Beaufort Park Traffic Wall Campaign

Contents

THE SITUATION AS IT STANDS

Beaufort Park is a 144 apartment private residential complex situated between Beaufort Drive, the A1 and the North Circular A406 road near Henlys Corner. Within close proximity of high achieving infant, junior and secondary schools and bus routes to Golders Green and East Finchley Underground stations, the community is an increasingly a residence of choice for young families and professionals, as well as being a long-term place of residence for retirees.

The removal of asbestos from the roofs of the buildings, a minimal rental cap and substantial improvements to the gardens and public areas on the estate, implemented by the new residents' management committee have seen the profile of the estate further raised. However attempts to improve conditions at Beaufort Park are severely compromised by proximity to the Henlys Corner traffic junction. This document explains how and why.

Henlys Corner is one of the busiest traffic junctions in London. Since the 1990s, the traffic volume at Henlys Corner increased four-fold, leading TFL to implement and new traffic management scheme in 2011. The scheme has helped the flow of traffic and improved street lighting and drainage. In this it has been successful. More than 94 000 vehicles passed through the junction each day in 2012 [1] and numbers have increased year on year since. Current projections are of in excess 150 000 vehicles a day [2]. However the road junction seriously impacts the health and wellbeing of the locals in and around the Beaufort Park community.

While residential areas around Henlys Corner and along the North Circular and A1 as a whole are shielded from traffic pollution and noise impact by a range of barriers, including hedging, brick walls and wooden barriers, the Beaufort Park estate is completely unprotected.

The A406 at Beaufort Park showing the absence of a traffic barrier

Beaufort Park seen from Henlys Corner showing the absence of a traffic barrier

Beaufort Park at the A1 showing the absence of a traffic barrier

Under the 2011 scheme, Barnet Council improved the woodland to the south of the junction as well as the Charter Way Green outside the Kinloss Finchley Synagogue. There were no measures to shield Beaufort Park residents. With no protection, extensive open areas and no high-rise blocks, the estate is one of the most acutely affected residential areas in London for atmospheric pollution. Residents, including many with young children are exposed to daily levels of traffic pollution well in excess of international, national and local safety levels. In December 2020 – the date of the production of this report, there are a large number of elderly people and families with children under 18 resident at Beaufort Park. These groups are the most vulnerable to respiratory diseases and the development of allergies caused or exacerbated by traffic pollution.

This is in contrast to areas in the immediately vicinity of the Beaufort Park as illustrated by the pictures below. The Western and Eastern stretches of the North Circular Road A406 immediately to the North of Beaufort Park are shielded from traffic pollution by a wall, fences and both trees and hedges.

On the A1 immediately to the East of Beaufort Park, homes on Gloucester Drive are shielded by extensive privet hedging and tall trees. Those on Addison Way are shielded by tall trees and the vegetation in the Mutton Brook Green walk park.

The Western A406 looking North opposite Beaufort Park showing a traffic pollution barrier and fencing

The Eastern A406 looking North opposite Beaufort Park showing a traffic pollution barrier and fencing

The A1 looking East immediately adjacent to Beaufort Park showing a traffic pollution barrier and fencing between the A1 and homes on Gloucester Drive

The A1 looking south, opposite Beaufort Park showing a traffic pollution barrier on the edge of Mutton Brook

Homes on Tillingbourne Gardens and Edge Hill Avenue diagonally opposite Beaufort Park at Henlys Corner are shielded by a brick wall, tall fencing and tall trees.

The traffic pollution barrier on Henlys Corner protecting Tillingbourne Gardens and Edge Hill Avenue

This situation is worsening year by year. It is set to worsen acutely in the next two years: with the construction of Peter Barber Architects' Beechwood Mews – a new residential complex of 97 homes on the A406 between Beechwood Avenue built as part of the GLA small sites programme [3]. This will act as a wall to pollution on the west side of the North Circular, funnelling more traffic pollution into the Beaufort Park Estate. The construction of these new buildings has already led to a marked rising in the levels of particulate dust within Beaufort Park residences and the traffic noise, echoing of the walls of the new Peter Barber development has greatly augmented.

Beechwood Mews construction site opposite Beaufort on the A406

On 25th October 2021, the Ultra Low Emission Zone will be expanded to include the area up to the North Circular Road (from the Congestion Zone). Vehicles must meet strict emission standards to drive in the central London ULEZ area. There will be no such restrictions on the North Circular Road, where polluting vehicles will congregate, worsening the situation for the residents of Beaufort Park.

The impact of traffic pollution on public health is well-documented and is laid-out in more detail further on in this report.

The impact of the junction on community life is also severe and has been an ongoing issue for many decades, with Beaufort Park residents and their neighbours cut-off from local facilities. A lack of traffic speed control compromises driver and pedestrian safety.

Well-situated for city commuting and sitting within the catchment area for Brooklands, Garden Suburb school and the Archer Academy, Beaufort Park has over the last decade increasingly becoming a home to young professionals and families with children. Their health and well-being should not be prejudicially affected by a failure to address what continues to be an on-going problem. The local community have raised the lack of an integrated approach to the management of traffic and vehicle pollution on the North Circular and A1 and the health and well-being of local residents with Barnet Council for 50 years (see Section 3), on numerous occasions. The **Traffic Wall campaign** aims finally to resolve this issue, presenting the problem clearly and analytically.

THE IMPACT OF TRAFFIC POLLUTION ON HEALTH

There is increasingly powerful evidence that pollution from exhaust fume gases and particulates have severe impacts on the health of those exposed. The evidence is incontrovertible. Further research has demonstrated a link to vehicle emissions and the spread of Covid-19.

In January 2016 the World Health Organisation declared a public health emergency relating to urban air pollution. Their report concluded that there are now 3.3 million premature deaths every year from air pollution, about three-quarters of which are from strokes and heart attacks [4]. Maria Neira, head of public health at the WHO stated that "Air pollution leads to chronic diseases which require hospital space. Before, we knew that pollution was responsible for diseases like pneumonia and asthma. Now we know that it leads to bloodstream, heart and cardiovascular diseases, too – even dementia. We are storing up problems. These are chronic diseases that require hospital beds. The cost will be enormous."

A 2016 report from the European Environment Agency (EEA) concluded that pollution was the "single largest environmental health risk in Europe responsible for more than 430 000 premature deaths." The report specifically singled out vehicle emissions as the key contributing factor to the negative effects on health from ambient pollution, stating "The most problematic pollutants affecting human health are particulate matter (PM), ground-level ozone (O3) and nitrogen dioxide (NO2)." [5] All these are produced by vehicles.

The problem is particularly acute in London. In 'Understanding the Health Impacts of Air Pollution in London', a study commissioned by the Greater London Authority and TFL, researchers from King's College estimated a total of 9,416 premature deaths attributable to air pollution over a single year, with 3,537 associated with PM2.5 particulates (from diesel engines) and 5,879 from exposure to engine-produced NO2. The group concluded that:

"London suffers with the worst air pollution in the UK and some of poorest in Europe." [6]

A ten-year study examining the impact of exposure to vehicle pollution on London's streets conducted by scientists from King's College London, Queen Mary University of London and the University of Edinburgh and published in the Lancet last year demonstrated that children growing up in areas of high vehicle emission exposure are at risk of developing lifelong breathing disorders. The study concluded that 'significant' improvements will be needed to protect children's health.

2,164 children aged 8-9 were enrolled into the study from 28 primary schools in London situated in areas which fail to meet current EU nitrogen dioxide limits. The research team monitored children's health and exposure to air pollutants over five years. Findings suggested that children exposed to air pollution showed significantly smaller lung volume (a loss of approximately 5% in lung capacity). This was linked to annual exposures of nitrogen dioxide (NO2) and other nitrogen oxides (NOx), and particulate matter (PM10), all of which are most strongly present in diesel emissions. [7]

These health costs are at their most acute around the Beaufort Park estate.

A report on Air Quality Information for Public Health Professionals focusing on the London Borough of Barnet, published by the GLA in 2012 identified eight Air Quality Focus Areas within the borough. These were areas selected by the GLA as having "the most potential for improvements in air quality within the Capital" and selected through an analysis of

Baseline air quality for NO2 and PM10 by 20m grid resolution

- Locations where air pollution limit values have been exceeded
- Level of human exposure
- Local geography and topography
- Local sources of air pollution
- Traffic patterns
- Future predicted air quality trends [8].

These eight areas included Henlys Corner near Beaufort Park. Of all eight areas of concern, Henlys Corner had by far the largest percentage of heavy goods vehicles – which produce the most dangerous of all vehicle emissions for human health. See figure on [9]

According to data obtained by the BBC from the globally respected MappAir Global Air Quality API index, levels of vehicle pollution on the North Circular Road outside Beaufort Park range between moderately and heavily polluted. Areas with this profile are likely to exceed recommended WHO limits mean legal EU limits and occupy just 1 in 635 GB postcodes, mostly in city centres or immediately near to motorways.

In 2017, the London Borough of Barnet published The London Borough of Barnet Air Quality Action Plan 2017-2022 (AQAP) which concluded that the EU annual mean objective for NO2 and Particulates "is being exceeded" in a number of locations in the Borough, including Henlys Corner.

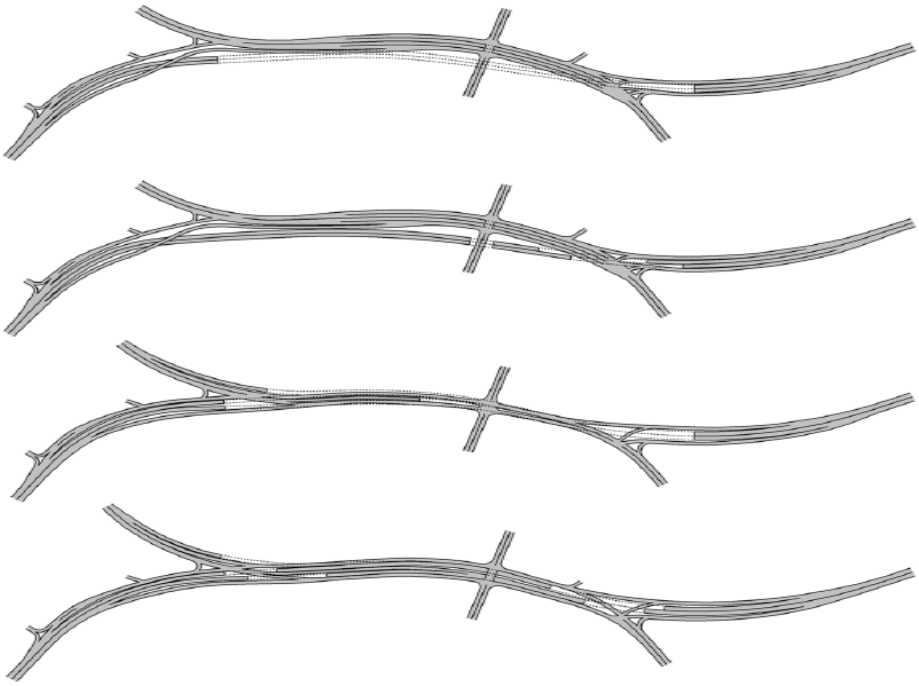
In printed maps in AQAP report the North Circular Road outside Beaufort Park is shown as having one of the highest levels of annual mean concentrations of NO2 and PM particulates, in Barnet. Henlys Corner is specifically identified as an Air Quality Focus Area [10].

The situation has only been made worse by the Covid-19 pandemic. There is mounting evidence that transmission of the virus is exacerbated or even facilitated by particulate pollution. A 2020 paper published in the Science of the Total Environment academic journal undertaken at Martin Luther University Halle-Wittenberg, Germany examined the impact of atmospheric NO2 on Covid-19 mortality, establishing a strong correlation [11]. A separate 2020 study published looked at particulate emissions pollution in the US and found that even small increases in levels in the years before the pandemic were associated with far higher Covid-19 death rates. Researchers at the Harvard TH Chan School of Public Health in Boston, analysed air pollution and Covid-19 deaths up to 4 April in 3000 US counties, covering 98% of the population, finding that an increase of only 1μg/m3 in PM2.5 particulates was associated with a 15% increase in the Covid-19 death rate [12].

THE HISTORY OF THE PROBLEM & AFFECT ON THE LOCAL COMMUNITY

The problem of the relationship between Beaufort Park and the North Circular / A1 at Henlys Corner has its roots in a community related issue dating back decades. Henlys Corner junction was initially designed as part of the Barnet Bypass, which opened in 1928. In 1967, the junction was expanded from a dual carriageway to a three-lane highway in each direction. This was further expanded under the Mayor of London scheme, completed in 2011.

In the 1970s protests led to the first plans to improve the junction, reuniting Regent's Park Road with Beaufort Park and improving the coherence and life quality of the community date from this period when authorities first proposed building a tunnel under Henlys Corner. In 1979 four options for tunnels of different sizes and lengths were put to consultation and an exhibition held at a local church. A design featuring the third model shown below) was favoured at the time but the plans once again came to nothing. In the 1980s following repeated complaints by Beaufort Park residents the council offered to install double glazing in the Beaufort Park houses in order to attempt to cut down atmospheric and noise pollution (see attached letter). The plan was rejected as it did not solve the underlying problem. In the same decade the Department of Transport proposed constructing a cut through the park land around Mutton Brook carrying traffic from the North Circular, allowing Henlys corner just to serve Finchley Road and the A1, and once again with the aim of improving life for the residents living around Henlys Corner and in particular those in Beaufort Park. The land was purchased to facilitate the project but plans were again shelved in the 1990s.



Tunnel Proposals for Henlys Corner, late 1970s

Since the 1990s the traffic volume passing over Henlys Corner has increased more than four-fold. This led to TFL developing a scheme to improve capacity and traffic flow in 2011. While this scheme has helped traffic flow it has done nothing to improve life for local residents or re-integrate a divided community, with those in Beaufort Park being the worst affected. The tunnel proposals would have addressed this issue. The underlying problem and the original reason for improving the roads – dating back to the 1960s was not (and still has not been) addressed and

residents of Beaufort Park remain the worst affected.

Since the creation of the Barnet Bypass locals have complained that the road has completely divided what was once a coherent community. This has been particularly troubling for residents of Beaufort Park and the adjacent areas of the Garden Suburb. The council has failed to address residents' complaints for 45 years and improve community life for residents. As traffic has increased since 2011, the community has become ever increasingly constrained on what is effectively an island between two fast-moving heavy streams of traffic on the A1 and A406. With the concomitant rise in traffic levels, the problem of vehicle pollution has become ever more acute.

Access between Beaufort Park and the northern Garden Suburb involves navigating the A1 through the Henlys Corner crossing while passage between the eastern Garden Suburb and the western, Finchley side of the junction is restricted to traffic light crossings and a pedestrian bridge at Clandon Gardens. The former involves a long detour north, the latter a series of hazardous crossings. The Beaufort Drive road, which connects the A1 and the A406 is increasingly used as a "rat run". The speed limit on the A406 after Henlys Corner Navigating the roads is difficult, unpleasant and increasingly dangerous for local residents. The speed limit on the A1 heading east from Henlys Corner is 40mph. On the North Circular the speed limit is 40mph, increasing to 50mph at the northern end of Beaufort Park. Speeding is common and the junction is the site of frequent accidents. In 2018 there were eight fatal and serious collisions on the A1 and A406 within 150 metres of Beaufort Park. [13]

The situation is particularly difficult for elderly residents who have trouble negotiating the fast roads, the steep bridge and the crossings. Since 2017, there have been three pedestrian road fatalities on the A1 and A406 around Henlys Corner [14], including the death of a 96-year-old woman attempting to cross the A1 between Beaufort Park and Hamsptead Garden Suburb [15]. The 2017 figures around Henlys Corner account for just over 2.5% of all the pedestrian deaths on London's roads in that year [14].

The junction is as divisive as it is dangerous. Locals are cut off from easy access to retail outlets and important community centres, many of which are congregated in South Finchley and around Regent's Park Road or in the Garden Suburb, nurseries like Stay and Play, schools like Garden Suburb, Henrietta Barnett, Chalgrove, St Theresa's Catholic Primary, the Akiva School, Pardes House and The Hasmonean. Locals are separated from leisure areas like Mutton Brook and Northway gardens, together with synagogues including the New North London Synagogue, the Finchley United Reform, the Finchley Progressive and the Reform Synagogue of Great Britain, churches including St Jude, St. Philip The Apostle, St Mary-at-Finchley and Church End Baptist Church and cultural centres including the Sternberg.

Access to key locations in the immediate vicinity of Beaufort Park – for those coming from Finchley – are also seriously compromised, most notably to Brookland Junior, Infant and Nursery schools and Christ College. The lack of easy pedestrian access has resulted in many parents collecting their children from the Brooklands schools by car, causing serious traffic congestion on Hill Top, Brookland Rise and Brookland Hill.

In 2014 TFL launched the first ever pedestrian action plan for London. Four of the key targets of the action plan were as follows:

1. "To lead the way in achieving a 40 per cent reduction in the number of people killed or seriously injured on the Capital's roads by 2020 – with a longer term ambition of freeing London's roads from death and serious injury.

2. To prioritise safety of the most vulnerable groups – pedestrians, cyclists and motorcyclists – which make up 80 per cent of serious and fatal collisions.
3. To provide substantial funding for road safety, invested in the most effective and innovative schemes.
6. To work in partnership with boroughs and London's road safety stakeholders to spread best practice and share data and information." [16]

The report stated that "walking binds London's transport system together, integrating our extensive public transport network with the Capital's streets and public spaces. It performs a critical role to those living in, working in or visiting London by performing the first and last leg of almost every trip made…. Walking is an ideal way to move around London for short trips, and as a leisure activity it is a great way to enjoy the city – and it is beneficial to your health." [16]

The London Borough of Barnet's AQAP includes the following three target actions:
19. "To lower the legal speed limit to 20mph in areas close to certain schools."
23. "To encourage a shift to walking by providing safer, more accessible and attractive pedestrian routes."
24. To "liaise with Transport for London to explore traffic control actions on Tfl-controlled roads." [10]

The Beaufort Park Traffic Wall Campaign calls in the London Borough of Barnet to implement these above actions with respect to the community in and around Beaufort Park.

The mounting traffic, the lack of adequate pedestrian planning and facilities, taken together with the deleterious effects of exhaust pollution have now made the problem at Henlys Corner in ever more urgent need of resolution. It is a problem which is costing lives.

AIR QUALITY TARGETS FOR BARNET AND LONDON

The London Borough of Barnet AQAP, states in its introduction that "The London Borough of Barnet is committed to reducing the exposure of people to poor air quality in its Borough in order to improve health." The report also proposes in Action 18, campaigning to extend the ULEZ over the whole of the Borough of Barnet, something The Traffic Wall campaign welcomes. [10]

The report also identifies targeted actions in six broad topics, the fifth of which is "Localised solutions" explicated as seeking to "improve the environment of neighbourhoods". The report specifically identifies the "planting of green barriers and vegetation". [10] In the following section of this document, The Traffic Wall campaign presents some proposals which accord with this strategy, as well as some other possible solutions which would have a great impact on the health and wellbeing of the residents of Beaufort Park.

The London Borough of Barnet's Green Infrastructure Planning Document [17] specifically cites "built structures such as living roofs and walls, bird and bat boxes, roost sites" as components of the Borough's strategy to improve the local environment. The document further states that it seeks to "ensure that this is the first generation to leave the environment in a better state than when we inherited it", coordinating with a nationwide "comprehensive 25-year Environment Plan charting how improvements to the environment will be made." [17] The report proceeds to state that "Delivery needs to be targeted where there is the greatest need and the greatest benefit can be secured by projects."

Section 5.5.4 of the Planning Document specifically states the following:

"In his draft Environment Strategy, the Mayor states that there is a significant opportunity to increase the amount of new green infrastructure in parts of London subject to major regeneration programmes. This can be achieved through improving existing and planning new green infrastructure that is better connected and integrated into the built environment. The Council recognises that investment in GI can be the catalyst for and supporting factor in the wider regeneration of an area. Economic growth resulting from investment in GI can lead to higher levels of employment and lower levels of crime. The economic benefits of green infrastructure are becoming increasingly known with a growing body of evidence demonstrating the links between sustained economic growth and green infrastructure. GI projects that are integrated with other projects or strategies, such as urban regeneration, are likely to provide more benefits, faster, in addition to being more likely to be well maintained in the future. Well-designed and maintained green space or GI can add to the aesthetic setting of an area impacting on its attractiveness and local distinctiveness to prospective residents and businesses. This in turn leads to more inward investment, as well as attracting employees and customers. This is vital for the health of Barnet's many District and Local Centres and contributes to the economic prosperity of the wider area." [17]

The Beaufort Park Traffic Wall campaign aims to increase the health and wellbeing of local residents as part of an overall strategy to improve the profile of the estate as a whole, regenerating the community and the prosperity of the residents. As stated, Beaufort Park is increasingly a residence of choice for young families and professionals. The Beaufort Park Traffic Wall campaign therefore concords with overall strategy within The London Borough of Barnet and specifically with the Borough's various community and environmental programmes and initiatives.

A traffic barrier
The estate currently has no barrier to atmospheric vehicle-emitted pollution from the North Circular and A1. We urgently need such a physical barrier. The estate requires the construction of a barrier of some 312m, with 160m (along the North Circular and 152m along the A1. This will greatly improve the health, life and wellbeing of local residents.

There are a number of solutions available to address this problem, many of which have already been implemented elsewhere in Barnet. These include the construction of a "Green Wall" of vegetation between the roads and the estate – a vertical space consisting of climbing plants such as ivy, built on billboard-like structures. According to a study published in the Journal of Environmental Science and Technology, green walls cut pollution by up to 30% [18]. Planting trees and hedges by contrast, reduces pollution levels by around 5%. Scientists at Imperial College in London, conducting research in conjunction with Nicola Cheetham (head of environment (surface transport) for Transport for London (TfL) have reached similar conclusions [19]. The construction of such a green wall around the estate would benefit residents and the council alike. The wall will be a landmark project showing that Barnet is leading the way in cutting atmospheric pollution in London. It will become a media attraction and will increase the value of property in Beaufort Park allowing the council to benefit from higher taxes. The successful model could be implemented along North and South Circular a strategic solution to reduce London air pollution.

Green walls have already been installed in Barnet and the local authority already have established contacts with providers. Below are some alternative options.

Other solutions already used in Barnet include simple physical barrier solutions – such as hard walls covered in ivy to capture some particulates and hedging. Such barriers have already been installed in Barnet alongside a school playground bordering the A41.

Traffic Management for atmospheric pollution
A traffic barrier should be integrated with a pedestrian and cyclist approach to traffic management which aims to reintegrate Beaufort Park and its environs with the rest of the Suburb and with southern Finchley. The Beaufort Park Traffic Wall campaign proposes that:

- LBB should continue to press for the extension of the ULEZ to cover the A406 and A1.
- An Air Quality Monitoring station should be set-up at Henlys Corner.
- The speed limit on the A1 should be reduced from 40mph to 20mph at Henlys Corner.
- Cycle lanes on the A1 should extend toward Market Place.
- A cycle hangar facility should be installed opposite the cycle lanes at Henlys Corner, in concordance with The LBB AQAP, which recommends the provision of cycle parking [10]. The hangar could use similar facilities to those provided in other boroughs – e.g the London Borough of Lambeth [20]. Such hangars are available through companies like Bike Dock solutions (bikedocksolutions.com).

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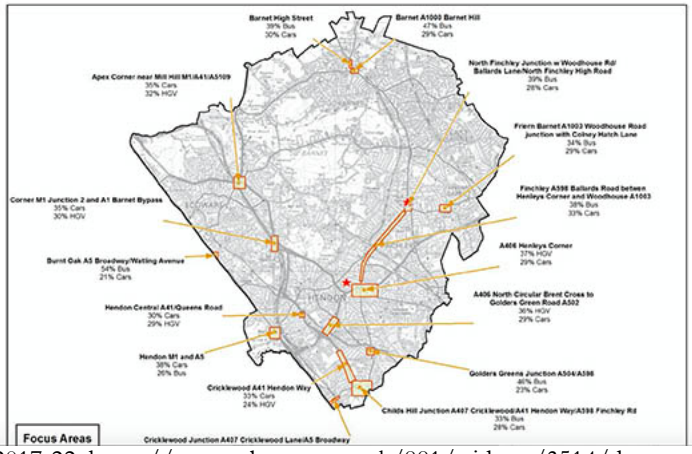
9. The image below shows the areas of GLA concern, (represented by a yellow area with description in yellow box). These areas are not necessarily situated at the same locations as the monitoring equipment (represented by a red arrow), the location of which was chosen for a number of reasons including ease of access. For original source see [8] above

Image 4 – LB Barnet Focus Areas and Air Quality Monitors, London Atmospheric Emissions Inventory



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