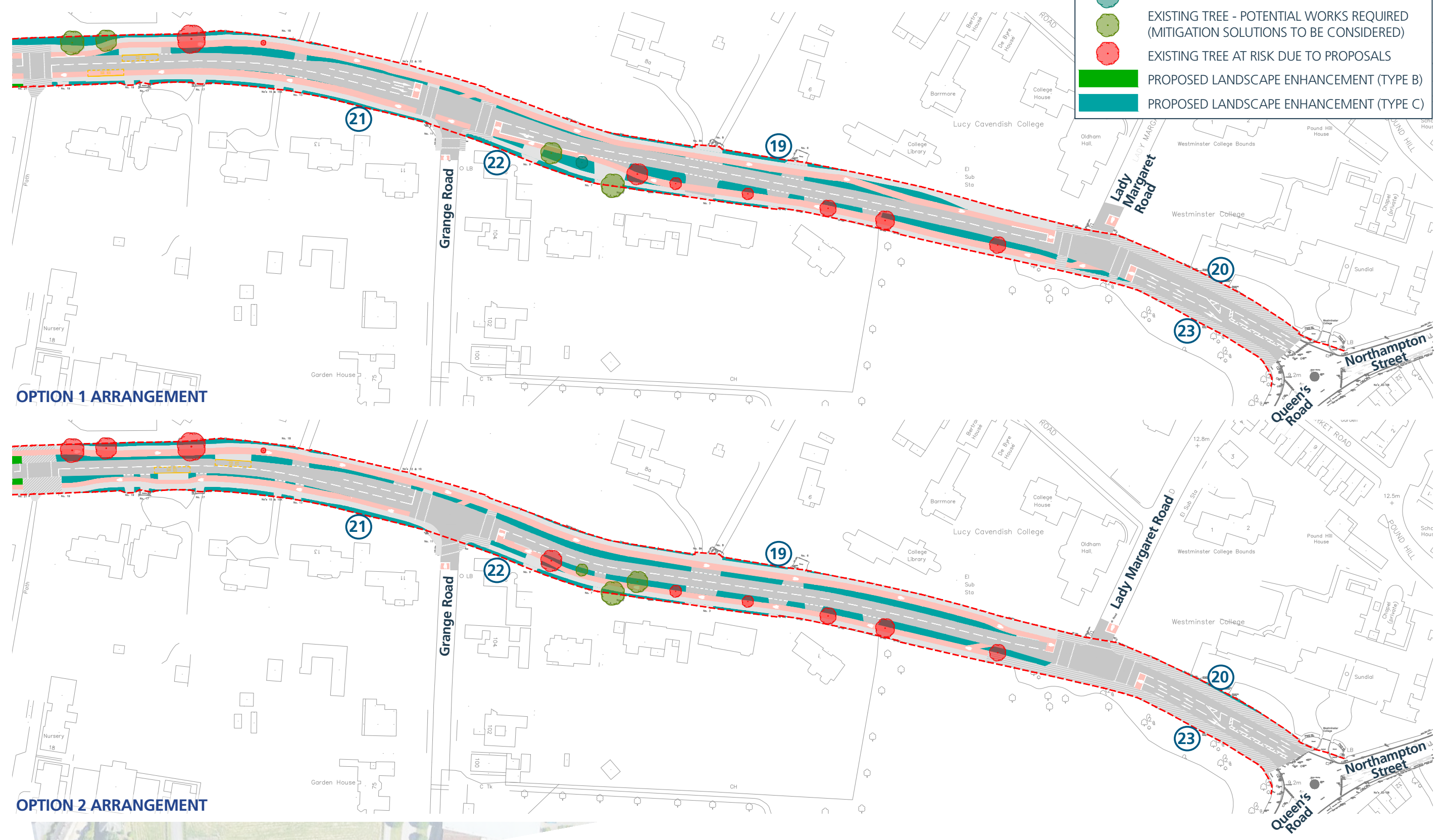
17 Wilberforce Road - looking West
Vegetation to be cut back near junction or removed. Tree canopies overhang footway and could cause restriction for cyclists.



18 Grange Road to Wilberforce Road - looking West
Hedges provide screening benefits so should be retained if possible. Verges are of poor quality in places and need treatment / maintenance if retained.

Landscape Constraints Analysis & Mitigation and Enhancement Appraisal

PARK & RIDE TO CONDUIT HEAD ROAD



Review of landscape features between Storey's Way and Queen's Road



19 Storey's Way to Lady Margaret Road - looking East
 Green islands to be remain and island trees to be retained subject to damage to root structure. Recommend planting new trees if existing trees are unavoidably removed.



20 Westminster College - looking East
 Vegetation overhangs footpath and will need to be lifted to allow sufficient height to allow cyclist and pedestrians to move freely.



21 Grange Road to Wilberforce Road - looking West
 Hedges and verge restrict cycle/footway width, but do provide green amenity. Recommend retaining hedge to provide screening for properties. If removed consider equivalent mitigation.



22 Grange Road junction- looking West
 Possible removal of hedges near junction to improve sight lines at crossing. Any works to consider tree roots of large trees located along scheme boundary.



23 Queens Road to Grange Road - looking West
 Island to remain and trees to kept wherever possible. Some trees may be unavoidably at risk and compensation tree planting should be provided. Trees may need canopies to be lifted to ensure sufficient height clearance for cyclists.

GENERAL LANDSCAPE MITIGATION



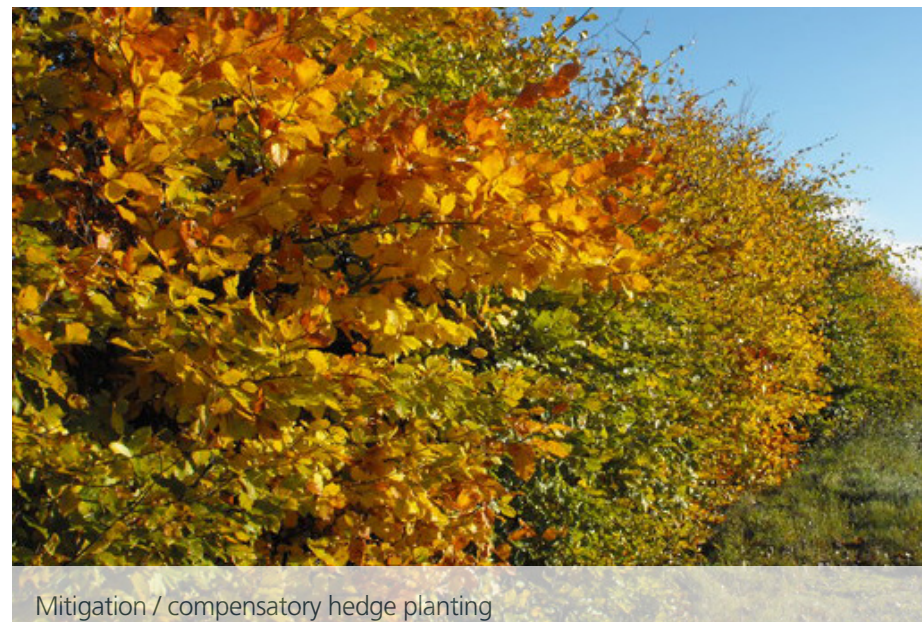
Retention of existing trees enabled by mitigation considerations in path design.



Mitigation / compensatory tree planting



Strategic maintenance / management of existing overhanging vegetation



Mitigation / compensatory hedge planting



Temporary fencing to protect existing trees and vegetation during construction.



Quercus robur



Carpinus betulus



Crataegus monogyna



Acer campestre

Wherever possible existing trees and vegetation will be retained and protected. In some cases mitigation options may require consideration in order to enable retention.
Any vegetation removed will be replaced as close as practical with planting of similar species and size.

LANDSCAPE ENHANCEMENT TYPE A - WILD FLOWER MEADOW



A630, Rotherham © Pictorial Meadows



© Pictorial Meadows



Motorway near Rotherham, UK © Pictorial Meadows



Wild flowers Cardiff road, Newport © Tim Dowd



Alongside the Newport to Cardiff road © Euroflor flower meadows



Eschscholzia californica



Centaurea cyanus



Papaver rhoeas



Leucanthemum vulgare

There is a rural outer fringe character of Madingley Road from the M11 crossing and city boundary to the end of the West Cambridge site and the Park and Ride entrance.

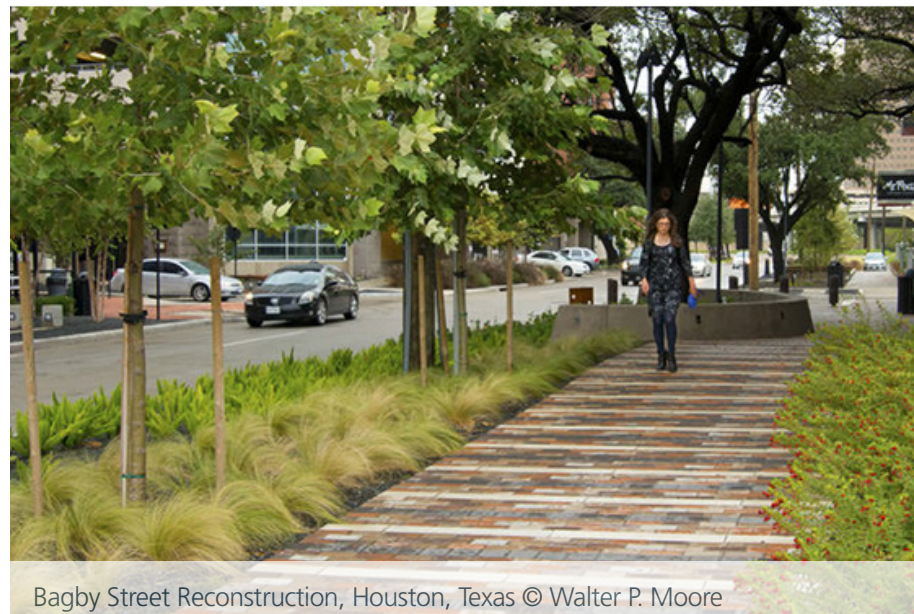
LANDSCAPE ENHANCEMENT TYPE B - TALL ORNAMENTAL GRASSES



Swale on Yale, Seattle © Vulcan Real Estate



Phinney Ridge Hill, Seattle © Danielle Johnson



Bagby Street Reconstruction, Houston, Texas © Walter P. Moore



Mermoz sector - removal of the A43 flyover, Lyon © Fabian Da Costa



Urban Street Design Guide, Gateway © Nacto



Nasella
 tenuissima



Festuca
 sp.



Carex
 sp.



Molinia
 caerulea



Liriodendron
 tulipifera



Prunus x
 subhirtella

A section of the road is captured mostly by the frontages to Churchill College and the Observatory, characterised as a parkland.

LANDSCAPE ENHANCEMENT TYPE C - FLOWERING SEASONAL INTEREST



An urban boulevard: east gate of Lyon © Fabian Da Costa



Redevelopment of the Trapèze - Cours Seguin, Paris © AAUPC



Avenues Mermoz and Pinel, Lyon © Erick Salliet



Woodman Avenue, Los Angeles © Amy Quinton



Constitution Avenue, Canberra © John Gollings



Rudbeckia
 Goldsturm



Achillea
 filipendulina



Salvia
 nemorosa



Verbena
 bonariensis



Tilia x
 europaea



Acer
 Sp.

As the road progresses towards the city centre it is defined by the heavily planted front gardens, hedges and generous driveways of large private properties.

Opportunities Analysis & Considerations

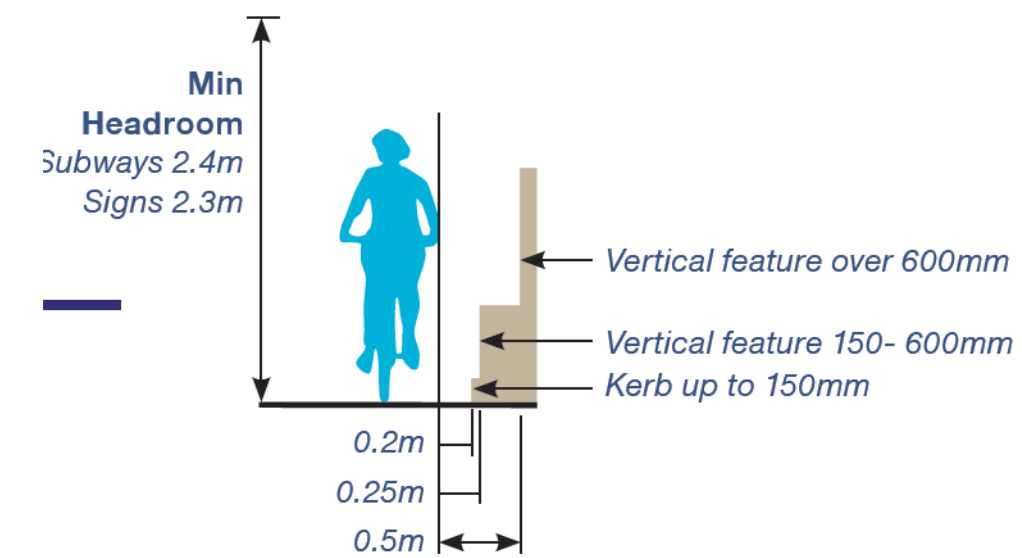
High-level considerations:

- Extent of tree roots to be evaluated (Root Protection Areas). Mitigation strategies need to be considered to minimise damage. Especially relevant to trees on boundary which might be located in 3rd party land
- Trees protected as part of being within a conservation area
- Important green corridor with wildlife benefits
- Some trees will need canopies lifted
- Hedge and planting near junction to be removed for sight line purposes.



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clearance
to maintain
effective width
and headroom
for cyclists



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