

# Silverstone Multi-Utility Project

## Project Profile

**Client:** MEPC

**Employers Agent:** Ridge & Partners

**Designer:** Glanville Consultants

**Date:** May 2019 – March 2020

**Value:** £3.16m

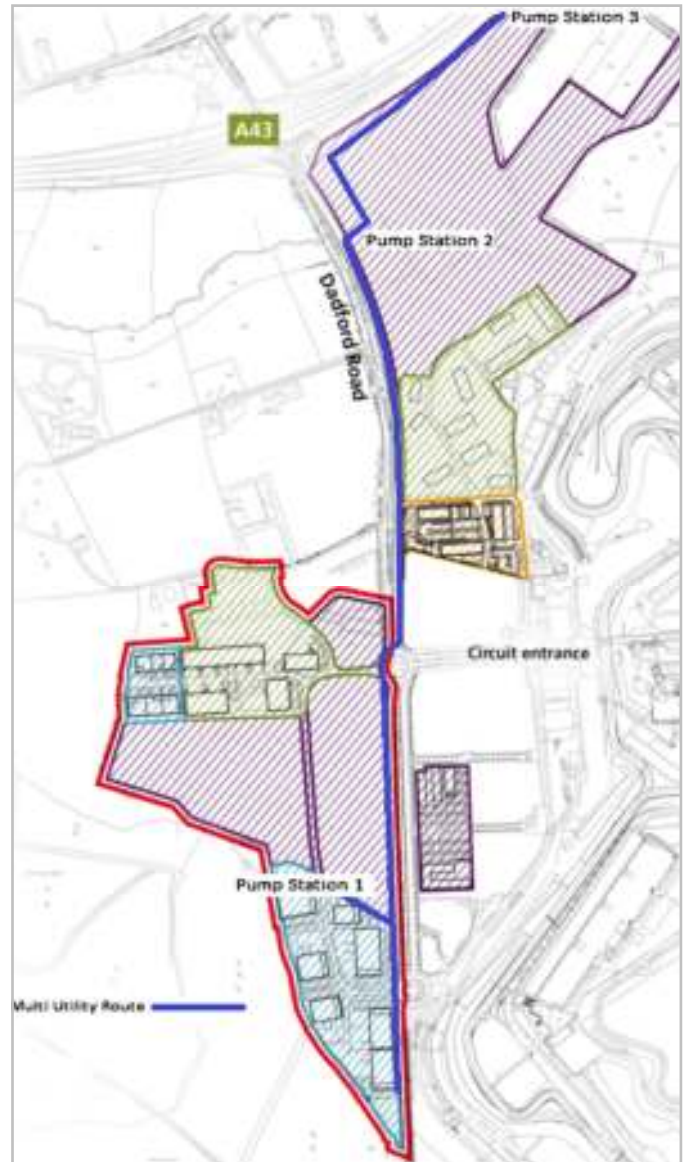
This Design & Build project was carried out for developer MEPC to provide the primary service infrastructure for a 2.4million ft<sup>2</sup> commercial development including offices, workshops, education facilities and hotels on land around the Silverstone formula 1 racing circuit. The development borders the A43 to the North and falls within 2 counties, Northamptonshire to the North and Buckinghamshire to the South. Designer Glanville was novated to Forkers following contract award and fulfilled the role of both Contractor's and Client's designer as well as inspecting the work on behalf of the client. Anglian Water, Northamptonshire and Buckinghamshire County Council Highways also carried out inspections.

The project involved the installation of:

- A new foul water drainage system, partly pumped including three pumping stations, to serve existing and new commercial business units to the east of the northern end of Dadford Road and to the south of Buckingham Road.
- A communication network for both telecoms and telemetry.
- A gas supply network to feed all proposed development and existing units.
- An HV power network along with the bases for 6nr sub-stations.

Main work involved;

- Construction of 3nr pumping stations each comprising:
  - ◇ 2.4m diameter wet well, up to 7m deep
  - ◇ 2.4m diameter inlet chamber, up to 6m deep
  - ◇ External brush finished reinforced concrete slabs
  - ◇ Palisade security fence with additional privacy panels
  - ◇ Pumping Station 3 included an 18m x 3m diameter Weholite on-line storage tank.
  - ◇ Pump Station 3 was linked by telemetry to an existing Anglian Water pumping Station in Silverstone Village in order to control the pumps to prevent overloading the downstream system.



# Silverstone Multi-Utility Project (Cont'd)

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- A new foul water drainage system consisting of:
  - ◇ 50m of 125mm diameter, 865m of 180mm diameter and 330m of 225mm diameter HPPE rising main.
  - ◇ 480m of 450mm diameter gravity sewer, up to 4.5m deep.
  - ◇ 465m of 225mm diameter gravity sewer, up to 3m deep.
  - ◇ 20nr associated manholes and 2nr washout chambers.
- Due to a level clash with the new utility infrastructure, a surface water diversion was required to replace existing twin 600mm diameter storm water pipes around the footprint of one of the proposed developments with a 140m run of twin 750mm diameter pipes together with construction of 3nr in-situ concrete manholes.
- A Multi-Utility Trench for installation of gas and HV electric services as well as telecoms and telemetry ducts involving;
  - ◇ Excavation, bed/surround and backfill to 2,200m of HP gas main ranging from 125mm to 315mm diameter.
  - ◇ Excavation, bed/surround and backfill to 2,400m of HV cables.
  - ◇ Construction of 6nr HV sub-station bases.
  - ◇ Installation of 1,100m of ducts in multi-way road crossings.
  - ◇ Installation of 5,000m of telecom ducts along with 50nr draw pits.



Programming of the works was dictated by the events being held at the adjacent Silverstone motor racing circuit, including the British Grand Prix and the British round of the Moto GP. This meant all the works on the public highway had to be constructed after the last main event (2nd week in September) and before the Christmas roadworks embargo (2nd week in December). These dates were successfully achieved and the project delivered on programme.