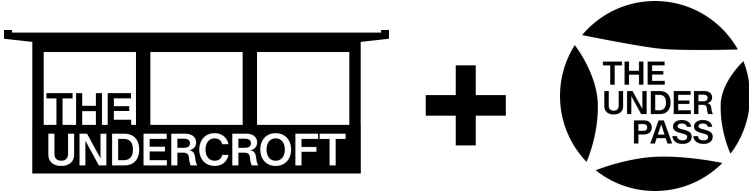
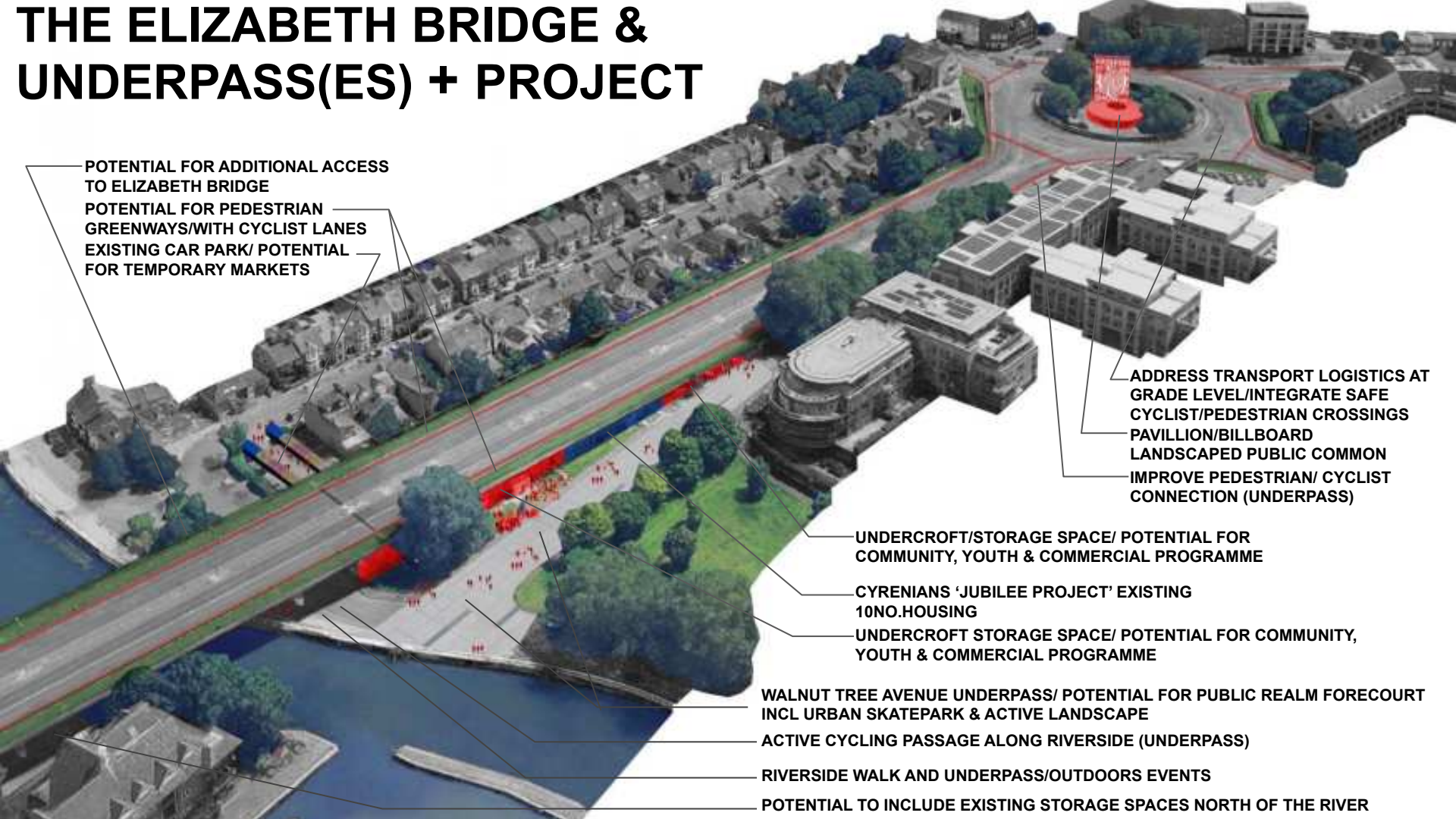


# THE ELIZABETH BRIDGE UNDERCROFTS & UNDERPASS PROJECT HISTORY & REGENERATION AIMS



# THE ELIZABETH BRIDGE & UNDERPASS(ES) + PROJECT



POTENTIAL FOR ADDITIONAL ACCESS TO ELIZABETH BRIDGE  
POTENTIAL FOR PEDESTRIAN GREENWAYS/WITH CYCLIST LANES  
EXISTING CAR PARK/ POTENTIAL FOR TEMPORARY MARKETS

ADDRESS TRANSPORT LOGISTICS AT GRADE LEVEL/INTEGRATE SAFE CYCLIST/PEDESTRIAN CROSSINGS  
PAVILLION/BILLBOARD  
LANDSCAPED PUBLIC COMMON  
IMPROVE PEDESTRIAN/ CYCLIST CONNECTION (UNDERPASS)

UNDERCROFT/STORAGE SPACE/ POTENTIAL FOR COMMUNITY, YOUTH & COMMERCIAL PROGRAMME

CYRENIANS 'JUBILEE PROJECT' EXISTING 10NO.HOUSING

UNDERCROFT STORAGE SPACE/ POTENTIAL FOR COMMUNITY, YOUTH & COMMERCIAL PROGRAMME

WALNUT TREE AVENUE UNDERPASS/ POTENTIAL FOR PUBLIC REALM FORECOURT INCL URBAN SKATEPARK & ACTIVE LANDSCAPE

ACTIVE CYCLING PASSAGE ALONG RIVERSIDE (UNDERPASS)

RIVERSIDE WALK AND UNDERPASS/OUTDOORS EVENTS

POTENTIAL TO INCLUDE EXISTING STORAGE SPACES NORTH OF THE RIVER



CENTRAL CAMBRIDGE, 1948.

The river and the Backs are on the left and the road called "the spine" in this report runs diagonally across the picture.

# CAMBRIDGE PLANNING PROPOSALS

*A Report to the  
Town and Country Planning Committee of the  
Cambridgeshire County Council*

*by*

WILLIAM HOLFORD, M.A., F.R.I.B.A., M.T.P.I.  
*Professor of Town Planning in the University of London*

*and*

H. MYLES WRIGHT, M.A., A.R.I.B.A.

*VOLUME 1*

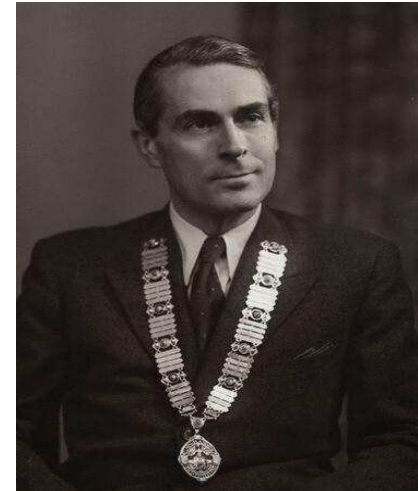
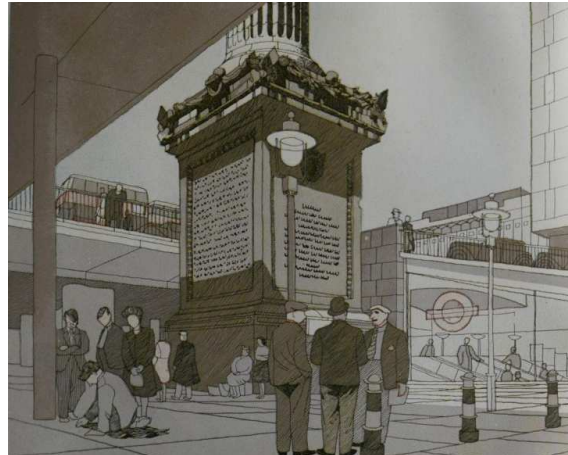
CAMBRIDGE  
AT THE UNIVERSITY PRESS

1950

City-of-London-Holden Holford  
unrealised proposal\_ the raised  
Northern Boundary Route  
proposed by the consultants



Lord William Graham Holford was more of a professional town planner than an architect. In 1948 he succeeded Patrick Abercrombie as professor of town planning at University College. Holford produced a redevelopment plan of the area around St Paul's Cathedral in London which had been devastated by bombing in the War, Paternoster Square. He also wrote a Report on the Destruction and Survival in the City of London including artist impressions for unrealised proposals.



## INTRODUCTION

THOSE who are called upon to tamper with other people's houses need to approach their task with care and confidence. Proposals which may alter the physical pattern, the daily habits, and eventually the character of a town must above all else be careful and informed. Confidence is no less necessary if the proposals are to set in motion the complicated machinery of agreement and collaboration which is necessary to carry out the least part of them.

Especially is this true of Cambridge, which is more than a town, more even than the market for a county and the centre of a region. It is a University, and stands before the world as an exemplar of the collegiate system, with all the ideas and attitudes to life which that ancient system implies. Its modes of thought and life have for centuries been reflected in its ways of building, and many of these ways are special and valuable and can be applied with benefit to the planning of towns elsewhere. The Cambridge tradition is cherished by the present inhabitants, not merely as something to be preserved but to be continued. Planners who suggest improvements must therefore be certain either that change is inevitable or that clear advantage is to be gained from it. There is bound to be objection to changes that disturb historic associations or threaten the particular amenities which many different societies in Cambridge enjoy, and there will be serious opposition if it is proposed to change without strong reason conditions of life and work and movement that do very well indeed.

Of all this we have become increasingly conscious during our study of Cambridge and its neighbourhood in the past two years.

We have also become convinced that certain changes are inevitable and others should be brought into being. It may be thought there is no urgency about plans for the future of a town that has suffered no war damage, no unemployment and no major project for expansion, and it is true there is no such urgency of this kind. The need for thought about the future of Cambridge is occasioned by a number of fundamental things than these.

We believe Cambridge is moving quickly towards a new phase of its existence: a movement which will be none the less decisive for being unregarded by most of its citizens. Incomparably beautiful in many things, miserably defective in others, Cambridge is still one of the most pleasant places on earth in which to live. Moreover, it is now perhaps the only true "University town" in England. The question is whether it can control its own destiny in the face of a multitude of unplanned events that will certainly tend to change it. When these changes come, and even before they take place, can they be arranged to maintain and enhance the essential character and virtues of the town? This is the question we try to answer in this report to the County Council.

The County Council, as the Planning Authority, are due to submit to the Minister of Town and Country Planning, within the next two years, a Development Plan for Cambridgeshire. They have decided to prepare the Plan in two parts, of which the first, covering the town of Cambridge and neighbouring land and villages, is the subject of our proposals. The area with which the proposals are concerned is shown on Map 1 and contains at present about 104,000 inhabitants.

The growth and future size of Cambridge are in our belief the determining factors in any plan. In the past two years a great deal of information has been obtained about life in Cambridge, and

In 1950, Holden produced a report to the Town and Country planning committee of Cambridgeshire County Council. He describes Cambridge as a 'University town', one of the most pleasant places on earth in which to live, and asks questions if the town can maintain and enhance its essential character and virtues, in the face of a multitude of unplanned events to come.

Cambridge's population has grown by about 16 per cent. in eleven years and we believe that a rapid growth is likely to continue, and even to accelerate, unless special effort is made to prevent it. This effort seems to us both nationally and locally desirable. One cannot make a good expanding plan for Cambridge. If, however, the citizens of Cambridge decide that they are out for quality—to make the best possible town of 100,000 or even 125,000, and then stop—then we think there is every hope of making Cambridge something very fine, not only in the centre but in its suburbs, in East Road and along its approaches. Certainly if this decision cannot be taken and carried out in Cambridge, it cannot be carried out in other towns that have far less compelling reasons for their growth, and are able to summon far less influential aid if they decided to do so. There should be a resolute effort to slow down migration into the Cambridge district, and to reduce the high rate of growth so that future population should not greatly exceed present figures; this is our first and main proposal and permeates all others. It is one that could only be executed by agreement among county, town, university and central government. And such agreement seems to us in the interest of all four.

If probability of rapid growth is the gravest problem in the planning of Cambridge the most urgent is that of traffic. However many new jobs may be offered in Cambridge, or however attractive it may be to retired people, a great shortage of houses will put a powerful brake on population growth for a decade or longer. No similar postponement of traffic difficulties can be relied on. More plentiful petrol or more new cars might cause acute congestion in the central area within a few years.

The central area of Cambridge, shown on Maps 3 and 12, is small and cramped within a ring of Colleges. Before the war, Colleges were still extending within it and when a commercial building was replaced it was usually by a higher one; and traffic pushed through with difficulty. Traffic has grown tenfold since 1911, but streets remain the same and their surplus capacity is now used up. During the war there was a fall in traffic volumes but now the number of vehicles on the roads has passed 1939 level and is once again climbing.

In the past, road improvements in Cambridge have been considered piecemeal. We determined that this mistake at any rate was one we would avoid, and we set out to see the traffic problem comprehensively, and to establish the existing relations between traffic and traffic flows of all kinds both in the centre of the town and on its approach roads. With the help of all those officially concerned with traffic, information has been collected which has enabled our proposals to be based on much fuller knowledge than has been available hitherto. This information is set out in the Appendix.

Our proposals rest on these two bases of a limit of size and a comprehensive road framework of scale with that size. They may be broadly summarised as follows:—

- (1) We outline a definite policy of controlling the physical spread of Cambridge and nearby villages, with the aim of maintaining their present general character while allowing for necessary changes and some general growth. Sites for housing and other new buildings have been chosen to encourage reasonably compact development, to keep the sequence of open spaces along the river and to prevent neighbouring villages becoming merged in the town.
- (2) We believe that bypasses far out from the town will not be justified in the near future. We propose that in the meantime through traffic should be led round the inner districts along two partially new routes.
- (3) We propose a relief road down the east side of the centre (the side where most people want to travel) which would connect at its south end with an improved cross-town route. In time the two roads would become the boundary of a precinct, containing the old town centre and preserving its market-town and pedestrian character and archi-

Holden proposes to ring fence Cambridge expansion to max 100-125,000 population

In the same report, he proposes a comprehensive new road framework, the scale of which was unprecedented in the history of Cambridge transport planning.

One of Holden's major implemented projects is the new bridge crossing the Cam, Chesterton bridge and related approach infrastructures, including the East Road Roundabout, constructed 1969



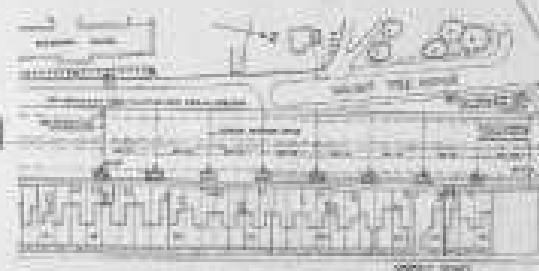




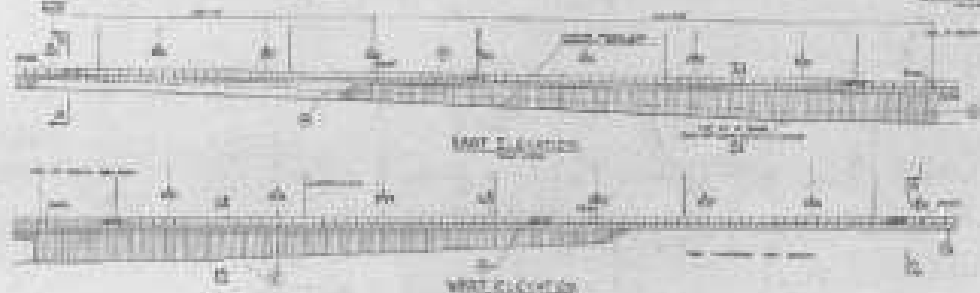
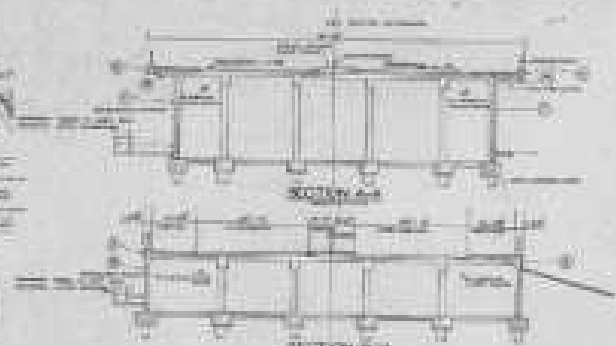


Reed & Mallik





PLAN OF BRIDGE APPROACH



- CONSTRUCTION PARTICULARS**
- 1. The bridge shall be constructed of reinforced concrete.
  - 2. The main span shall be a continuous girder bridge.
  - 3. The approach spans shall be simple girder bridges.
  - 4. The bridge shall be designed for a live load of 15 tons.
  - 5. The bridge shall be designed for a wind pressure of 30 lbs per sq ft.
  - 6. The bridge shall be designed for a seismic force of 0.1g.
  - 7. The bridge shall be designed for a flood flow of 1000 cfs.
  - 8. The bridge shall be designed for a scour depth of 10 ft.
  - 9. The bridge shall be designed for a settlement of 1 inch.
  - 10. The bridge shall be designed for a temperature change of 50 degrees F.

Quantity	Unit	Amount
1	sq ft	1000
2	cu yd	500
3	lb	10000
4	ft	100
5	sq ft	500
6	cu yd	250
7	lb	5000
8	ft	50
9	sq ft	250
10	cu yd	125

**NOTES**  
 1. SEE THE GENERAL NOTES FOR THE PROJECT.  
 2. THE BRIDGE SHALL BE CONSTRUCTED IN ACCORDANCE WITH THE SPECIFICATIONS FOR BRIDGE CONSTRUCTION.

**BRIDGE APPROACH  
 GENERAL NOTES**

BRIDGE - WOODEN TRUSS ROAD  
 A-42

SECTION - BRIDGE & APPROACH  
 OVERVIEW

A0401B/41

DATE	1941
BY	...
CHECKED	...
APPROVED	...

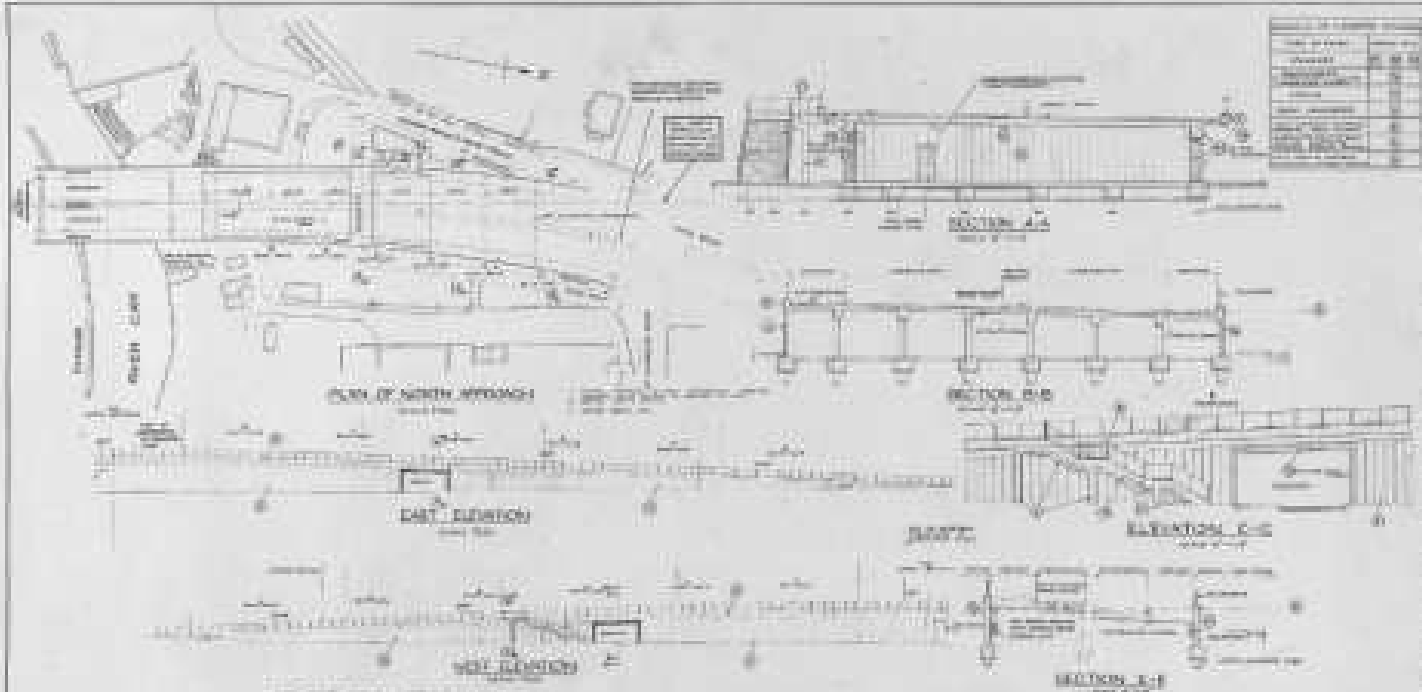
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111 10 100V 1000



- CONSTRUCTION PROGRAM**
1. CONSTRUCTION OF NORTH APPROACH
  2. CONSTRUCTION OF EAST ELEVATION
  3. CONSTRUCTION OF WEST ELEVATION
  4. CONSTRUCTION OF SECTION A-A
  5. CONSTRUCTION OF SECTION B-B
  6. CONSTRUCTION OF SECTION C-C
  7. CONSTRUCTION OF SECTION D-D
  8. CONSTRUCTION OF SECTION E-E
  9. CONSTRUCTION OF SECTION F-F
  10. CONSTRUCTION OF SECTION G-G
  11. CONSTRUCTION OF SECTION H-H
  12. CONSTRUCTION OF SECTION I-I
  13. CONSTRUCTION OF SECTION J-J
  14. CONSTRUCTION OF SECTION K-K
  15. CONSTRUCTION OF SECTION L-L
  16. CONSTRUCTION OF SECTION M-M
  17. CONSTRUCTION OF SECTION N-N
  18. CONSTRUCTION OF SECTION O-O
  19. CONSTRUCTION OF SECTION P-P
  20. CONSTRUCTION OF SECTION Q-Q
  21. CONSTRUCTION OF SECTION R-R
  22. CONSTRUCTION OF SECTION S-S
  23. CONSTRUCTION OF SECTION T-T
  24. CONSTRUCTION OF SECTION U-U
  25. CONSTRUCTION OF SECTION V-V
  26. CONSTRUCTION OF SECTION W-W
  27. CONSTRUCTION OF SECTION X-X
  28. CONSTRUCTION OF SECTION Y-Y
  29. CONSTRUCTION OF SECTION Z-Z



**NOTES**

1. SEE GENERAL ARRANGEMENT FOR DETAILS.
2. SEE SECTION A-A FOR DETAILS.
3. SEE SECTION B-B FOR DETAILS.
4. SEE SECTION C-C FOR DETAILS.
5. SEE SECTION D-D FOR DETAILS.
6. SEE SECTION E-E FOR DETAILS.
7. SEE SECTION F-F FOR DETAILS.
8. SEE SECTION G-G FOR DETAILS.
9. SEE SECTION H-H FOR DETAILS.
10. SEE SECTION I-I FOR DETAILS.
11. SEE SECTION J-J FOR DETAILS.
12. SEE SECTION K-K FOR DETAILS.
13. SEE SECTION L-L FOR DETAILS.
14. SEE SECTION M-M FOR DETAILS.
15. SEE SECTION N-N FOR DETAILS.
16. SEE SECTION O-O FOR DETAILS.
17. SEE SECTION P-P FOR DETAILS.
18. SEE SECTION Q-Q FOR DETAILS.
19. SEE SECTION R-R FOR DETAILS.
20. SEE SECTION S-S FOR DETAILS.
21. SEE SECTION T-T FOR DETAILS.
22. SEE SECTION U-U FOR DETAILS.
23. SEE SECTION V-V FOR DETAILS.
24. SEE SECTION W-W FOR DETAILS.
25. SEE SECTION X-X FOR DETAILS.
26. SEE SECTION Y-Y FOR DETAILS.
27. SEE SECTION Z-Z FOR DETAILS.

**NORTH APPROACH  
GENERAL ARRANGEMENT**

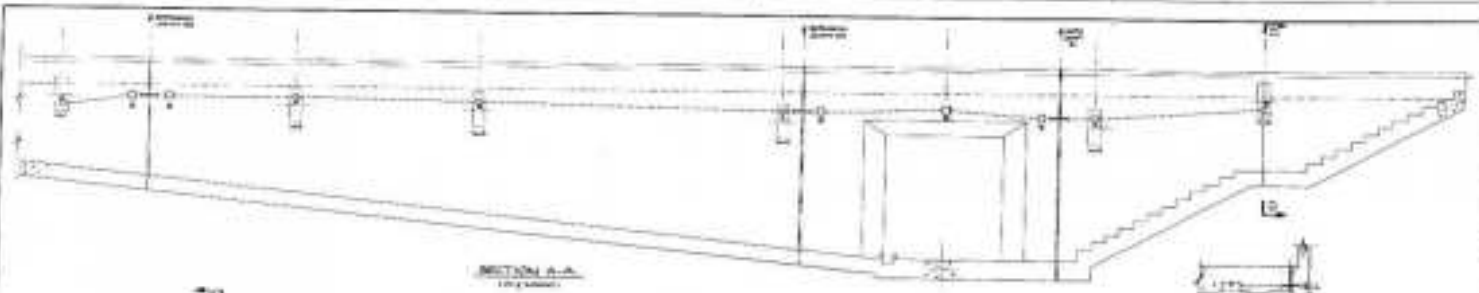
BRIDGE - WEDON, MAIN ROAD  
J.42

CONSTRUCTED BY J. & W. WOODHEAD  
CAMBRIDGE

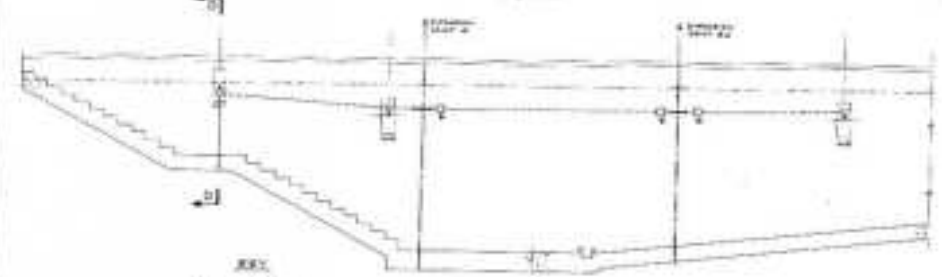
DATE	11/15/68
SCALE	1" = 100'
PROJECT	BRIDGE - WEDON, MAIN ROAD
CLIENT	J. & W. WOODHEAD
DESIGNER	J. & W. WOODHEAD
CHECKER	J. & W. WOODHEAD
APPROVED	J. & W. WOODHEAD

AC40/8/69

NO.	DESCRIPTION	DATE
1	ISSUED FOR PERMITTING	11/15/68
2	ISSUED FOR CONSTRUCTION	1/15/69
3	ISSUED FOR BIDDING	3/15/69
4	ISSUED FOR CONTRACT	5/15/69
5	ISSUED FOR AS-BUILT	7/15/69
6	ISSUED FOR RECORD	9/15/69
7	ISSUED FOR FINAL	11/15/69
8	ISSUED FOR ARCHIVE	1/15/70
9	ISSUED FOR DESTRUCTION	3/15/70
10	ISSUED FOR RECONSTRUCTION	5/15/70
11	ISSUED FOR RENOVATION	7/15/70
12	ISSUED FOR MAINTENANCE	9/15/70
13	ISSUED FOR REPAIR	11/15/70
14	ISSUED FOR REPLACEMENT	1/15/71
15	ISSUED FOR REDEMPTION	3/15/71
16	ISSUED FOR REDEMPTION	5/15/71
17	ISSUED FOR REDEMPTION	7/15/71
18	ISSUED FOR REDEMPTION	9/15/71
19	ISSUED FOR REDEMPTION	11/15/71
20	ISSUED FOR REDEMPTION	1/15/72

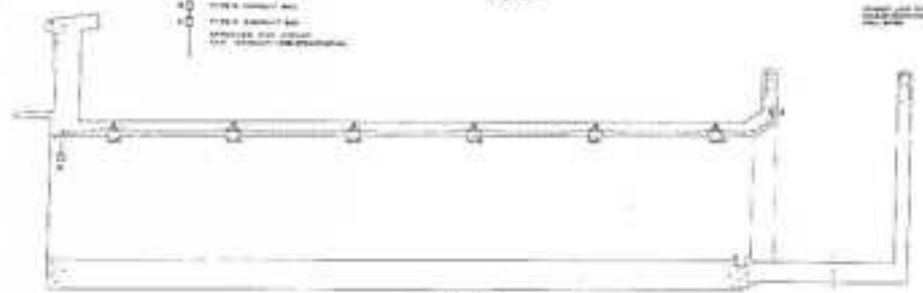


SECTION A-A  
10' x 10'

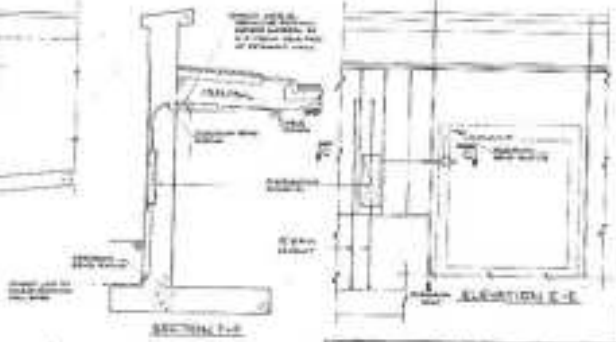


SECTION B-B  
10' x 10'

- KEY
- 1. 1/2" DIA. STEEL ROD
  - 2. 1/2" DIA. STEEL ROD
  - 3. 1/2" DIA. STEEL ROD
  - 4. 1/2" DIA. STEEL ROD
  - 5. 1/2" DIA. STEEL ROD
  - 6. 1/2" DIA. STEEL ROD
  - 7. 1/2" DIA. STEEL ROD
  - 8. 1/2" DIA. STEEL ROD
  - 9. 1/2" DIA. STEEL ROD
  - 10. 1/2" DIA. STEEL ROD



SECTION C-C  
10' x 10'



SECTION D-D  
10' x 10'



SECTION E-E  
10' x 10'

NOTES

1. ALL DIMENSIONS ARE IN FEET AND INCHES.
2. ALL DIMENSIONS ARE TO FACE UNLESS OTHERWISE NOTED.
3. ALL DIMENSIONS ARE TO CENTER UNLESS OTHERWISE NOTED.

ELECTRICAL INSTALLATIONS  
 BOARD #1  
 SETA 1.3

IBENICH - WELDON TRUCK ROAD  
 1-4-43

CHESTERTON BRIDGE & APPROACHES  
 CAMBRIDGE

A04018/241

DATE OF ISSUE	1-4-43
BY	[Signature]
CHECKED BY	[Signature]
APPROVED BY	[Signature]

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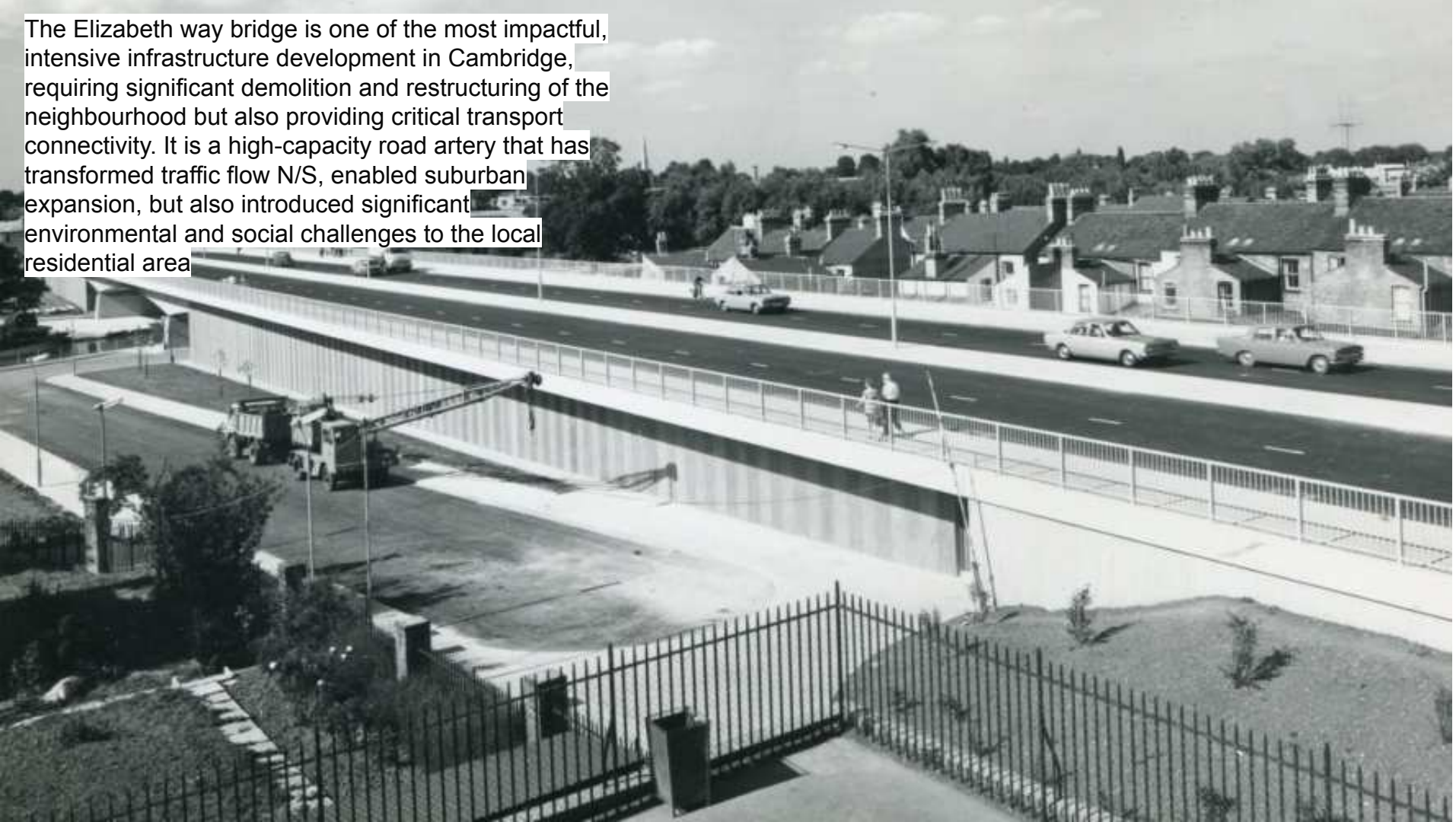


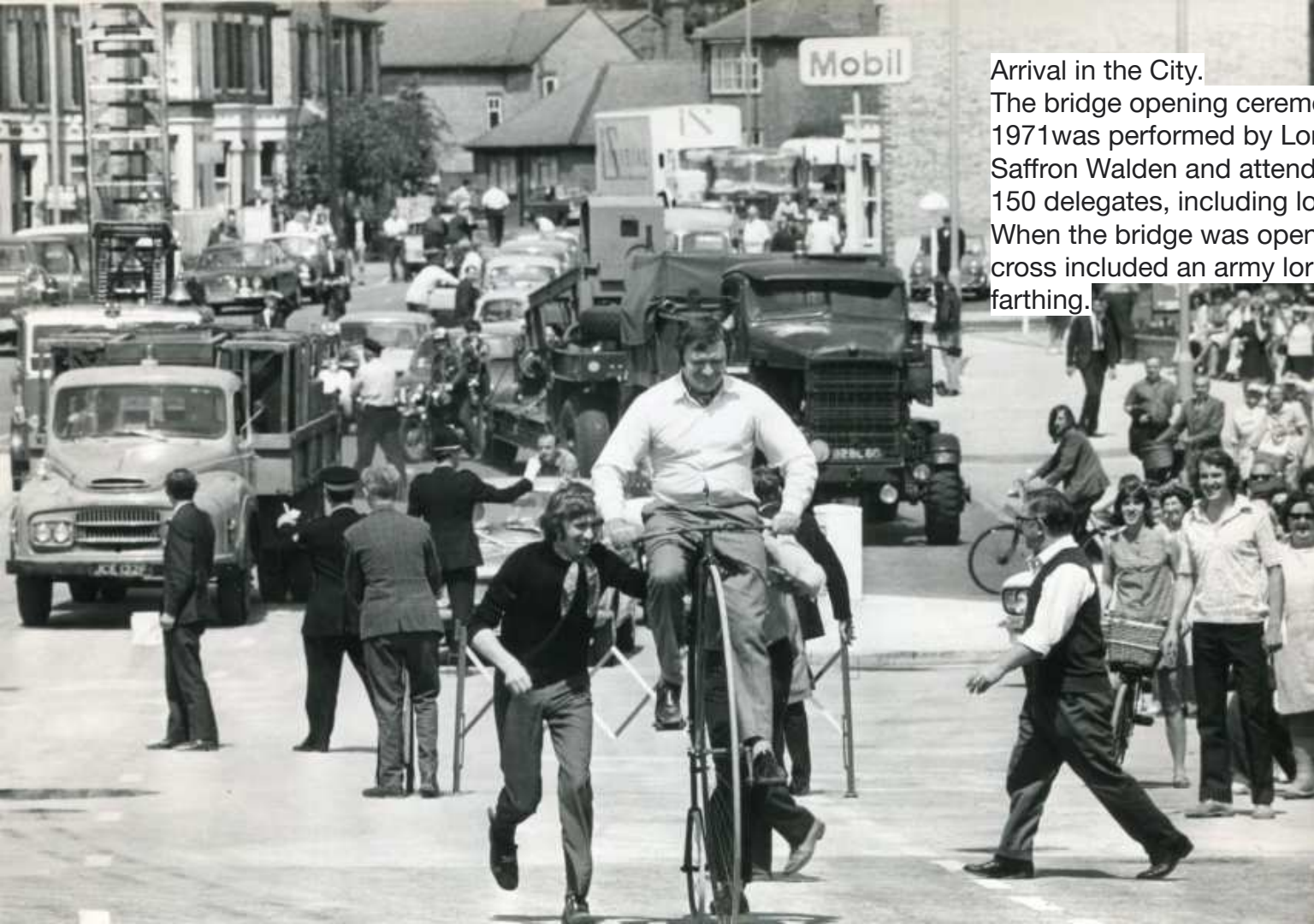
13 NOV 1969



B. E.  
60566

The Elizabeth way bridge is one of the most impactful, intensive infrastructure development in Cambridge, requiring significant demolition and restructuring of the neighbourhood but also providing critical transport connectivity. It is a high-capacity road artery that has transformed traffic flow N/S, enabled suburban expansion, but also introduced significant environmental and social challenges to the local residential area





### Arrival in the City.

The bridge opening ceremony on 17th June 1971 was performed by Lord Rab Butler of Saffron Walden and attended by approximately 150 delegates, including local business owners. When the bridge was opened, the first traffic to cross included an army lorry and a penny farthing.





Then and Now.

To the left an image showing balanced use by cars and pedestrians. The bridge and roundabout have since become a car dominated environment providing limited opportunities for pedestrians and cyclists to dwell or explore the area in an around the infrastructure.





Then & Now online collection

Most recent developments are the addition of housing programme under the bridge (2005), and the GCP's intent to demolish and backfill the roundabout underpass (2023)



Cambridge  
History

*Then & Now*

Cambridge City Council



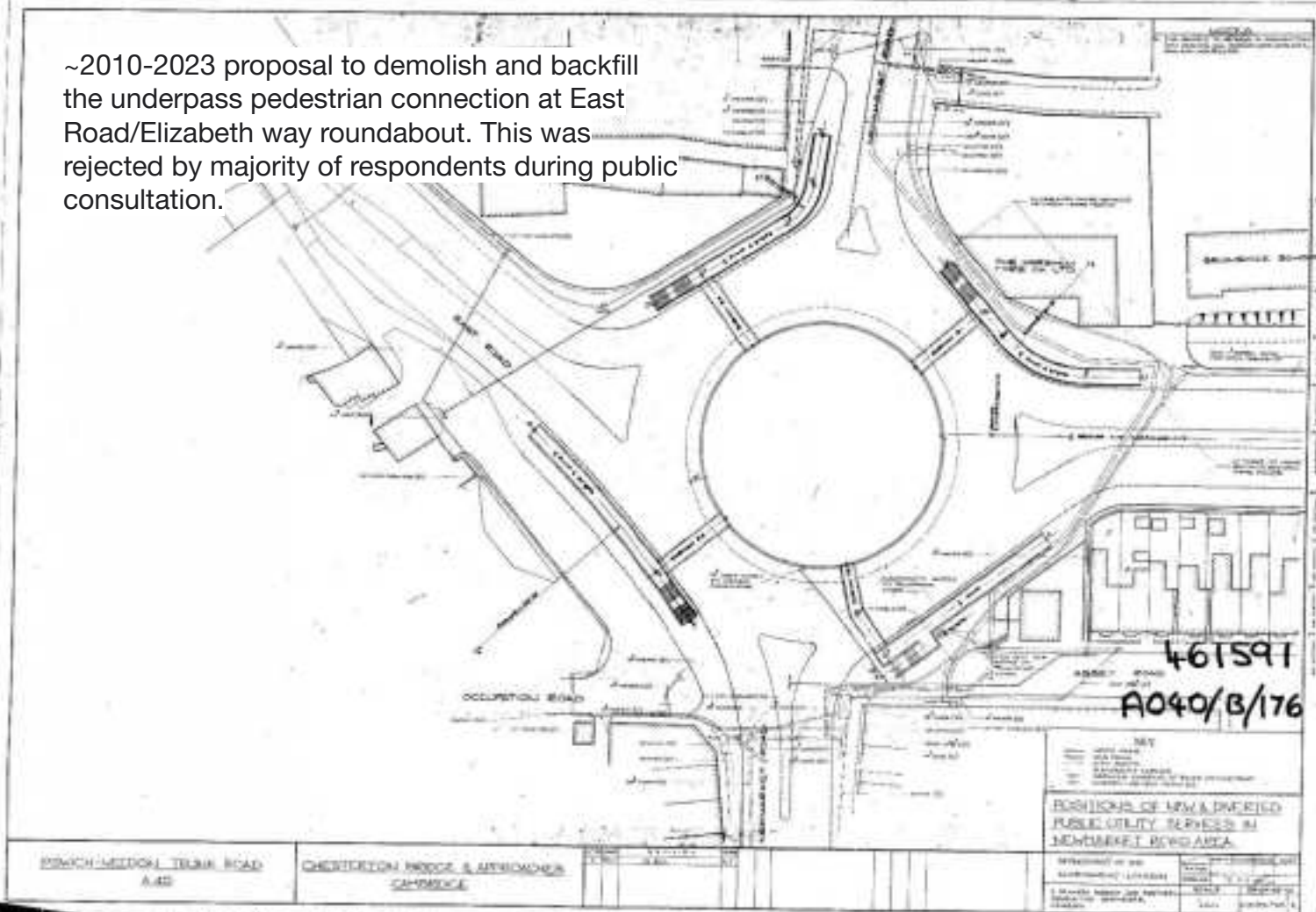
Cambridge  
History

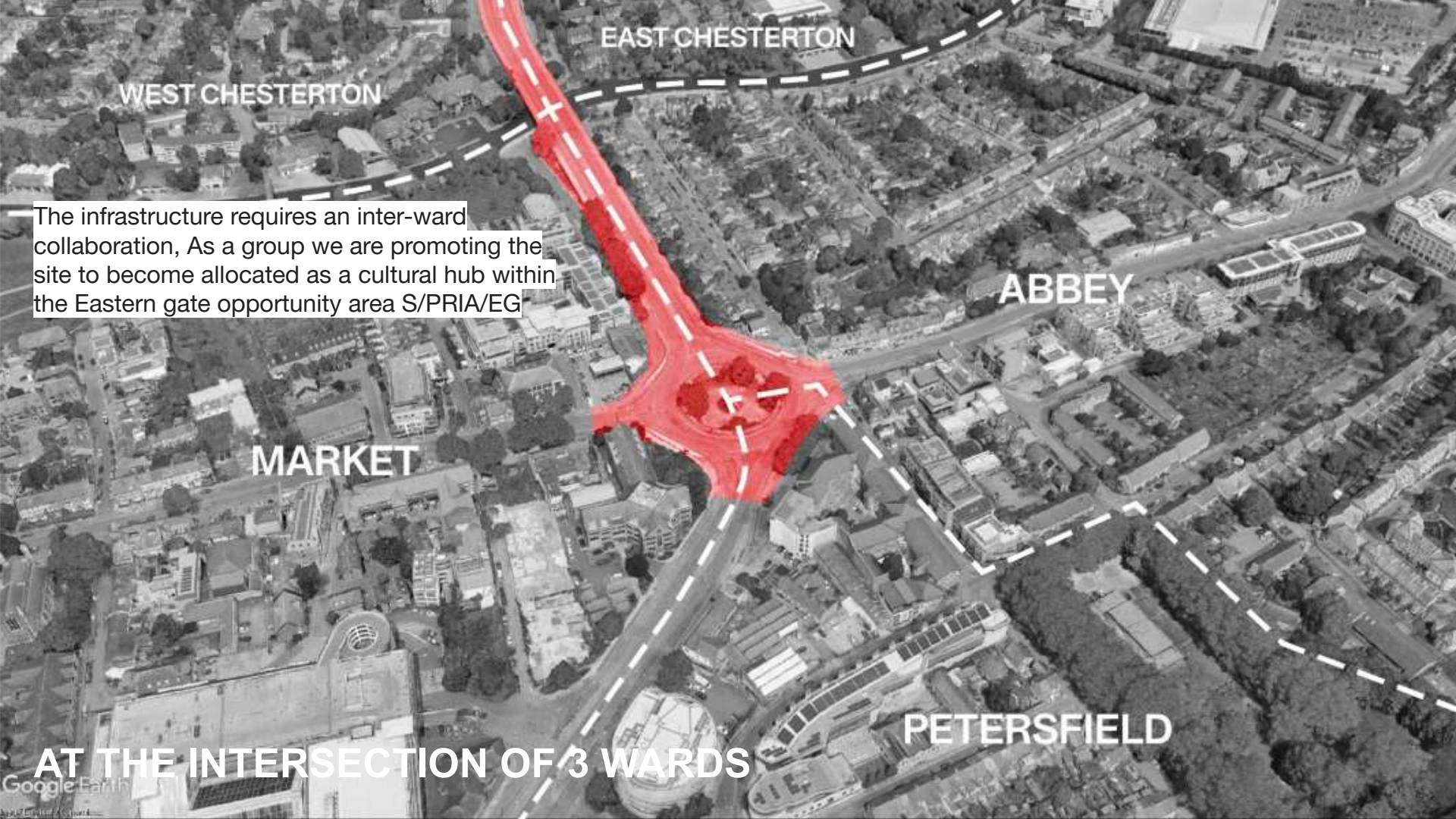
*Then & Now*

Cambridge City Council



~2010-2023 proposal to demolish and backfill the underpass pedestrian connection at East Road/Elizabeth way roundabout. This was rejected by majority of respondents during public consultation.





EAST CHESTERTON

WEST CHESTERTON

The infrastructure requires an inter-ward collaboration, As a group we are promoting the site to become allocated as a cultural hub within the Eastern gate opportunity area S/PRIA/EG

ABBHEY

MARKET

PETERSFIELD

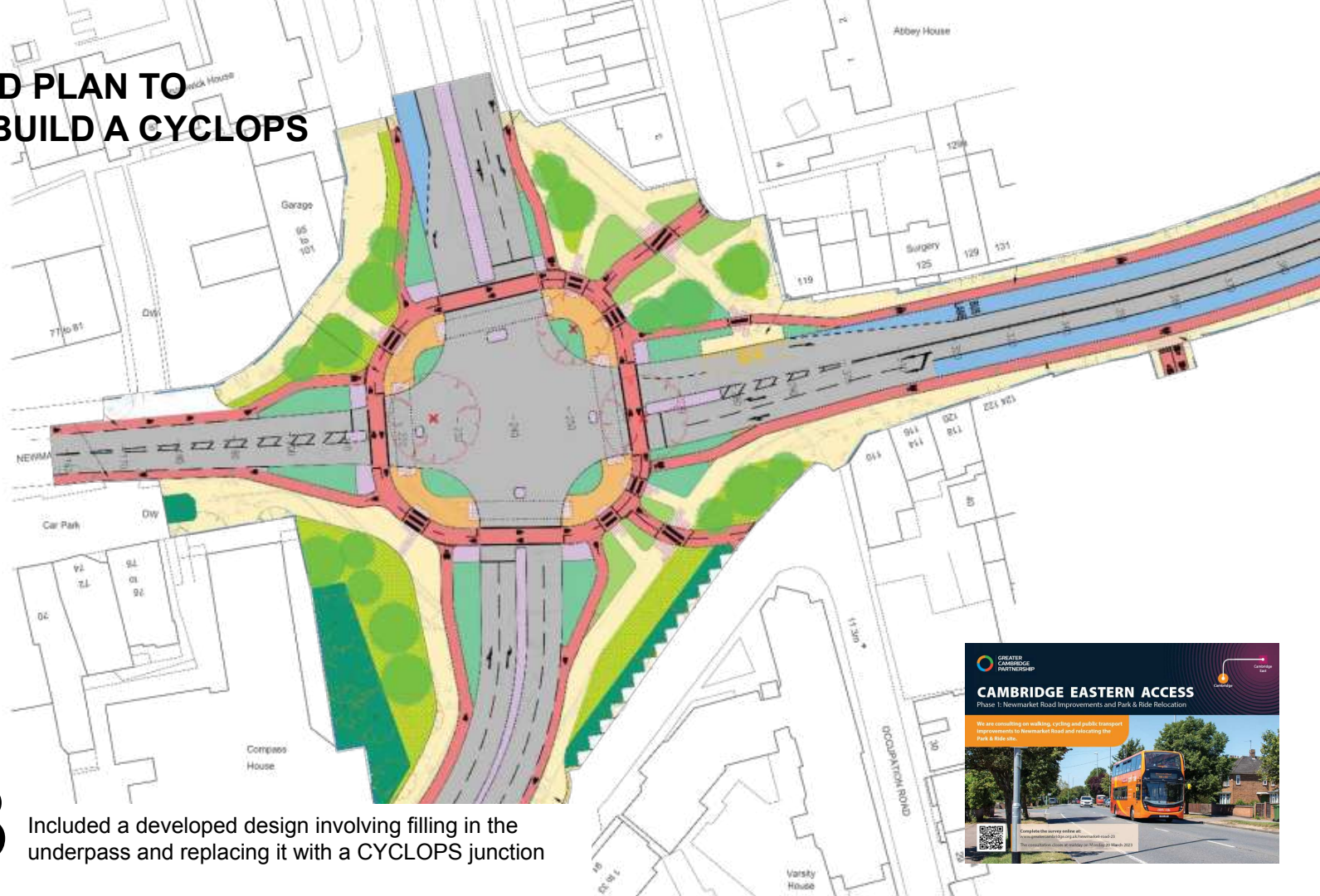
AT THE INTERSECTION OF 3 WARDS

# SCALE COMPARISON



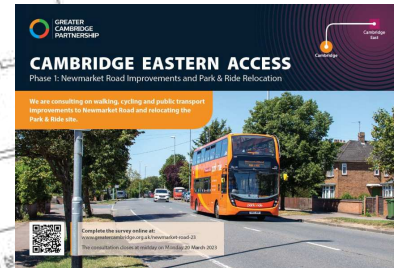
BFI IMAX, London

# CURRENT: ENGINEER-LED PLAN TO DEMOLISH & BUILD A CYCLOPS JUNCTION

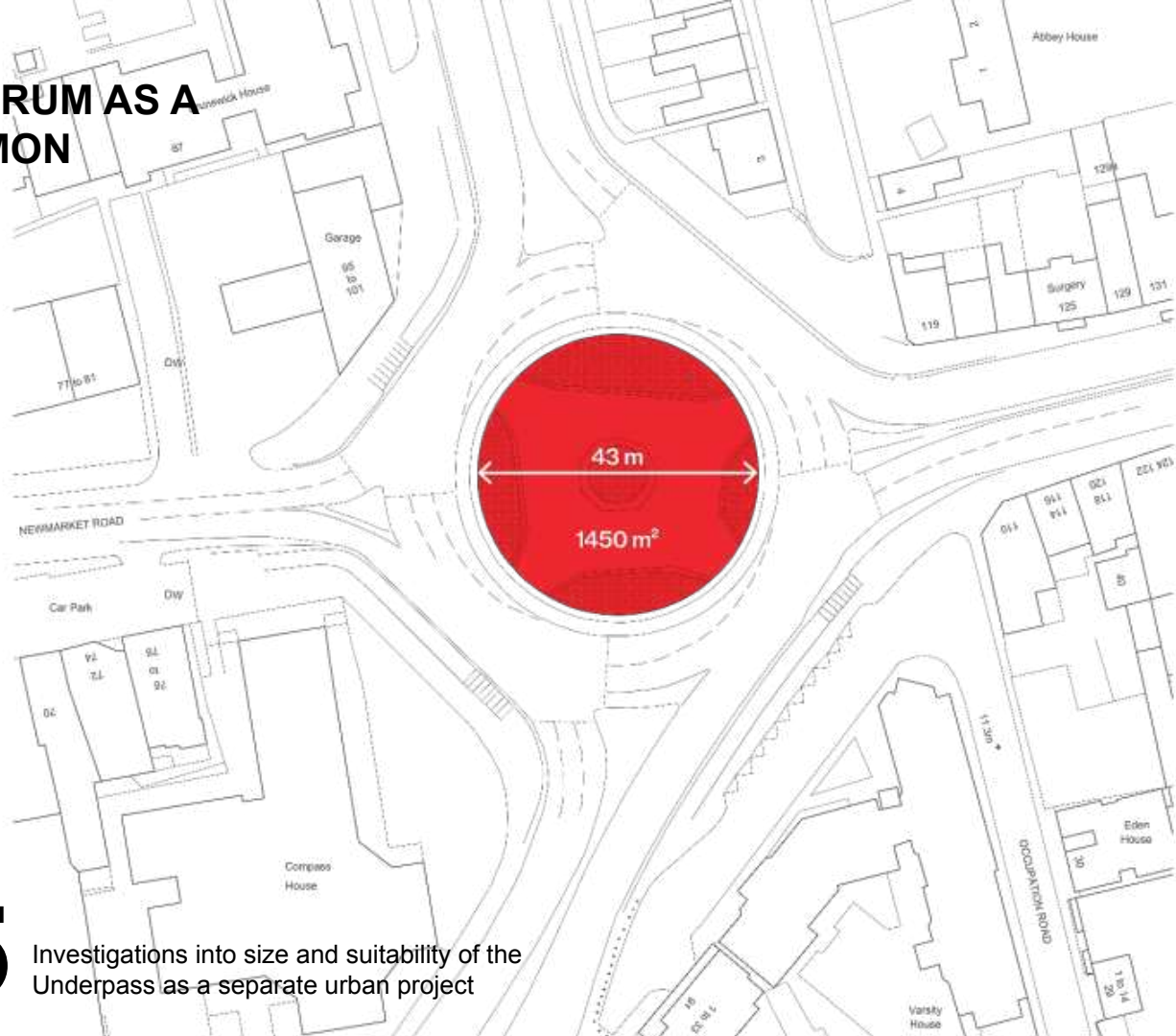


# 2023

Included a developed design involving filling in the underpass and replacing it with a CYCLOPS junction



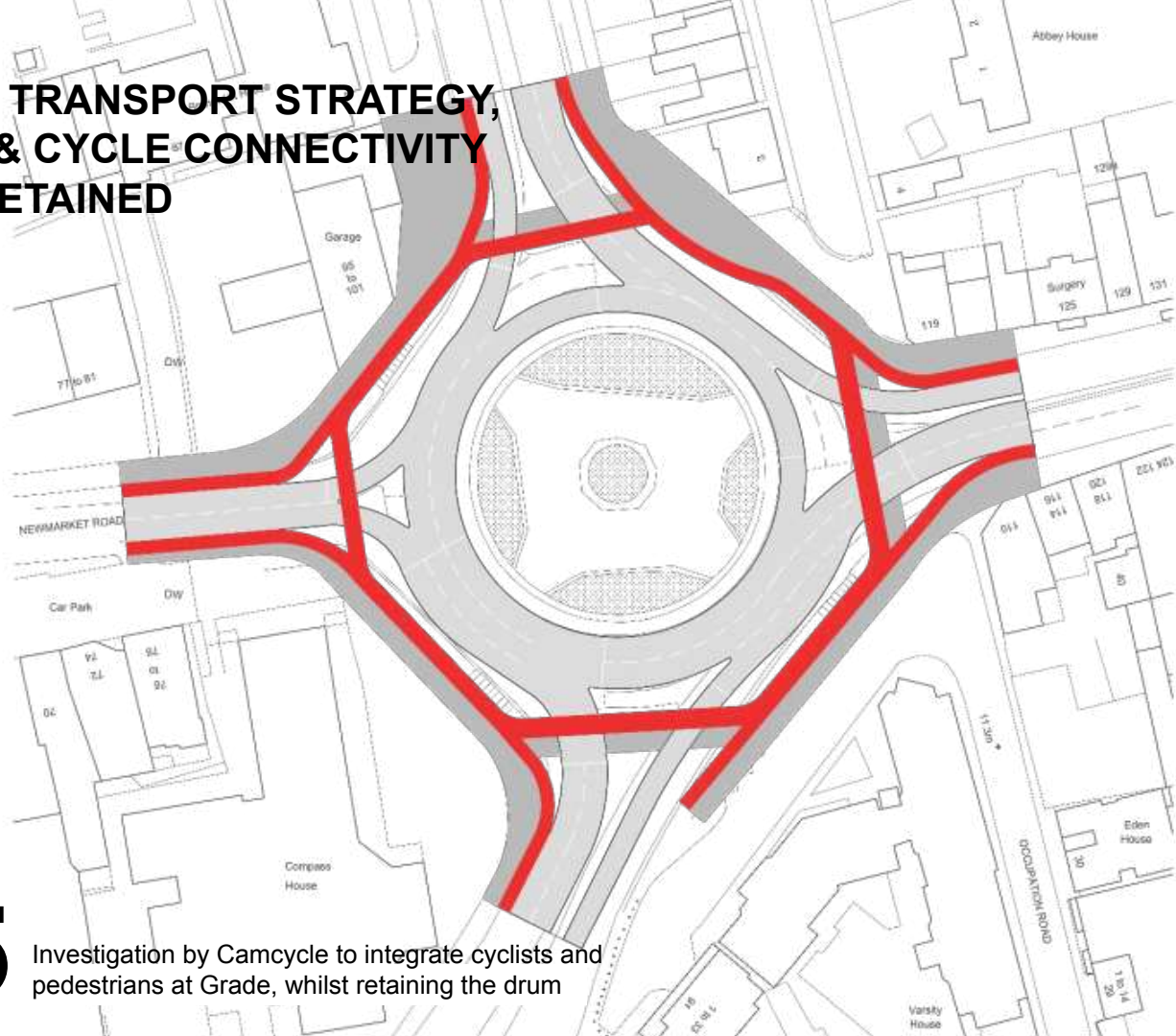
**PROPOSED:  
RETAIN THE DRUM AS A  
PUBLIC COMMON**



**2025**

Investigations into size and suitability of the Underpass as a separate urban project

**PROPOSED:  
ALTERNATIVE TRANSPORT STRATEGY,  
PEDESTRIAN & CYCLE CONNECTIVITY  
WITH DRUM RETAINED**



**2025**

Investigation by Camcycle to integrate cyclists and pedestrians at Grade, whilst retaining the drum











YOU MAKE US

MAKES YOU













A2

