APPLICATION NO: 16/01337/FUL		OFFICER: Mr Ben Hawkes
DATE REGISTERED: 27th July 2016		DATE OF EXPIRY : 21st September 2016
WARD: Charlton Park		PARISH:
APPLICANT:	Mr Andrew Yapp	
LOCATION:	1 College Gate, Cheltenham	
PROPOSAL:	Erection of double garage (resubmission of application 13/00127/FUL)	

REPRESENTATIONS

Number of contributors	4
Number of objections	4
Number of representations	0
Number of supporting	0

4 College Gate Cheltenham Gloucestershire GL53 7SF

Comments: 2nd November 2016

Despite the comment by the Land Drainage Officer on 24 Oct 16, I am not assured that there isn't an additional risk of flooding to my property as a result of the planning proposal. I would be interested to see what evidence or flow modelling is available.

36 Keynsham Road Cheltenham Gloucestershire GL53 7PX

Comments: 24th October 2016

Letter attached.

32 Keynsham Road Cheltenham Gloucestershire GL53 7PX

Comments: 24th October 2016

Letter attached.

3 College Gate Cheltenham Gloucestershire GL53 7SF

Comments: 1st November 2016

I live two houses down from the applicant property at 3 College Gate. With my current understanding of the application, I object to it.

In the flood statement it outlines part of the application as producing a "raised bin/recycling area to prevent flood water flowing onto the site and facilitate water run off down the road to the collection chamber."

By "down the road" I take this to mean into the basin of College Gate to the other houses, numbers 2, 3, 4 and 5. If correct, this would clearly significantly increase the risk of flood, or at least increased water collection, to houses 2, 3, 4 and 5.

I'm not aware of a "collection chamber". If this refers to the pump in the rear garden of the immediate neighbour, No 2 College Gate, this pump is ineffective in flood waters, as demonstrated during the 2007 flooding of College Gate.

Any water flowing into College Gate cannot surely, legitimately, be diverted from one property onto another.

I request this issue is considered.

BY HAND

4 Bafford Approach Cheltenham GL53 9HJ

Planning: Environmental & Regulatory Services
Cheltenham Borough Council
P.O.Box 12
Municipal Offices
Promenade
Cheltenham GL50 1PP

BUILT

*** 2 4 OCT 2016

Environment

21 October 2016

Dear Sir or Madam

Reference 16/01337/FUL - 1 College Gate

Comments following Applicant's submission of revised plan and additional information

I write on behalf of my parents, who live at 36 Keynsham Road. They strongly object to this proposal, for the reasons outlined below.

They have considered the revised plan and additional information provided by the Applicant, and this does not overcome the fundamental flood risks associated with this planning proposal.

- On 28 January 2013, the applicant submitted a planning application for the erection
 of a double garage ("the 2013 Scheme"). This application was withdrawn 3 years
 later because the Applicant failed to demonstrate that the development would not
 worsen the consequences of flooding at the site, or elsewhere.
- On 26 July 2016, the Applicant submitted the current application ("the 2016 Scheme"). This application is essentially identical to the 2013 Scheme, except that the Applicant initially sought to remove the steel-reinforced brick piers (buttresses) of the flood defence wall Enc 1.

- 3. The Applicant has now amended the proposal so that the buttresses remain in situ, and certain "mitigation measures" have been proposed. **Encs 2 and 3** show that the 2016 Scheme is therefore identical to the 2013 scheme, save for the following measures: -
- Raised bin/recycling area to provide a stepped kerb at northern end of site to prevent flood water flowing onto the site and to facilitate waster run off down the road to the collection chamber, rather than past the garage;
- ii) Installation of a drain at the lowest point of the bins/recycling area at the northern end of the site to catch the small amount of water that runs through;
- iii) Upgrade of the existing wall by re-bedding of loose blue brick copings to improve the durability of the wall and in accordance with the latest industry standards and O'Brien & Price recommendations of 1992;
- iv) Minimum 400mm (1.3ft) gap between the garage and flood defence wall for maintenance purposes.
- 4. As outlined in my letter of 17 August 2016, my parents' objections to the 2016 Scheme initially centred on the Applicant's proposal to:
 - i) demolish two of the buttresses; and
 - ii) construct a double garage extremely close to the weakened flood defence wall.
 - While the buttresses are no longer to be removed, the Applicant still proposes to build the double garage close to the non-durable defence wall.
- In 1992, an almost identical proposal was refused on appeal on the basis that it would significantly worsen the consequences of flooding ("the 1992 Decision") Enc
 The Inspector stated that there must be a clear 2metre-wide channel between any proposed garage and the boundary flood defence wall, and an 8 metre-wide channel between the proposed garage and the site entrance.

- 6. The Cheltenham Borough Council ("CBC") Chief Engineer went further in his consideration of the College Gate drainage requirements **Enc 5**. The asterisked paragraph explains in no uncertain terms that flood flows down College Gate and transversely (i.e. crossways) must not be restricted or obstructed in any way in perpetuity. The developer's consulting engineers had set out that the pumped/gravity drainage scheme at the site would only accommodate a 1:50 (Q50) year storm **Enc 6**.
- 7. The Applicant's Agent, SF Planning Ltd ("SFP") alleges that it is not necessary for the 2016 Scheme to accord with the 1992 Decision. SFP say that various changes have occurred since that time, which reduce the impact and potential of flooding. The factors SFP cite are: -
 - Lowering of College Gate access road in 2000;
 - River Cheltenham Flood Alleviation Scheme ("RCFAS") works;
 - The "mitigation measures" listed in para 3 above.
- 8. With respect, SFP has a complete misunderstanding of the implications arising from the lowering of the access road to its correct level. The raised roadway deflected storm flows into adjacent properties, whereas their historic route was downwards and directly into the College Gate basin. The lowering of the road enabled the storm flows to run into College Gate, and therefore SFP has the position back to front.
- 9. Turning to the RCFAS, I would suggest that the Applicant's argument that the alleviation works have sufficiently reduced the flooding risks to make this development acceptable has no basis in fact.
- 10. In SFP's view, the site flooded partly as a result of RCFAS failings. This included the attenuation at Cox's Meadow overflowing as a result of a failed trash screen. In SFP's letter to Ben Hawkes of 25 July 2016, reference is also made to the Dowdeswell Reservoir flood gates opening on the day of the flooding which caused excess water to flow out of the Reservoir. SFP also states that the flood defence wall was one of

the causes of surface water flooding at the site, because it acted as a dam and prevented the surface water from finding its natural course back to the River.

- 11. SFP states that problems with the RCFAS have been rectified and, as such, the "unprecedented circumstances" of 2007 "will not be repeated". With respect, this statement is ill-judged, and ill-informed, for reasons I will outline below.
- 12. The Applicant persists with the illogical argument that the RCFAS somehow controls surface water flows from the catchment area (London Road, Keynsham Road and Old Bath Road).
- 13. The EA was not obliged to comment as part of the 2013 Scheme, but chose to do so Enc 7. Anita Bolton, Planning Advisor (EA) wrote to the Planning Officer on 19 July 2013, sometime after the implementation of RCFAS and the subsequent improvements to the Cox's Meadow trash screens.

She wrote: "The area in general is afforded protection from flooding from the River Chelt by our Flood Alleviation Scheme, however the improvements made to the River Chelt Flood Alleviation Scheme (before [the flooding in] 2007) were not designed to reduce the risk from surface water flooding in this location".

- 14. The long term flood risk information for 1 College Gate (dated 21.10.2016) demonstrates that the property is still at high risk of surface water flooding (the flood risk map indicates over 900mm), and at risk of flooding from reservoirs Enc 8.
- 15. College Gate is a low-lying piece of land, which forms a basin. In times of flood, historically and today, it collects and stores storm waters from the area, and releases them into the River Chelt.
- 16. Circa 1990, when College Gate was built, the ground floors of properties 1-4 were constructed well below flood level. An earth-bund was irresponsibly thrown up alongside the River Chelt, which formed a dam to the free-flow of surface waters.

- 17. The College Gate developer was instructed to build a flood defence wall between 1 College Gate and 36 Keynsham Road. This was to protect Keynsham Road properties by helping contain the considerable volume and weight of storm waters on College Gate. On 20 July 2007, flood waters poured from the surrounding area, travelled along their historic paths and filled College Gate to overflowing. The heavier storm waters flowed from the south and east, traversing the site from Old Bath Road.
- 18. In the Richard Strauss Associates ("RSA") letter of 19 April 2016, RSA clearly supports this position by also stating that the main volumes of storm waters to the site come from the south and east. My parents previously commented that these crossways flood flows have not been illustrated on the RSA plan of 19 April, which is misleading. We now have a letter from RSA dated 4 October 2016, that essentially cuts and pastes the previous letter. However, RSA has deleted its critical analysis of the extent and direction of the flood flows without apparent justification. In my opinion, this looks like RSA has tailored its correspondence to fit the revised application, with an unwarranted disregard of crucial and material considerations.
- 19. I would suggest that the RSA plan is completely misleading; not only has the substantial rear extension been removed, it illustrates a greater distance from the rear of the property to the "collection chamber". It is in fact not a collection chamber, but an open manhole cover to accept surface water flows.
- 20. What we can say, is that on 20 July 2007, these flows surged towards the lowest point at 1 College Gate, which is the 2 metre-wide overland drainage channel running along the flood-defence wall. As SFP indicates, the riverside embankment and flood defence wall adjoining 36 Keynsham Road acted as dams and the inadequate Q50 drainage system could not cope.
- 21. There are a number of barriers to the flood flow that have not been rectified by the revised 2016 application, for example sycamore trees and hedging block the designated 2 metre and 8 metre-wide storm water channels.

- 22. Of greater concern is the substantial extension to 1 College Gate, which was shown on only a single occasion by the Applicant (Enc 1) but has now been deleted from the revised plan (Enc 2). The extension impedes flood flows into the open manhole next to the rear extension, in breach of the last paragraph of page 1 of Enc 6. The absence of the extension and manhole cover in most of the plans for both the 2013 and 2016 Schemes is therefore very misleading.
- 23. College Gate will always continue to act as a floodwater sump for surface waters from across the area. It goes without saying that the ineffectiveness of the College Gate drainage scheme will always be governed solely by the site's Q50 pumps. The flood defence wall and river embankment remain and, in the absence of a design overhaul of the pump/gravity system, will continue to exacerbate any surface water flooding.
- 24. The Environment Agency ("EA") and CBC have made clear that the RCAFS does not, in any way, improve the very poor 1 in 50 year (Q50) drainage system on the site. In Mrs Bolton's email(Enc 7), she states that the 1992 Decision should be upheld: -

"A clear 2 metre corridor from the boundary wall and 8 metre corridor from the site entrance should be maintained on the recommendations of a qualified Consulting Engineer (1992). This is to ensure there is sufficient clearance for overland storm water flow and prevent an unacceptable detrimental impact to adjacent property and land areas in this regard)".

Without justification, the Applicant seeks to go against the EA, the CBC Chief Engineer and the developer's consulting engineers to do away with the essential 2 metre and 8 metre-wide channels.

25. Although the 2016 Scheme constitutes minor development, CBC has perhaps been remiss by not consulting with Gloucestershire County Council as the Lead Local Flood

Authority. Mrs Bolton recommends this in her email, which is not surprising owing to the vulnerability of this site due to surface water flooding.

- 26. The Applicant raised the issue of lowering the access road, and the RCFAS in its submissions for the 2013 Scheme. It can only be assumed that these factors did not address the flooding issues to the satisfaction of CBC Planners and its Drainage Engineer, otherwise the 2013 application would undoubtedly not have been withdrawn.
- 27. The Applicant has seemingly had no other option but to revise the 2016 Scheme to incorporate "mitigation measures" to reduce the flood risk. These measures are, with respect, poorly thought-out and trivial.

It is evident that the measures go no way to negate the sub-standard Q50 drainage system. I address each in turn: -

- SFP clearly has no concept of the volume, speed and depth of surface water flood flows which will strike College Gate. ! would respectfully refer SFP to the EA's surface water flood risk map which gives an indication of the depth and speed of long term flood flows at College Gate.
- ii) <u>Installation of a drain at the lowest point of the bins/recycling area at the northern end of the site</u>

SFP believes this drain will capture the insignificant amount of water which flows through despite the above measures. For the reasons set out above, the amount of storm water flows will in fact be significant.

Upgrade of the existing wall by re-bedding of loose blue brick copings
In this regard, it is helpful that SFP has given weight to the O'Brien & Price recommendations of 1992 –Enc 9. The suggestion that the re-bedding of brick copings will redress the defective wall is, however, absurd. As O'Brien & Price identified, amongst other things, the very foundations of the wall are not deep

enough to prevent the wall moving. Further, the extent of the wall's defectiveness is supported by the former CBC Chief Engineer – **Enc 10**. While the Applicant intends to tinker with the top of the wall, they have done nothing to make the wall durable.

iv) Minimum 400mm (1.3ft) gap for maintenance purposes

When commenting on the 2013 Scheme, the EA's position was that siting the garage so close to the flood defence wall would "reduce access to maintain the wall and potentially flood flows" (Anita Bolton's email – Enc 7).

The EA's Fluvial Design Guide (Section 9.13) — Enc 11 - emphasises the importance of being able to maintain flood defence walls, and states "Maintenance is a design issue and not something that is addressed after the design has been completed..."

The Applicant is proposing a minimum 400mm (1.3ft) gap between the flood defence wall and garage. I would suggest that this simply does not address potential maintenance issues. The Guide states that monitoring/inspection of the wall should stem from possible failure modes (e.g. structural failure, sliding). O'Brien & Price has reported that the wall could move; inspection/maintenance cannot take place adequately within a 400mm gap, especially when movement of the wall could reduce the size of this gap over time.

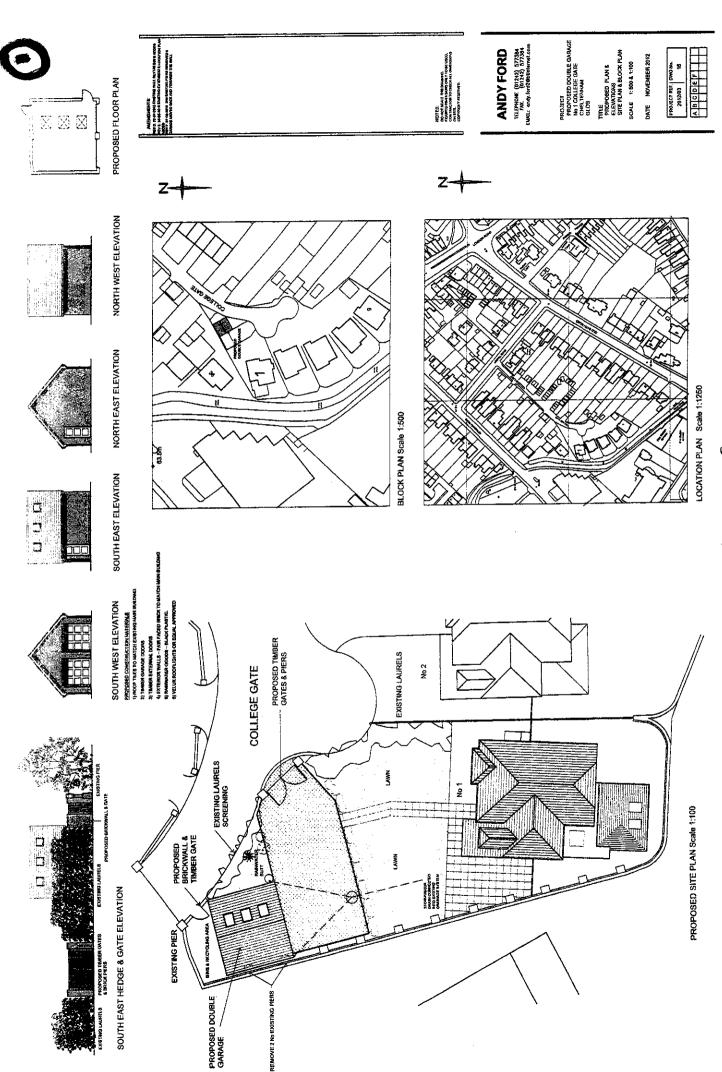
My parents strongly believe that this proposal would introduce serious additional risks, and ask that this application is considered fully in light of the above evidence.

Yours faithfully	

Solicitor

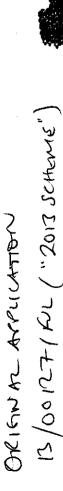
Encs

CC Clirs Paul Baker and Steve Harvey



CURRUNT APRICATION 16/0137/PUL

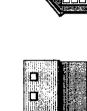
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NORTH EAST ELEVATION

SOUTH EAST ELEVATION

SOUTH WEST ELEVATION

PROPOSED TIMBER GATES & PIERS

COLLEGE GATE

EXISTING LAURELS SCREENING

PROPOSED DOUBLE GARAGE

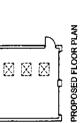
PROPOSED BRICKWALL & TIMBER GATE

EXISTING PIER

BINS & RECYCLING



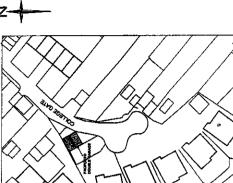




EXISTING LAURELS







TELEPHONE (01242) 577384 FAX: (01342) 577384 EMML: endy-ford2@blinkmet.com

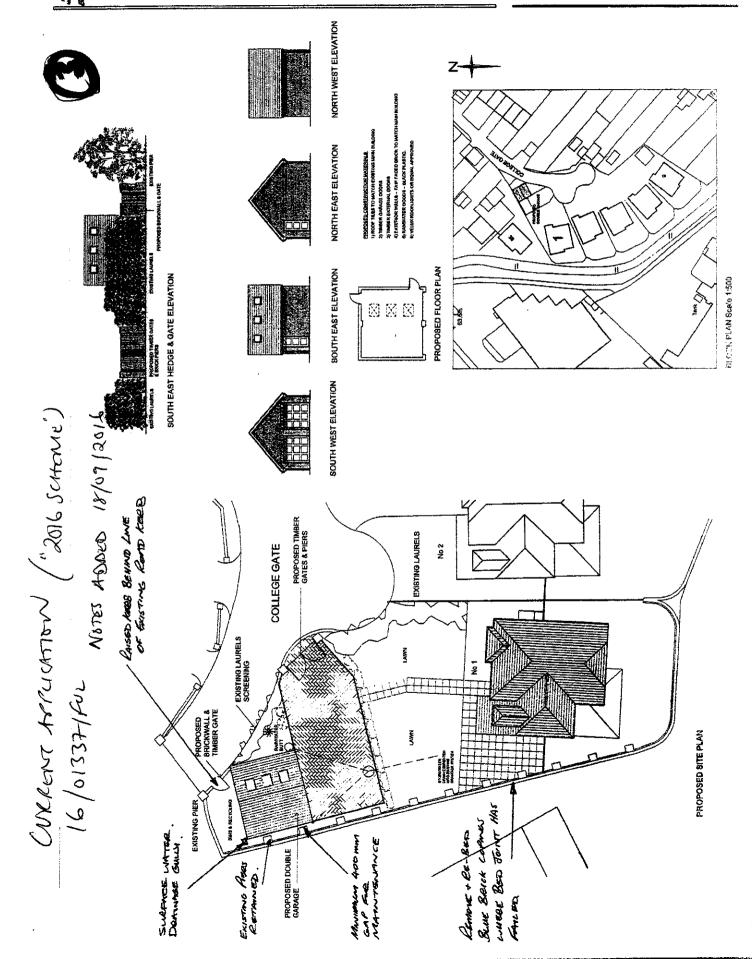
ANDY FORD

PROJECT
PROPOSED DOUBLE GARAGE
No 1 COLLEGE GATE
CHELTENHAM
GLOS TITLE
PROPOSED PLAN &
ECEVATIONS
SITE PLAN & BLOCK PLAN
SCALE 1: 500 & 1:100

DAYE NOVEMBER 2012

in Other M. A. Reals 150.

PROPOSED SITE PLAN



ANDY FORD
THE CONTROLL CONTROL CONTROL

TILE PROPOSED PLANG ELGYATONS SITE PLANG BLOCK PLAN 8CALE 1: 600 6 3:100

PROJECT R26., DWO 196 2012/03 \$6

DATE MOVEMBER 2012

VIE COPICE |



The Planning Inspectorate

An Executive Agency in the Department of the Environment and the Welsh Office



Room 1404
Tollgate House
Houlien Street
Bristol BS2 9DJ

Direct Line Switchboard 0272-218927

Fax No GTN 0272-218769

N 1374

The Brock Planning Consultancy
9 Montpellier Arcade
Cheltenham
Gloucestershire
GL50 1SA

Your Reference: C.100 Our Reference: T/APP/B1605/A/92/198498/P2

Date: 23 APR 92

Gentlemen

TOWN AND COUNTRY PLANNING ACT 1990, SECTION 78 AND SCHEDULE 6. APPEAL BY A H CONSTRUCTION LTD.
APPLICATION NO :- CB18876/07.

- 1. I have been appointed by the Secretary of State for the Environment to determine the above appeal which is against the decision of the Cheltenham Borough Council to refuse planning permission for the erection of a detached double garage and conversion of an integral garage to a habitable room at Plot 1, Argyll Road Development, Argyll Road, Cheltenham. I have considered the written representations made by you, by the council and also those made by other interested persons. I inspected the site on 3 March 1992. I have also other into account written representations relating to the question of flooding, which have been submitted since the date of the site inspection.
- 2. Drawing No 91:2/50E, which shows the siting of the proposed garage, and Drawing No 91:2/61A which shows the proposed elevations, were before the council when it resolved to refuse planning permission. The reason for refusal relates solely to the impact of the development on the amenities of adjacent occupiers. However matters relating to flooding have been raised and constitute a material planning consideration.
- 3. From my inspection of the site and its surroundings and from the written representations, it is my opinion that there are two main issues in this case; first, whether the proposal would be unduly dominant from adjacent properties and secondly, whether it would significantly worsen the consequences of flooding.
- 4. The house at Plot 1 is nearing completion and forms part of a development of five dwellings bounded to the west by the River Chelt and with access along a private drive off Argyll Road. The wall to the northern boundary is about 1.9 metres high and has substantial piers. There are three modern detached houses, 32-36 Keynsham Road to the north of the site. The gable of the house at the appeal property is to the rear of No 36.
- 5. The proposed double garage would be sited to the front of the house on Plot 1. The ridge of its pitched roof would be roughly parallel to the rear of the house at No 34 and would rise to a maximum height of about 3.65 metres. The proposed building would be sited at an angle to the northern boundary but



<u>H</u>

at its closest point it would be only 0.5 metres from the boundary wall. The garage would be a minimum of about 4.0 metres from the entrance to the development

- 6. The creation and maintenance of a high standard of amenity is one of the main themes of the adopted Cheltenham Borough Local Plan, 1986. Policy 16 indicates that regard shall be had to the effect of domestic extensions on adjoining properties. The emerging Local Plan Review seeks similar policy aims and Policy GP5 states that new development should not spoil the amenities of adjoining residential occupiers.
- 7. With regard to the first issue, the back garden of 34 Keynsham Road is about 10.0 metres in depth and its rear boundary is marked by a fence and conifer hedge. It is separated from the appeal site by a strip of land between about 2.0 metres and 4.0 metres wide, which forms part of the curtilage of 36 Keynsham Road. The main aspect from the rear of No 34 is towards the site of the proposed garage, as the outlook to the south-east is restricted by an existing garage with a pitched roof and to the south-west by the gable of the adjacent house. However bearing in mind the separation between the proposed building and 34 Keynsham Road, I do not consider that a garage with a ridge height of 3.65 metres would appear unduly overbearing from that property.
- 8. 36 Keynsham Road has a very restricted amenity area to the rear. However the site of the proposal is to the south-east so that there would not be a direct aspect onto the garage from windows within the rear elevation of the dwelling. I therefore consider that the development would not be unacceptably overbearing when viewed from No 36. Occupiers of 32 Keynsham Road would not be substantially affected, as that house is set at a significant distance from the appeal site.
- 9. Turning to the second issue, the Consulting Engineers for the appellant company stated in a letter dated 19 March 1992, that the garage should be positioned a minimum of 2.0 metres from the boundary wall and 8.0 metres from the site entrance. This is in order to provide sufficient clearance for the overland storm water flow to bypass the garage and to prevent any backing up of water beyond the site entrance. As the proposal before me does not meet these criteria, I am drawn to the view that the erection of a garage in this position would not serve to facilitate the efficient movement of the overland storm water flow.
- 10. I conclude that whilst the proposal would not be unduly dominant from adjacent properties, it would nevertheless significantly worsen the consequences of flooding. A revised plan 91/8040/02 was submitted with the consequences in order to meet the criteria of the Consulting Engineers. appeal documents in order to meet the criteria of the Consulting Engineers. However although the revised location would result in the proposed garage being sited away from 34 Keynsham Road it would be significantly closer to No 36. In these particular circumstances I consider that the revisions amount to a new proposal which ought to be the subject of a fresh application.
 - 11. The site is within the Cheltenham Conservation Area which takes its general character from the attractive Regency architecture of the town. The proposed garage would have a pitched roof and would be in brick and tile to match the existing dwelling at Plot 1. I am satisfied that a building of the design and materials proposed would serve to preserve the character and appearance of its surroundings. Consequently in this case the impact on the conservation area does not weigh against the development.
 - 12. I have taken into account all the other written representations made but have found nothing to alter my conclusion that the proposed garage would

significantly worsen the consequences of flooding and that the appeal should be dismissed.

13. For the above reasons, and in exercise of the powers transferred to me, I hereby dismiss this appeal.

I am Gentlemen Your obedient Servant

MRS E EDWARDS BA MRTPI Inspector





DIRECTORATE OF ENVIRONMENTAL SERVICES C. M. Ride, MIEH., MBIM., Director. P.O. Box 12, Municipal Offices, Promenade, Chertenham, Gloucestershire, GL50 1PP.

> telephone; facsimile:

0242-262626 0242-227131

direct dial:

your ref: our ref: ask for:

DJH/AMW/91/8040

6th September, 1991

PJP/DER/CH8 Mr Phillips

extension:

2230

For the attention of Mr D. Hughes

Harvey, McGill and Hayes,

Consulting Engineers,

17, Rodney Road,

Cheltenham,

Glos., GL50 1HX.

Dear Sirs,

River Chelt - Development off Argyll Road, Cheltenham

Thank you for your letter and enclosures dated 2nd September, 1991 relating to the surface water drainage provision at the above I confirm the comments made by Mr Phillip's during his telephone discussion with Mr Hughes on 4th September, 1991.

I agree that an area of 1870 m^2 is a reasonable assessment of the impermeable area comprising the access road from Argyll Road, the site road, and garages and associated hardstandings which is likely to drain towards the site. I also agree with your assessment of the impermeable areas within the site comprising property roof plan areas hardstandings. Therefore, I concur with your total impermeable area of I also consider that the semi-permeable area within a 0.28 hectares. boundary formed by the site and access off Argyll Road, Argyll Road, Old Bath Road and the River Chelt which may drain onto the site is approximately 0.5 hectares. This assumes that the roofs of houses in both Argyll and Old Bath Roads drain to the combined or surface water sewers within these highways.

Given the above parameters, a single flygt pump capability of 26 $1/\epsilon$ and a drainage system of commensurate capability, I concur that your proposed system will accommodate an average rainfall intensity of 36.0 mm/hr. over the impermeable area utilising a single pump. represents a storm of one hour's duration having a return period of 50 years, as you have indicated. However, I would draw to your attention that during such a rainfall event the rainfall intensity will peak at about 3.75 times the average intensity. Similarly, I estimate that run-off discharge would also peak in excess of 3.3 times the average discharge rate. These factors should be taken into account in your

/continued



detail design of the run-off collection and disposal systems. I believe that the 50 year protection your system offers is reasonable. In the event that overland flow from the semi-permeable surfaces outside the site area coincides with impermeable surface flows, I estimate that a similar discharge rate of 26 1/s will occur. Therefore, as you indicate, provision will have to be made for both pumps to operate in tandem in this event.

X

As the overland flow from semi-permeable areas will not be accommodated within the drainage system, and you have proposed that such flows continue overland to the collection chamber prior to the pumping chamber, it is imperative that ground levels are sufficiently lower than floor levels to accommodate this flow, and also that the flow paths are not restricted or obstructed in any way in perpetuity. These conditions apply not only in the direction of flow but also transverse to it. Also, I am slightly concerned that, in the vicinity of the collection chamber, the river boundary/property boundary walls intersection splays may interrupt the flow regime of the overland flow.

Finally, whilst I consider that the design storm parameter which you have adopted is reasonable, I believe that your Client should be made aware that more intense, shorter duration storms may adversely affect the site. Whilst the overall concept of your surface water drainage proposals for this site concerns me, as a result of your Client constructing the houses at a low level, the detail design of the collection systems and pumping station must remain your responsibility.

Yours faithfully,



for Chief Engineer





17 Rodney Road, Cheltenham, Glos. GL50 1HX Tel: (0242) 228862 Fax: (0242) 228982

our Ref:

DJH/AMW/91/8040

Your Ref:

FAO Mr Phillips Cheltenham Borough Council

P.O. Box No. 12 Municipal Offices Promenade

CHELTENHAM Glos GL50 1PP Chelienham Bosough Council
Disectorate of Environmental Services

RECTO 0 3 SEP 1991

PASSED TO PP

CH 8 Lephid 6/9/91

2 September 1991

Dear Sir

RE: DEVELOPMENT AT ARGYLL ROAD, CHELTENHAM, GLOS.

Further to our recent discussions, please find enclosed our amended calculation sheets numbered 1A to 3A inclusive.

These calculations now contain a road area of 170m x 11m to allow for nearby hardstandings etc.

With the increased catchment area, a single Flygt C/D 310.2.180 CS.LT.412 pump can still accommodate a 1 in 50 year storm with a duration of 60 minutes and any storm outside the shaded area on page 3A of our calculations.

With regard to the difficulty of defining the exact catchment area we feel that the standby pump could be employed if a greater discharge of stormwater were required. The two pumps in unison could cope with a total catchment area of 0.5 hectares.

The final pipework runs within the existing stormwater drainage would need to be capable of carrying 26 litres per second of flow in order to cope with the 1 in 50 year scenario taken as our design parameter, i.e. the pipework into the final manhole would need to be 150 millimetres in diameter not 100 millimetres.

To aid the flow of stormwater over the ground adjacent to the houses, the ground levels should form a channel between plot one and the boundary wall and between plot one and plot two.

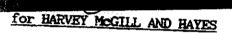
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It may also be necessary to replace the last manhole with a larger diameter chamber having a safety cover which will allow surface flowing stormwater to flow into the chamber from above to alleviate ponding in the corner as quickly as possible.

Would it be possible for you to confirm in writing that the concept of the pumped stormenter system as detailed by ourselves is acceptable to your department as this statement is required to complete the Planning Application.

We hope that this covers all of the conceptual queries, however should you want to discuss any points relating to the stormwater drainage design, do not hesitate to contact us.

Yours faithfully



Encs.

c.c. Mr R C Brock - The Brock Planning Consultancy (Cheltenham)

Mr B Stack - Alexander Haines Construction Co Ltd

Mr J Haines - John Haines Developments Ltd



Cheltenham Borough Council Development Control PO Box 12 Cheltenham Gloucestershire GL50 1PP Our ref:

SV/2013/107089/01-L01

Your ref:

13/00127/FUL

Date:

19 June 2013

Dear Sir/Madam

ERECTION OF DOUBLE GARAGE- 1 COLLEGE RD, CHELTENHAM, GLOS GL53 7SF

Hi Wendy

Further to our telephone conversation yesterday, we wish to provide the following comments:

As you are aware we were originally consulted on the above application, and provided a low risk return letter back in March. Subsequently we were made aware of a previous appeal for a similar proposal on the same site, which was dismissed on flood risk grounds. Following receipt of the Appeal Decision Notice and supporting information, including a letter of representation from the residents at 36 Keynsham Road, we were asked to provide further comments in response to those concerns raised in relation to flood risk.

Following the submissions, and the site visit on the 11th June attended by Matt Kerry, we can confirm that the boundary wall in question does not form part of our Flood Alleviation Scheme and the proposals would not have an effect on our Flood Defence Infrastructure. Therefore, based on the scale and nature of the development (Minor), and in line with our initial comments, we would not ordinarily be a statutory consultee in accordance with the DMPO (England) Order 2010.

Whilst we do not intend to make bespoke comments on the proposals, following a review of the evidence and our site meeting we understand the following:

- The wall between the application site and properties off Keynsham Road (32, 34, 36 etc) was finished as a flood defence;
- This wall was modified to alleviate the risk of flooding from surface water to those properties in Keynsham Road;

Environment Agency
Newtown Industrial Estate (Riversmeet House) Northway Lane, Tewkesbury, Gloucestershire, GL20 8JG.
Customer services line: 03708 506 506
www.environment-agency.gov.uk
Cont/d..



- The wall was constructed as a requirement for development of the 5 properties at the end of the College Gate road;
- A clear 2 metre corridor from the boundary wall and 8 metre corridor from the site entrance should be maintained on the recommendations of a qualified Consulting Engineer (1992). This is to ensure there is sufficient clearance for overland storm water flow and prevent an unacceptable detrimental impact to adjacent property and land areas in this regard;
- · This property and neighbouring properties suffered from external and internal flooding in 2007.
- The wall includes some substantial support piers and visible waterproof membrane
 which highlight it's function as a flood wall. To site the garage in the proposed location would
 potentially remove two supporting piers (although this is not clear from their drawings) and thus
 risk the integrity of the wall and its function as a flood defence, reduce access to maintain the
 wall and potentially divert flood flows.

The area in general is afforded protection from flooding from the River Chelt by our Flood Alleviation Scheme, however the improvements made to the River Chelt Flood Alleviation Scheme (before 2007) were not designed to reduce the risk from surface water flooding in this location.

County and Unitary Authorities have been given the role as Lead Local Flood Authorities (LLFA's) to manage local flood risk including surface water, groundwater, and rivers and streams that are not main rivers. In this instance we would therefore recommend consultation with your own Land Drainage Department and Gloucestershire County Council as the LLFA to assess whether consideration of those concerns previously raised by the inspector relating to flooding are still valid.

In the meantime I trust the above is of assistance, and clarifies our position with regards to this application.

Regards

Anita

Yours faithfully

Mrs Anita Bolton Planning Advisor

Direct dial 01684 864529
Direct fax
Direct e-mail anita.bolton@environment-agency.gov.uk

End 2





Long term flood risk information

BETA This is a new service – your <u>feedback (https://www.gov.uk/long-term-flood-risk/feedback)</u> will help us to improve it.

COLLEGE GATE CHELTENHAM GL537SF



This address is in or near a flood risk area

Be prepared: things you should do

1

Sign up for flood warnings (https://www.gov.uk/sign-up-for-flood-warnings)

This service is free. You can get warnings by phone, email or text message.

2

Learn about flood planning (https://www.gov.uk/prepare-for-a-flood/make-a-flood-plan)

Know how you'll respond to a flood if:

- your home is at risk, for example how to get sandbags
- you're responsible for a school, hospital, care home or other community group
- you run a local business

3

Protect your property (https://www.gov.uk/prepare-for-a-flood/improve-your-propertys-flood-protection)

Get organised now and improve your property's flood resilience.

Being at risk of flooding can affect your <u>insurance</u> (<u>https://www.gov.uk/prepare-for-a-flood/get-insurance</u>). Check if your buildings and contents policies cover flood risk.

Know what to do during a flood (https://www.gov.uk/preparefor a-flood/get-help-during-a-flood) or get help after a flood (https://www.gov.uk/prepare-for-a-flood/get-help-after-a-flood)

- Flooding can affect transport networks and disrupt your travel plans
- Flooding can impact your gas, electricity and water supplies
- Even if flooding hasn't affected you directly, check on friends, family and the wider community

This address is in or near a flood risk area.

The flood risk from rivers or the sea is low View map of river and sea flood risk (https://www.gov.uk/longterm-flood-risk/map?

easting=395446&northing=221590&address=100121234786&map=Riversort

The flood risk from surface water is high View map of surface water flood risk (https://www.gov.uk/longterm-flood-risk/map? easting=395446&northing=221590&address=100121234786&map=SurfaceV

There's a risk of flooding in this area from reservoirs View map of reservoir flood risk (https://www.gov.uk/long-termeasting=395446&northing=221590&address=100121234786&map=Reservoil

View detailed flood risk information for this area (https://www.gov.uk/long-term-flood-risk/risk-detail? address=100121234786)

Other ways of getting this information

View the flood risk information for another location (https://www.gov.uk/long-term-flood-risk/)

21 October 2016



Are there any current flood warnings here?

(https://flood-warninginformation.service.gov.uk/warn ings?location=GL53 7SF)



National flood information service (https://flood-warninginformation.service.gov.uk)

View the latest river and sea levels near



View the current national flood situation

Our Ref: MRH/LFH/C1484.

8th January, 1992



CONSIDENCE
CRYL & STRUCTURAL ENGINEERS

RODNEY LODGE RODNEY ROAD, CHELTENHAMERLOS, GLSD 1.IF. TELEPHONE (1992) 28/227 FAX (1993) 28/227

Re: Boundary wall between 36 Keynsham Road and the development land of Argyle Road

As you now we have been continuing our enquiries into the above and have had some success now in gaining additional information concerning the boundary wall. We can advise the following:

 The wall is constructed of a Dartford brick, type Mediera which has the following properties.

Water absorption,

Durability classification as BS3921,

Efflorescence,

Compressive Strength,

22.5%

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Slight

fk 28N/mm²

The above information means that the brick is frost resistant, but because of its high water absorption characteristics it does not comply with the requirements of BS3921 or BS5628 for use as a damp proof course. This means that the wall will always show rising dampness, but that this will not effect its strength.

- 2. The comments made in our report of May last year under items 3, and 8 still stand, that is:
- We believe the mortar below ground is not of the appropriate quality.
- The foundations are not deep enough to prevent the wall suffering movement due to variations in soil moisture content as a result of the presence of nearby trees.

- 3. In addition we note that the top of the wall has been finished with a capping of Engineering brick. This does not comply with BS5628 part 3 which requires DPC's to be installed beneath cappings, or if an Engineering brick is used as the DPC it should be laid in two courses with broken joints, and in 1:3 Portland cement: sand, mortar. The consequences of this are that water will be able to penetrate the body of the brickwork and unless the mortar is of 1:3 cement:sand this will gradually be broken down by weathering.
- 4. Some of the deficiencies noted in our Report have been addressed by modification works that have been undertaken to the wall specifically items 1, 4, 5, 6 and 7.

Re items 1, 4, 6 and 7.

Stiffening piers have been constructed at the back of the wall. We have not been able to obtain the full engineering design of this, but from the information available it would appear that the piers will stiffen the wall sufficiently to enable it to withstand retained flood water. This would be achieved without relying on the flexural strength of the original wall at the base (weakened by the presence of blockwork). The stiffening would also provide sufficient strength for the 1.9m high wall to resist wind loads.

The addition of the new brickwork skin on the developers side of the wall appears to have been undertaken simply as a protection to the damp proof membrane which has been laid against the wall.

Re item 5

We understand that the deficiency in bonding noted in our report has been rectified by the addition of remedial wall ties.

In conclusion we feel the wall is very much improved for the work that has been done. It can be regarded as safe, but there are still some significant items outstanding affecting its durability, particularly in the long term.

Yours sincerely O'Brien & Price





ENVIRONMENT DIRECTORATE

MEMO T	OO CHIEF PLANNING OFFICE	R.
cour ref: .	JP/SW/CB/18876/02	2230
	PJP/MC/CH8	Ext. No Mr Phillips
	• • • • • • • • • • • • • • • • • • • •	Ask for:
		Date:

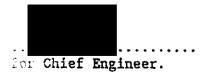
River Chelt - Development of Five Houses on Land off Argyll Road

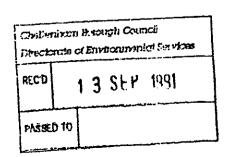
reference to your memorandum dated 5th September, 1991, I have been sying proposals and also been corresponding with the Developer's Consulting Engineers regarding the provision of a surface water drainage scheme for the above site. A copy of my letter dated 6th September, 1991, to Harvey, McGill and Hayes adequately expresses my current views on their corposals for a pumped surface water disposal system. I am studying their author proposals for dealing with overland flow.

With regard to the detail submitted for upgrading the boundary between the development and Keynsham Road properties, this correctly re-introduces the visqueen barrier which had been shown on the approved drawings, but omitted by the Developer during construction. I would question the ability of the ground and footing to sustain the 2m high wall loads applied to a footing width of 450mm. However, it is the Developer's responsibility to ensure the structural integrity of the wall and its foundations, ensure its darability and ensure that due account is taken of the proximity of trees and other factors which may affect the wall foundations. It is important that the visqueen barrier is protected from damage as far as possible, including the long-term effects of sunlight.

has been brought to my attention that the boundary wall, as constructed, and shown on the current planning application, comprising a curved section at the site entrance, is several metres shorter than that shown on the approved plans. In the context of rainfall run-off, water from the access and off Argyll Road could enter Keynsham Road properties over this length vaich would otherwise have been protected by the length of dwarf wall shown on the approved plans.

I also attach, for your records, a copy of the latest correspondence with Mr Woodward. I would also re-iterate the comments contained in the Borough Engineer's memorandum dated 12th June, 1991.







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vibrations within the building and it was necessary to modify the construction method to reduce this severse impact.

9.13 Maintenance of floodwalls and flood embankments

Designers should never forget that maintenance is a design issue and not something that is addressed after the design has been completed, or worse still overlooked altogether.

Failure to address maintenance requirements as part of the design can lead to unsafe and expensive asset management activities, and may result in the structure failing to perform its design function(s). The design of any flood defence structure should therefore include, as an output to be passed to the responsible party, clear definition of the inspection, monitoring and maintenance requirements for the structure. The monitoring and inspection requirements should stem from a clear understanding of the possible failure modes of the structure, so that the management of flood defences can be performance based.

The biggest issue for maintenance is often access. Wherever possible, flood embankments should allow safe vehicular access for inspection and maintenance activities. Where space permits, it is usually preferable to place vehicular access at the base of the flood embankment rather than along the crest, to avoid the possibility of vehicles running off the crest and overturning. Such an access road can also be used in the construction process as a haul road.

Where it is necessary to provide access on the crest of the bank, the minimum crest width should be 3m and the edges of the bank should be clearly marked. Where frequent vehicular movements are to take place, the bank crest should be at least 4m wide.

It is vital that the designers of flood embankments consult the operations delivery team (that is, those people responsible for maintaining the bank) to agree safe dimensions for the crest and side slopes. Unsafe dimensions are very difficult to correct after construction. For example, for safe grass cutting of an embankment crest, the current recommendation is that the crest width is 2m wider than the grass of an embankment crest, the current recommendation is that the crest width is 2m wider than the grass cutting machine that will be used (that is, a one-metre clearance each side) (see GN02 – Flood embankments).

There should also be appropriately spaced access ramps to the crest that allow plant to turn on the crest. Depending on the spacing of ramps, there may be the need to incorporate intermediate turning points. Turning points are also needed at the ends of the defence whether or not a ramp is provided at the end.

At the time of design, it is important to define a suitable inspection and maintenance regime, tailored to the nature of the floodwall or embankment. For grass surfaces, for example, this should include keeping the grass trimmed.

- This improves the quality of the grass sward and the erosion protection that it provides.
- It reduces problems with weeds taking over (to the detriment of the grass cover) and reduces the cover provided for vermin.
- It increases the chances during routine inspections of detecting undue seepage, surface slips, embankment deformation and evidence of burrowing animals.

Flood embankments within or adjacent to farmland may often be conveniently grazed by small herbivores such as sheep, which maintain a short sward, normally without undue damage to the earth structure (sometimes the paths that sheep create can result in low spots on the crest of the bank).

Although floodwalls generally require much less maintenance than flood embankments, they must still have clear inspection and maintenance instructions to address maintenance issues which, if ignored or neglected, may lead to deterioration in the defence. The deterioration may compromise the effectiveness of the wall as a flood defence (for example, through the loss of joint sealer) or its

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appearance (for example, proliferation of graffiti or deterioration of planting schemes incorporated in the wall design).

Gates in floodwalls require regular attention to ensure they operate effectively in a flood event. Maintenance works include oiling of hinges and inspection of seals. The asset management regime should include at least one trial closure of each gate every year.

Built-in parts for demountable defences should be inspected and cleaned out regularly to ensure there are no delays to the erection procedure in a flood event.

Since the crest level of a flood defence is a fundamental aspect of its ability to perform its flood defence function, regular checks on crest level must be performed. More frequent checks are generally required for embankments than for walls, but the designer should initially define the checking frequency based on:

- the nature of the wall;
- the foundation conditions;
- likely traffic use (pedestrians, animals, vehicles).

In the case of a flood embankment, the designer should also define a minimum crest level which the asset manager must maintain in order to ensure that the defence meets its service level requirement.

The asset manager may refine the checking requirements during the service life of the defence, depending on the results of previous surveys.

Key references

Defra and Environment Agency (2007). Management of flood embankments – a good practice review, Technical Report FD2411/TR1. Environment Agency. Available from: http://sciencesearch.defra.gov.uk/Document.aspx?Document=FD2411_6509_TRP.pdf.

This report from the joint Defra/Environment Agency flood and coastal erosion risk management R&D programme presents an overview of issues that can affect flood embankment performance and provides guidance on good practice for dealing with many aspects of design, operation (including inspection) and management (including adaptation). The guide has four main parts: A – Function and management of flood embankments; B – Performance and characterisation of flood embankments; C – Risk and risk management; and D – Good practice reference.

Kirby, A M and Ash, J R (2000). Fluvial freeboard guidance note, R&D Technical Report W187. Environment Agency. Available from: http://publications.environment-agency.gov.uk/pdf/STRW187-e-p.pdf.

This comprehensive guide is now perhaps a little out-of-date but is the most up-to-date guide on the subject. Some of the content is a little academic but if you want to know the full story of freeboard – this is it! It defines all the elements of freeboard and presents details of how to estimate appropriate values for each.

Ogunyoye, F and van Heereveld, M (2002). Temporary and demountable flood protection: interim guidance on use, R&D Publication 130/1. Environment Agency. Available from: http://sciencesearch.defra.gov.uk/Document.aspx?Document=TDFD phase 1 1628.PDF.

This report presents the output of a detailed research project under the joint Defra/Environment Agency flood and coastal erosion risk management R&D programme into the pros and cons of temporary and demountable defences and their appropriateness for use in England and Wales. It covers the subject from the preliminary planning to installation and operation, and has outline details of a range of alternative systems.

The Planning Department Cheltenham Borough Council The Promenade Cheltenham

22 Oct 2016

32, Keynsham Road Cheltenham Gloucestershire GL53 7PX

BUILT

Rect 2 4 OCT 2018

ENVIRONMENT

Dear Sir/Madam

Reference Double garage – 16/01337/FUL 1 College Gate Cheltenham Gloucestershire

We write to object to this planning proposal at 1 College Gate. This application is almost exactly the same as that submitted under 13/00127/FUL.

This garage would be built at a location in the River Chelt's flood plain, where properties suffer from surface water flooding.

The proposed garage would interfere with, and hinder, surface flood water, which comes down from the back gardens of Keynsham Road and Old Bath Road.

In my view, the proposed garage would significantly interfere with flood flows. Secondly, the small capacity pumps under College Gate properties, can only deal with modest storms of up to a one in fifty year event, for the development already built. The small capacity of the surface water storage chamber, and its pumps, means that the improved River Chelt Scheme cannot help, in any way, to ameliorate the serious risk of surface water flooding to homes on College Gate.

When College Gate, and its homes are filled to the brim with surface waters from all the gardens in the neighbourhood, the surface water lake on College Gate will outflank our flood defence wall, and put our home at risk. This submission must surely be an unthinkable proposal.

We agree with our neighbour's objections to this application, and those made by residents for the previous scheme. It is crucial that earlier correspondence is presented to the Planning Committee, because this proposal is almost exactly the same as 13/00127/FUL.

Would you kindly acknowledge receipt of our objection.

Vours faithfully