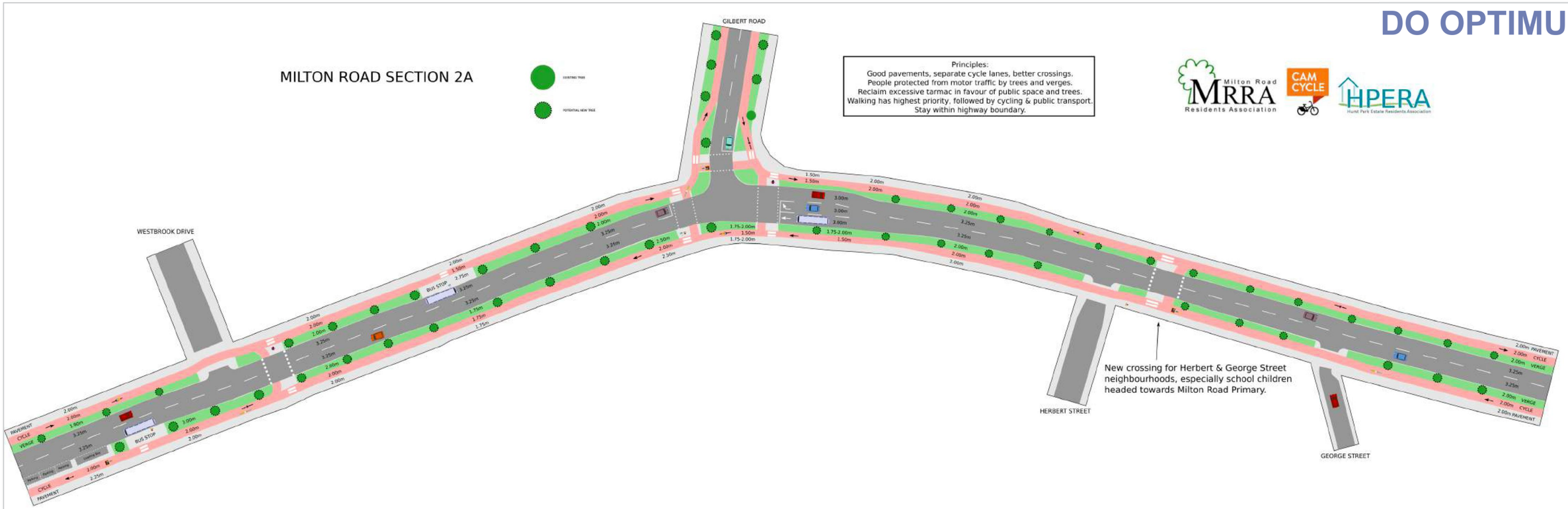
FINAL CONCEPT

DO OPTIMUM



Carriageway
Cycle Lane
Bus Lane
Verge
Loading Bay
Path
Shared Use
Tree

ASCHAM RD
HURST PARK AVE
HIGHWORTH AVE
ELIZABETH WAY

FINAL CONCEPT

MILTON ROAD SECTION 2B

(with bus entry lane to roundabout)

Features:
Separate walking and cycling paths protected by trees and verges.
Walking and cycling priority roundabout on three arms.
Roundabout with bus entry lane on Elizabeth Way arm.
Set-back crossings on roundabout of at least one bus-length.
Space for quality bus stops allowing step-free boarding and multiple doors.

Principles:
Good pavements, separate cycle lanes, better crossings.
People protected from motor traffic by trees and verges.
Reclaim excessive tarmac in favour of public space and trees.
Walking has highest priority, followed by cycling & public transport.
Stay within highway boundary.

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3.25m width for carriageway lanes is more than sufficient for large vehicles like buses and lorries, and enables passing when clear.

Emergency vehicles can pass and drivers can pull onto verges if necessary.

2.0m minimum width for pavements is target goal throughout.

"Copenhagen" crossings of side roads give priority to people walking and cycling.

Walking and cycling priority "parallel crossings" on arms of the roundabout, as commonly found in the Netherlands and Northern Europe. See also: **camcycle.org.uk/newsletters/128/article11.html**

Transitional cycle lanes onto quiet residential street with no cycle lanes.

3.5m two-way cycle lane through roundabout so that riders can focus on safely crossing, not worrying about getting squeezed off path.

Use of "Cambridge" kerb to prevent kerb crashes.

Two-way cycle lane ends at Ascham Road, for school, and with crossing for anyone continuing south.

Two-way cycle lane of 3.0m is a bit small, but plausible when context is safe pavement and verge on either side, with forgiving kerbs. 3.5m would be preferable here, where possible.

Zebras across cycle lane wherever people walking need to access crossings or bus stops.

Extra set-back of orbital cycle lane so that buses and large vehicles don't block the roundabout when waiting.

Walking/cycling-priority crossings must be set back at least 1 car length from the roundabout.

Presence of bus in bus lane at roundabout-entry automatically gives precedence to bus since it blocks sight-line of any cars waiting to enter the roundabout in the left entry lane.

Elizabeth Way is an example here in this conceptual diagram but should also be considered as part of future route for non-stopping buses in a reworked public transport network.

Two-way cycle crossing so that riders from the south side can choose either arm, whichever they feel safer using, to access the two-way cycle lane.

Driver-priority crossing must be set back from roundabout at least 2 car lengths to give people walking and cycling a chance to react to movements of motor vehicles. Exits from roundabouts across driver-priority crossings must be single-lane and must calm traffic speeds using tight geometry. Entrances to roundabouts may be two lanes.

Elizabeth Way has a toucan further south, placed there for an alternative walking and cycling route through back streets.

DO OPTIMUM

Carriageway
Cycle Lane
Bus Lane
Verge
Loading Bay
Path
Shared Use
Tree

FINAL CONCEPT

MILTON ROAD SECTION 3A

with "Simultaneous Green"-junction and peak-time "Queue jump" bus lane.

Principles:
Good pavements, separate cycle lanes, better crossings.
People protected from motor traffic by trees and verges.
Reclaim excessive tarmac in favour of public space and trees.
Walking has highest priority, followed by cycling & public transport.
Stay within highway boundary.

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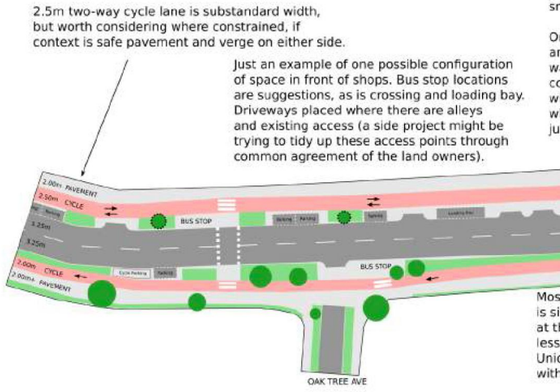
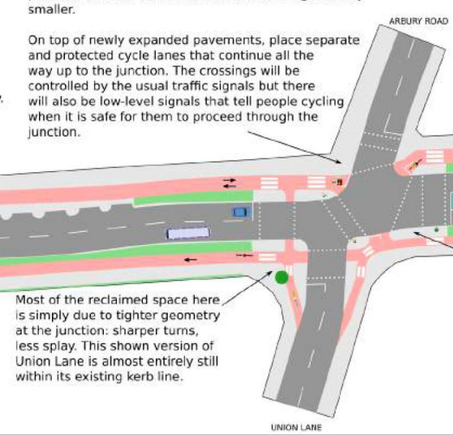
Rough sketch of possible idea for reconfiguring Arbury Road junction that reclaims a great deal of open public space. First, expand pavements until there are only 2 carriageway lanes. Then, realign Union Lane so that it is squared-off, even if that means a staggered junction. All movements are still possible, but now the amount of tarmac is significantly smaller.

On top of newly expanded pavements, place separate and protected cycle lanes that continue all the way up to the junction. The crossings will be controlled by the usual traffic signals but there will also be low-level signals that tell people cycling when it is safe for them to proceed through the junction.

2.5m two-way cycle lane is substandard width, but worth considering where constrained, if context is safe pavement and verge on either side.

Just an example of one possible configuration of space in front of shops. Bus stop locations are suggestions, as is crossing and loading bay. Driveways placed where there are alleys and existing access (a side project might be trying to tidy up these access points through common agreement of the land owners).



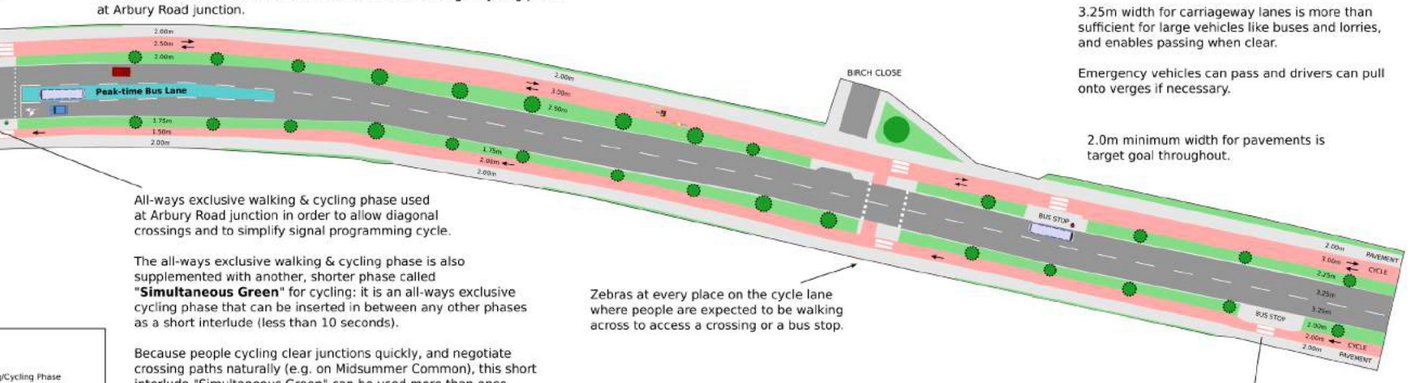


Most of the reclaimed space here is simply due to tighter geometry at the junction: sharper turns, less splay. This shown version of Union Lane is almost entirely still within its existing kerb line.

Peak-time centre bus "queue jump" lane can be used as a right-turn lane off-peak. When bus is detected the traffic signal controller will schedule a bus early "headstart" at its next green phase.

A peak-time centre bus lane also implicitly shows that right-turn into Arbury Road is banned during peak hours.

Another advantage of a centre bus lane is that buses further north can use gaps in traffic to pass other cars and enter the bus lane from a bit further up. This will work well in combination with an exclusive walking & cycling phase at Arbury Road junction.



All-ways exclusive walking & cycling phase used at Arbury Road junction in order to allow diagonal crossings and to simplify signal programming cycle.

The all-ways exclusive walking & cycling phase is also supplemented with another, shorter phase called "**Simultaneous Green**" for cycling: it is an all-ways exclusive cycling phase that can be inserted in between any other phases as a short interlude (less than 10 seconds).

Because people cycling clear junctions quickly, and negotiate crossing paths naturally (e.g. on Midsummer Common), this short interlude "Simultaneous Green" can be used more than once each signal cycle in order to separate people cycling from motor vehicles entirely while still providing moderate waiting times.

"Simultaneous Green" is effectively a shorter version of the all-ways exclusive walking & cycling phase that can be used when there is nobody waiting to walk across the junction.

Zebras at every place on the cycle lane where people are expected to be walking across to access a crossing or a bus stop.

3.25m width for carriageway lanes is more than sufficient for large vehicles like buses and lorries, and enables passing when clear.

Emergency vehicles can pass and drivers can pull onto verges if necessary.

2.0m minimum width for pavements is target goal throughout.

Cycle lane can be narrower (down to 1.5m for one-way) for short sections such as behind bus stops, where there should also always be a Zebra.

Examples of what different phases might look like. Actual selection of durations and signal programming plan would depend upon traffic study and modelling.

DO OPTIMUM

FINAL CONCEPT

MILTON ROAD SECTION 3B

Principles:
Good pavements, separate cycle lanes, better crossings.
People protected from motor traffic by trees and verges.
Reclaim excessive tarmac in favour of public space and trees.
Walking has highest priority, followed by cycling & public transport.
Stay within highway boundary.

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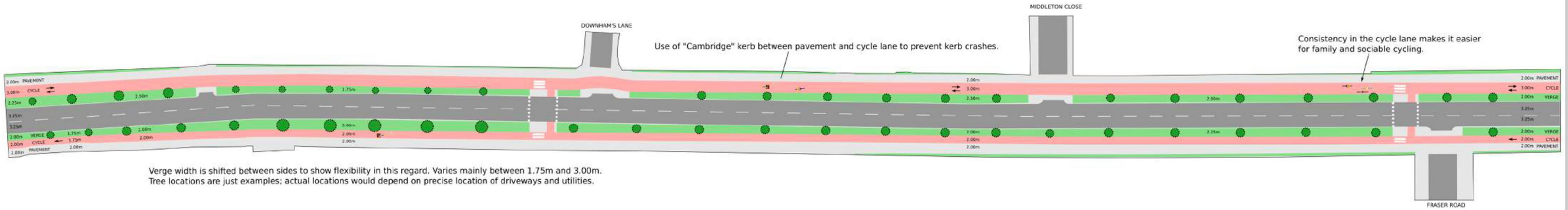
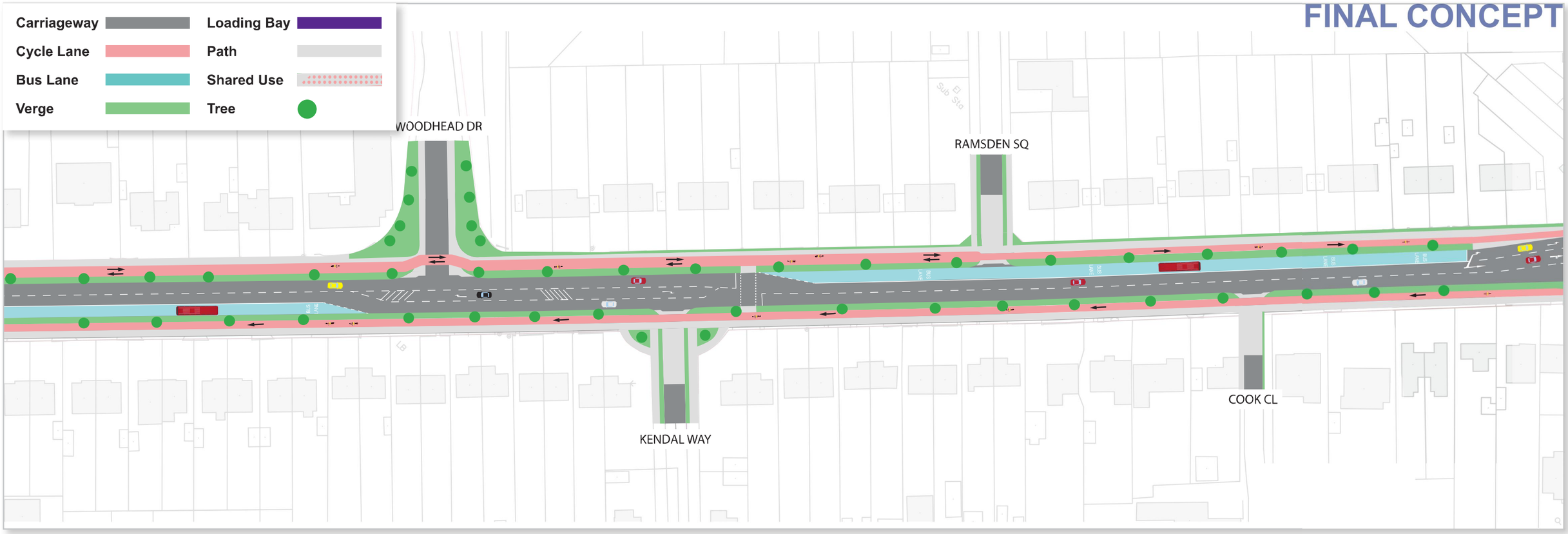


Verge width is shifted between sides to show flexibility in this regard. Varies mainly between 1.75m and 3.00m.
Tree locations are just examples; actual locations would depend on precise location of driveways and utilities.

DO OPTIMUM

FINAL CONCEPT



DO OPTIMUM

Milton Road MRRA Residents Association

CAM CYCLE

HPERA Hurst Park Estate Residents Association

Principles:
Good pavements, separate cycle lanes, better crossings.
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Reclaim excessive tarmac in favour of public space and trees.
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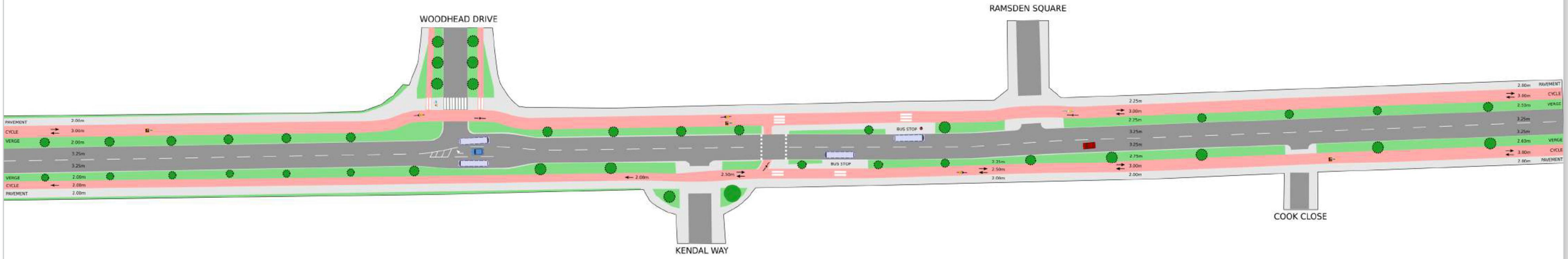
Stay within highway boundary.

MILTON ROAD SECTION 4A



FINAL CONCEPT

DO OPTIMUM