Appendix B - Wastewater

From: jason.homer
Sent: 12 June 2012 15:13
To: "Timothy.Cole@thameswater.co.uk"
Cc: "Wheeler, Martin"; "Tim Jones"; "Hugo Reeve"
Subject: DERA foul drainage (TW/WYG Meeting 12 June)
Attachments: DERA_Sewage Solution.doc

Tim,

Thanks for your time and that of your Chertsey Catchment Manager this morning, much appreciated (please forward this mail to your Catchment Manager).

Please find below a bulleted summary of our discussion:

- The existing foul water outfall from the North Site, via the M3 pipe subway into Longcross Road is now the preferred solution for DERA North because:
  - no downstream network reinforcement would be required (providing any net increase in foul flows from the DERA North site – which is quite likely because of the new residential component – is attenuated in the new adaptable onsite foul pumping station);
  - the scale of this pumping station would be minimised because there may be some additional storage in the piped gravity network between the outfall in Longcross Road and Trampsgreen Road (TECHNICAL NOTE: the flows from the DERA site – both North and South – will be conveyed to Lyne Sewage Treatment Works (STW) on the attached plan, at the M3/M25 junction. The critical pinch point between DERA and this treatment works is the Pumping Station next to the bridge on Trampsgreen Road (PS1 on the attached plan). Therefore TW would prefer to increase the pumping frequency of the Kitmsend Lane pumping station (PS1 on the attached plan) to limit the impact on the heavily constrained Trampsgreen Road bridge pumping station. If the DERA site were to convey flows directly to the gravity sewer on Trampsgreen Road – as previously specified - this would have a much more negative impact on the TW network);
  - this solution negates the need to access third party land and undertake a railway crossing;
  - this solution can likely be delivered from a single foul pumping station located between the commercial and residential sites, which will also reduce the depth of the new adaptable onsite gravity sewers and;
  - this solution should make it easier to intercept the existing flows from the film studio during the construction of the residential and data centre sites.

- However, this option being the preferred option depends upon:
  - Crest Nicholson confirming that they are able to provide a right of access through DERA North, the M3 Pipe Subway, and DERA South and directly into Longcross Lane without passing through third party land;
  - there is a suitable location for a new pumping station between the main site access/data centre and the residential site, close to the M3 Motorway.

- Effectively it is unlikely that any capital costs for network reinforcement will be required from Crest Nicholson, and there will be no programme risk in terms of Thames Water having to undertake network reinforcement prior to the occupations of the first few houses/commercial units. Crest Nicholson will deliver an onsite gravity network, an adaptable pumping station and a new rising main under S104 W1991, connecting into the exiting 225mm sewer in Longcross Road.

- Although the net increase in foul flows from DERA North site can be accommodated in the existing sewerage network between Longcross Road, Trampsgreen Road and the Sewage Treatment Works, the foul flows from the DERA South Site (circa 2000
new homes) can NOT be drained via the existing network and will be pumped directly
to Lynne Sewage Treatment Works via a new cross-country rising main network to the
north or south of Bog Wood. At this time the flows from DERA North may or may not
be be directed into the larger DERA South Pumping Station and pumped directly to
the Sewage Treatment Works

- In order to progress with the procurement of a suitable solution the following is
required:
  - Thames Water will respond to the formal WYG capacity enquiry requesting
that Crest Nicholson pay for an “Impact Assessment”. This will cost £400 and
will allow Thames Water’s service providers to scope the works required to
determine a detailed solution, which will likely include:
    - Flow monitoring of the existing Longcross Road Outfall (9 weeks flow
monitoring) to understand the existing flows from the site in order to
make an accurate assessment of the likely net increase in flows from
the new residential and commercial development (c. £1500)
    - Detailed hydraulic modelling (a further 2 months) to understand the
spare capacity in the downstream network (upstream of the critical
pumping station) to determine the size of works attenuation required
and the new works pumping regime (c. £3000)
  - Thames Water recommend that this is undertaken at the earliest opportunity
but understand that Crest Nicholson may not want to pay for this prior to the
new planning consent being granted.

I have attached a plan to help the rest of the project team understand this morning’s
meeting. If you feel there are any errors or omissions please make the appropriate changes
to this text. Otherwise I look forward to your formal response to my original letter dated 5
May 2012.

Kind regards

Jason Horner
Associate Director

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