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CORMAC

Newham Road, Truro

Feasibility Review

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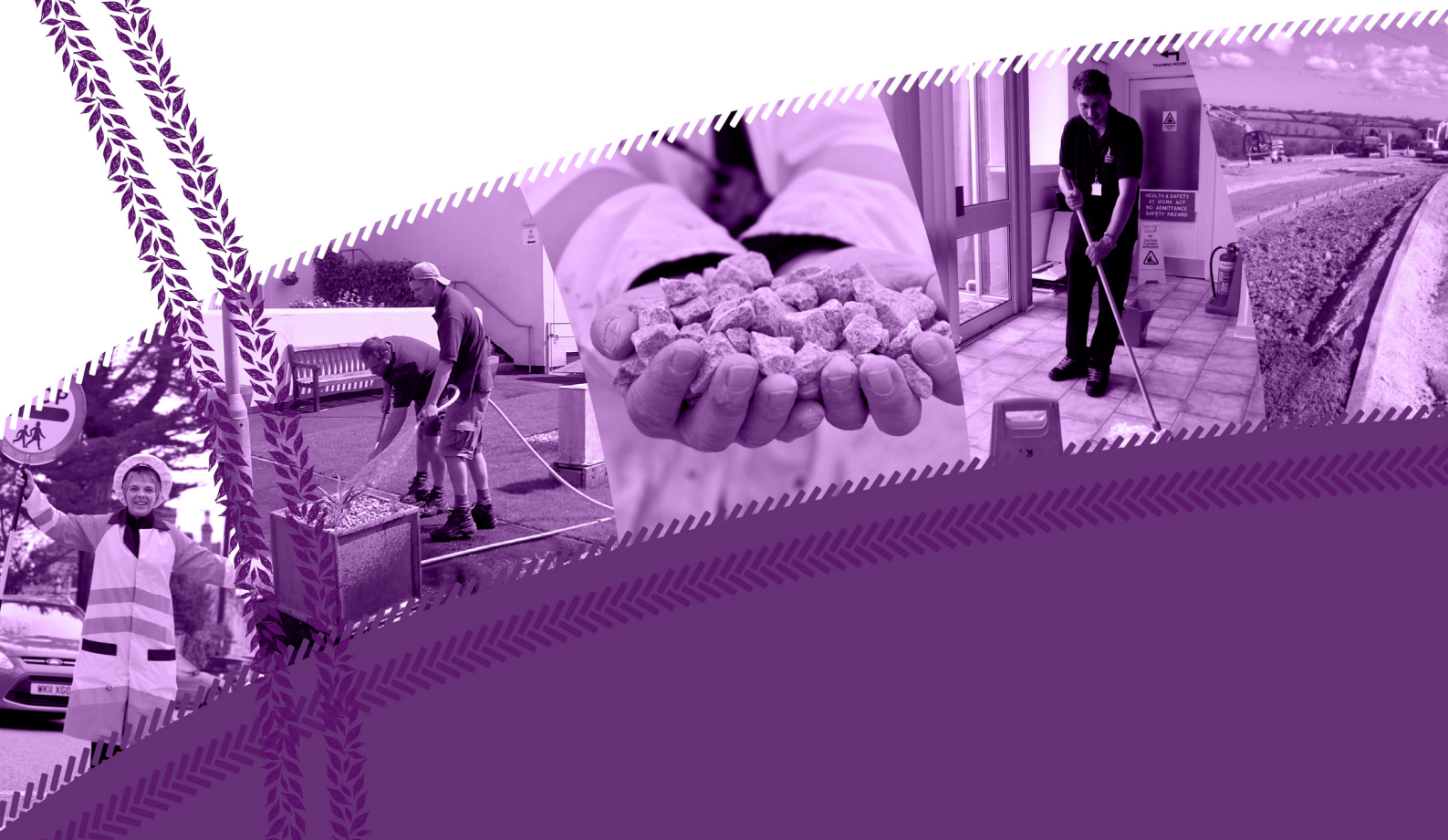

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Executive Summary

Newham Road provides the sole means of road access to the important employment area of Newham. Beyond its junction with Gas Hill, however, it remains largely unimproved, with restricted visibility and with little or no provision for pedestrians. Although not borne out by the accident record, the road is demonstrably unsuitable for the mixture of traffic that uses it: pedestrians, cyclists and motor vehicles, including not-in-service buses and a high proportion of heavy goods vehicles.

Prior to this report, the council had considered and documented a total of 14 options for the improvement of a 250m-long section of Newham Road between Gas Hill and Lighterage Hill. Numbered 1 to 13 (plus an Option 0), these had not progressed beyond the feasibility stage – often because of their impact on the ecologically and historically significant assets on both sides of the road. This report now considers the following three further options:

Option 14: Road re-alignment plus new cantilever pathway
The carriageway would be re-aligned and widened to a uniform 6.5m wide road, and three lengths of new cantilevered pathway would be constructed over the mudflats. Project risks include obtaining planning permission and other various environmental consents, but if these are achieved the option offers an attractive and safer waterfront path alongside an improved road.

Option 15 – Refurbish the Cornish Way and minor road widening
The existing cycle path to the rear of the Newham Road properties would be improved, and Newham Road would be widened and strengthened in places. However, it is debatable whether the benefits are great enough to outweigh the cost of the scheme and the disruption caused during construction.

Option 16 - New footway with single lane carriageway controlled by traffic signals
A simple and cost-effective scheme, requiring less land and fewer consents, this option would provide a new footway along Newham Road. At the key pinch point where the carriageway cannot be widened to 6.5m, traffic signals would control the movement of traffic in single file.

Budget cost estimates of the three options are as follows:

	Option 14	**Option 15**	**Option 16**
Works	£1,520K	£292K	£250K
Utility diversions	£150K	£50K	£25K
Land (including fees)	£50K	£50K	£25K
Design fees	£304K	£58K	£50K
Total cost	**£2,024K**	**£450K**	**£350K**

At a meeting held on 28th September, Option 14 was favoured by Cornwall Council's Portfolio Holder for Transport, Bert Biscoe, plus members of the Newham BID committee.

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1 Introduction

1.1 Newham Road is a two-way road, commencing at the Tesco roundabout and extending as far as the Truro sewage treatment works at the far end of the Newham Industrial Estate, about 1.5km to the south. Successive improvements during the 1980s and 1990s ended at the junction with Gas Hill, beyond which the road has remained largely unimproved ever since. The carriageway is narrow, forward visibility is restricted and there is no provision for pedestrians.

1.2 Improving Newham Road between Gas Hill and Lighterage Hill is considered to be an essential catalyst for the further development of the Newham area. This long term plan is being led by Newham Business Improvement District (BID), a committee representing around 100 local businesses.

1.3 Investigations into improvements to the road and footway at the end of Newham Road, Truro have been ongoing since the mid-1990s. However, to date they have not reached a satisfactory conclusion, with the most likely options encroaching onto the SSSI or being prohibitively expensive. There has also been little justification for funding for this scheme, there being no accident record to justify a safety scheme and no developments attracting 'Section 106' money or European match-funding.

1.4 This feasibility review will:

- Review the design work that has previously been undertaken;
- Investigate three options to improve the road – one for a remote footway/cycleway away from the industrial traffic; one for a path constructed over the mud flats (based on a conceptual idea from CSA Architects in 2005); and one for a footway
- Gain the approval in principle of key parties.

1.5 The main constraints of the area include the narrow road, the environmental constraints of the Truro River, which is a Special Area of Conservation, a Site of Special Scientific Interest and an Area of Great Scientific Value, the impact on the listed property, Little Newham, matters relating to land ownership and use of boats along the foreshore and the statutory service plant within in the road.

2. Present Situation

2.1 Detailed Description of Area

2.1.1 Nowadays Newham is a mixed use industrial area with numerous businesses that require vehicular access, including a First South West Bus Depot, the wastewater treatment works for Truro, a number of garages, Volunteer Cornwall, Macsalvors Plant Hire Ltd (near Lighterage Hill junction) and Cory Environmental to name just a few. In total there are more than 100 businesses employing over 1,000 people.

2.1.2 The industrial area is a strip of development about 250m wide backed by farmland to the West and adjacent to the protected Truro River to the East and Calenick Creek to the South.

2.1.3 Interspersed within the industrial district are a few private residential properties. Most of these pre-date the commercial development, including the Grade II-listed Little Newham, which is close to the proposed scheme.

2.1.4 Gas Hill is about 0.8km from the Tesco roundabout, and the section of road under consideration is about 250m long.

2.2 Highway Data

2.2.1 Traffic Flows

2.2.1.1 Traffic volumes on this No Through road are highest at its entrance and progressively reduce towards reducing as journey destinations are passed.

2.2.1.2 The Annual Average Daily Traffic (AADT) flow in 2014 ranges from 15,400 vehicles at the northern end, to only 690 vehicles beyond the Lighterage Hill junction. In between there are major trip generators such as the Tesco superstore, the Royal Mail sorting office, and the numerous commercial premises off Lighterage Hill.

2.2.1.3 The table below shows two nodes in particular beyond which traffic volumes show a marked decrease: the Tesco junction and the Lighterage Hill junction.

	AADT (2014)	HCVs	HCVs + MCVs
A39 Roundabout to Tesco	15,400	400	430
Tesco to Higher Newham Lane	5,900	360	490
Higher Newham Lane to Lighterage Hill	3,200	250	360
Lighterage Hill to end	690	70	80

2.2.1.4 Newham Road forms part of the Fire Brigade Strategic Route and the Cornwall Freight Network.

2.2.1.5 A traffic survey was carried out in April 2015. It recorded a peak of 200 vehicles between 7:00 and 8:00. Further results can be found in Appendix D.

2.2.2 Pedestrian and Cycle Flow

2.2.2.1 **Pedestrians:** At the Northern end of Newham Road (taken at the Cornish Mutual Assurance building) the pedestrian count was 241 movements in April 2004 in one day and 460 in May 2012. However this is a long way from the site that is being considered and people may be accessing businesses in that locality.

2.2.2.2 A further count was carried out at the site in April 2015 and recorded 347 pedestrians.

2.2.2.3 Beyond the existing footway, the demand for pedestrians accessing the remainder of Newham Road is likely to be repressed by the lack of a suitable safe walking route.

2.2.2.3 **Cyclists:** At the Northern end of Newham Road (taken at the Cornish Mutual Assurance building) the number of cyclist movements was 36 in April 2004 in one day and 34 in May 2012. Again, this is a long way from the site that is being considered and people may be accessing businesses in that locality but not reaching Newham. At the Lighterage Hill junction there were 16 cyclist movements in May 2012.

2.2.2.4 **The Cornish Way:** The disused railway line at Newham now forms part of the Cornish Way network of cycle routes. Commencing at Gas Hill, it runs along higher ground behind the waterfront properties, parallel to Newham Road, crossing Lighterge Hill and continuing south past the sewage treatment works before heading west to Calenick.

2.2.2.5 The Cornish Way is accessed via a short but steep ascent up Gas Hill, which is difficult for mobility-impaired pedestrians. From there to Lighterage Hill, the path is overgrown and unlit, making it appear dark and narrow in places and creating an unsafe impression for its users. For some pedestrians, therefore, Newham Road – with its flat gradient and riverside vista – offers a more attractive choice of route. Plus it is the only choice of route for pedestrians wishing to reach the half dozen or so roadside properties which the Cornish Way lies behind.

2.2.2.6 During a recent survey, two Newham businesses referred to the existing road and lack of cycle path along it as being a deterrent to cycling to work.

2.2.3 Accident Data

2.2.3.1 There have been no reported personal injury accidents on this stretch of road within the last 3 years.

2.2.4 Cornwall Freight Network

2.2.4.1 The Strategic Freight Network includes major roads, ports and railways which transport freight around the county. The Local Freight Network covers movements between the Strategic Freight Network and significant "Lorry Movement Generators", such as industrial estates. Newham Road, therefore, forms part of the Local Freight Network.

2.2.5 Highway Alignment

2.2.5.1 Following improvements in the 1980s and 1990s, the alignment of Newham Road is of a relatively high standard as far as its junction with Gas Hill. It benefits from a wide carriageway, a shared surface path on the east side, and good forward visibility. Beyond that junction, however, the road remains largely unimproved. Its width reduces to a minimum of 5.5m, visibility is restricted and there is no provision for pedestrians.

2.2.5.2 A notable pinch point occurs at Little Newham, where the narrow road curves around the frontage of the property, with no allowance on the inside of the bend for swept paths. Consequently HGVs struggle to pass each other at this point, and pedestrians

sometimes have to make sudden avoidance measures to get out of the path.

2.2.5.3 The vertical profile of Newham Road is more or less flat, as it closely follows the foreshore of the river. Its height rarely rises above 6m AOD along its entire length.

2.2.5.4 A verbal report was received in November 2013 concerning road movement under the passage of abnormal loads. This was reported to the Highways maintenance team who said that the last records showed that it was treated in 2006 with 14mm HRA, but that there was no knowledge of movement at this location. Any future ground investigation will need to include reporting on the condition of the road and its foundation.

2.3 Environmental Issues

2.3.1 Land Designations and Planning Restrictions

2.3.1.1 A desk study of the area has identified the following classifications:

- The Truro River forms part of the Fal and Helford Special Area of Conservation (SAC) and the Fal Estuary Complex Area of Great Scientific Value.
- Newham is adjacent to the Malpas Estuary Site of Special Scientific Interest (SSSI) and the mudflats form part of the Biodiversity Action Plan. The intertidal mudflats and the aggregations of non-breeding birds – the black-tailed godwits – a notified 'feature' of the SSSI, are of particular importance.
- Truro River is a Main River, with Flood Zone 2, 3 and 3b category. The road is in part of the tidal floodplain.
- The river comes under the Falmouth and Truro Port and Harbour Authority.
- The property 'Little Newham' is a Grade II-listed building.
- This particular area of Newham is designated as a Mineral Consultation Area – Newham Heritage Quarry.
- There are two Tree Preservation Orders in this area:
    - A prominent macrocarpa (conifer) tree within the grounds of Riverside Cottage.

- A sycamore tree on the highway/property boundary of Riverside Cottage.

2.3.2 Previous Reports by Environmental Consultants

2.3.2.1 Two reports were commissioned in 2000, when a road widening scheme was being considered. The first one, by Spalding Associates (Environmental) Limited, was called "Assessment of the Ecology of an Area of Littoral Mudflat at Newham, Truro". The report raised concerns about the potential loss of mudflat:

- The loss of the biotope (or habitat) classified as LMU.HedScr.
- Intertidal habitat
- The degradation of adjacent littoral habitat, (i.e. that part of the river which is close to the shore);
- The loss of a small but significant area of saltmarsh (part of the Atlantic Salt Meadows); and
- The loss of mixed sediment at the intertidal fringe, which forms the buffer zone by the road.

2.3.2.2 It was also noted, though, that there is pollution in the form of disturbed sediments, rubbish and paint (possibly from boat maintenance).

2.3.2.3 The second report produced in 2000 was called "Assessment of wader activity on the tidal flats at Newham, Truro". Although there was little bird activity in the specific area of Newham, the report noted that the wider river area is used for feeding and roosting by waterfowl and wading birds that are of national importance. Of particular significance is the black-tailed godwit, which is on the RSPB Red list. There are other birds on the Amber list and on the Cornish Red Data Book of Species.

2.4 Statutory Undertakers

2.4.1 Information about the statutory and non-statutory undertakers is shown on the following pages.

Statutory and Non-statutory Undertakers	
Consultee	**Comments**
Western Power Distribution (January 2015 data from C3 request).	Underground 11kV High Voltage power cable in ducts at the northern end in the road next to the footpath. Underground 11KV High Voltage power cable along Newham Road generally, not ducted, in sand at the edge of the road on the landward side. Possible power supply to streetlight on landward side south of Gas Hill junction. Low voltage (blue) in footpath at Northern end but may be outside the extents of the scheme. If it will be affected, WPD need to be contacted. Low voltage ASSUMED ROUTE in the verge opposite Gas Hill. The plant in this area has not been identified fully and TRIAL PITS would be required to find out what is in the verge, and the extent of the cables along the verge and any street light connections. Possible power supply to streetlight on seaward side opposite the Gas Hill junction, near the unknown supply. LV overhead cables on stayed poles from Riverside Cottage to Lighterage Hill. Underground 11KV High Voltage power cable across Lighterage Hill junction. Chambers in the road and in the footpath near and in Lighterage Hill junction with 11KV High Voltage power. One of the chambers in the footpath has a LIVE END 11KV cable. **When trial pits are carried out Western Power Distribution will need to be present. This will allow them to provide quotes and lead in times.**

Wales and West Utilities (October 2013 C2 Data and 2015 C3 estimate)	MEDIUM pressure gas pipe Extreme caution major accident hazard pipeline. Runs along the northern side of Lighterage Hill, across the junction to the seaward side of Newham Road and runs along the road to the other side of Gas Hill, then it crosses to the landward side of Newham Road. Cost of the diversion is **£11,007** plus any unforeseen costs. (2015 estimate). **Total = £11,007 including VAT + cost for contractor to excavate and support the trench.** **The lead-in time would be 100 days** No mechanical excavation within 3m of the main.
South West Water (October 2013 Data)	There is a distribution main on either side of Newham Road and both a Public Foul Sewer (225mm diameter clay pipe) and a Public Combined Sewer (600mm diameter precast concrete pipe) in Newham Road. There is a Pumping Main Sewer (500mm diameter Ductile Iron pipe) along the Cornish Way.
Openreach (BT) (October 2013 data and 2015 C3 estimate)	There are underground cables on both sides of Lighterage Hill and across the junction and there is a junction box on Newham Road north of the junction. There is an underground cable on the seaward side of Newham Road up to Riverside, more road crossings and two underground cables with junction boxes up Newham Road. There is a junction box and underground cable running up Lighterage Quay. Contractors must contact Dial Before You Dig before planning any work here. Don't excavate within 600mm of their plant.

	The initial estimate for Openreach work is £81,895.33 + VAT@20% = £98,275 Plus £2,031.30 + VAT@20% = £2,438 for Openreach design. **Total = £100,713** **The lead-in time would be 4 months** **The construction time would be a further 4 months**
Cornwall Council Gullies. (October 2013 data).	Gullies along Lighterage Hill and at the junction.
Vodafone Limited electronic communications network (formerly part of electronic communications networks of Cable & Wireless UK, Energis Communications Limited, Thus Group Holdings Plc and Your Communications Limited). (October 2013 data).	No apparatus.
Verizon (previously MCI WorldCom). (October 2013 data).	No apparatus
May Gurney for Orange. (October 2013 data).	No apparatus

2.5 Land and Boat Ownership and Use

2.5.1 Ownership of the Foreshore

2.5.1.1 The Land Registry showed no registered owners of the foreshore. The Harbour Master has confirmed that it is not owned by the Port of Truro. However, solicitors acting for the Trustees of Lord Vivian's Estate claim that the land is in the ownership of the Estate. Originally bought by the Trustees from the Duchy in 1859, the foreshore was evidently still in their ownership in 1949. Since then, various parcels of land have been sold off, yet the foreshore has not been included in any of those.

2.5.1.2 Whilst the evidence presented by the Trustees of Lord Vivian's Estate appears reasonable, the Council would nevertheless require the owners to "deduce title" formally when the time comes to acquiring the land. If that proves to be impossible, the council has the option to use powers under Section 228 of the Highways Act 1980. These allow the council, as Highway Authority, to carry out highway improvement works on land whose ownership is unknown. The road or path becomes publicly maintained highway one month after completion, unless objection is received from the genuine landowner. Until that point, therefore, the work is carried out at risk, although albeit a low risk by but by making although that risk is low if diligent efforts beforehand have failed to trace the landowner.

2.5.2 Privately Owned Slipway

2.5.2.1 A small slipway exists directly opposite Riverside Cottage. The owners of Riverside Cottage have claimed that it forms part of their property. However, it did not show up on the Land Registry search. If access to the slipway is not going to be affected by the improvement scheme, then ownership is not important. Otherwise, this is an issue that would require further investigation.

2.5.3 Ownership of the Verge

2.5.3.1 The verge adjacent to the carriageway – including an area of ground which was formerly a lay-by – has

been confirmed by the Regional Engineer as forming part of the highway.

2.5.4 Boat Ownership

2.5.4.1 Cornwall Council (as Port Authority) grants licences to boat owners who moor their boats along the foreshore. The right to moor boats, therefore, is not a permanent one. Furthermore, the Harbour Master's Office has contact details of those owners of boats to which it grants licences.

2.6 Site Investigation

2.6.1 There have been numerous boreholes and trial pits in the Newham area over the years but no works are recorded within the footprint of the Little Newham Site. Previous investigations are recorded in the vicinity of the site and the findings are summarised at Appendix C.

3 History of Options Considered

3.1 There is a large amount of information from previous work carried out in trying to find an acceptable solution and the detailed information is available in other reports. Some of the earlier options also included the section between Higher Newham Lane and Gas Hill, which was subsequently constructed. A summary of previous options 0-13 is shown on the following pages.

3.2 The outcome of all of the 14 options at the time was that the scheme did not give value for money and should not be pursued. In 2006, the council's Engineering Design Group (now part of CORMAC Solutions Ltd) suggested that if the scheme were to not go ahead, a 1.5m footway should at least be constructed in the short term in front of Little Newham. At an estimated cost of £25,000 at the time, this would improve visibility as well as pedestrian safety. However, it would make the road even narrower.

3.3 In 2011/12 investigations were made into whether a Household Waste Recycling Centre could be located in the Cory Depot in Newham off Lighterage Hill. Improving the road would have been a crucial part of any planning permission, and this was included in the analysis. Eventually, the proposed site at the Truro Eastern District Centre site (TEDC) became the preferred location, with access difficulties at Newham being a key factor in that decision.

Option	Description
1	Original alignment 1:1.5 V:H embankment Drawing R1184/D/R5
2	Original alignment 1:0.58 V:H embankment Drawing R1184/D/R6
3	Original alignment vertical face to embankment Drawing R1184/D/R7
4	Alignment amended to move inland outside Skinner's Brewery vertical face to embankment Drawing R1184/D/R8
5	Alignment amended to move inland at Abrahams garage Vertical face to embankment Drawing R1184/D/R9
6	Alignment further amended to move inland at Little Newham vertical face to embankment Drawing R1184/D/R10

Option	Description	Comments	Cost
7	Traffic Signal Control – drawing R1184/P/101	No impact on foreshore but not feasible because of private and commercial accesses between the signals.	Cost (in 2002)
8	One- way system– drawing R1184/P/102	No impact on foreshore but steep substandard gradients, poor left turn from Gas Hill, loss of the Cornish Way, possible stats problems, loss of car park, traffic noise.	£919,000
9	Link Road – drawing R1184/P/103	No impact on foreshore but steep substandard gradients, planning permission needed for road over farmland and new junction with A39/A390, expensive.	£2M
10	Cantilever road – drawing R1184/P/104	Acceptable layout but full road closure needed to build cantilever – no diversion possible. Extensive service diversions.	£1.09M
0	Infilling the foreshore by about 7m - drawing 11	Approved by the council but unacceptable to Natural England	£1.33M

Option	Description	Comments	Cost	
Option 11	Drawing R1184/D/R22. 'Designed' using Autotrack to allow two HGVs to pass.	Allows 1.5m of footway on the landward side. **Takes small area of foreshore** and needs three lengths of retaining wall, in total a length of about 90m of vertical retaining wall over the foreshore. Requires 1.5m strip from Little Newham (listed building consent needed).	£673,000 2010 (including optimum bias of 25%) A later estimate of £780,000 did not include an anticipated 25% increase in rates for tidal working as suggested by the Council's team who are managing the Hayle Harbour construction works	Options 11-13 were developed only using AutoTrack and on the following assumptions: • 20mph speed limit • 6m wide road • 1.5m footpath on landward side • 0.5m hard verge and 0.5m wall on seaward side • That HGVs could pass with 0.5m space between them. • Construction of vertical retaining walls along the shore as required (although Natural England's preference is for sloping banks).
Option 12	As above but the road has been moved away from Little Newham. Drawing R1184/D/R23.	Allows 1.5m footway on the landward side. No landtake from Little Newham. Needs about 140m length of vertical retaining wall over the foreshore, very little/no land from Little Newham hedge and needs retaining wall by estuary.	£646,000 (date???) (did not include an anticipated 25% increase in rates for tidal working. This anticipated increase has been recently verified by the Council's team who are managing the Hayle Harbour construction works)	
Option 13	Drawing R1184/D/R25. As above with road moved toward Little Newham.	Allows 1.5m footway on the landward side. Requires 3 lengths of retaining wall by the estuary and half of the garden of Little Newham.	Loosely £400,000 est 2006 But possibly similar to option 11 – higher land cost but less ret wall A later estimate of £780,000 did not include an anticipated 25% increase in rates for tidal working as suggested by the Council's team who are managing the Hayle Harbour construction works	

4 Current Options

4.1 Option 14: Road re-alignment plus new cantilever pathway parallel to Newham Road (Drawing EDG0206/F/014/001)

4.1.1 This option includes minor road re-alignment, with a new surfaced pathway on the existing verge. There are three places where the verge is not wide enough: here the path will be cantilevered over the mudflat, and constructed with a galvanised steel mesh walking surface.

4.1.2 The draft design was based on the previous Option 11 and the conceptual drawing for a path in the river, drawn by CSA Architects on behalf of the then NIP Group (now the Newham BID committee). That proposal was a structural walkway built on piles in the riverbed, following the line of the shore and using the verge to create a wider path where possible. Creation of compensatory mudflat habitat would be essential for this work to take place.

4.1.3 The previous Option 11 included a 1.5m footway on the landward side of the road. Although providing a valuable margin between the carriageway and adjacent properties, it is not essential for pedestrians if a new walkway over the estuary is to be built. The land can instead be used for the widening and realignment of the carriageway.

4.1.4 The new draft design is a 3m wide shared use path for cyclists and pedestrians, effectively continuing the existing shared use path that currently terminates opposite the Gas Hill junction. Whilst 3m is the desirable width, this could be reduced to an absolute minimum of 2.5m if necessary.

4.1.5 The design also includes a 'gateway' crossing point just before Gas Hill, to encourage greater use of the existing Cornish Way.

4.1.6 The cantilevered path would be of galvanised steel mesh, allowing light through to the mudflats below. The use of metal could present a maintenance issue in the longer term, and may be difficult for some pedestrians to use.

4.1.7 A suitable parapet would also be necessary to prevent falling. However, the planning officer raised concerns about the effect such a linear feature would have on the landscape (see Appendix F).

4.1.8 The proposed carriageway width is 6.5m (2 x 3.25m lane widths), which would allow two HGVs to pass each other.

4.1.9 Improving the whole road and providing a path would improve safety and would meet one of the key objectives of the Newham BID committee.

4.1.10 There would be some impact on the listed property, Little Newham. In order to realign the carriageway and improve visibility, a 1.5m-wide strip of the property would be needed. This is the minimum amount that can be taken without encroaching beyond the rear line of the boundary hedge. The hedge itself would need to be replaced by a more slender boundary feature such as an acoustic fence.

4.1.11 At the time of writing, it is understood that the current owners of Little Newham are broadly supportive of this proposal. Not only does it improve the visibility when using their access, but once the current uncertainty surrounding the scheme is removed, they will be able to move forward with their own future plans for the property.

4.1.12 Construction could possibly be carried out using a rig mounted on a barge, or alternatively from the foreshore using some form of protective matting. Either method would require advice from specialist contractors and would be subject to obtaining the necessary consents.

4.1.13 The estimated cost of Option 14 is as shown below. The elements making up the total are budget estimates only at this stage.

Works	£1,520K
Utility diversions	£150K
Land (including fees)	£50K
Design fees	£304K
Total cost	**£2,024K**

4.2 Option 15: Refurbish the Cornish Way and minor widening of the road (Drawings EDG0206/F/015/001 and 002)

4.2.1 The second option presented in this report is for the refurbishment of the existing Cornish Way behind the frontage properties, together with minor strip widening of Newham Road to create a 6.5m wide road. This would include structural strengthening work to the edges of the road along the narrowest sections.

4.2.2 This option would improve the attractiveness of the Cornish Way as a means of avoiding walking in the carriageway. It would also create a tidier waterfront for the road and would create a carriageway wide enough for HGVs to pass.

4.2.3 Factors to consider include:

- Some consents or assents may be required for the edge of road strengthening (piling), although there should be no construction on the actual foreshore itself.
- If it is not possible to widen the carriageway so close to the foreshore, it may be necessary to compromise the road width.
- Statutory services – there are numerous services in the edge of the road which would need to be taken into consideration. Some may require diversion.
- Despite the upgrading of the Cornish Way, a large proportion of non-motorised users would be likely to continue to use Newham Road because of its convenience and its river views.
- Boat owners would not be affected.

4.2.4 The estimated cost of Option 15 is as shown below. The elements making up the total are budget estimates only at this stage.

Works	£292K
Utility diversions	£50K
Land (including fees)	£50K
Design fees	£58K
Total cost	**£450K**

4.3 Option 16: New footway with single lane carriageway controlled by traffic signals (EDG0206/F/16/001)

4.3.1 General Description

4.3.1.1 Another option is to make room for a footway principally within the existing highway limits by reducing the carriageway to single track width and controlling it with traffic signals. Where land does need to be acquired, it is not land which has specially protective designations.

4.3.1.2 As noted in Section 3, signals were considered previously (under Option 7). However, they were ruled out owing to difficulties with private accesses. Option 16 attempts to overcome these difficulties by reducing the distance between the signals to a bare minimum. The two private accesses that would be between the two Stop lines would

have sight of a secondary signal head, which provides an indication of which direction of travel has right of way. All other private accesses lie outside the signalised section.

4.3.1.3 Between the signal heads the existing carriageway can be narrowed to single track width to provide room for a footway without additional land take. Outside the signal heads, some land take would be necessary to ensure that two-way traffic can be maintained alongside the new 1.5m footway.

4.3.2 Pedestrian Facilities

4.3.2.1 The existing footway that terminates opposite Gas Hill would be extended along the eastern side of Newham Road for about 70m. It would then continue on the landward side of the road, where it would provide a small margin between the private properties and the carriageway. The footway would then connect with the existing footway just before the Lighterage Hill junction.

4.3.2.2 The crossing point for pedestrians would be within the traffic signalled section, but would not itself need to be signalled. Visibility in each direction would be a minimum of 50m, in accordance with design standards.

4.3.3 Land Required

4.3.3.1 Up to four parcels of land are required to enable the construction of the proposed footways without compromising on the carriageway width. These are shown as red on the drawing. One area belongs to Riverside Cottage, where the road becomes too narrow for two-way traffic and a footway. A narrow strip of ground would need to be excavated to set back the highway boundary, and a short retaining wall constructed to support the ground behind. An alternative design has been prepared which avoids this parcel of land (see Section 4.3.4 below).

4.3.3.2 Two existing Tree Preservation Orders would be affected by Option 16. (See Section 5.9.)

4.3.4 Variant of Option 16

4.3.4.1 After a meeting with the owners of Riverside Cottage (see Section 5.10), a variant of Option 16 was developed which reduce the impact on their property. The signals which would be immediately outside their property are moved about about 25m further south. The narrow section of

road alongside Riverside would now lie between the signals, and would not therefore, need to be widened.

4.3.5 Traffic Modelling

4.3.5.1 In terms of traffic modelling, the Option 16 variant was tested because the signals are (a) further apart and (b) closer to the Lighterage Hill junction.

4.3.5.2 Under current traffic conditions, the maximum queue length that accrued at the signals was 6 vehicles (or 33m in length). Given that the Lighterage Hill junction is 80m away from the signals, it would not be affected by the signals. There is ample capacity for an increase in traffic arising from further development in Newham.

4.3.5.3 The signals would add an average of between 12 and 16 seconds to inbound and outbound journeys. This is considered tolerable. Should future developments create further traffic at peak times, the average delay would increase but would still be within acceptable limits.

4.3.5.4 Full details of the traffic modelling are included at Appendix E.

4.3.6 Cost Estimate

4.3.6.1 The estimated cost of Option 16 is as shown below. The elements making up the total are budget estimates only at this stage.

Works	£250K
Utility diversions	£25K
Land (including fees)	£25K
Design fees	£50K
Total cost	**£350K**

5 Consultation

5.1 Consultation with Natural England

5.1.1 In late 2012 officers from CORMAC met with Natural England. The government organisation reported that the intertidal mudflats and the aggregations of non-breeding birds – the black-tailed godwits – are notified 'features' of the SSSI and are of particular importance.

5.1.2 The possibility of a cantilevered structure that would avoid encroaching on the mudflats was discussed. The structure would have a boarded or meshed surfacing to the path that would allow light to reach the mudflats. Natural England supported this in principle, requesting that any slats be orientated to maximise the amount of light reaching the mudflats. This is of particular importance in the winter months when daylight is at a premium.

5.1.3 They also stated that construction should take place during spring or summer, when the black-tailed godwits are not in the area. Once the footway has been built and is in use, the highest use may be in the summer and lowest in the Autumn/Winter, so not disturbing the birds. However, over time all birds in the area have shown 'habituation' to nearby parks and industrial use areas.

5.1.4 The alternative option of using piles to support the footway was discussed – i.e. the 'stilted' option. Natural England felt that this would present a net loss to the mudflats environment, which would not be accepted unless mitigation could be provided, for example, by providing additional mudflat habitat nearby. On the whole, the cantilevered option was preferred.

5.1.5 Any work would require a Habitat Regulations Assessment, which would determine the likely effect of any work in the SAC. Being within the SSSI, any work would also require Assent from Natural England – even if it is of a temporary nature during construction.

5.1.6 Further information from 2014 is that the works are <u>not</u> sited within or near to a Marine Conservation Zone. Natural England confirmed that the work is located within the Fal and Helford Special Area of Conservation (SAC), which has been designated for a suite of flora and fauna including the following Annex 1 features:

- Saltmarsh (Atlantic salt meadows)
- Large shallow inlets and bays

- Estuaries
- Sandbanks which are slightly covered by sea water all the time
- Mudflats and sandflats nor covered by sea water at low tide
- Reefs

5.1.7 Based on Option 14 (using three sections of cantilever), Natural England does not believe that the works would have a likely significant effect on the interest features of the SAC and in principle would not object to the works, provided the conditions below are adhered to:

- Any temporary structures used must be removed at the end of the works, to return the site, and habitats within it, to the condition it was in prior to the commencement of works;
- The Environment Agency Pollution Prevention Guidelines should be adhered to at all times, particularly for works or maintenance in or near watercourses (PPG5)
- https://www.gov.uk/government/publications/works-in-near-or-over-watercourses-ppg5-preventpollution
- Contamination of the marine environment by the works is to be avoided;
- No materials should be stored on the intertidal areas to avoid contamination of the marine environment from the works;
- Mobilisation of sediment is to be kept to a minimum to reduce the potential of contaminated sediment entering the water column.

5.2 Consultation with Environment Agency

5.2.1 CORMAC's Structures Group contacted the Biodiversity Officer of the Envioronment Agency in 2012. The EA's support for the scheme was conditional on the design maximising the amount of direct sunlight falling on the mudflats.

5.3 Newham Business Improvement District (BID) Committee

5.3.1 Cornwall Council has been progressing this feasibility work at the request of the Newham BID committee, which currently has about 20 members, including one Cornwall councillor. The BID committee has three main priorities:

1. to promote access and attractiveness of the area,
2. to ensure safety and security, and
3. to promote the needs of the businesses.

5.3.2 The committee has developed a brand for the area, which is "Newham & The Port of Truro, Truro's Business Quarter". It would like the road to be improved as a key part of a wider project to improve and bring economic benefit to the whole

Newham area. In particular, the BID committee would like the sharp bend outside the property Little Newham to be improved: as already reported visibility is restricted, it is difficult for heavy goods vehicles to pass and it is hazardous for pedestrians using the road.

5.3.3 The group is working on better signing for the area, improved road access and maintenance, maintenance and cleanliness of the area, car parking and public transport, CCTV, homelessness in the area, assisting with business needs and helping with marketing.

5.3.4 It would also like the Cornish Way cycle path between the Gas Hill car park and Lighterage Hill to be improved to make the path safer and more accessible for all non-motorised users at all times of the year.

5.4 Consultation with Truro Harbour Master

5.4.1 The Truro Harbour Master was consulted on Option 14 and made the following points:

- The site lies within the Port of Truro and there are no significant slipways (note: there is one small privately owned slipway opposite Riverside house).
- The cantilever path seems acceptable in general, subject to the necessary approvals from the Marine Management Organisation and Natural England for work in the SSSI.
- The Harbour Master and a member of the legal team of Cornwall Council discussed the proposed cantilever path option and consider that a Harbour Revision Order would probably not be needed. (This will need to be confirmed if the scheme is developed further).
- Timber piles would not be appropriate as they would be eaten rapidly by marine boring insects.
- The moorings adjacent to the piles could be used for a few mud berths but not for regular use. There is not much of a tidal window – only Spring tides.
- The Port of Truro does not own the mudflats and does not manage any of the moorings beside the river.

5.5 Consultation with CC Planning Officer

5.5.1 Option 14

5.5.1.1 Pre-application planning advice has been obtained from the Council's planning officers. The following paragraphs are a summary, and the full responses are included at Appendix F:

5.5.1.2 Relevant policies and guidance: The National Planning Policy Framework (NPFF) has a presumption in favour of sustainable development when the proposal is in accordance with an up-to-date development plan. Cornwall's plan, however, consists (*inter alia)* of the several "saved plans" from the district councils and is not considered up-to-date in this context. An emerging Cornwall Local Plan is undergoing a series of consultations and examinations but until it is adopted, its policies carry limited weight.

5.5.1.3 Principle of the works: The need to improve Newham Road for reasons of safety and site accessibility has been accepted in principle since 1988. Various attempts at improving the road have stalled because of the significant sensitive constraints imposed by the natural and historic environment and formal designations in the area. These constraints must be fully addressed and communications maintained with key organisations as potential scheme options evolve.

5.5.1.4 Heritage Asset Area Context: Little Newham, which has 16th century origins, is a distinctive Grade II listed building which represents an important historic residential survival in a heavily commercialised area: a vestige of a previously isolated location overlooking the river. Great weight should be given to the asset's conservation, and the council has a statutory duty in this regard. Any harm or loss should require clear and convincing justification, and be weighed against the public benefits of the proposal.

5.5.1.5 Setting back the frontage boundary treatment of the property, together with the complete removal of the grassed verge and verdant planting opposite the historic site, would result in a significant and substantial degree of harm to the setting of the heritage asset. The NPFF stresses that local planning authorities should refuse consent unless there are substantial public benefits that outweigh the harm or loss. A detailed heritage asset impact assessment should therefore be undertaken, including a review of all options considered and reasons why options that are visually less intrusive and erosive are not preferred.

5.5.1.7 Design and form: The semi-rural character of this section of Newham Road dominates over the built forms when seen from Newham Road itself and from the opposite side of the river. Even the sleek, minimalist

design of the cantilevered footways, with their hard edged safety rails and balustrading would seriously erode the landscape character of the locality. Developments that fail to improve the character and quality of the area should be refused. Therefore, the advice in the 2013 Cornwall Design Guide should be followed. Special consideration retaining a high degree of enclosure to the frontage of Little Newham

5.5.1.8 Ecology and Biodiversity Impact: Minimising the adverse effects on the important areas of national and international conservation status must be at the forefront of the scheme development. A detailed ecological survey and assessment is necessary to identify the range of mitigation measures that would need to be integrated in respect of loss and disturbance of habitat. A Construction Environmental Management Plan (CEMP) would also need to be provided.

5.5.1.9 Landscape and trees impact: The loss of any trees (protected or otherwise) would have a significant and detrimental impact on the riparian scene. All existing trees should be considered and should inform the design; a full appraisal of the tree issues should be submitted with the final application.

5.5.1.10 Residential amenity issues: Any development should seek to secure a good standard of amenity for all existing and future occupants of land and buildings. Loss of privacy should be avoided.

5.5.1.11 Flood risk and drainage: With Newham Road lying in Flood Zones 2 and 3, any proposed road improvement needs to be accompanied by a detailed Flood Risk Assessment. Surface water drainage would need careful handling, both during construction and thereafter.

5.5.1.12 Contaminated land: Owing to the proximity of the gas storage site, a Phase 1 Site Investigation should be undertaken.

5.5.1.13 Summary: At this stage, it is not considered that the public benefits in terms of improving highway safety and facilitating potential future commercial development would outweigh the substantial level of harm that would result for the heritage, landscape character and biodiversity interests in this sensitive highly designated context. Other, potentially less intrusive options for improving the highway should be assessed and fully considered as viable alternatives to achieve the basic aims

of the scheme whist safeguarding the recognised issues of importance.

5.5.2 Option 16

The planning officer's opinion was that as the works described by this option comply with the highway authority's Permitted Development Rights. The officer did recommend, however, that discussions be held with Natural England and the Environment Agency.

5.6 Marine Management Organisation

5.6.1 Marine Management Organisation's (MMO's) Case Office, Joanna Parnell, was consulted regarding the construction (including piling) of the cantilevered cycleway over the mudflats. Her response was as follows:

5.6.2 "The marine licensing system under the Marine and Coastal Access Act 2009 has been in force since 6 April 2011. We are responsible for most marine licensing in English inshore and offshore waters and for Welsh and Northern Ireland offshore waters. In addition to marine licensing requirements some activities may also require consents issued by other regulatory authorities such as the Environment Agency, Natural England and local planning authorities and therefore we would advise you to engage with them also as early as possible.

5.6.3 "A marine licence is only required for activities involving a deposit or removal of a substance or object in the UK marine area, as defined in section 42 of the act. Broadly, this is the area below the mean high water springs mark and in any tidal river to the extent of the tidal influence. Section 66 of the act lists the types of activity that are licensable.

5.6.4 "If any of these works are to be carried out below the MHWS, even temporary, a Marine Licence will be required. Please submit a full enquiry or an application for a marine licence through our online case management system: http://www.marinemanagement.org.uk/licensing/marine/apply.htm.

5.6.5 "Once the application has been fully submitted, it will be allocated to a case officer who will update you further. The MMO aims to make a decision on most licences within 13 weeks of application, but each application is different and the detail of the activity will affect this. MMO supports those applying for a marine licence to make sure that each application is given full and fair consideration.

5.6.6 *"Fees are also determined by the type of project. Please see the following link for more information: https://www.gov.uk/government/publications/marine-licensing-fees/marine-licensing-fees."*

5.7 Consultation with Network Manager

5.7.1 CORMAC's Network Manager, Peter Tatlow, had concerns regarding the proposed metal see-through mesh surfacing (proposed to allow light through to the mudflats below). He explained that many people are afraid to walk on anything that they can see through. Also, he thought that it may not be a good idea for cyclists as it could be uncomfortable and the surface could become slippery. A road safety audit and Non-motorised User Audit would be required.

5.7.2 Two sustainable transport experts were contacted – from TRAC and Sustrans – regarding the possibility of using mesh surfacing on the footway. There does not seem to be a precedent for this type of walkway surfacing except in industrial platforms, for example in factories. In places where mesh walkway has been provided, it has been overlaid with durable, non-slip surfacing.

5.8 Consultation with CORMAC's Tree Officer

5.8.1 The initial views of the tree officer, Matt Odgers, on Option 16 were sought, because the land acquisition would affect at least one of the two TPOs within the curtilage of Riverside Cottage.

5.8.2 He considered that the loss of the TPO for the roadside Sycamore can probably be overcome. However, he was much more concerned about the Macrocarpa (conifer), which – although it is set further back from the road – could still be affected by earthworks on the bank below. Damage to or loss of such a prominent, important tree could prove to be a show-stopper.

5.8.3 To be more precise about the effect on this tree, further survey and design work would be needed. For example, the depth of excavation into the bank and the height of the retaining wall would indicate the extent to which the tree roots would be affected.

5.9 Consultation with Local Residents

5.9.1 No recent contact has been made with the current owners of Little Newham. However, as noted in section 4.1.11, it is understood that they are broadly supportive of Option 14.

5.9.2 In July 2015 the owners of Riverside Cottage were approached for their initial views on Option 16. They were not in favour of a scheme where traffic signals would be situated right outside their property. From their garden they would experience the noise and fumes of stationary and accelerating vehicles (especially HGVs). Consequently, they felt that it would not be in their interests to dedicate the necessary strip of land along their frontage to the highway authority.

5.9.3 They enquired whether the traffic signals could be moved further away from their property. As a result, the variant to Option 16 was developed.

5.10 Consultation with Councillors

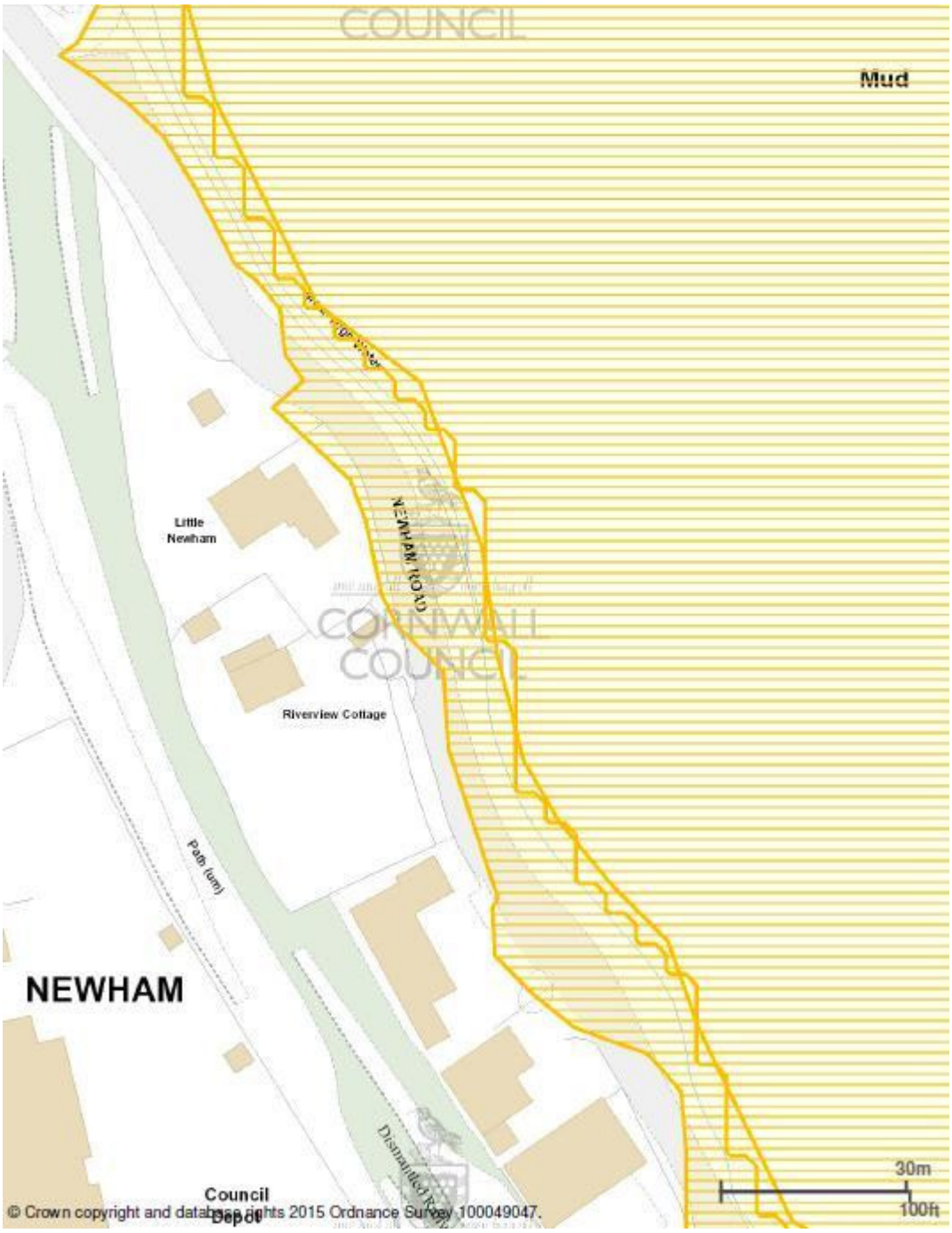
5.10.1 On 28th September 2015, the Transport Portfolio Holder, Bert Biscoe, attended a meeting with Vicky Fraser and Paul King from Cornwall Council, Alison Elvey and Nathaniel Hobbs from Newham BID, and Alistair Uglow from CORMAC's Engineering Design Group. After briefly introducing the three current options, the meeting focused on Options 14 and 16.

5.10.2 With regard to the possible positioning of traffic signals under Option 16, Councillor Biscoe and Mr Hobbs described the day-to-day operations at the Fresh From Cornwall premises at the bottom of Lighterage Hill. Delivery lorries have to park on Newham Road, from where goods are then forklifted across the junction between the lorry and the building. Concern was expressed that if traffic queued from the signals as far as Lighterage Hill at the same time as these lorry operations, the eventual result would be that the junction would become blocked in all directions.

5.10.3 The traffic modelling exercise, described in Section 4.3.5 and Appendix E, has since demonstrated that peak time queuing at the signals is unlikely to exceed 6 vehicles (equating to only 33m in length).

5.10.4 Turning to Option 14, Councillor Biscoe suggested that improving Newham Road could have some flood management benefits: by raising the road it would increase protection to Little Newham.

5.10.5 Any raising of the road to protect properties behind would need to be of sufficient length to prevent possible water ingress around the sides. Lighterage Hill and Gas Hill – both of which rise steeply from Newham Road – would appear to be the most convenient start and end locations for such a scheme.



Map showing areas of Newham within Flood Zone 2 (shaded yellow)

5.10.6 Whilst sections of Newham Road itself lie within Flood Zone 2, Little Newham lies outside (see map above). The probability of this property experiencing annual river flooding, therefore, is estimated to be less than 0.1% (or 1 in 1000). In addition, the existing tidal gate at Lighterage Quay can be closed during extremely high tides, and the flood storage dams on the tributary rivers Allen and Kenwyn protect Truro from flooding from upstream.

5.10.7 Given Little Newham's relatively low risk of flooding and the existing mitigation measures already in place, the added benefits of raising the road may not be enough to overcome the various concerns expressed by the planning officer.

5.10.8 Councillor Biscoe also suggested that a scheme to widen the road could be justified as part of a strategy to safeguard the road from long-term erosion from tidal action. Given the protected status of the mudflat, however, the organisations responsible for its protection would need convincing that the walls supporting the road cannot strengthened without any encroachment over the mudflat.

5.10.9 Mr Biscoe's opinion – shared by Newham BID – was that the council should aim high and deliver the full scheme (Option 14). Responding to the concerns about the scheme's detrimental effect on the landscape character, he said that it would be a statement of modernity and functionality, adding that the Port of Truro needs optimism.

6 Conclusion and Recommendations

6.1 The foregoing sections provide a brief insight into the huge amount of work that has been carried out over the years in seeking an improvement to the substandard section of Newham Road between the Gas Hill and Lighterage Hill junctions. The overriding reason why the road remains unimproved is the difficulty in overcoming the constraints imposed by the ecologically and historically significant assets on both sides of the road.

6.2 The following table summarises some key risks associated with each project:

Option 14: Road re-alignment plus new cantilever pathway parallel to Newham Road	**Option 15: Refurbish the Cornish Way and minor widening of the road**	**Option 16: New footway with single lane carriageway controlled by traffic signals**
Necessary land not obtained	Necessary land not obtained	Necessary land not obtained
Potential conflict with underground utilities	Potential conflict with underground utilities	Objections to traffic signals from business community or other key stakeholders
Planning permission refused		
Studies necessary for consents unable to be completed within funding timeframe		
Steel mesh surface deemed unsuitable for pedestrian use		

6.3 At an estimated cost of £2.0 million, Option 14 would deliver the widest benefits: a continuous footway alongside the river, as well as a realigned and widened carriageway. However, the planning authority is concerned about the potentially substantial harm to the heritage, landscape character and biodiversity interests of the area. There is a risk, therefore, that planning consent will not be obtained.

6.4 Options 15 and 16 are both considerably less expensive than Option 14. With an estimated cost of £450,000, Option 15 offers pedestrians and cyclists an improved off-road route along the existing Cornish Way, rather than one alongside Newham Road itself. Whilst this section of the Cornish Way would benefit greatly from such an improvement, the scheme offers little benefit to any pedestrians or cyclists who choose to stay on Newham Road itself. Overall, the cost of the scheme and the disruption caused by widening and strengthening the carriageway are not justified by the limited benefits that the scheme would deliver.

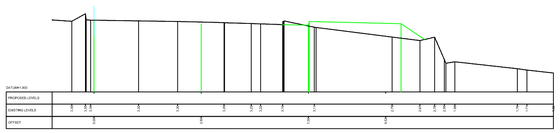
6.5 Option 16 accommodates a footway largely within the existing highway limits by narrowing the carriageway to single lane width and using traffic signals to control traffic. By reducing to a minimum the distance between the Stop lines, only two private accesses are inside the single lane section, and drivers emerging from either of them have sight of at least one signal head.

6.6 At an estimated cost of £350K, Option 16 is the least expensive of the three options considered in this report. The pre-application advice from the Planning Authority favoured the use of traffic signals as offering a solution that was less detrimental to the designated areas on each side of the road. In fact Option 16 does not require planning permission, since it falls within the definition of permitted development that the highway authority can undertake.

6.7 Notwithstanding the risks to Option 14 that would need to be overcome before planning permission could be obtained, there is a clear preference among the local business community and with key politicians to pursue Option 14. It is an ambitious scheme which makes a bold statement about the future of the Port of Truro.

Appendix A

Scheme Drawings



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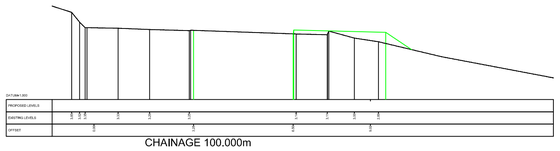

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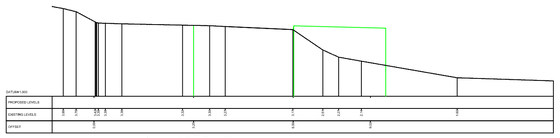

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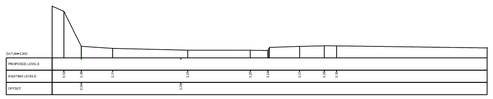

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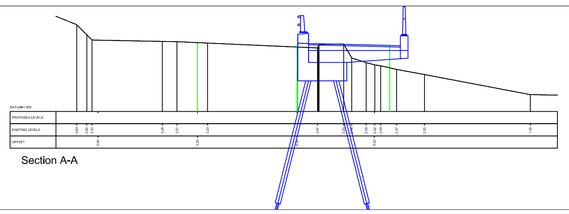
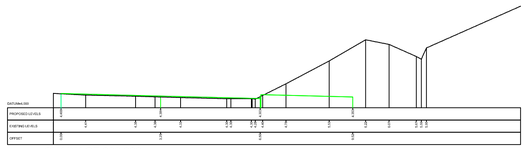


Section A-A



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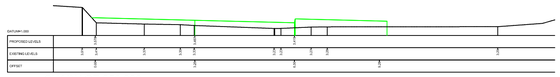

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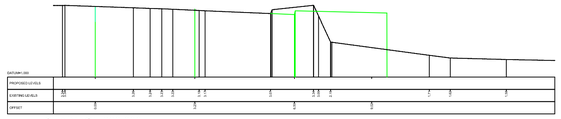

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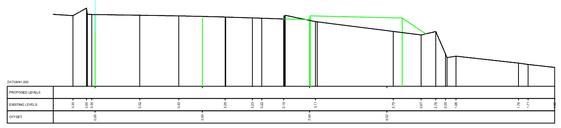
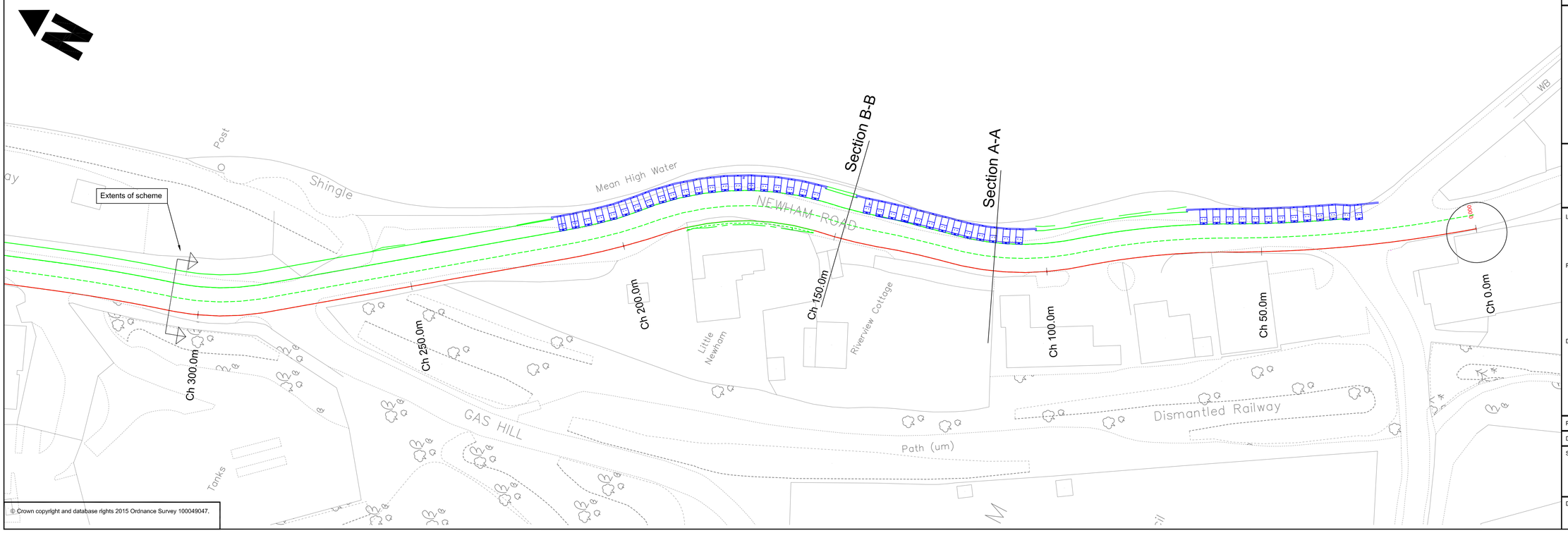


Section B-B



NOTES

REV	DATE	NATURE OF REVISION
-	08.06.15	FIRST ISSUE

REVISIONS

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CORNWALL COUNCIL

CORMAC SOLUTIONS
RADNOR ROAD
SCORRIER
CORNWALL TR16 5EH
www.cornwall.gov.uk/cormac 01872 323313

LOCATION
NEWHAM INDUSTRIAL ESTATE
TRURO

PROJECT
Newham Review and Feasibility

DRAWING TITLE
Option 14
Proposed 3.0 m Wide Footway
Site Layout and Cross Sections

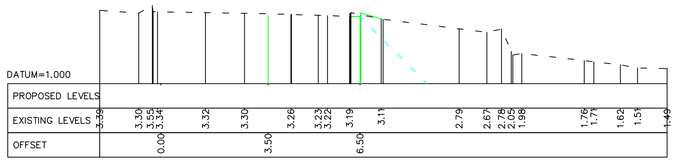
PROJECT MANAGER AJU		
DRAWN BY: AON	CHECKED:	APPROVED:

SCALE
1:500 horizontal 1:100 Vertical

SCALE @ A1

DRAWING NO EDG0206/F/014/001

REVISION -



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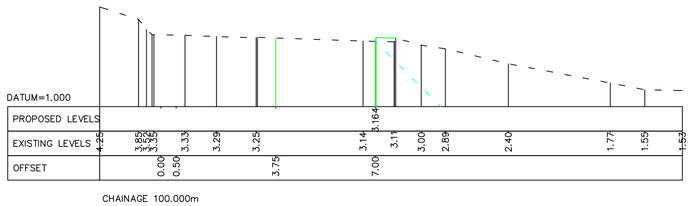

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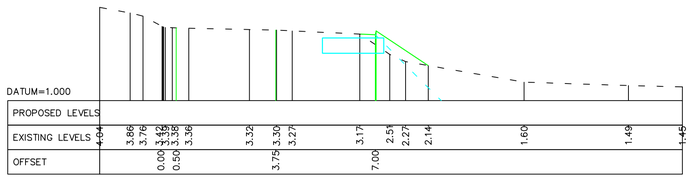

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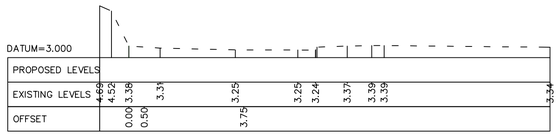

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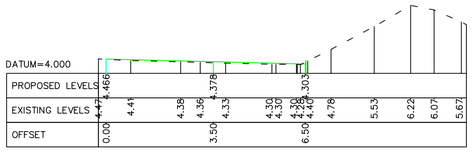

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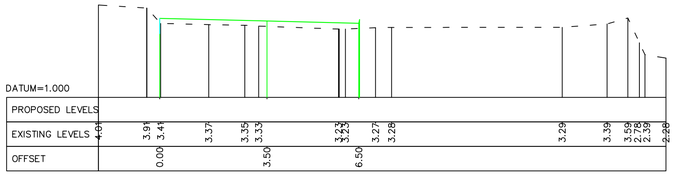

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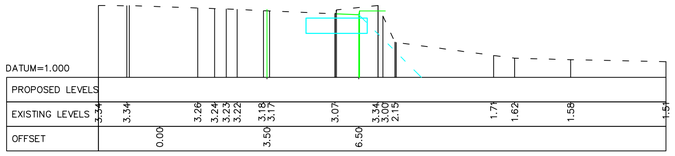

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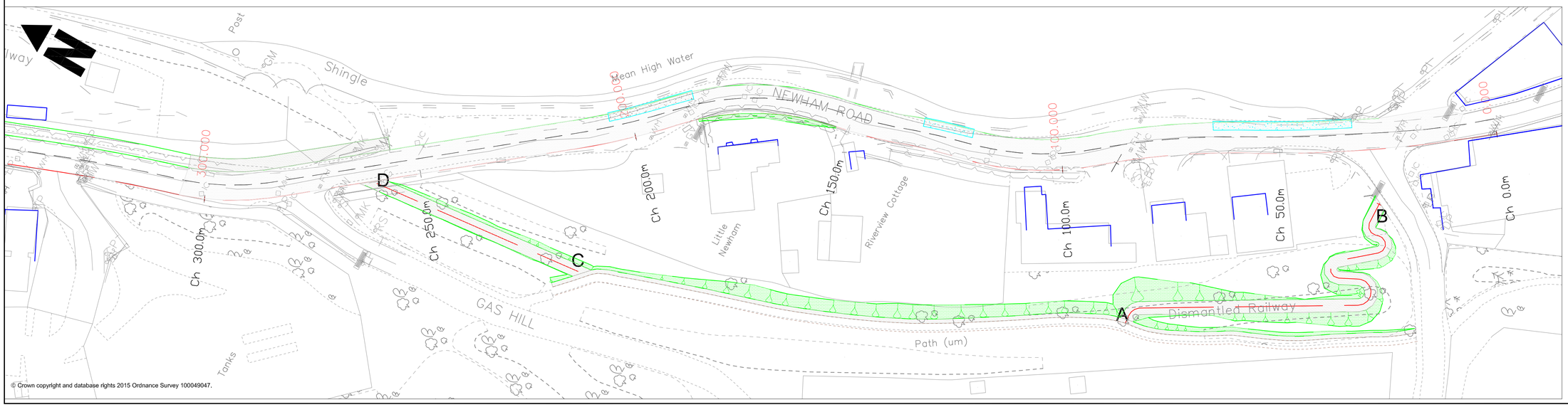

NOTES

REV	DATE	NATURE OF REVISION
-	08/06/15	FIRST ISSUE

REVISIONS

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LOCATION
NEWHAM INDUSTRIAL ESTATE
TRURO

PROJECT
Newham Review and Feasibility

DRAWING TITLE
Option 15
Proposed footway to old railway
Site Layout and Cross Sections

PROJECT MANAGER AJU

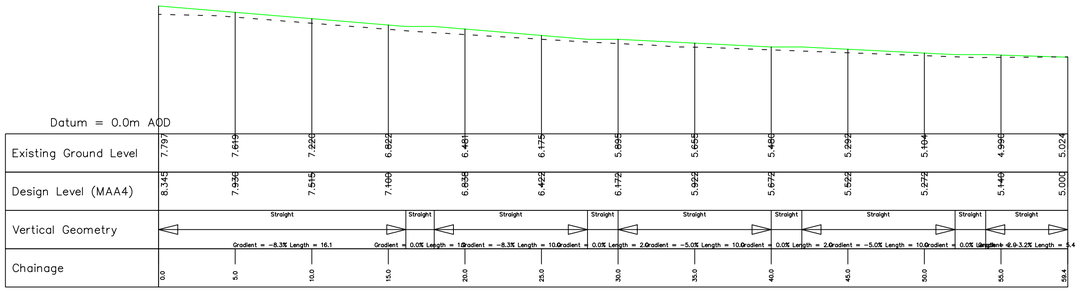
DRAWN BY: AON | CHECKED: | APPROVED:

SCALE
1:500 horizontal 1:100 Vertical

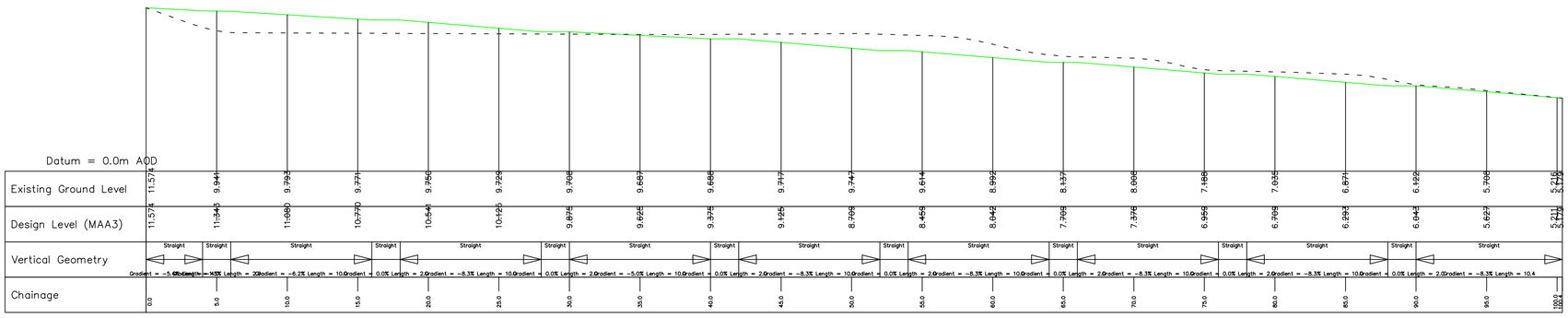
SCALE @ A1

DRAWING NO EDG0206/F/015/001

REVISION -



Section C-D



Section A-B

NOTES

REV	DATE	NATURE OF REVISION
-	08/06/15	FIRST ISSUE

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LOCATION
NEWHAM INDUSTRIAL ESTATE
TRURO

PROJECT
Newham Review and Feasibility

DRAWING TITLE
Option 15
Proposed footway to disused railway
Long sections to new footways

PROJECT MANAGER AJU

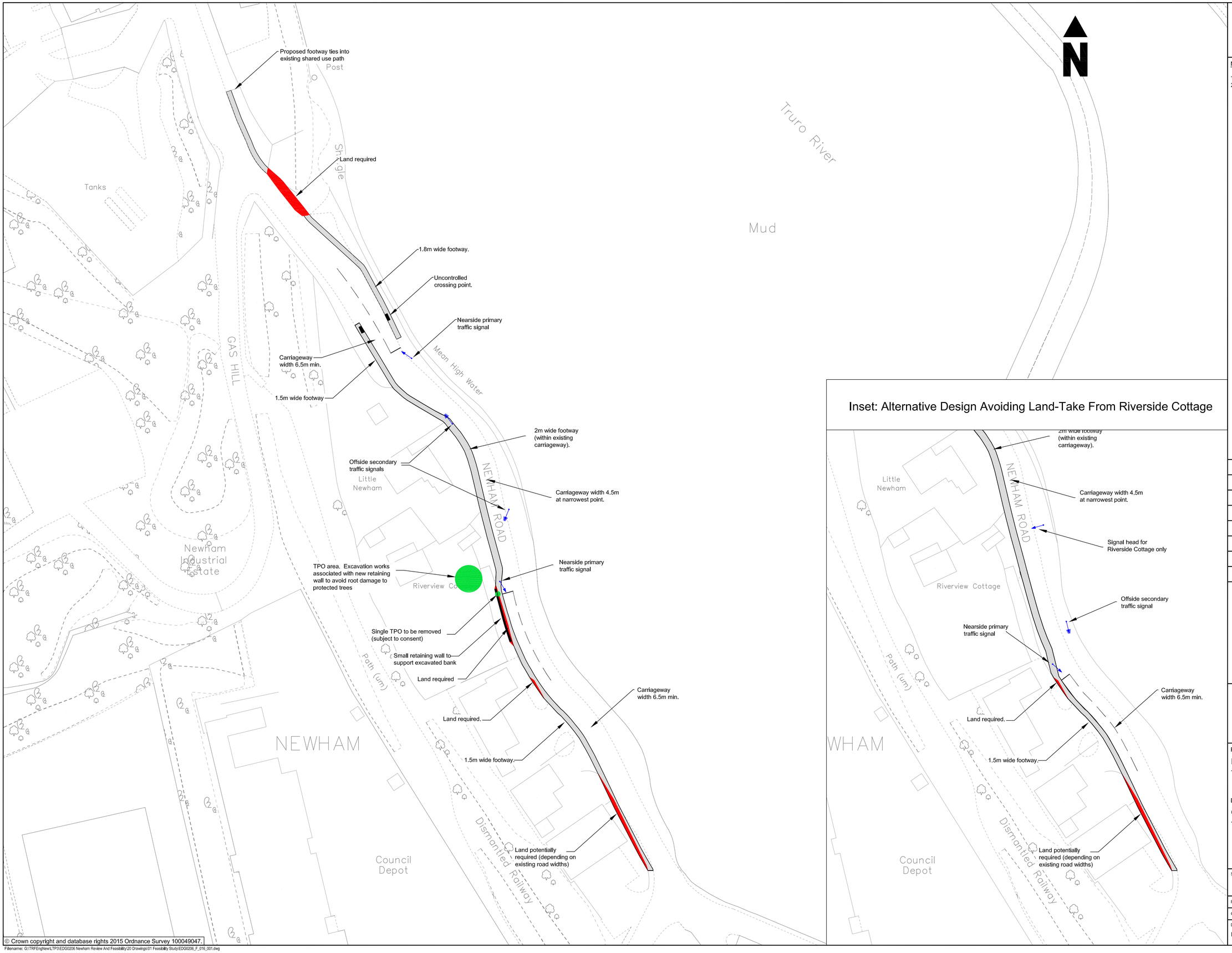
DRAWN BY: AON | CHECKED: | APPROVED:

SCALE
1:500 horizontal 1:100 Vertical

SCALE @ A1

DRAWING NO EDG0206/F/015/002

REVISION -



Inset: Alternative Design Avoiding Land-Take From Riverside Cottage

Filename: G:\TRFEngNew\LTP3\EDG0206 Newham Review And Feasibility\20 Drawings\01 Feasibility Study\EDG0206_F_016_001.dwg

NOTES:

1. All dimensions are in metres unless otherwise stated.
2. Do not scale from this drawing.

REV	DATE	NATURE OF REVISION
-	05/06/15	FIRST ISSUE

REVISIONS

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PROJECT:
NEWHAM INDUSTRIAL ESTATE
TRURO

DRAWING TITLE:
Option 16
Traffic Signals

SCALE: 1:500 @ A1

PROJECT MANAGER: AJU		DRAWN BY: AON	
CHECKED: AJU	04/06/15	APPROVED: NSH	04/06/15

DRAWING NO: EDG0206_F_016_001
REVISION: -

Plot Date: 27 November 2015

Appendix B

Photographs

Figure 1
Traffic conflict at the Lighterage Hill/Newham Road junction. Position of parked vehicle contributing to the conflict. (Photograph supplied by the Newham BID committee).

Figure 2
Typical manoeuvre of HGV at the Lighterage Hill/Newham Road junction. (Photograph supplied by the Newham BID committee).
Note that access would need to be maintained during any construction in this area. Possibly a need to remove the footpath during construction to gain working space.

Figure 3
Looking South towards the industrial estate showing traffic conflict at the pinch point outside the listed property, Little Newham, with Truro River on the left. (Photograph supplied by the Newham BID committee).

Figure 4
Looking North in the direction of Tescos, showing traffic conflict at the pinch point outside the listed property, Little Newham, on the left, with Truro River on the right. (Photograph supplied by the Newham BID committee).

Figure 5
Looking North in the direction of Tescos, showing an articulated lorry at the pinch point outside the listed property, Little Newham, on the left, with Truro River on the right. (Photograph supplied by the Newham BID committee).

Figure 6
Looking North in the direction of Tescos, showing the same articulated lorry at the pinch point outside the listed property, Little Newham, on the left, with Truro River on the right. (Photograph supplied by the Newham BID committee).

Figure 7
Looking down Lighterage Hill towards Truro River. Note the Cornish Way accesses on the right before the white building and on the left by the grey pole.

Appendix C

Site Investigation

Summary based on previous site investigations - site specific SI not commissioned at this stage

Report 60199-I – Site Investigation for the Improvement of Newham Road, Truro. Stage 1 (approximately 180m and 230m to the south of the proposed scheme)

The investigation comprised two percussive boreholes (BH10 and BH11) to refusal depths of 2.5m and 2.8m. The boreholes were drilled through the highway approximately 180m and 230m to the south of the proposed scheme. The logs recorded pavement construction overlying sand and residual soils. Weathered slate bedrock was recorded at 1.9m and 2.2m bgl respectively. Alluvial deposits were not recorded. The locations and a summary of these holes are shown in the map below.

Groundwater was recorded at 1.45m bgl in BH10 and 0.5m bgl in BH11 which required boreholes to be cased to prevent water ingress and collapse.

Chemical analysis of samples was not scheduled.

Report 60199-II – Site Investigation for the Improvement of Newham Road, Truro. Stage 2 (more than 700m to the north of the proposed scheme)

The investigation comprised 11 percussive and percussive rotary boreholes in the vicinity of the Newham Road and Morlaix Avenue roundabout. The investigation was located more than 700m to the north of the proposed widening scheme and therefore the information is of extremely limited relevance. The logs record made ground overlying soft clay and silt (alluvial deposits) to a maximum depth of 4.5m overlying weathered siltstone, mudstone and slate. Shallow groundwater was recorded at all locations between 0.1m bgl and 2.5m bgl. Chemical analysis of water recorded elevated concentrations of chloride and sulphate.

Summary of the review

The investigations indicated that alluvial deposits are likely to be present below the road in the area of the proposed scheme, and that groundwater is likely to be shallow. It is possible that groundwater is at least partially affected by tides, although no groundwater monitoring was undertaken as part of the previous schemes.

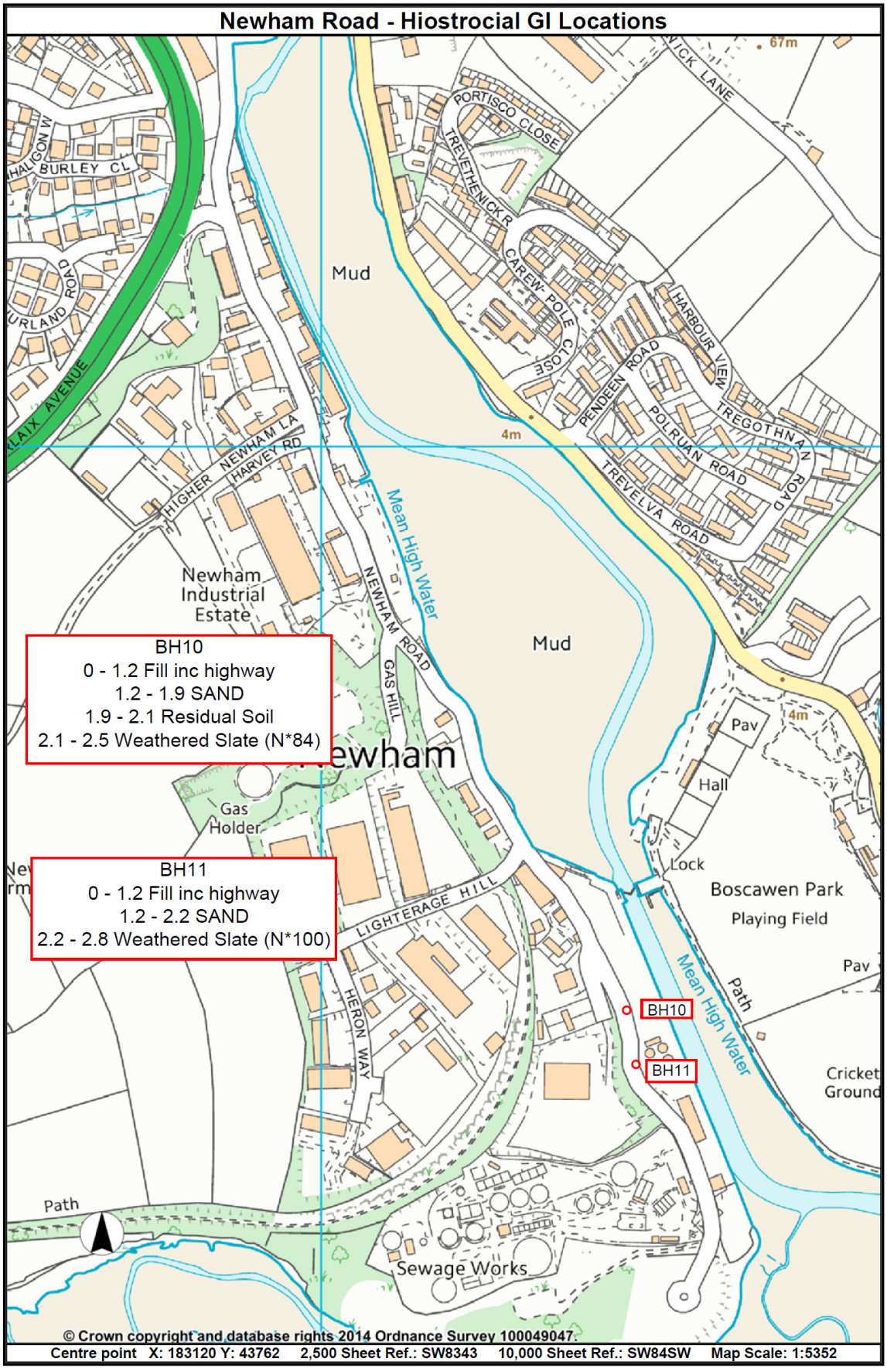
No chemical testing was conducted, but it is likely that if organic rich soft clays are encountered, then these deposits may require disposal as hazardous waste. There is also potential of contamination from the nearby scrapyard, from Tri-butyl-tin (TBT) used for maintenance of boats and from other historical sources (a gas works was located 700m to the north of the proposed site).

It should be possible to excavate soils with standard plant. However, open excavations would require support due to shallow groundwater. Over pumping may also be required during construction.

Any concrete should be specified to a class suitable for a marine environment.

Services (including, gas, electricity and water/drainage) are known to be located along the highway and are likely to be at shallow depth given the shallow depth to groundwater.

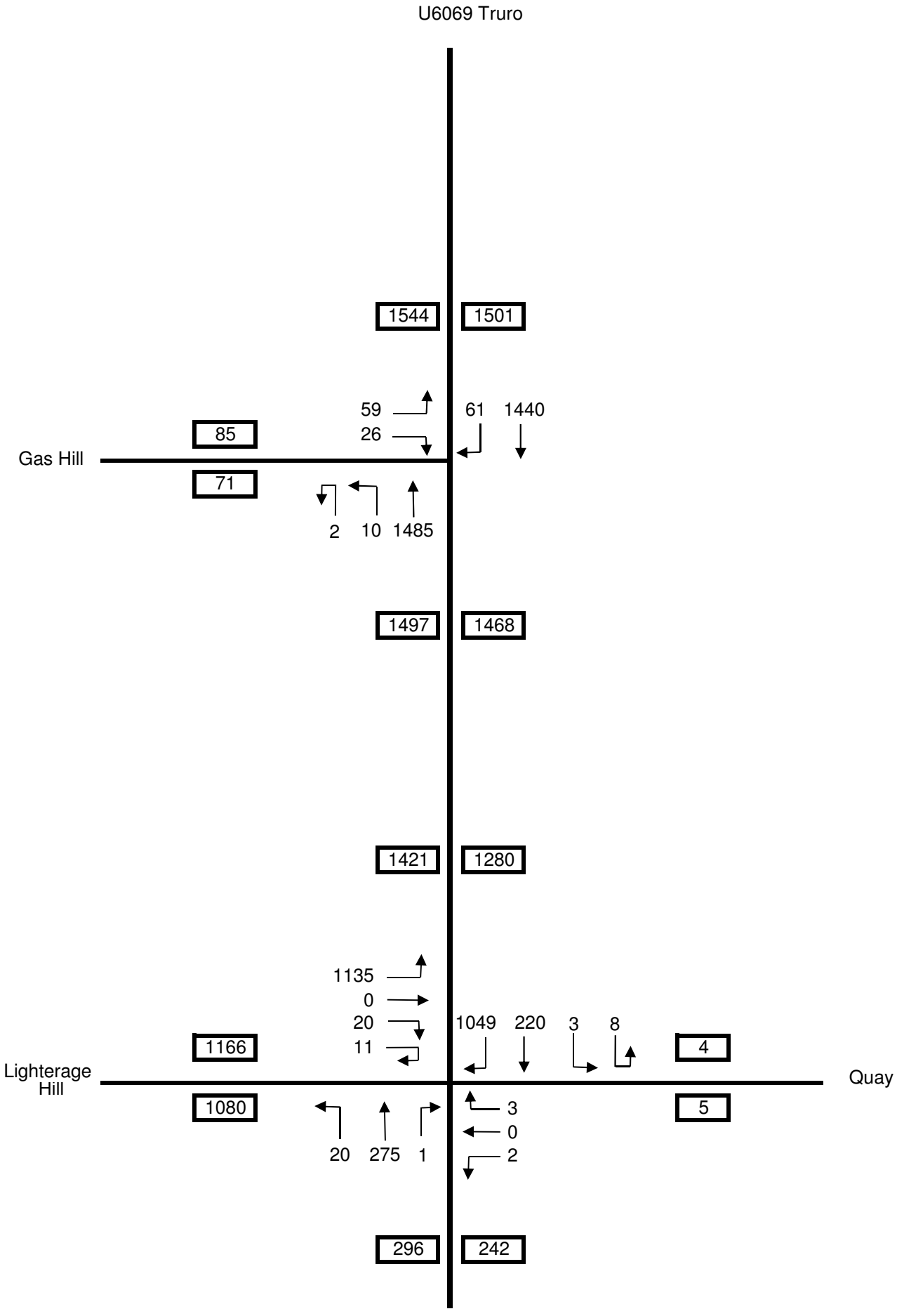
The current highway is narrow and may pose difficulties for large plant movements and for traffic management during a site investigation, but it should be achievable.


Newham Road - Hiostrocial GI Locations
BH10
0 - 1.2 Fill inc highway
1.2 - 1.9 SAND
1.9 - 2.1 Residual Soil
2.1 - 2.5 Weathered Slate (N*84)
BH11
0 - 1.2 Fill inc highway
1.2 - 2.2 SAND
2.2 - 2.8 Weathered Slate (N*100)
BH10
BH11
Mud
Mud
Mean High Water
Mean High Water
Newham Industrial Estate
Gas Holder
Boscawen Park
Playing Field
Sewage Works
Cricket Ground
Lock
Hall
Pav
Pav
Path
Path
4m
4m
67m
NEWHAM ROAD
GAS HILL
LIGHTERAGE HILL
HERON WAY
HIGHER NEWHAM LA
HARVEY RD
PENDEEN ROAD
POLRUAN ROAD
TREVELVA ROAD
HARBOUR VIEW
TREGOTHNAN ROAD
CAREW POLE CLOSE
TREVETHENICK R
PORTISCO CLOSE
BURLEY CL
HALGON W
URLAND ROAD
LAIX AVENUE
© Crown copyright and database rights 2014 Ordnance Survey 100049047.
Centre point X: 183120 Y: 43762 2,500 Sheet Ref.: SW8343 10,000 Sheet Ref.: SW84SW Map Scale: 1:5352

Appendix D

Traffic Survey April 2015

Newham Road, Truro - Traffic Count Results - Tuesday 21st April 2015 (07:00-



ROAD: U6069 KM: 0.00 LOC: NEWHAM Rd/GAS Hill jct, TRURO FILENAME: V53

DATE: 21/04/15 DAY: TUESDAY TIME FROM: 700 TO: 1900 JCT No : GRID REF: 183070 043820

REMARKS:

KEY TO WEATHER: FI=FINE CL=CLOUDY SH=SHOWERY RA=RAIN SN=SNOW FO=FOG
JUNCTION TURNING MOVEMENTS EXCLUDE PEDAL & MOTOR CYCLES

HR INTERVAL BEGINNING AND WEATHER:

FLOW DISTRIBUTIONS:	700 FI	800 FI	900 FI	1000 FI	1100 FI	1200 FI	1300 FI	1400 FI	1500 FI	1600 FI	1700 FI	1800 FI	TOTAL
FROM APP. 1, U6069 TESCO's Rdbt 3200/30													
TO EXIT:													
2: NEWHAM Qy	180	174	167	120	114	112	140	154	109	82	40	48	1440
3: GAS Hl	20	12	7	1	5	3	4	1	6	1	0	1	61
TOTAL INTO JUNCT	200	186	174	121	119	115	144	155	115	83	40	49	1501
TOTAL FROM JUNCT	89	113	110	131	116	132	127	163	139	192	155	77	1544
FROM APP. 2, U6069 NEWHAM Qy 3200/30													
TO EXIT:													
3: GAS Hl	1	0	2	1	1	1	1	1	1	1	0	0	10
1: TESCO's Rdbt	87	113	108	127	114	131	122	158	131	181	140	73	1485
TOTAL INTO JUNCT	88	113	110	128	115	132	123	159	132	182	140	73	1495
TOTAL FROM JUNCT	183	176	171	122	115	113	143	156	112	84	42	49	1466
FROM APP. 3, U=0 GAS Hl /													
TO EXIT:													
1: TESCO's Rdbt	2	0	2	4	2	1	5	5	8	11	15	4	59
2: NEWHAM Qy	3	2	4	2	1	1	3	2	3	2	2	1	26
TOTAL INTO JUNCT	5	2	6	6	3	2	8	7	11	13	17	5	85
TOTAL FROM JUNCT	21	12	9	2	6	4	5	2	7	2	0	1	71

	PEDAL CYCLE	MOTOR CYCLE	CARS& TAXIS	BUS & COACH	LIGHT GOODS	MED. GOODS	HEAVY GOODS VEHICLES RIGID 2 AX	RIGID 3 AX	RIGID 4 AX	ARTIC 3 AX	ARTIC 4 AX	ARTIC 5 AX	ARTIC 6+ AX	TOTAL HGVs	TOTAL EXC MOTOR/PED CYCLES
App. 1															
INTO JUNCT	24	5	887	60	400	40	58	28	9	0	3	7	9	114	1501
FROM JUNCT	32	17	914	61	447	29	50	15	7	0	3	10	8	93	1544
TWO WAY	56	22	1801	121	847	69	108	43	16	0	6	17	17	207	3045
App. 2															
INTO JUNCT	25	17	867	61	446	28	50	15	7	0	3	10	8	93	1495
FROM JUNCT	22	5	858	60	394	40	58	28	9	0	3	7	9	114	1466
TWO WAY	47	22	1725	121	840	68	108	43	16	0	6	17	17	207	2961
App. 3															
INTO JUNCT	7	0	78	0	5	1	1	0	0	0	0	0	0	1	85
FROM JUNCT	2	0	60	0	10	0	1	0	0	0	0	0	0	1	71
TWO WAY	9	0	138	0	15	1	2	0	0	0	0	0	0	2	156
TOTAL ENTERING	56	22	1832	121	851	69	109	43	16	0	6	17	17	208	3081

U-Turns	Hour Beginning 700	800	900	1000	1100	1200	1300	1400	1500	1600	1700	1800	TOTAL
APP. 1, TESCO's Rdbt	0	0	0	0	0	0	0	0	0	0	0	0	0
APP. 2, NEWHAM Qy	0	0	0	0	0	0	0	0	1	1	0	0	2
APP. 3, GAS Hl	0	0	0	0	0	0	0	0	0	0	0	0	0

ROAD: U6069 KM: 0.00 LOC: NEWHAM Rd/LIGHTERAGE Hill jct, TRURO FILENAME: V54

DATE: 21/04/15 DAY: TUESDAY TIME FROM: 700 TO: 1900 JCT No : GRID REF: 183201 043604

REMARKS:

KEY TO WEATHER: FI=FINE CL=CLOUDY SH=SHOWERY RA=RAIN SN=SNOW FO=FOG
JUNCTION TURNING MOVEMENTS EXCLUDE PEDAL & MOTOR CYCLES

HR INTERVAL BEGINNING AND WEATHER:

FLOW DISTRIBUTIONS:	700 FI	800 FI	900 FI	1000 FI	1100 FI	1200 FI	1300 FI	1400 FI	1500 FI	1600 FI	1700 FI	1800 FI	TOTAL
FROM APP. 1, U6069 TESCO's Rdbt 3200/30													
TO EXIT:													
2: LIGHTERAGE Qy	0	0	0	1	0	1	0	0	0	0	1	0	3
3: NEWHAM Rd (S)	55	23	17	16	14	4	24	27	15	13	7	5	220
4: LIGHTERAGE Hl	130	140	147	89	86	75	111	98	70	51	32	20	1049
TOTAL INTO JUNCT	185	163	164	106	100	80	135	125	85	64	40	25	1272
TOTAL FROM JUNCT	95	112	107	128	93	125	118	143	124	168	132	68	1413
FROM APP. 2, U=0 LIGHTERAGE Qy /													
TO EXIT:													
3: NEWHAM Rd (S)	0	0	0	0	0	0	0	1	0	0	1	0	2
4: LIGHTERAGE Hl	0	0	0	0	0	0	0	0	0	0	0	0	0
1: TESCO's Rdbt	0	0	0	1	0	0	0	1	1	0	0	0	3
TOTAL INTO JUNCT	0	0	0	1	0	0	0	2	1	0	1	0	5
TOTAL FROM JUNCT	1	0	0	1	0	1	0	0	0	0	1	0	4
FROM APP. 3, U6069 NEWHAM Rd (S) 3220/05													
TO EXIT:													
4: LIGHTERAGE Hl	2	0	3	1	1	2	2	4	2	2	0	1	20
1: TESCO's Rdbt	27	22	17	19	14	24	22	26	29	29	26	20	275
2: LIGHTERAGE Qy	1	0	0	0	0	0	0	0	0	0	0	0	1
TOTAL INTO JUNCT	30	22	20	20	15	26	24	30	31	31	26	21	296
TOTAL FROM JUNCT	56	24	19	16	20	9	24	29	18	14	8	5	242
FROM APP. 4, U6069 LIGHTERAGE Hl 3500/05													
TO EXIT:													
1: TESCO's Rdbt	68	90	90	108	79	101	96	116	94	139	106	48	1135
2: LIGHTERAGE Qy	0	0	0	0	0	0	0	0	0	0	0	0	0
3: NEWHAM Rd (S)	1	1	2	0	6	5	0	1	3	1	0	0	20
TOTAL INTO JUNCT	69	91	92	108	85	106	96	117	97	140	106	48	1155
TOTAL FROM JUNCT	132	140	150	90	87	77	113	102	72	53	32	21	1069

	PEDAL CYCLE	MOTOR CYCLE	CARS& TAXIS	BUS & COACH	LIGHT GOODS	MED. GOODS	HEAVY GOODS VEHICLES RIGID 2 AX	RIGID 3 AX	RIGID 4 AX	ARTIC 3 AX	ARTIC 4 AX	ARTIC 5 AX	ARTIC 6+ AX	TOTAL HGVs	TOTAL EXC MOTOR/PED CYCLES
App. 1															
INTO JUNCT	9	5	632	59	438	24	62	27	11	0	3	5	11	119	1272
FROM JUNCT	25	16	766	58	465	28	50	17	6	1	5	11	6	96	1413
TWO WAY	34	21	1398	117	903	52	112	44	17	1	8	16	17	215	2685
App. 2															
INTO JUNCT	1	1	4	0	1	0	0	0	0	0	0	0	0	0	5
FROM JUNCT	1	1	2	0	2	0	0	0	0	0	0	0	0	0	4
TWO WAY	2	2	6	0	3	0	0	0	0	0	0	0	0	0	9
App. 3															
INTO JUNCT	3	5	146	0	106	4	13	12	4	1	4	2	4	40	296
FROM JUNCT	1	3	103	0	92	4	15	11	8	0	1	3	5	43	242
TWO WAY	4	8	249	0	198	8	28	23	12	1	5	5	9	83	538
App. 4															
INTO JUNCT	23	11	639	58	372	25	40	6	2	0	1	9	3	61	1155
FROM JUNCT	9	2	550	59	358	21	50	17	3	0	2	2	7	81	1069
TWO WAY	32	13	1189	117	730	46	90	23	5	0	3	11	10	142	2224
TOTAL ENTERING	36	22	1421	117	917	53	115	45	17	1	8	16	18	220	2728

U-Turns	Hour Beginning 700	800	900	1000	1100	1200	1300	1400	1500	1600	1700	1800	TOTAL
APP. 1, TESCO's Rdbt	0	0	1	1	0	2	0	3	0	0	0	1	8
APP. 2, LIGHTERAGE Qy	0	0	0	0	0	0	0	0	0	0	0	0	0
APP. 3, NEWHAM Rd (S)	0	0	0	0	0	0	0	0	0	0	0	0	0
APP. 4, LIGHTERAGE Hl	1	0	0	3	0	2	2	0	2	1	0	0	11

Appendix E

Option 16 Transport Modelling

E.1 As part of the Newham Road feasibility study transport modelling has been undertaken for a signalised shuttle system. A base model was created in VISSIM for the year 2015 using ATC and MCTC data. A model has then been created to test the signalised shuttle system.

E.2 The test focused on turning movements at the Lighterage Hill junction. Therefore:

- Newham Road N means the road north of the junction as far as Gas Hill
- Newham Road S means a nominal length of the road south of the junction

E.3 From this test we have found that there is a minimal increase in journey times. The table below expresses the journey time increases in seconds:

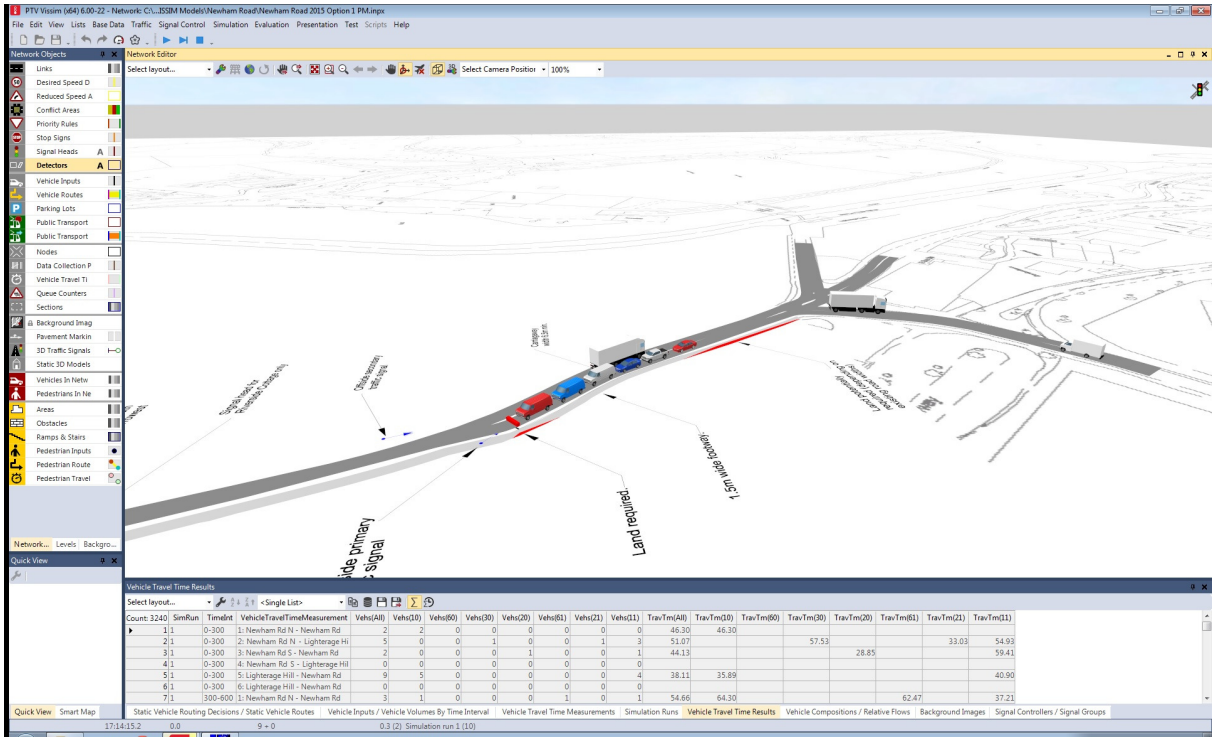
North to South								
Newham Rd N - Newham Rd S					Newham RD N - Lighterage Hill			
Peak Hour	2015 Base	2015 DS1	Increase		Peak Hour	2015 Base	2015 DS1	Increase
0800 - 0900	31.5	43.9	12.4		0800 - 0900	35.0	47.8	12.7
1600 - 1700	30.2	44.7	14.5		1600 - 1700	34.6	49.1	14.5

South to North								
Newham Rd S - Newham Rd N					Lighterage Hill - Newham Rd N			
Peak Hour	2015 Base	2015 DS1	Increase		Peak Hour	2015 Base	2015 DS1	Increase
0800 - 0900	30.8	46.2	15.4		0800 - 0900	33.7	49.4	15.7
1600 - 1700	31.2	43.5	12.4		1600 - 1700	33.8	47.4	13.6

E.4 For both directions of travel, the increase in journey times was in the range of 12 to 16 seconds.

E.5 The maximum queue length (excluding extraordinary conditions such as a broken down vehicle) was modelled to be 6 vehicles or 33m. This is well within the 80m distance between the Lighterage Hill junction and the Stop Line (see diagram below).

E.6 It can be considered, therefore, that this shuttle system will operate satisfactorily under the current traffic conditions.



Screenshot of VISSIM modelling output (Newham Road N is on the left, with Lighterage Hill on the right)

E.7 Notes:

- The traffic modelling has not been calibrated or validated. Nevertheless, it is based on recent source data, and is a reasonable prediction of the effect of the signals on the local network. For an even more reliable test, a full-scale simulation could be carried out using temporary traffic signals on site.
- The journey times are ***average*** increases. Depending on the stage in the cycle at the moment a vehicle arrives on a particular occasion, the actual time could be longer or shorter.
- The modelling was based on the following assumed cycle:
  - Inter-green – 15 seconds
  - Green southbound – 7 to 15 seconds
  - Inter-green - 15 seconds
  - Green northbound – 7 to 15 seconds
- The modelling is based on the worse scenario of the 110m distance between signals. This is a worse scenario for several reasons:
  - The inter-green time between alternate directions of travel needs to be longer
  - The secondary signal head cannot be seen from the access to Riverside Cottage. There will need to be an extra phase, therefore, but only on demand.

    - The Stop line for northbound traffic is brought closer to the Lighterage Hill junction.
- When the road is empty, the lights would sit on red, changing to green for the next approaching vehicle. Vehicles, therefore, will often not need to stop because the lights will have detected their approach and changed to green in time. Similar shuttle systems exist elsewhere, such as the railway bridge at Victoria, Roche.
- Using a combination of the Automatic Traffic Count (ATC) and Manually Classified Turning Count (MCTC) data, it was possible to refine the data from half-hourly increments to 5-minute increments. Therefore, variations within the hour could be identified, such as the surge in outbound traffic just after 5pm.
- Modern signals technology allows the timing to be fine-tuned according to the demand from each direction. Even when where there is a strong tidal variation between inbound and outbound flows in the morning and evening, therefore, the signal timings maintain optimum efficiency.

Appendix F

Pre-Application Planning Advice

one and all onen hag oll
CORNWALL COUNCIL

Cormac Solutions Ltd - Taryn Causton
Western Group Centre
Radnor Road
Scorrier
Redruth
TR16 5EH

Your ref:
My ref: PA15/00124/PREAPP
Date: 25 March 2015

Dear Sir/Madam

Pre-application enquiry reference	PA15/00124/PREAPP
Proposal	Pre-application advice for better road and pedestrian access
Location	Newham Industrial Estate Newham Road Newham Truro
Applicant	Ms Vicky Fraser

I refer to your enquiry received on 15 January 2015 concerning the above and would inform you that this letter is written on the basis of the information supplied with your enquiry and the submitted drawings.

Site, context and existing Land Use:
This site comprises a roughly 350 metre length of Newham Road, Truro running parallel to Truro River and ending at its southern extent adjoining the junction with Lighterage Hill. The existing carriageway, which has no defined separate footway and has notable width restrictions, abuts the bank edge of Truro River along its southern section from a point opposite Little Newham to the bottom of Lighterage Hill.

Proposal:
This pre-application proposal focuses on the investigation of feasibility options to improve the alignment of Newham Road and to provide better access for pedestrians and cyclists. Particular key concerns have been identified as:
o The physical pinch point outside Little Newham (grade II listed) where visibility is poor and HGV's have difficulty passing;
o This bend has not be improved in the past because of the sensitive context of the listed building and curtilage to the south west and the Truro River Special Area of Conservation (SAC) and Site of Special Scientific Interest (SSSI) to the east;
o The issue of land take for the highway improvement scheme with loss of a section of high hedge;
o Installation of traffic lights to control the safe movement of traffic (but would restrict access to residential properties);
o Increase in carriageway width with provision of footway utilising three sections of a metal cantilevered path extension out over the mudflats plus new sections of footway over sections of intervening verge;

o Plans provided at this initial stage: EDG0206/F/2700/001- Site location; 002 &003- Proposed 3.0m wide footway layout and sections.

Constraints:
Setting of Grade II statutory Listed Building - Little Newham
Area of Great Scientific Value
Critical drainage area - Truro-Kenwyn, Allen and Tregolls
Flood Zones 2 and 3 (Fluvial and Tidal)
Hazardous Substances installation context: (Transco site- HSE Reference H1597OZ, Calor Gas - HSE reference H1012MZ,H1012OZ, H1012IZ, Lighterage Quay- HSE reference H4101MZ, H4101OZ.)
Truro City Council administrative area
Potentially contaminated land - linked to proximity to Calor Gas site.
Adjoins Site of Special Scientific Interest - Malpas Estuary SSSI
Fal and Helford Special Area of Conservation
River bank buffer zone
Tree Preservation Orders:
- C1/CK295 - Kernow House, Malpas area based Order
- C1/CK445 - Riverside, Truro - 2 groups and 2 individual trees

Relevant policies and guidance:
Under section 38(6) of the Planning and Compulsory Purchase Act 2004 decisions on applications for planning permission and appeals must be taken in accordance with the development plan, unless there are material considerations that indicate otherwise.

The National Planning Policy Framework stresses the importance of having a planning system that is genuinely plan-led. Where a proposal accords with an up-to-date development plan it should be approved without delay, as required by the presumption in favour of sustainable development at paragraph 14 of the National Planning Policy Framework. Where the development plan is absent, silent or the relevant policies are out of date, paragraph 14 of the National Planning Policy Framework requires the application to be determined in accordance with the presumption in favour of sustainable development unless otherwise specified.

In Cornwall the development plan comprises the 'saved' policies from the adopted Local Plans, the Balancing Housing Markets DPD in the former Carrick area and those development plan documents that deal specifically with minerals and waste. Cornwall Council is able to demonstrate a five year supply of housing land when assessed against the requirement of 47,500 homes as set out in the proposed submission Local Plan and based on an objective assessment of need undertaken for the Strategic Housing Market Needs Assessment. Until our assessment is tested at an examination cogent arguments that are also untested will be promoted by others that support the same or a different conclusion on the 5 year land supply position in Cornwall. Therefore, in the absence of a fully tested objective assessment of housing need, it is not currently possible to conclude whether or not there is a five year supply and therefore in terms of paragraph 49 of the NPPF the relevant policies for the supply of housing in the saved local plans are not considered to be up to date.

The policies in the emerging Cornwall Local Plan are not part of the development plan and have limited weight because of the early stage that the Local Plan has reached in the adoption process but the policy and explanatory text does give a clear indication of the Council's direction of travel. This Local Plan has been developed from an up to date evidence base. Cornwall Council (14/1/14) resolved to amend the draft local plan and carry out a further period of consultation on a proposed submission version before submitting the Plan to the Secretary of State (SoS) for Examination. The substantive change (resolution 1a) is that the overall housing number be agreed at 47,500 with the associated distribution being as previously agreed by Cabinet. A number of other changes to text and policy wording were also approved. This further consultation took place during March and April for 6 weeks and was reported to members during July 2014. As a result of the representations received the Portfolio Holder for Environment Heritage and Planning authorised focused changes to the Cornwall Local Plan - Proposed Submission - March 2014 which were the subject of a further period of consultation ending in mid - October.

Following the period of consultation on the Schedule of Focused Changes- September 2014, the Cabinet on 19 November 2014 recommended to Council that the Cornwall Local Plan, consisting of the Cornwall Local Plan: Strategic Policies Proposed Submission Document 2010-2030 (March 2014) and the Proposed Schedule of Focused Changes be submitted to the Secretary of State for examination. This decision was taken by the Council on 16 December 2014. The Cornwall Local Plan has been submitted in early 2015 and the examination is likely to take place later in Spring 2015.

National Planning Policy Framework, 2012 (sections):
Para. 7 Achieving sustainable development - three dimensions
Para. 9 Pursuing sustainable development
Para. 14 Presumption in favour of sustainable development
Paragraph 17 Core planning principles for sustainable development.
4: Promoting sustainable transport
7: Requiring good design
8: Promoting healthy communities
10: Meeting the challenge of climate change, flooding and coastal change
11: Conserving and enhancing the natural environment
12: Conserving and enhancing the historic environment

National Planning Practice Guidance 2014

Cornwall Local Plan Strategic Policies 2010 - 2030 (Proposed submission document March 2014):
Policy 1: Presumption in favour of sustainable development
Policy 2: Key targets and spatial strategy
Policy 13: Design
Policy 14: Development Standards
Policy 17: Health and wellbeing
Policy 22: Best use of land and existing buildings
Policy 23: Natural environment

Policy 24: Historic Environment
Policy 25: Green infrastructure
Policy 26: Flood risk management and coastal change
Policy 27: Transport and accessibility
Policy 28: Infrastructure
Policy PP6: Truro and Roseland Community Network Area - section 2.

Carrick District Wide Local Plan 1998 (saved Policies):
Saved Policy 3F: Trees/hedges and development
Saved Policy 3H: Safeguarding of the AGSV
Saved Policy 3HH: Avoid harm to the integrity of wildlife corridors
Saved Policy 3J: Avoid damage to locally important habitats
Saved Policy 4D: Development to respect the setting of listed buildings
Saved Policy 8G: Port and water related commercial development
Saved Policy 10R: Water based recreational uses in the Truro River basin
Saved Policy 10S: Safeguarding public access around perimeter of the Truro River basin
Saved Policy 13I: Development and flood risk

Other material guidance:
Cornwall Design Guide 2013
Planning Policy Statement 5: Planning and the Historic Environment Practice Guide 2010
The Town and Country Planning (Environmental Impact Assessment) Regulations 2011
Habitats Directive 92/43/EEC (inc. Habitat Regulations Assessment of Natura 2000 sites).

Principle of the works:
The scheme has been reviewed in the office in the context of the site planning history, the policy regime and other guidance and a subsequent site inspection was undertaken following our telephone conversation of the 24th February 2015. This response has been collated following our recent conversation and the receipt of initial feedback from such bodies as the Environment Agency, the Council's Forestry Officer and the Development Management Highways Officer.

This stretch of Newham Road has historically been one where the need for highway improvement works to improve general highway safety, commercial site accessibility, pedestrian and cyclist access and overall public safety has been accepted in principle as enshrined in the Carrick District Wide Local Plan 1998. There have been previous approaches and consideration of potential schemes but these have failed to progress - it is assumed on the basis of the failure to fully address the significant sensitive constraints imposed by the significant natural and historic environment and formal designations in this area. It is reassuring that a number of alternative options are currently being considered - to include more basic traffic management schemes such as the introduction of specific control measures such as traffic lights. As potential scheme options evolve it will be important that the following constraints, opportunities and policy requirements are fully addressed and communications are maintained with the key bodies and organisations.

Heritage Asset Area Context:
The site lies within a particularly sensitive and visually prominent context with reference to the setting of Little Newham and its historic curtilage located immediately to the south west of the existing carriageway. The distinctive building, which has seventeenth century origins with a significant remodelling in the nineteenth century, has a frontage softened and visually enclosed and contained by existing hedge planting in combination with sections of low brick walling and fencing. Opposite the frontage the riverside edge is marked and contained by a sinuous grassed verge and landscape structure in the form of shrubs and low trees lining the bank to the Truro River estuary. The historic building represents an important historic residential survival that is nestled into the sylvan landscape setting which screens the site from the adjoining extensive large scale commercial sites, businesses and buildings. The building outlook and setting is an important survival and vestige of this previously far more isolated location overlooking the river. The existing verge planting and frontage enclosures are key elements of the buildings setting, location and relationship to the estuarine context.

This building is a grade II listed heritage asset and therefore the proposals must have regard for the significance of the building and its features and setting and assess the impact of the proposals on the building and its setting. Great weight should be given to the asset's conservation. (NPPF Paragraph 132.) Furthermore, Section 66 (1) of the Planning (Listed Buildings and Conservation Areas) Act 1990 sets out our statutory duty in the exercise of planning functions for development which affects a listed building or its setting and states 'shall have special regard to the desirability of preserving the building or its setting or any features of special architectural or historical interest which it possesses'.

The NPPF requires applicants to provide sufficient assessment of the significance of any heritage assets affected by development including any contribution made by their setting. In the NPPF at paragraph 132 it is stated that when considering the impact of a proposed development on the significance of a designated asset, great weight should be given to the asset's conservation. Significance can be harmed through alteration or development within its setting and any harm or loss should require clear and convincing justification. Where development would lead to less than substantial harm, as may be likely in the case of this feasibility proposal, this harm should be weighed against the public benefits of the proposal.

In this instance the scheme incorporating the cantilevered footway elements plus the realigned carriageway would appear to require the removal and realignment of the frontage boundary treatment, including the landscape planting and physical wall structures. This, in combination with the complete removal of the grassed verge and all verdant planting opposite the historic site, would result in a significant and substantial degree of harm to the setting of the heritage asset, which is a serious concern. It would be important that should any scheme approach be progressed further a detailed heritage asset assessment should be undertaken, as required by paragraph 128 of the NPPF so as to allow a thorough understanding of the existing form and layout on site and the relationship to the estuary and wider context. Whilst it may be possible to reinstate an appropriate and meaningful form of site frontage

enclosure for the listed building, the suggested cantilevered form would leave the site completely open to the road and river with limited intimacy or screening.

Paragraph 133 stresses that where a proposal would lead to substantial harm to the significance of a designated heritage asset, local planning authorities should refuse consent, unless it can be demonstrated that the substantial harm is necessary to achieve substantial public benefits that outweigh that harm or loss. The site assessment should therefore clearly review all options considered for the section of highway and why the submitted approach is considered to be the preferred option over other solutions (such as the traffic light scheme) which would be visually far less intrusive and erosive.

Overall, it will be essential that the development at least preserves and preferably enhances the special character of this section of the setting to the designated heritage asset and any formal application submission will need to include a heritage asset impact assessment to review the significance of the identified heritage assets and the anticipated impact of the scheme in accordance with saved Local Plan Policy 4F and paragraphs 131 and 128 of the NPPF. This would also accord with the aims and intentions of Policy 24 of the Cornwall Local Plan Strategic Policies submission document.

Design and Form:
This section of Newham Road has a distinctive and almost semi-rural character through the predominance of landscape structure and trees to the rising ground to the west in combination with the repeated glimpses and wider views out to the estuary to the east. The landscape structure has a clear softening impact which ensures that it dominates over the built forms when moving along Newham Road and from the multiple public vantage points along the opposite side of the estuary on Malpas Road and at Boscawen Park. The introduction of the three significant stretches of cantilevered footway out over the low river bank may have a sleek almost minimalist design but there is concern that the loss of the existing stretches of enclosing liner verge planting and the introduction of inevitable hard edged safety rails and balustrading would seriously erode the landscape character of the locality.

Section 7 of the National Planning Policy Framework 2012 para 58 stresses the need for development to respond to the local character and the existing pattern of established development. At para 64 it is advised that permission should be refused for development that fails to take the opportunity for improving the character and quality of an area.

Whilst paragraphs 17 and 58 of the NPPF stress the need to create visually attractive developments through good design, paragraph 60 is also acknowledged in that local planning authorities should not attempt to impose architectural styles particular tastes. Any new structures should positively address the road and river frontages and the local plan reinforces the need to respect the distinctive character of the area with particular regard to traditional building/structure design style, scale, local features, finishes and colour and degree of prominence. Advice within the adopted Cornwall Design Guide 2013 would also need to be satisfied should a scheme be progressed towards formal application submission.

With reference to the frontage layout and alterations to the existing stretches of boundary walling, such as at Little Newham, a key consideration would be to retain a high degree of enclosure to the sites whilst providing the improvements to visibility and safety at the access with Newham Road as well as along the carriageway. The height of existing walling, in making a strong contribution to the character of the street scene, should not be substantially altered and any realignment of the walling should not result in an excessive set back or an excessively deep green verge onto the road. The frontage walling and planting should be aligned to provide continuity with existing boundary forms to either side of the sites so as to maintain the important degree of continuity in the street scene. The reconfiguration or increase in the access opening width should not be excessive so as to maintain essential screening to the parking and turning within the site forecourt areas.

Ecology and Biodiversity Impact:
As confirmed earlier in this response, the site lies in a particularly sensitive context in respect of biodiversity and very close proximity to designated sites of international importance. As stressed by the Environment Agency in an initial response, it is imperative that the principles set out in the NPPF with regards to flood resilience and the protection from, and avoidance of, adverse effects on the important areas of national and international conservation status be at the forefront of considerations when developing a scheme. Proposals for development on or within close proximity to inter-tidal habitats or internationally designated areas should also need to consider screening under The Town and Country Planning (Environmental Impact Assessment) Regulation 2011. This would need to be undertaken once a scheme has been firmed up and designed for formal submission to the Council.

A detailed ecological survey and assessment would need to be undertaken by a recognised professional so as to inform any design approach to be taken and also to identify the range of mitigation measures that would need to be integrated into any proposal in respect of habitat intervention and potential loss and disturbance. In addition to this, in order for a Habitat Regulations Assessment to be undertaken by the local planning authority, as the competent authority, as required by the European Directive, it will be necessary for a detailed Construction Environmental Management Plan (CEMP) to be collated and provided so as to assist in establishing whether the final scheme would have a significant effect on the European site(s).

At this initial stage, and without feedback from Natural England, the key issues appear to be the erosion and loss of significant stretches of river bank buffer verges and associated planting as important green buffer corridors, the level of intervention and ultimate shading with the construction of the oversailing cantilevered footways, implications for surface water drainage with loss of the permeable bank verge sections and the increase in tarmac surfacing as well as the implications for the construction process itself.

It is also noted that the Environment Agency advises that as the scheme would be within 7 metres of a main river it will be necessary to obtain a consent under the Water Resources Act 1991.

Other issues and material considerations:

Landscape and Trees Impact:
This stretch of Newham Road has a significant sylvan context with several trees appearing to be within the development corridor itself. There are nearby trees that are the subject of a tree preservation order and have protected status. Although the remainder are not afforded this degree of protection they are nevertheless visually prominent and important in terms of character and local public amenity. The loss of existing trees and landscape structure would have a significant and detrimental impact upon the riparian scene. Consequently, the Council's Forestry Officer advises that any road improvement scheme should consider all existing trees and the constraints they pose and the development scheme should be in accordance with the aims and intentions of BS5837 Trees in relation to design, demolition and construction - Recommendations, and a full appraisal of the tree issues should be submitted with the final application scheme. Trees are a material planning consideration on any site and the presumption is in favour of retaining important trees within a development. Trees and the constraints they pose should inform the layout design.

Highway Issues:
The highway benefits derived from the scheme focus on significant safety concerns and the current issue of conflicts at the existing pinch point and limited segregation of vehicular ad pedestrian users. The Council's Development Management Highway Officer has been consulted on the main option submitted with the proposed cantilevered footways. The principle is supported in highway terms in providing better access for pedestrians and cyclists. The key advice is that the proposal should be discussed with the Area Highway Manager and Highway Structures Team for their input on any scheme as it evolves.

Residential Amenity Issues:
In formulating the form, scale, design and layout of any highway improvement and reconfiguration proposal for this stretch of Newham Road a key consideration should be how the scheme would relate to its immediate neighbours - particularly the adjacent dwellings at Little Newham and River View Cottage to the west. Such issues as boundary enclosure, visual screening, noise attenuation and access and security for the adjoining private garden amenity areas would be of importance.

Whilst loss of a private view is not specifically a key planning consideration, any development should aim to avoid domination, a significant curtailment or serious erosion of an established principle outlook for the neighbouring residential properties. Paragraphs 17 bullet 4 and 59 of the NPPF stress that schemes should always seek to secure high quality design and a good standard of amenity for all existing and future occupants of land and buildings. This is reinforced in emerging policy 13 (Design) of the Cornwall Local Plan Strategic Policies 2010-2030 proposed submission document

2014 which considers that proposals should protect individuals and property from overlooking and loss of privacy.

Any final submitted site layout and landscaping proposals should include full specifications for the boundary treatments, planting and general enclosure for the stretch of highway being reconfigured.

Flood Risk and Drainage:
The wider site constraints confirm that with this stretch of Newham Road lying within Flood Zones 2 and 3 there are serious implications of flood risk to the highway itself as well as the adjoining residential and commercial premises with the inevitable adjustments to existing ground levels. The physical interventions that would occur could also have implications for the existing flooding capacity of this low lying land and associated properties running alongside the river.

It will be necessary for any proposed road improvement scheme to be accompanied by a detailed Flood Risk Assessment to fully review this significant constraint and to identify key mitigation measures deemed appropriate. This would be reviewed by the Environment Agency in due course.

The issue of surface water drainage for the reconfigured highway would need careful handling in terms of impact on the adjacent sensitive nature conservation sites with threats of pollution during both the construction phase and thereafter with use of the highway by traffic etc. This issue of impact on the water environment would need to be addressed in a drainage strategy submission as well as the essential CEMP report and identified mitigation measures.

Further guidance on flooding and development can be obtained from the Environment Agency web site www.environment-agency.gov.uk .

Contaminated land:
Section 11 of the NPPF provides guidance on conserving and enhancing the natural environment, and makes a number of statements, in connection with land contamination, the key paragraphs being as follows:

Paragraph 120. To prevent unacceptable risks from pollution and land instability, planning policies and decisions should ensure that new development is appropriate for its location. The effects (including cumulative effects) of pollution on health, the natural environment or general amenity, and the potential sensitivity of the area or proposed development to adverse effects from pollution, should be taken into account. Where a site is affected by contamination or land stability issues, responsibility for securing a safe development rests with the developer and/or landowner.

Paragraph 121. Planning policies and decisions should also ensure that:
o the site is suitable for its new use taking account of ground conditions and land instability, including from natural hazards or former activities such as mining,

pollution arising from previous uses and any proposals for mitigation including land remediation or impacts on the natural environment arising from that remediation;

o after remediation, as a minimum, land should not be capable of being determined as contaminated land under Part IIA of the Environmental Protection Act 1990; and

o adequate site investigation information, prepared by a competent person, is presented.

In light of the proximity of the highway to the nearby gas storage site, industrial uses and the river channel it is considered that a Phase 1 Site Investigation is undertaken in accordance with the Council's guidance contained in the "Guide to considering contaminated land in the planning process 3 March 2015 - Version 0.04" which can be accessed via the Council's web site. This important investigative document would also be particularly valuable as providing part of the evidence base for the CEMP.

Summary:
Having reviewed the main scheme option for this highway improvement, it is considered that the works incorporating the introduction of the multiple stretches of cantilevered footway and erosion of the existing river bank verge and landscape structure would be harmful to the established setting of the listed heritage asset and its curtilage, the landscape character of this green corridor running alongside the Truro River and the significant biodiversity value of the Natura 2000 nature conservation sites in this highly designated context. It is acknowledged that the scheme would deliver identified public benefits in terms of highway safety for vehicles and pedestrian users whilst also facilitating potential future investment and development of existing commercial sites beyond the existing highway restriction. However, at this initial stage, it is not considered that these public benefits would outweigh the substantial level of harm that would result for the heritage, landscape character and biodiversity interests in this sensitive highly designated context. At this stage it will be important that all other potentially less intrusive options for improving the highway are assessed and fully considered as viable alternatives to achieve the basic aims of the scheme whilst safeguarding the recognised issues of importance.

Should you wish to progress a scheme for this site it will be essential that the identified key areas of concern are fully investigated and assessed so as to inform the final form of development. The specific assessments and reports identified above will be required as part of any future formal planning application submission to confirm that any such scheme has been informed by and responds positively to this very sensitive context and specific identified constraints.

Works to demolish and realign the existing curtilage boundary wall/enclosure to the listed building will also require formal listed building consent.

Consultees:
The following would be consulted in respect of any formal planning application submission:

25 March 2015

- Truro City Council
- Local residents
- Electoral Division Member
- Cornwall Council Highways Development Management Officer
- Council's Environmental Protection Officer
- Council's Forestry Officer
- Council's Conservation Officer
- Natural England
- The Environment Agency
- South West Water

Community Consultation:
The majority of local councils (parish, town and city councils) welcome pre-application planning discussions and we strongly encourage you to consult the local council and seek their views prior to submitting any formal application. I would also encourage you to consult with the appropriate Electoral Division Member.
I would always recommend that you consult with Truro City Council on 01872 274766 or info@truro.gov.uk and with the local Electoral Division Member for the Truro Redannick Ward, currently Rob Nolan CC, on 07813 755210 and rnolan@cornwall.gov.uk .

I hope that you find the above advice helpful.

Please note that this is the final response and that any additional advice would be chargeable.

You should note that this letter does not constitute a formal decision by the Council (as local planning authority). It is only an officer's opinion given in good faith, and without prejudice to the formal consideration of any planning application. However, the advice note issues will be considered by the Council as a material consideration in the determination of future planning related applications, subject to the proviso that circumstances and information may change or come to light that could alter the position. It should be noted that the weight given to pre-application advice notes will decline over time.
Yours faithfully

Martin Woodley

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one and all onen hag oll
CORNWALL COUNCIL

Engineering Design Group
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Your ref:
My ref: PA15/02914/PREAPP
Date: 8 October 2015

Dear Sir/Madam

'Do I need' planning permission or building regulation consent enquiry

Reference Number	PA15/02914/PREAPP
Proposal	Do I need enquiry for road improvements (construction of new footway, minor widening works and traffic signals)
Location	Newham Road Newham Truro Cornwall

I refer to your enquiry received on 23 September 2015 concerning the above and would inform you that this letter is written on the basis of the information supplied with your enquiry and the submitted drawings.

The application site is viewed as highly sensitive site due to its proximity to a Site of Special Scientific Interest and a Special Area of Conservation (SAC) which is a protected site under the EC Habitats Directive.

Additionally it is noted that much of the application site area falls within an area designated as Flood Zone 3, which is in a category which is at the highest risk and likelihood of flooding.

The Town and Country Planning (General Permitted Development) (England) Order 2015 enables certain building projects /development to be undertaken through rights which fall within the tolerances of Permitted Development, as set out in that Order.

Class A, Part 9 (Development Relating to Roads) of Schedule 2 of the above Order allows certain works to be carried out by a Highway Authority:
(a) On land within the boundaries of a road, of any works required for the maintenance or improvement of the road, where such works involve development by virtue of section 55(2)(b)(g) of the Act; or
(b) On land outside but adjoining the boundary of an existing highway of works required for or incidental to the maintenance or improvement of a highway

I consider the works, described in the Do I Need Planning enquiry as the construction of a new footway along the carriageway, falling principally within the physical constraints of the corridor and involving minor widening and narrowing of the carriageway to a single

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track in short sections, along with the installation of traffic signals, would comply with Permitted Development Rights and there is no need to submit a planning application as long as the works involve development by virtue of section 55(2)(b)(g) of the Act.

Whilst this response relates solely to matters controlled through the Town and Country Planning Act 1990 as amended, in terms of other relevant legislation and constraints which may apply given the sensitivity of the site I would advise that although it is my opinion that the works would be undertaken outside of the protected status of the SAC and are not a relevant consideration or limitation in the GPDO in determining if PD rights apply, you may wish to discuss your proposal with Natural England.

Given the siting within Flood Zone 3 I would also advise you to discuss your proposal with the Environment Agency to ascertain if separate consents/permits would be required.

You should note that this letter does not constitute a formal Certificate of Lawfulness of a proposed development in accordance with Section 192 of the Town and Country Planning Act 1990 (as amended). It is only an officer's opinion that is based upon the information available and is given without prejudice to any formal decision of the Council (as local planning authority). Should you require a formal determination of lawfulness you may apply on forms available from this office but a fee will be payable.

It is also not a formal Building Regulation Exemption Certificate.

Yours faithfully

Hilary Gooch
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