



INTRODUCTION

This document has been prepared to provide further details of the tree removal and replacement strategy for the new landscape scheme to the recently completed Henry Royce Institute (HRI) building.

THE NEW SQUARE

Plincke have been appointed by the University of Manchester (UoM) to design the new public realm space outside the HRI. To date we have developed a scheme, in collaboration with various stakeholders within the University, with an agreed layout being signed-off at RIBA Work Stage 2 (Concept Design) in June 2020. The next landmark in the programme is to progress the design through to sign-off at RIBA Work Stage 3 (Spatial Coordination), which includes further conversation with a wider-range of vested parties. Part of this process is agreeing with the University's Environmental Sustainability Team a strategy for the removal and replacement of existing trees in the area affected by the new landscape design.

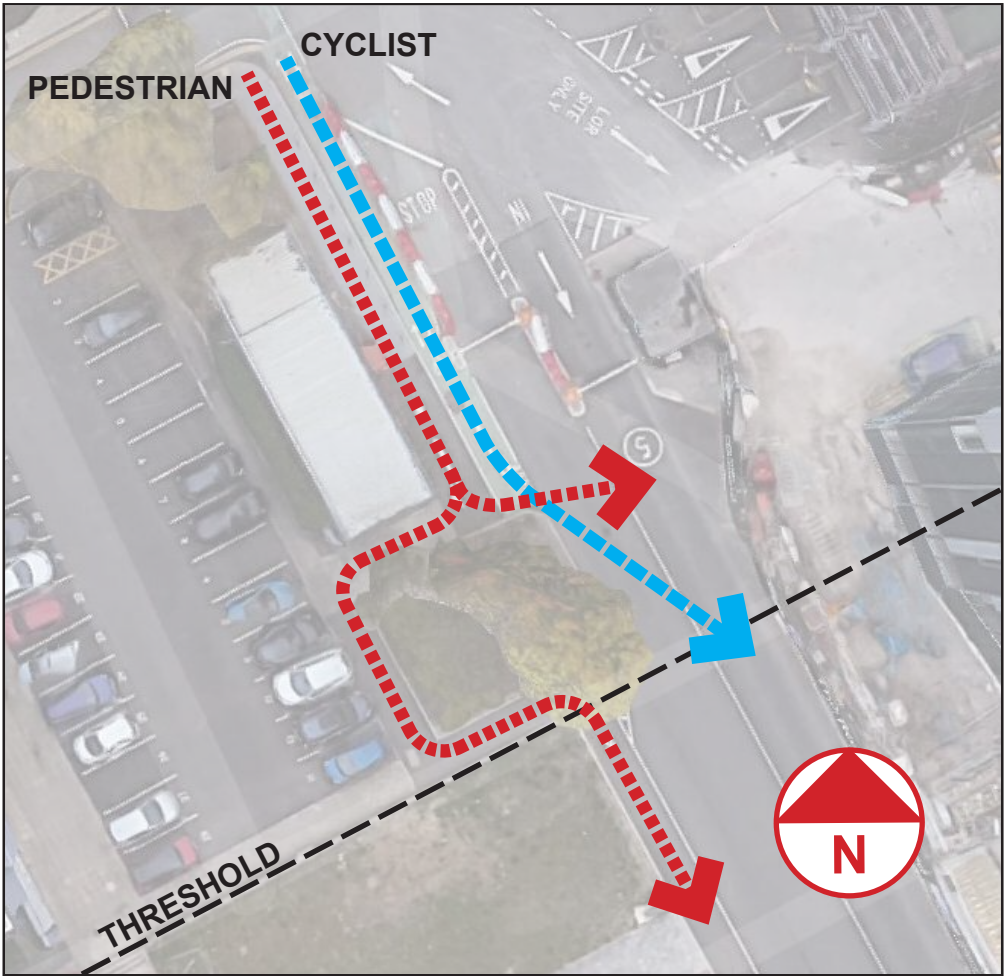
The image below (1) is the latest landscape proposal as agreed with the University at RIBA Work Stage 2. As a result of this scheme there are nine existing trees that will be affected by the proposals to develop the space outside the new Henry Royce Institute, over and above those previously removed or earmarked for removal during the building construction phase, as indicated in the image below-right (5).



(1) THE PROPOSED SCHEME AGREED AT RIBA WORK STAGE 2

WHY DO WE NEED TO REMOVE THESE TREES?

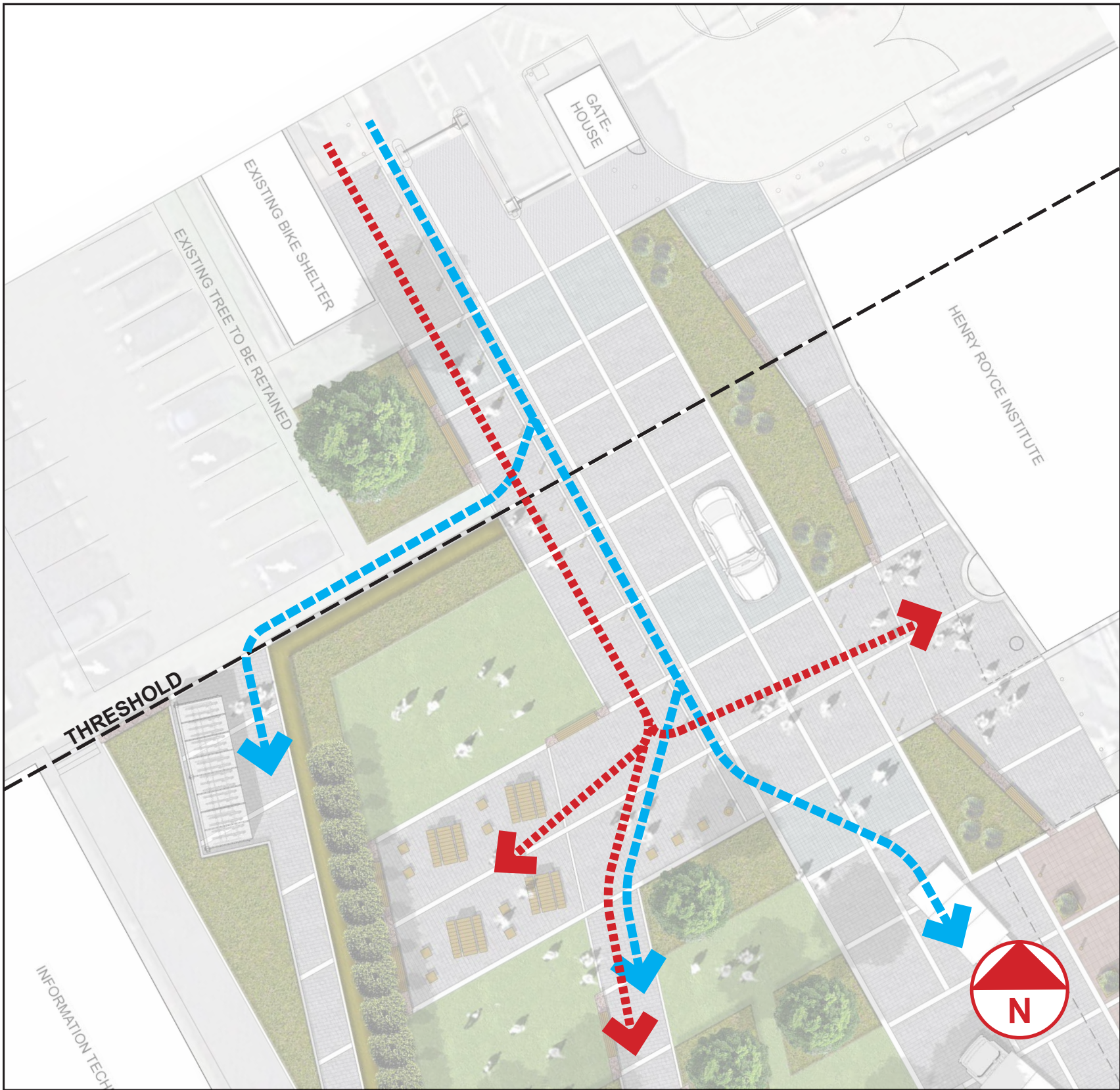
The current pedestrian and cyclist route into the study area has evolved on an almost ad-hoc basis as various developments have taken place within the campus. This has resulted in an awkward entrance sequence where users are marginalised and squeezed to one side between an access road and cycle storage compound as they approach from Booth Street East. They are then met with a shrub planted area which juts out into their path, causing cyclists and pedestrians to either veer into the vehicular route or circumnavigate around the planted area in order to continue their journey, as demonstrated in images (2) and (3) below.



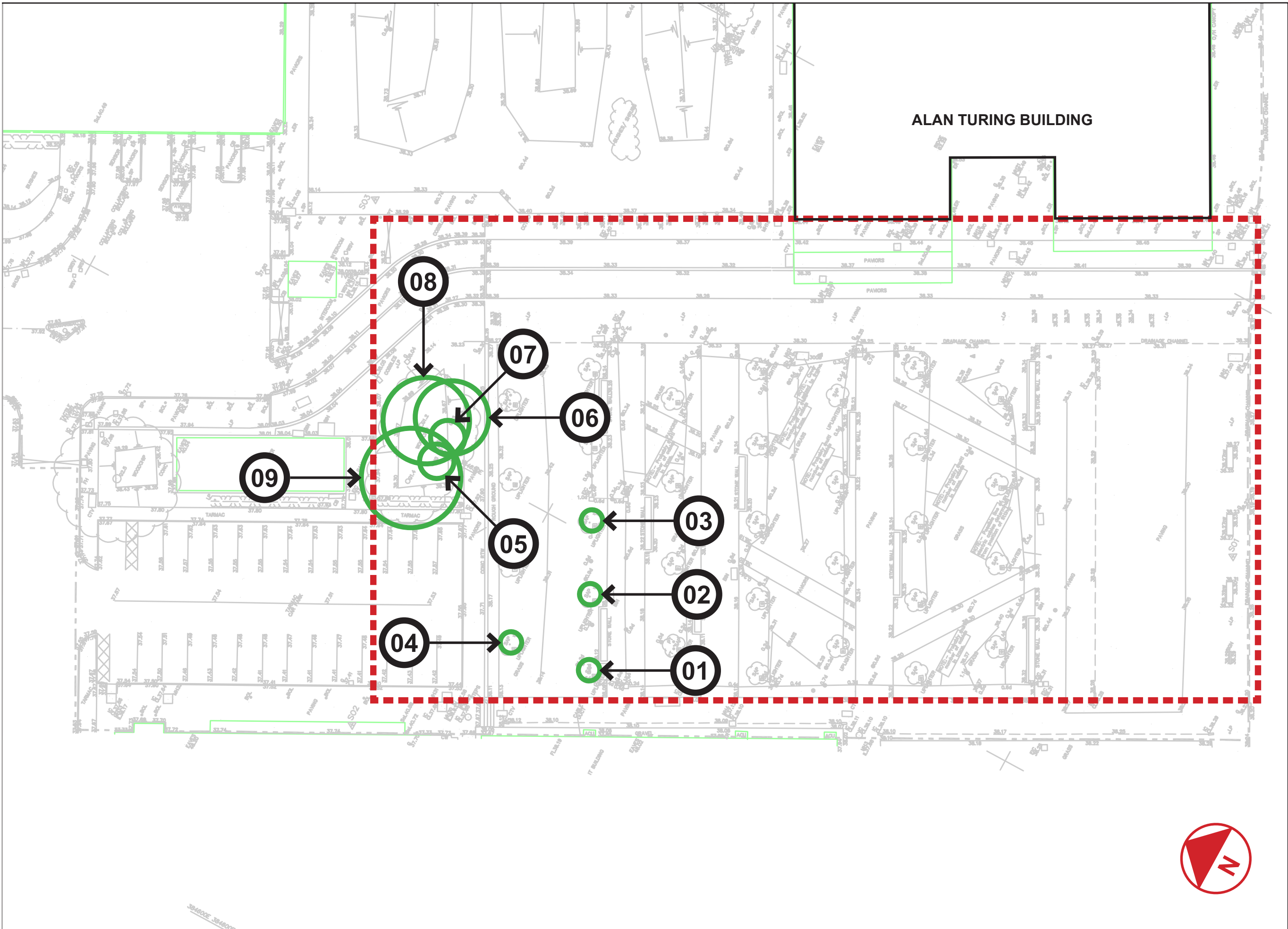
(2) & (3) CURRENT ENTRANCE SEQUENCE



The proposed landscape design not only widens the pedestrian approach, but also extends both the pedestrian and cycle routes through into the new Square. This allows both sets of users to pass into the 'threshold' of the new Square before deciding their next course of action. Once into the heart of the Square pedestrians can then either cross at the new designated crossing point over to the HRI, continue further into the new social space to congregate, or proceed further into the wider campus. The existing cycle route has been extended to maintain this separation of pedestrian and cyclist as far as possible into the new space, at which point they can either join the vehicle route to the wider campus, or use the new parking facilities, or dismount and enter the Square. The proposed arrangement is demonstrated in image (4) below.



(4) EXTRACT FROM THE PROPOSED SCHEME SHOWING THE NEW ENTRANCE SEQUENCE

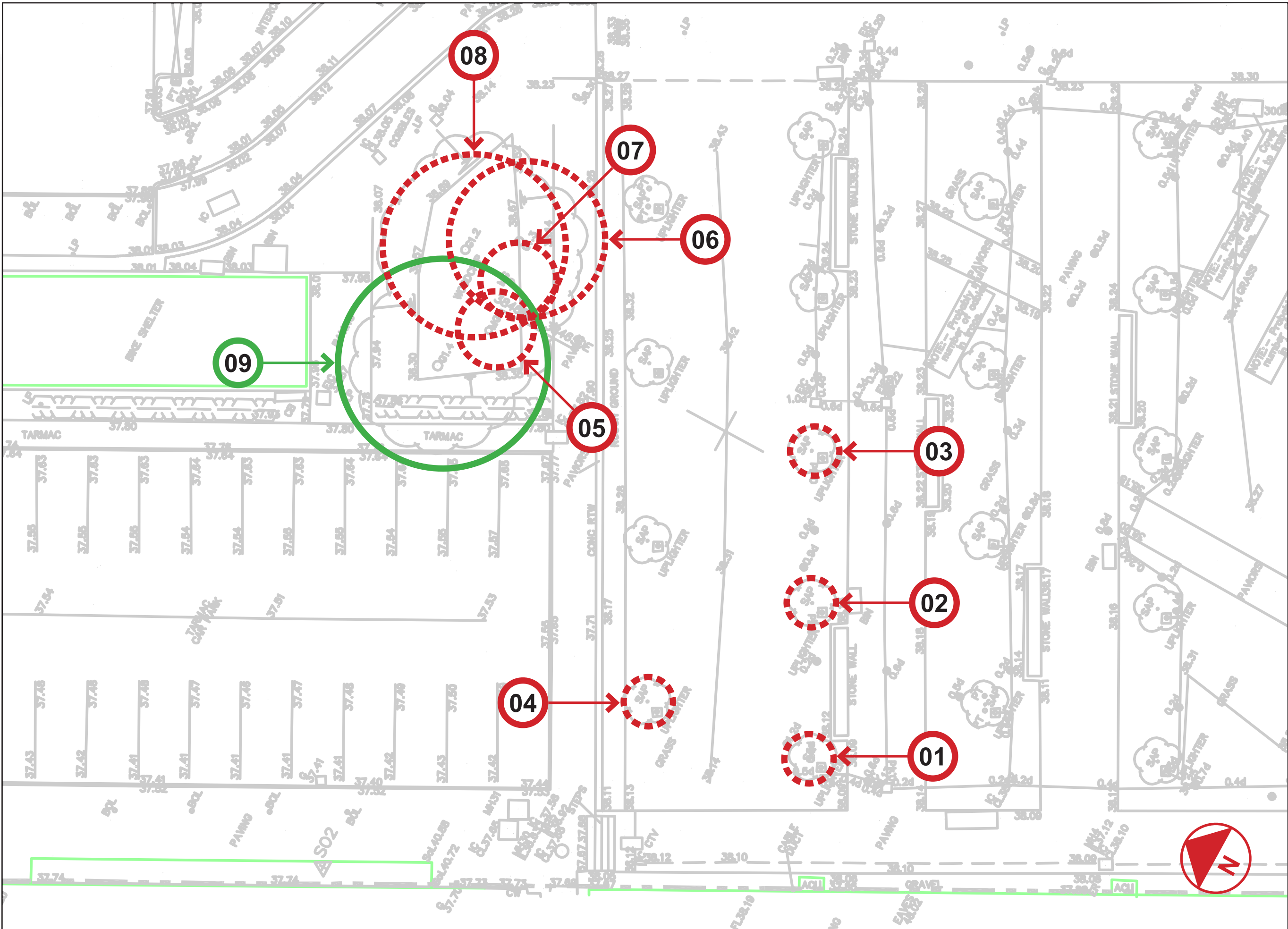


(5) EXISTING TOPOGRAPHIC SURVEY SHOWING BOTH THE BROADER AREA AND SPECIFICALLY THE EXISTING TREES AFFECTED BY THE NEW SCHEME

EXISTING TREES AFFECTED BY THE NEW SQUARE

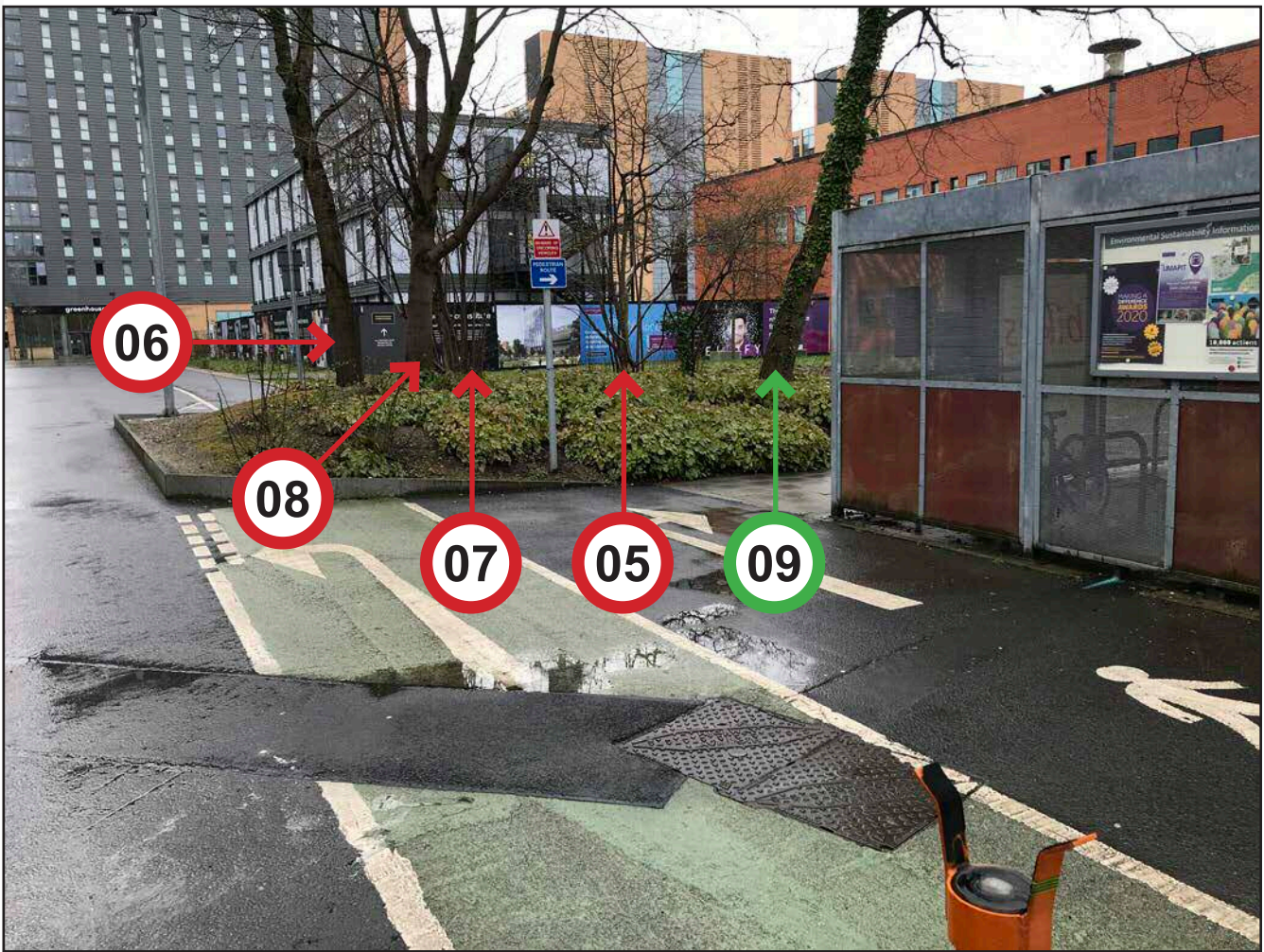
As demonstrated in image (6) below, there are nine trees affected by the proposed landscape scheme, of which eight are earmarked for removal. They are:-

Botanical Name	Common Name	Remove or Retain?
(01) Cercis siliquastrum	Judas Tree	Relocate
(02) Cercis siliquastrum	Judas Tree	Relocate
(03) Cercis siliquastrum	Judas Tree	Relocate
(04) Cercidiphyllum japonicum	Katsura	Relocate
(05) Corylus avellana	Common Hazel	Remove
(06) Acer platanoides	Norway Maple	Remove
(07) Corylus avellana	Common Hazel	Remove
(08) Acer platanoides	Norway Maple	Remove
(09) Quercus robur	Common Oak	Retain

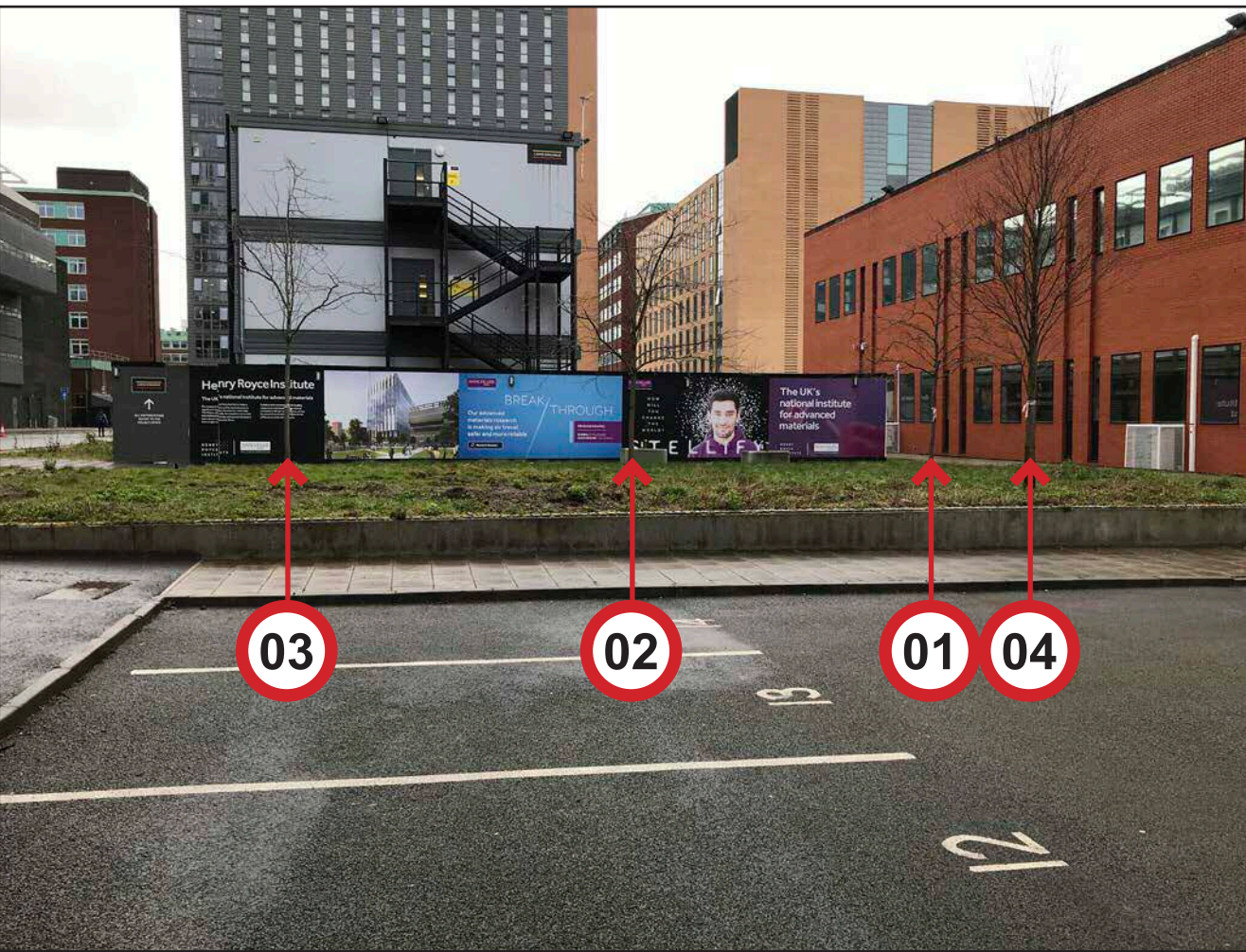


(6) EXISTING TREES TO BE REMOVED AND RETAINED

Images (7) and (8) below show the state of the nine trees in question, as of 18/03/20. Subsequently, an updated arboricultural report was commissioned by the UoM and undertaken by JCA Limited in June 2020 to assess the latest condition of the cluster of trees numbered 05 to 09. This allowed the team to make an informed decision as to the potential removal of the required trees, given the understandable sensitivity of losing large mature trees, and to formulate an acceptable remediation replacement strategy. Appendix 1 from JCA report '16034/ChC' which indicates the tree description and recommendations can be seen in image (9) above-right.



(7) EXISTING TREES TO BE REMOVED AND RETAINED



(8) EXISTING TREES TO BE REPLANTED AT BROOMCROFT

Tree Ref.	Age	Height (m)	Crown Height (m)	Height (m) and Direction of the Lowest Branch	Diameter (cm)	Crown Spread			Observations	Recommendations	Physiological Condition	Structural Condition	Amenity Value	NHBC Water Demand	Life Expectancy (yrs)	Retention Category
	Common Name					N	W	E								
T 1 <div>06</div>	Early-mature	12	7	n/a	37	4			Single-stemmed and vertical with a balanced crown. Occasional pruning wounds due to crown lifting.	No action required at present.	GOOD	GOOD	MOD	MOD	20+	1 B 2
	Norway Maple					4										
	<i>Acer platanoides</i>					4										
T 2 <div>08</div>	Early-mature	12	4	n/a	34	0			Single-stemmed and vertical with a slightly unbalanced crown. Slightly sparse/suppressed.	No action required at present.	FAIR	GOOD	MOD	MOD	20+	1 B 2
	Norway Maple					3										
	<i>Acer platanoides</i>					5										
<div>05</div> G 3 <div>07</div>	Semi-mature	5	0+	n/a	Avg. 10	See Plan			Two insignificant trees growing beneath the canopies of the trees. Multiple-stemmed form.	No action required at present.	FAIR	FAIR	LOW	LOW	10+	C 2
	Hazel															
	<i>Corylus avellana</i>															
T 4 <div>09</div>	Early-mature	13	5	n/a	42	3			Single-stemmed and leaning towards the adjacent building with a slightly unbalanced crown.	No action required at present.	GOOD	FAIR	MOD	HIGH	20+	1 B 2
	English Oak					6										
	<i>Quercus robur</i>					5										

(9) APPENDIX 1 FROM JCA REPORT '16034 ChC'

Referring to the table above trees 05 and 07 are identified as retention category 'C' and trees 06 and 08 are identified as retention category 'B'. It is trees 06 and 08 that require most careful consideration when proposing an agreeable compensation approach.

WHAT IS THE BROADER TREE REPLACEMENT STRATEGY?

The overarching tree replacement strategy requires a 2 for 1 ratio i.e. for every single tree removed we are obligated to provide two new trees. This necessitates the proposed landscape scheme must include for 28 new trees, resulting from those already removed as a result of the HRI development plus the additional trees identified for removal as discussed previously.

COMPENSATORY TREE PLANTING APPROACH

As a design team we are proposing a two-pronged approach in the tree replacement strategy, centered around generous specification, but providing both large and very-large specimens. Of the 28 new trees needed we are suggesting that 24 of these trees are installed at a 'National Plant Specification' size of 20-25cm girth / semi-mature / 4x age / min 450cm height / min 200cm clear stem. Additionally, and to specifically mitigate for the loss of grade B trees 06 and 08 discussed above, we are proposing that four trees are to be installed at a 'National Plant Specification' size of 45-50cm girth / semi-mature / 5x age / min 450cm height / min 200cm clear stem.

The aspiration is that by implementing a general approach of using large trees in the wider landscape design but supplemented with very-large trees to specifically mitigate for the loss described above then this will be deemed acceptable. Likewise, it is hoped that the loss of these trees can be viewed more favourably given the context of their removal, the quality of the proposed replacement landscape scheme, and the resulting improvements in access to the space and wider campus.

The species of the replacement trees and their exact locations in the landscape scheme have yet to be finalised, but we anticipate considerable input from the UoM Environmental Sustainability Team and UoM Environmental Services Team in agreeing this, to ensure we can maximise their amenity, biodiversity and environmental benefits whilst minimising their maintenance needs.

MOVING EXISTING TREES

Further to the proposals above, as a project team we are going to retain existing trees 01, 02, 03 and 04 by moving them to the Broomcroft Hall site. The aim is to carry this work out during November / December to maximise the chances of their successful re-establishment.

Overall we will still be providing 28 new trees within the scheme exactly as described above, but with the addition of the four existing trees being moved elsewhere, resulting in a net gain of 18 trees rather than 14..