

# Uttoxeter Phase 2 Infrastructure - Drainage and Enabling Works

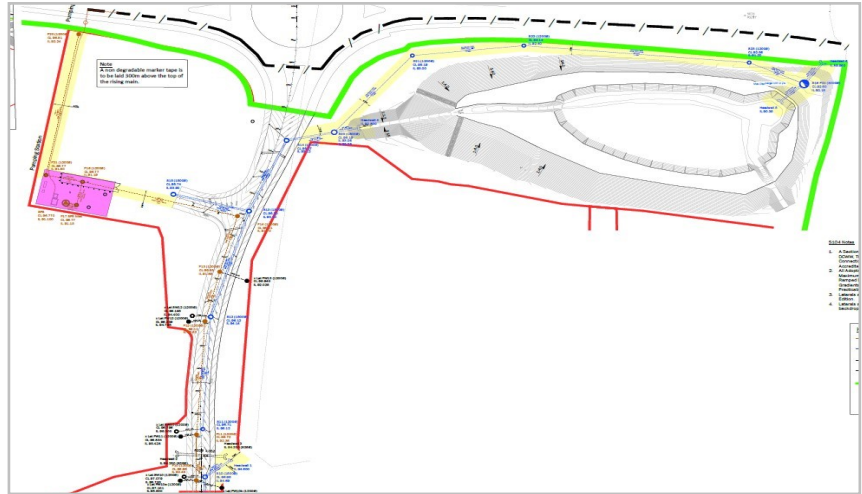
## Project Profile

**Client:** St Modwen Development

**Employers Agent:** ProSurv

**Designer:** PJA Consultants

**Value:** £1.95m



This Design & Build project was carried out for St Modwen Developments to provide the primary infrastructure for a new housing development on a 2.2ha site to the North of Uttoxeter, adjacent to the A50 trunk road. The carriageway was constructed under a Section 38 agreement with Staffordshire County Council. Designer PJA were novated to us following contract award and fulfilled the role of both Contractors Designer & Clients Designer also inspected the work on behalf of the client.

Main work involved;

- Construction of a 170m long single carriageway spine road 6.5m wide with 2m footpaths each side:
  - ◇ Site clearance and topsoil strip - stripped topsoil was either left in stockpiles for reuse by others at a later date or was used to topsoil the new attenuation pond
  - ◇ Excavation for road box and provide 300mm capping layer
  - ◇ 390m of 150mm to 300mm dia foul drainage up to 6m deep including 12no manholes up to 2.4m dia,
  - ◇ 450m of 25 - 600mm dia surface water drainage up to 3m deep including 13No manholes up to 3m dia,
  - ◇ 24no highway gullies,
  - ◇ Kerbing, footpaths & edgings,
  - ◇ 2no 6m wide bellmouth access points for future development
  - ◇ A new splitter island to replace an existing island at the site access roundabout
  - ◇ 1450m<sup>2</sup> of surfacing including 40mm thick HRA surface course with precoated chippings
  - ◇ 150m of Ducting for electricity and telecoms
  - ◇ Excavate, sand & backfill trenches for incoming gas & water mains
  - ◇ Temporary diversion of existing watercourse to allow construction of 825mm dia pipe with headwalls for permanent culvert
- Creation of a large surface water attenuation pond:
  - ◇ 28,500m<sup>3</sup> of Bulk Earthworks using plant fitted with GPS control programmed from the digital earthworks model
  - ◇ 190m of 300mm dia bypass drain.
  - ◇ 3.0m dia flow Control Chamber with hydrobrake.
  - ◇ 3No headwalls with 600mm dia outfall pipework.



# Uttoxeter Phase 2 Infrastructure - Drainage and Enabling Works (cont'd)

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**Designer:** PJA Consultants

**Value:** £1.95m



- Foul Sewage pumping station including:
  - ◇ 8m deep x 2.4m dia wet well constructed in open cut excavation
  - ◇ 6m deep x 3m dia Weholite foul attenuation tank with a storage volume of 155m<sup>3</sup>
  - ◇ 90m<sup>3</sup> Anti floatation slab
  - ◇ 250m of PE100 SDR11 rising main including an off site section requiring 4 way temporary traffic lights
- 11,000m<sup>2</sup> Top soiling & hydroseeding to landscaped areas
- 30,000m<sup>3</sup> of surplus excavated material relocated to on-site stockpiles for reuse for others
- Construction of brick built electric sub station 4.5m x 4.5m in plan & 3m high (with pitched, tiled roof) & associated works
- 2.9m x 2.1m concrete base for Gas Governor station



The project was carried out during the extremely wet autumn and winter period of 2019/20 which created very difficult site conditions, however with careful management of haul roads, earthworks and formations, including the use of bog-mats, the work was completed on programme.

