**Brief: Barham Park Events Field Drainage**

Version: 24th November 2021

Quotations are invited to supply and install replacement surface water drainage at the Events Field in the west of Barham Park, Wembley, HA0 2HB in the London Borough of Brent. The grid reference is approximately TQ 171 852.

A drainage strategy including diagrams is provided with this package.

**Note that the tendered drainage scheme is not required to follow that design, providing that any other design or technology is explained, and would meet the Thames Water discharge consent; including maximum flow rates. A design and build approach may therefore be considered.**

**Site notes**

The site is open to the public at all times and there is no need to book an appointment to visit. Officers of the Council will be available to answer clarification questions through the usual procurement format.

The nearest works vehicular access is likely to be near to 766-768 Harrow Road, near to the Watford Road / Harrow Road junction.

The field is approximately 1.3 hectares though that area includes some marginal slopes and park features that will benefit from the drainage but may not require the field drainage infrastructure. The area for the field drainage is probably nearer to 0.8 hectares.

There are no welfare facilities as such within Barham Park. Space for welfare facilities can be made available within or adjacent to the works; and should be mentioned and included in the quotation. There is one, external, mains water connection available, approximately, 100 metres in a curved line from the nearest edge of the field.

The underlying soil is London Clay and there are varying depths of sub-soil and topsoil.

The works will involve connection to and discharge into the Thames Water public surface water system, for which final Connection to a Public Sewer Consent will need to be completed during the works. The works will need to comply with the maximum discharge flow rate and other requirements of Thames Water.

A topographic survey has been prepared and is included with this package of documents.

The Events Field hosts other infrastructure including the Thames Water public surface water sewer referred to; and one or more telecommunications internet cables. The works will need to explain how those will be located, safe-guarded – and the drainage layout amended to avoid damage.

The field is intended for use as an events field rather than a sports field. While a sports pitch Performance Quality Standard is not specified, the contractor should state or explain the standard or characteristics that the final surface will meet

During mid-June to early July 2021, a possible discharge of effluent was noticed at one location in the field. This was localised and did not correspond to any known fowl water system; and the origin remains unknown. A location map is provided for that incident.

**Works**

A drainage design, based on the topographic survey has been prepared and is included with this package. This includes results of Percolation / Soakaway tests.

* **Field drainage basics:** Please provide basic information on the drainage system to be installed, including information on the depth of the in-field drainage pipes, confirmation of the distance between the centres of the drainage runs, backfill design and materials,
* **Trench arisings**: The Council is keen to reduce the generation of waste and the transport of waste materials. The tender should advise on how any trench arisings or other materials will be managed, on-site, off-site or otherwise and the quantities involved.
* **Trench material settlement and topping up**: Please advise on the possibility, in relation to your method, of settlement or shrinkage of the trench runs within the clay soils during years one to three after the main works; and provide a provision for the cost of topping-up during each of year one to three after completion.

Details for a below grounds SUDS storage system are included in the documentation: that option of works should either be included in the quotation; or if another technique or design is proposed for holding and meeting the discharge consent, then that should be explained and included in the costings.

Any variation of the drainage design will need to include compliance with and should include the following or equivalents:

* An interceptor/ filter before the flows enter the Thames Water system to avoid siltation in the Thames Water system;
* Flow limitation to meet the following, equivalent or better: a 100mm diameter outflow at 1% which will limit the flow to the Thames Water systems; and
* To meet both of the Thames Water and CIRIA criteria.

Be aware of an internet company’s cabling in the western part of the field – the works will need to avoid or accommodate the location of that cabling. The drainage strategy diagrams provided with this specification package, do not necessarily indicate and take account of the location of the cabling.

Existing aggregate slippage: towards the western access to the field, various crushed aggregate has been laid to enable temporary access to and egress from the field. The loose material is interfering with the maintenance of the adjacent grassland part of the field. As part of the works a workable solution will be required taking into account the field drainage, internet cabling mentioned above, vehicular access and egress, and avoidance of the issue of loose aggregate in the grass.

CDM or equivalent: Please advise of the CDM requirement of the proposed works; and whether if necessary; you have the capacity to act as Principal Designer? (If not, the Council may appoint a consultant or other to fill that role).

The following notes are for background information.

1. The Events Field at Barham Park is situated in the west of the park, near to Sudbury roundabout and at the western apex is at the edge of the Sudbury Town shops.
2. For most of the year the events field is used as part of the park, by visitors for recreation including informal games, visits and walking. It is accessible to other parts of Barham Park and immediately adjacent to the car park, children’s play area, outdoor gym and a path around Barham Park.
3. Approximately twice a year (though not during 2020 due to the Covid-19 pandemic), often in about May and in August, the field hosts a visiting fair with amusement rides and other attractions. The Council, on behalf of the Barham Park Trust, arranges the hire of the field with the fair. Other events may be held there too.
4. The Events Field is approximately the lowest land of Barham Park and is also lower than the surrounding highway and urban infrastructure. There is limited natural drainage on the downslope side as that is bisected by a railway embankment. The underlying soils are largely London Clay, which tends to hold water in winter or following high rainfall at other times of the year.
5. Depending upon seasonal variations in weather from year to year, the Events Field soils become water-logged during most winters; and in some years remain or can become saturated with water in May and even in August. That creates difficulties for visitors to the fair, can limit the availability of attractions; and causes damage to the soil and grassland when vehicles arrive or leave the field. Remedial works then need to be undertaken.
6. Recently, the field was essentially unusable for visitors during much of each winter as the water table is practically on the surface. The footpath to the north and west of the field also experiences annual flooding.
7. Thames Water Public surface water system: At various recent times, between November 2020 to April 2021, and again in the autumn of 2021, Thames Water undertook works to repair a surface water drain under part of the Events Field and entering and under the railway embankment. That was mainly in relation to the drain under the railway embankment. Those works are likely to complete before the commencement of the field drainage works, but future works are a possibility.
8. The Council has no records of when the field drainage was last installed or improved, but it can be assumed that other than for minor remedial works, that the existing drainage has been installed for some decades.

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| **Table of technical documents: Barham Park Events Field Drainage** |
| **Document name** | **Brief description** |
| Brief | Project brief (this document) |
| Additional notes |  |
| Drainage Strategy | Overall drainage design including calculations and drainage plans |
| 9091-EPG-ZZ-DR-Y-0010.pdf | Field plan of sustainable drainage layout and details |
| 9091-EPG-ZZ-DR-Y-0010 (004).pdf | Plan of attenuation tank, chambers and connections |
| SD19549-01\_Barham Park Topo\_ Final.pdf | Topographical drawing of the field and surrounds. |
| SD19549-01\_Barham Park Topo\_ Final.dwg | Topographical drawing 01 in dwg format. |
| SD19549-02\_Barham Park Topo\_ Final.dwg | Topographical drawing 02 in dwg format. |
| 2011-03-11LeasePlan26Nov96 Videotron (003).pdf | Plan to show approximate location of Videotron (now Virgin Media) cabling. |
| Barham Park approx. location sewage leak Events field July 2021 | Annotated map of approximate location of reported sewage or other effluent discharge.  |
| Thames Water Letter 50216436 Barham Park Harrow Road London HA0 2HB.pdf | Letter from Thames Water |
| Thames Water Wastewater FAQs for pre-planning enquiries.pdf | Thames Water leaflet regarding waste/surface water connections. |