

Proposed access points to Thanington Park:

1. A2 westbound slip road access Revised junction at A2 westbound slip road and A28

Pentland Properties Ltd's (PPL) 2015 Application proposes vehicle-only access from the north-west bound A2 off slip road. Currently the slip road divides traffic for right or left turning into the A28 Thanington Road, via traffic and pedestrian light controls at the mouth of the junction. The changes will involve an exit and entrance to the development inserted about two-thirds of the way up the slip road (when driving up it from the south), and an additional lane to the east of the existing two lanes for traffic that will turn into the slip road from the A28 and travel south to the new access point, i.e. contra to traffic exiting the A2 via the slip road.

Here and below are sections of PPL's plan for the slip road copied from BDB Design's access diagram in PPL's **Design and Access Statement** dated October 2015.

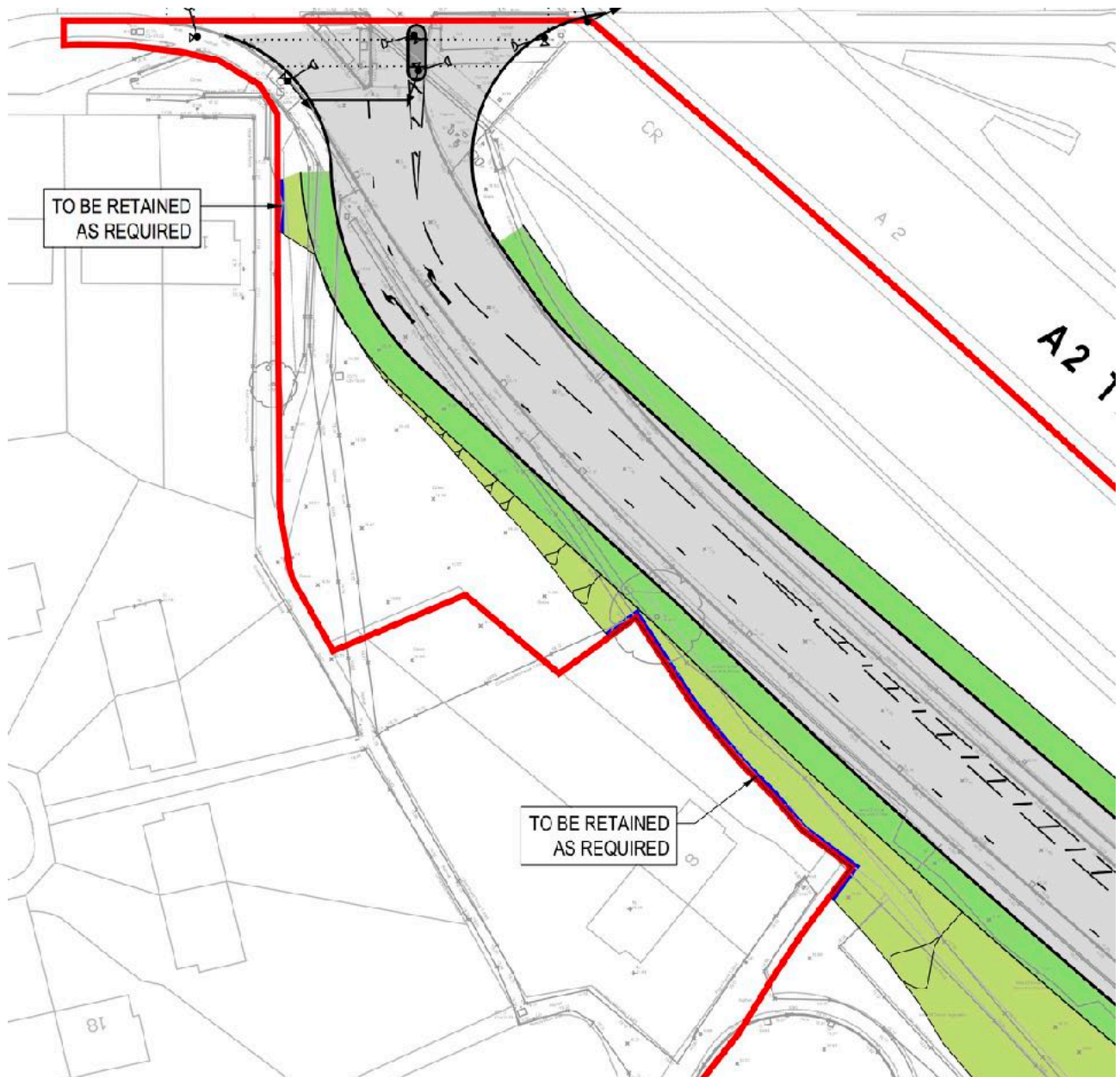


Because the proposed alterations affect part of the A2 trunk road system, PPL must get the approval of Highways England, an executive agency of the Department of Transport. During the period PPL's Application was being considered by CCC Highways England wrote two letters to CCC. These are informative: Highways England clearly was concerned about feasibility and safety issues.

The junction “bell mouth”

Highways England’s letter to Canterbury City Council dated 3rd August 2015, extracts:

At the junction with the A28: “The revised radius of the eastern side of the junction bell mouth comes very close the parapet railing to the extent that at one corner the railing is too close to the edge of the carriageway and is likely to be prone to vehicle strikes. The other corner of the parapet restricts the footway width to the proposed crossing point to the extent that the layout is likely to be largely impracticable from a day to day usability perspective. We have reservations as to whether or not the correct clearance to the parapet can be obtained or practicable footway width past these pinch points”





Views of the “junction bell mouth” and parapet railing from the A28 bridge over the A2, **Left** looking west and **Right** looking down the slip road. On the plan above, note the close proximity of residential properties to the areas likely to be affected by the slip road modifications.

Highways England continues: “Swept path analysis will be required to ensure that all vehicles likely to use this junction can do so safely without entering adjacent lanes. We have concerns that an HGV approaching the stop line northbound on the slip will to be able to make the left turn without encroaching into the adjacent lane and also the turn left onto the slip from Thanington Road looks dubious for large vehicles.”



View of “junction bell mouth” **Left** looking west through the right-turn lane light stop to the left turn lane. The new contra lane will be located on this side of the double yellow lines. and **Right** looking back at the junction from the west side. The dipping fences surround the front garden of a house.

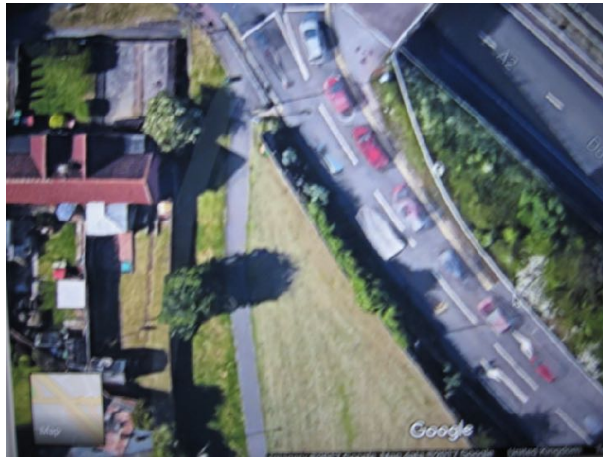
Highways England continues: **Section of Two Way slip road:** The new opposing third lane runs close to the main northbound carriageway of the A2 Trunk Road particularly at the new junction on the slip road. It is likely that to construct this carriageway the embankment separating the slip road from the main alignment will need to be reinforced and proactive safety barrier will need to be provided along its full length. There may not be sufficient verge width to enable this to be achieved particular *{sic}* with regards to working width and set back. Furthermore, an environmental barrier will need to be provided to screen headlights of opposing flows of traffic between the slip road and main carriageway of the A2.



The drop from the slip road to the A2 main carriageway: 90 degrees at the walled section; probably 80 degrees on the grassed area above. Note the houses very close to the west side of the slip road.

Here are some photographs of screens showing Google map images of this junction. The shadows thrown by the afternoon sun give some indication of the height of the embankments. (The cars queuing at the junction are permanent fixtures on the image until it is updated by Google. The green and red lines show the status of traffic at the time of taking photographs of the screens.)





Our queries

Is there room for a third contra lane down this slip road? Surely not, unless the exit lanes are shifted to the left over the pathway and a grassed area, and probably over the front garden of the first house to the west. Will demolition of that house be needed? Is there room for three HGVs in parallel anywhere on the altered slip road?

Is there room for a second pedestrian island at the junction mouth, between the northbound and southbound lanes? There is not, so how are pedestrians crossing the bridge over the A2 on the south side to do so safely?

What additional traffic lights will be required at this junction, and on what sort of sequence? Traffic currently travelling east and west on the A28 often is held up for several minutes, and through several light changes, while long lorries attempt to turn right from this slip road. The existing system is difficult for any driver not acquainted with it to negotiate.

The slip road approaches the A28 at a 45-degree angle. Long vehicles turning right though 135 degrees into the east-bound A28 have at least the full width of that road in which to manoeuvre. How will such vehicles turning sharp left into that angle do so without danger of breaching the parapet? The new very long HGVs are 7 foot longer than the current norm. (Also, negotiating 90 degrees mid-slip road will be difficult enough.)



Where will the “environmental barrier to screen headlights of opposing flows of traffic between the slip road and main carriageway of the A2” be located? The eastern side of the slip road is a 80/90 degree drop to the A2 at this point.

The junction on the slip road



Half way up (or down) the slip road PPL proposes an access point to the development site. This is a startling proposal for an A2 exit road which is prone to long queues at most times of the day, not just rush hours. A viewing of Google Maps with the “traffic” facility enabled when the A2 is busy will show an amber, red or crimson line signifying a queue - usually reaching as far back, if not further, than the proposed junction.



Google map view of the slip road at 4:30 p.m. 31st July 2017

Highways England’s reservations about this proposed arrangement are so clear one wonders why they troubled to suggest modifications. They were bothered about the layout of the junction: -

The adequacy and height of any signals system:-

High mast signal heads will be required to ensure sight stopping distance over 1.5 times sight stopping distance can be maintained to the primary signal heads. It would be appropriate to reduce the speed limit of the slip road to 30 mph at an appropriate distance ahead of the signal stop line so that drivers can adjust accordingly prior to the signals.

The positioning of the signals and sight lines (if you concentrate hard on the jargon actually means):-

The position of the signal stop line needs to be suitably located away from the A2 northbound mainline. TD 22/06 suggests that 'drivers leaving the main line should have sufficient time to react and brake safely before the end of any queue' Para 2.41. The standard also recommends the provision of a near straight after the diverge road marking diagrams 11042 TSRGD 2002 of 70 m which appears to be provided. TD22/06 then requires that Sight Stopping distance is provided from the back of the diverge marking to the rear of the maximum queue likely. In this case sight stopping distance is that of the main line at 295m. As no maximum queue lengths have been provided on the slip road there is concern that the junction may be positioned too close to the main line carriageway.



Left Looking south on the A2 from the A28 bridge. The indentation on the north-bound lane is the commencement of the off-slip road. **Right** Looking south down the off-slip towards its junction from the A2. Currently the right and left hand lane hard-line division begins only at the arrows. The new access turning, with a traffic light system, will be located much further back, roughly where the car with headlights is circled on a narrower section of the slip road.

The letter closes with Highways England's expressing their concerns as to the feasibility of PPL's plans:

Our view is that without resolving the above issues we are unable to determine whether the proposed development may result in severe harm to the A2 Trunk Road. We need further information from the applicant to establish whether this is the case.

An area that may be lost to the bell mouth junction



Pedestrian path from Thanington Road towards Cockering Road adjacent to the west site of the slip road, close to the A28 junction. The red line including this area is marked on the developer's plan "To be retained as required", so it may be impinged upon if the A28/slip road junction requires widening. Currently this is heavily used by pedestrians to access the bridge across the A28, including people walking children to and from Wincheap Foundation Primary School.

Highways England's second letter

Following the developer's response to Highways England's letter of 3rd August, and supplementary information from the developer's consultants, Peter Brett Associates (PBA), Highways England sent a second letter to Canterbury City Council.



Highways England's letter to Canterbury City Council dated 16 September 2015: extracts:

.... we are minded to recommend a condition related to the satisfactory operation and safety of traffic on the north westbound off slip traffic signals at a) the A28 junction and b) the proposed site access junction to ensure that the slip road is able to cope with traffic demands in 2024 with the addition of the site and background traffic growth. This will require agreement with Highways England on the junction design and traffic signal settings it is also likely to require agreement with KCC as the intention is to de-trunk a section of the slip road and this would then revert to the local highway authority. We will need to speak to KCC about how we manage this process.

So Highways England was still unhappy about the design, and in effect notified CCC (and KCC) that it reserved its power to require a condition to be placed on PPL to get it approved by Highways England. Its recommendations about speed limits and signal placements indicate what Highways England will look for in any revised design.

For safety purposes we would recommend that the speed limit on the north western A2 off slip road be reduced to 30mph approximately 90m in advance of the signal stop line, This does not mean that the applicant can avoid full SSD [*stopping sight distance*] on the approach as this is taken as 295 (120kph) table 3 TD 9/93. Full SSD must be provided in accordance with this requirement to the primary signal heads. Due to the likely occurrence of large goods vehicles on this slip and the vertical alignment of the slip road high mast signal heads should be provided to avoid an obscuration of the signals by slow moving large vehicles.

Highways England also states it will require a **non-motorised user context report** and a **road safety audit** due to these modifications, and that it will consult with KCC about these requirements and reach agreement about them, and needs to agree prior to the two audits being undertaken by the applicant.

At the date of this Report neither of these audits has become available for public scrutiny. We do not know if Highways England and the KCC reached agreement about the requirements or, if they did, whether one or both of the audits has been produced.

In addition to the two preliminary audits, in an Annex to CCC Decision Notice Highways England sets out its conditions requiring PPL to produce and achieve approval of more plans and drawings of the proposed alterations to the A2 northbound slip road. It is reasonable to assume that the issues raised and recommendations made in the August and September 2015 letters will need to be addressed by PPL.

In addition, the signals will need to incorporate a loop detector at the start of the slip to ensure that no queuing from the signals out onto the main alignment as this would be exceptionally hazardous. The introduction of the signals on the slip also creates a new area of high stress on the slip road where vehicles will be required to decelerate. accordingly, high friction surfacing will required on the approach tot he stop line on the slip road and it is recommends that the surfacing extends to at least 50m beyond the expected / modelled queue length to mitigate the risk of rear end shunts at the end of the queue on the slip road. The applicant is also required to provide sight stopping distance of 295m to the end of the likely queue.

It is apparent that, in addition to its other “non road” obligations under the terms of the Decision Notice and the s.106 Agreement, PPL has a lot to do before even reaching Commencement of the development, as that term is defined in the s.106.

Comment With regard to the proposed alterations of the A2 northbound off-slip road it is difficult, given the terrain, to see that these will ever achieve acceptance by Highways England. In which case, PPL will need to provide vehicle access to the development site by other routes.

Here are Conditions 1-4 in full.

Highways England Formal Recommendation letter to LPA 11/12/15, extract:

“Annex A: Condition(s) to be attached to planning permission

1) Detailed Drawings

No part of the development hereby permitted shall be commenced until a fully designed scheme has been submitted to and approved by the local planning authority (who shall consult with the Highways England on behalf of the Secretary of State for Transport.)

The drawings shall in all respects comply with the requirements of the Design Manual for Roads and Bridges the Department for Transport Specification for Highway Works and take due regard of the project sponsors comments in respect of those issues raised by the safety audit team in the stage 1 Road Safety Audit.

Reason:

To ensure that the A2 continues to be an effective part of the Strategic Road Network in accordance with the National Planning Policy Framework (NPPF) and Circular 02/2013: The Strategic Road Network and the Delivery of Sustainable Development and to satisfy the reasonable requirements of road safety.

2) Scheme Implementation

No part of the development hereby permitted shall be occupied until the completion of the improvements, as approved in writing by the local planning authority (who shall consult with the Highways England on behalf of the Secretary of State for Transport.)

Reason:

To ensure that the A2 continues to be an effective part of the Strategic Road Network in accordance with the National Planning Policy Framework (NPPF) and Circular 02/2013: The Strategic Road Network and the Delivery of Sustainable Development and to satisfy the reasonable requirements of road safety.

3) Construction Traffic Management Plan

No part of the development hereby permitted shall be commenced until a Traffic Management Plan (TMP) is submitted to and approved by the local planning department who shall consult with the Highways England on behalf of the Secretary of State for Transport.

The TMP shall provide details of at least the following:-

- a) number of daily and hourly lorry movements
- b) Routeing of vehicles including details of roadside signs erected to direct or control construction related vehicles travelling to or from the site
- c) Measures to deal with dust and debris nuisance
- d) Road cleaning
- e) Planned diversion routes during construction
- f) Arrangements throughout the construction period whereby the public may communicate with the contractor

Construction works shall only be carried out in accordance with the approved Traffic Management Plan unless otherwise agreed in writing by the local planning authority (who shall consult with the Highways England on behalf of the Secretary of State for Transport.)

Reason

To ensure that the development does not result in avoidable congestion on the A2 Truck Road and to prevent extraneous material from being deposited on the highway. To ensure that the A2 Trunk Road continues to be an effective part of the national system of routes for through traffic in accordance with section 10 of the Highways Act 1980 and to satisfy the reasonable requirements of road safety.

4) Travel Plan

No part of the development hereby permitted shall be occupied until a Travel Plan has been approved in writing by the local planning authority (who shall consult with the Highways England on behalf of the Secretary of State for Transport) and implemented. The Travel Plan shall include arrangements for monitoring and effective enforcement.

Reason:

To minimize traffic generated by the development and to ensure that the A2 Truck Road continues to be an effective part of the national system of routes for through traffic in accordance with section 10 of the Highways Act 1980.

5) Wheel Washing ...**6) Surface Water Drainage ...”**