FEBUS

Focused Engineering Building Ultimate Solutions

COMPANY PROFILE

Engineering designs that get built.

Multidisciplinary engineering design and consultancy for water & infrastructure.



WATER | WASTEWATER | INFRASTRUCTURE

FEBUS Limited

ABOUT FEBUS

Senior-led engineering. Practical by default.

Established in 2022, FEBUS Limited is an independent multidisciplinary engineering design and delivery consultancy specialising in water, wastewater and infrastructure. Backed by a leadership team with decades of international engineering and infrastructure experience, we bring together senior process, mechanical, civil, structural, electrical/ICA and digital engineering expertise to support projects from early definition and feasibility through detailed design, procurement, manufacturing and construction support.

100+	5	7	2022
PROJECTS DELIVERED	COUNTRIES	INTEGRATED CAPABILITIES	ESTABLISHED

WHY FEBUS

Designs that can be built.

Our model is deliberately practical and client-focused. We think like a contractor, resolving interfaces, access, installation, maintainability and construction sequence before they become site problems. Senior engineers stay directly involved, giving clients fast decisions, clear accountability and continuity throughout delivery. FEBUS can mobilise as a single specialist discipline or as a fully coordinated multidisciplinary team, adapting to the programme and the level of support required. Where projects benefit from it, we can take selected packages beyond design into supplier coordination, fabrication, quality control, documentation, shipment and delivery to site.

OUR VISION

To be a trusted international engineering partner recognised for practical innovation, reliability, buildability and sustainable delivery - with client focus, integrity and collaboration at the centre of how we work.

COMPANY PRESENCE

United Kingdom

UK water-sector delivery, client support, project coordination and construction-facing design.

Türkiye

Engineering production, procurement, manufacturing coordination, quality control and export logistics.

ENGINEERING & DELIVERY CAPABILITIES

One team. Multiple disciplines. One delivery mindset.

We coordinate engineering around the asset, the site, the construction sequence and the supply chain - not in separate silos.

01 Process & Hydraulic Engineering

Basis of design, hydraulic assessment, process integration and treatment performance.

02 Mechanical Engineering

Plant layout, pumping, pipework, dosing, access and installation-led design.

03 Civil & Structural Engineering

Foundations, slabs, tanks, chambers, retaining works, drainage and constructability.

04 Electrical, ICA & Control

Power, MCC integration, instrumentation, ducting and coordinated control interfaces.

05 BIM, CAD & Digital Engineering

2D/3D delivery, coordinated models, clash resolution and drawing production.

06 Engineering Management & Design Coordination

Interface management, reviews, procurement support and construction support.

07 Procurement & Manufacturing

Bespoke skids, treatment equipment, electrical packages and project-specific assemblies sourced and manufactured in Türkiye to UK/EU requirements, with QC and logistics managed through delivery.

SECTORS

Water Treatment | Wastewater Treatment | Water Infrastructure | Pumping Stations | Industrial & Infrastructure

PROCUREMENT & MANUFACTURING

Engineered to specification. Built competitively. Delivered ready for site.

FEBUS extends its engineering capability into procurement and manufacturing, using Türkiye's strong industrial supply base to deliver project-specific packages at competitive cost while maintaining UK and European standards.

TYPICAL SUPPLY

From individual equipment to complete packaged systems.

- Tailor-made WTP / WWTP skids and packaged treatment units
- Process and mechanical equipment, pipework, valves and skid assemblies
- Electrical, MCC, ICA and control packages
- Tanks, steelwork and prefabricated project-specific assemblies
- Ancillary equipment and integrated supply packages for water-sector projects

END-TO-END DELIVERY

01 Specify

Engineering definition, datasheets, interfaces and package requirements.

02 Source & qualify

Supplier selection, technical/commercial alignment and production planning.

03 Manufacture

Fabrication, assembly and integration under coordinated technical oversight.

04 Inspect & document

Quality control, inspection/FAT as required, certification and document packs.

05 Ship & deliver

Export packing, freight coordination, shipment and delivery to the project site.

QUALITY, COMPLIANCE & LOGISTICS

UK / EU standards without losing the cost advantage of Türkiye.

FEBUS coordinates supplier quality, manufacturing checks, project documentation and logistics so clients have a single technical point of accountability from specification through shipment. The model is flexible: procurement-only, engineered equipment packages, bespoke skid systems or wider multi-package supply can be tailored to the project.

Design + procurement + manufacturing + delivery support

A practical extension of FEBUS engineering - reducing interface risk between what is designed, what is manufactured and what arrives on site.

HOW WE DELIVER

From definition to design, manufacture and site support.

01
Concept & Feasibility

02
Design Development

03
Detailed Design

04
Procurement & Manufacturing

05
Delivery & Construction Support

ASSURANCE

Professional Indemnity Insured

Senior-led multidisciplinary delivery

UK & European Standards

Buildability and interface coordination

OUR DELIVERY MINDSET

Resolve the interface before it becomes a site problem.

Our engineering focuses on how assets connect, how they are installed, how people access and maintain them, and how the works remain operable throughout delivery. Where required, we continue through supplier coordination, manufacturing oversight, QC, logistics and construction support so the design intent survives all the way to site.

SELECTED PROJECT EXPERIENCE

Ten projects. Different contexts. One practical approach.

A snapshot of water and wastewater work across international greenfield schemes and operational UK utility sites.

01 **Kilamba WTP**

Angola | 44,000 m³/day

02 **Zango WTP**

Angola | 22,000 m³/day

03 **Cabot Saint Lucia WWTP**

Saint Lucia | MBR | reuse

04 **Rhosesmor WwTW**

Wales | Brownfield upgrade

05 **Hemyock WwTW**

England | Phosphorus removal

06 **Eglwysbach WwTW**

Wales | Ammonia upgrade

07 **St Columb WwTW**

England | Storm resilience

08 **Cilcain Pantymwyn WwTW**

Wales | Pump-away

09 **Lixwm WwTW**

Wales | Integrated RBC

10 **Thames Water Ferric Dosing**

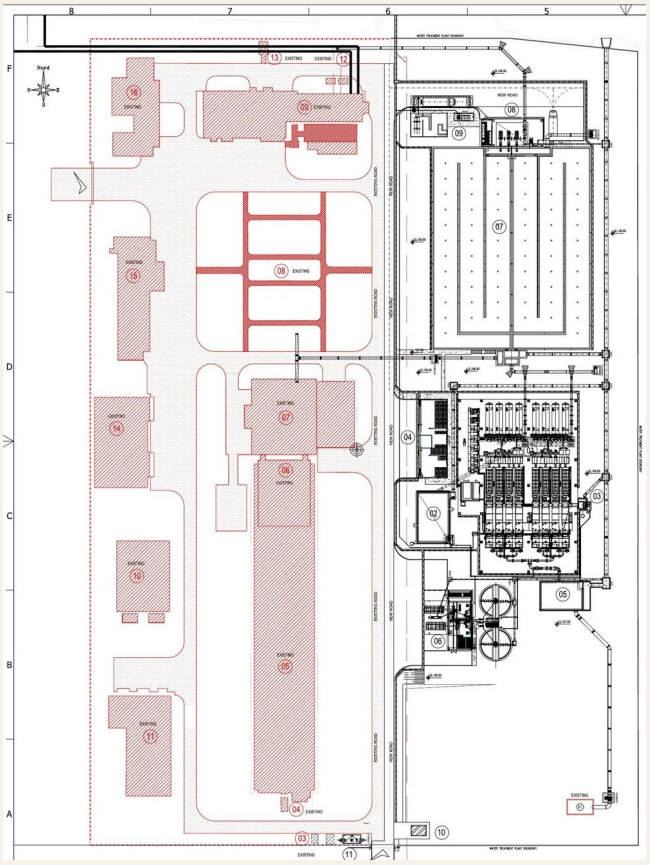
England | 5-site civil design

International: England · Wales · Angola · Saint Lucia · UAE

Kilamba Water Treatment Plant

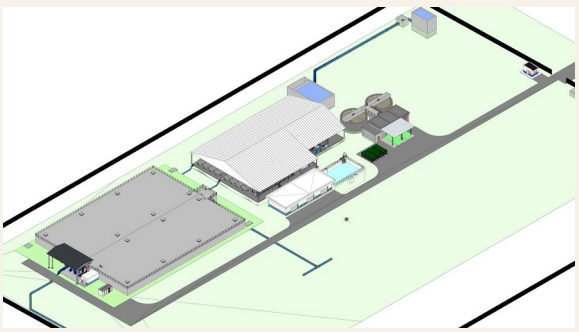
A 44,000 m³/day compact water treatment plant developed as a coordinated multidisciplinary design, integrating treatment, storage, pumping, buildings, roads and site utilities within a constrained site.

44,000 m³/day



GENERAL ARRANGEMENT

FEBUS coordinated the plant-wide arrangement around process performance, hydraulic connectivity, access and buildability. The layout brings the principal treatment units, storage assets, process areas, pumping and supporting infrastructure into one coordinated site plan, while 3D design was used to resolve spatial interfaces and constructability before construction.



3D coordination view

PROJECT FOCUS | Multidisciplinary detailed design · process & hydraulic integration · mechanical/civil coordination · storage · roads & site utilities

SELECTED PROJECTS

Water and wastewater in very different settings.

Greenfield water infrastructure in Angola and advanced reuse-focused wastewater treatment in the Caribbean.

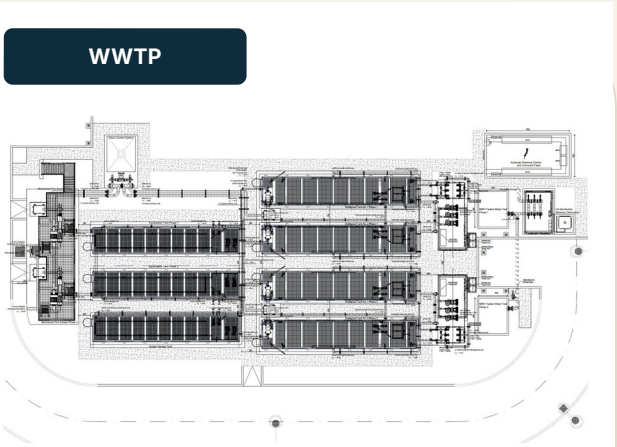


ANGOLA | WATER TREATMENT

Zango Water Treatment Plant

22,000 m³/day

A 22,000 m³/day water treatment plant delivered as an integrated site-wide design. The scheme coordinates raw-water pumping, treatment units, backwash and sludge handling, treated-water storage and pumping, reagent/storage areas, lagoons and utilities. FEBUS developed the layout and interfaces around equipment access, interconnecting pipework and construction sequencing, providing a clear route from detailed design into implementation.



SAINT LUCIA | WASTEWATER

Cabot Saint Lucia Golf Resort WWTP

423 m³/day ADF | MBR | reuse

An advanced resort WWTP based on membrane bioreactor (MBR) treatment, sized at 423 m³/day ADF for the current development phase. The process combines fine screening, flow equalisation, biological nutrient removal, submerged membrane separation and UV disinfection with backup chlorination. Treated effluent is returned for golf-course and landscape irrigation, while the modular design responds to seasonal occupancy, odour control and stringent reuse-quality requirements.

Operational sites. Real constraints.

Brownfield integration, compliance upgrades and process optimisation across UK water utility assets.

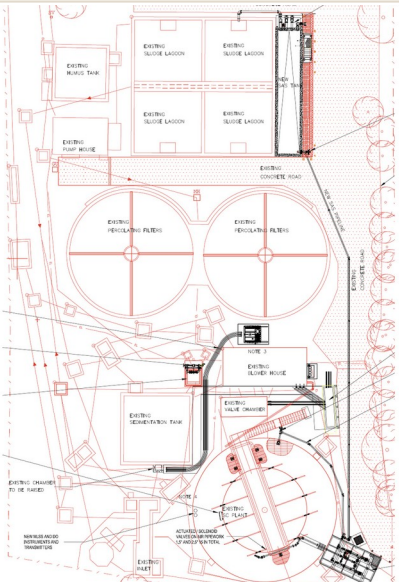


WALES | WASTEWATER

Rhosesmor WwTW Upgrade

CSAF + deep-bed filtration

Brownfield upgrade to a live WwTW, introducing a new post-HST CSAF pumping arrangement followed by gravity-fed deep-bed tertiary filtration. The solution includes a new wet well, duty/standby feed pumps, interconnecting and backwash-return pipework, a new MCC and access works. Design development also had to accommodate steep site gradients, overhead electrical infrastructure and evidence of erosion/subsidence while maintaining operability.



ENGLAND | PHOSPHORUS REMOVAL

Hemyock WwTW

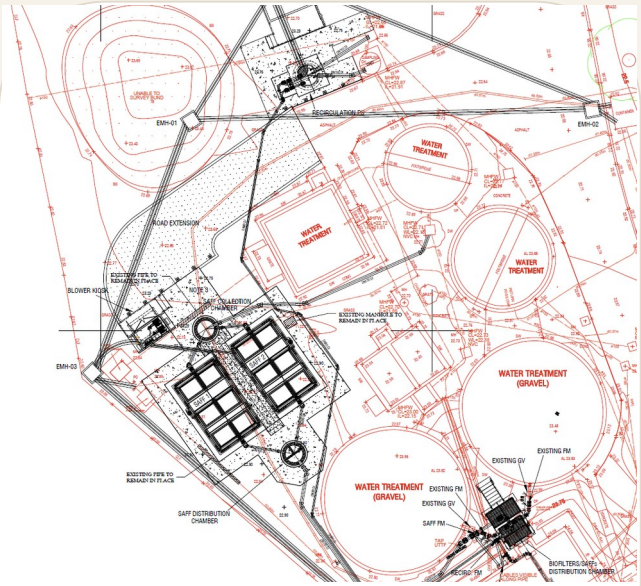
PE 1,923 | DWF 446 m³/day

Phosphorus-removal upgrade for South West Water, developed around single-point chemical dosing into the activated-sludge process, upgraded VSD RAS pumping and a new 115 m³ SAS holding tank with decant. The package also introduces new RAS/SAS monitoring and instrumentation, associated pipework, a power upgrade and a new MCC. The chemical system is sized with future tightening towards 1 mg/L phosphorus in mind, with space retained for potential tertiary solids removal.

Scheme information shown where applicable; detailed FEBUS scope varies by commission.

Compliance, growth and storm resilience.

Targeted treatment and storm-management upgrades supported by hydraulic, mechanical, civil and site-integration thinking.

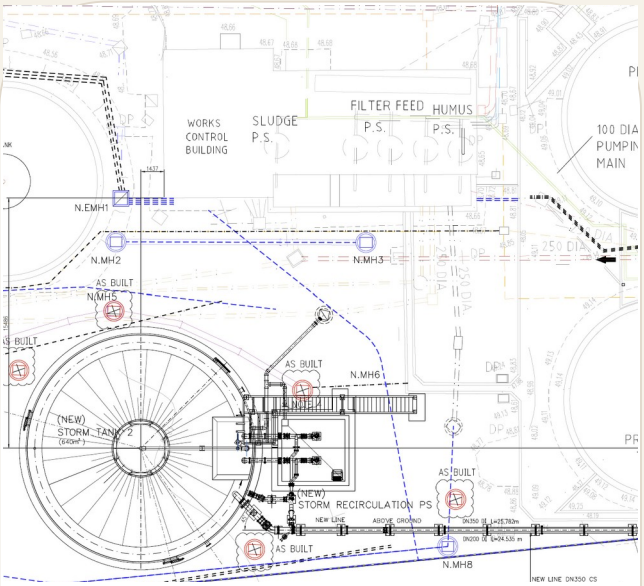


WALES | AMMONIA UPGRADE

Eglwysbach WwTW

PE 402 | DWF 250 m³/day

Ammonia-compliance upgrade for a 402 PE works with DWF of 250 m³/day. The preferred solution replaces the existing biofilters with a new SAF and introduces final-effluent ammonia monitoring. The design also responds to the constrained operational site, flooding risk, access limitations and existing sludge/recirculation arrangements, so the new treatment process can be integrated without creating unnecessary interfaces or compromising ongoing operation.



ENGLAND | STORM RESILIENCE

St Columb WwTW

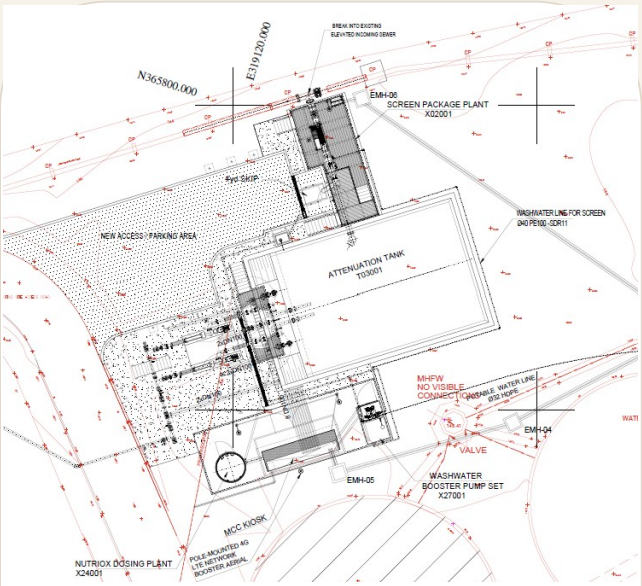
Future DWF 2,958 m³/day | FFT 93 L/s

Growth and storm-resilience upgrade for South West Water. With future DWF increasing from 2,080 to 2,958 m³/day and FFT from 78 to 93 L/s, the scheme introduces additional storm-tank capacity with coordinated storm delivery and return pumping. The outline design covered hydraulic assessment, updated P&IDs and hydraulic profiles, pump calculations, overall and storm-tank GAs, storm delivery/return pipework, EICA interfaces and civil/structural works for the new storm system.

Scheme information shown where applicable; detailed FEBUS scope varies by commission.

Pipelines, process replacement and constrained sites.

Different treatment problems often require very different engineering responses.

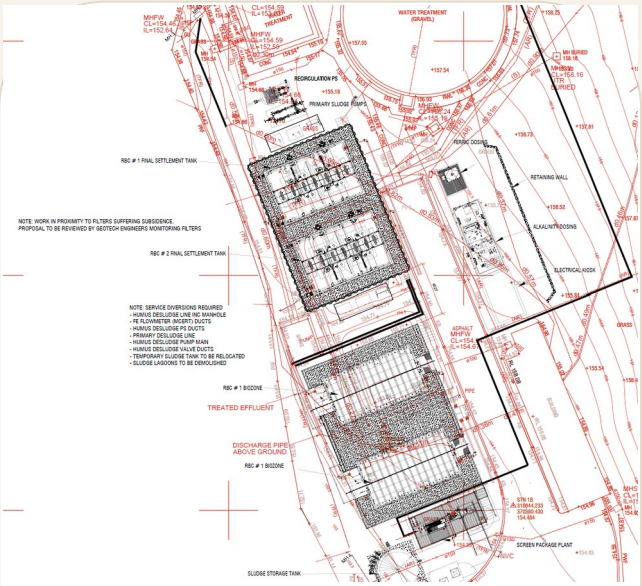


WALES | PUMP-AWAY

Cilcain Pantymwyn WwTW

Transfer to Mold network

The preferred pump-away solution transfers flows from Cilcain Pantymwyn to the Mold sewerage network at Gwernaffield, avoiding major new onsite treatment at a difficult and environmentally constrained site. The concept includes a pumping/attenuation arrangement and approximately 2.5 km of DN150 rising main, with a further gravity-main contingency. Route development considered road access, ecological constraints, flooding, network capacity, septicity and construction interfaces.



WALES | PROCESS REPLACEMENT

Lixwm WwTW

Integrated RBC solution

Process replacement scheme based on two integrated RBC units, combining biological treatment and settlement to reduce footprint. The concept also includes ferric dosing, provisional alkalinity dosing, final-effluent recirculation, sludge handling, pipework modifications and relocation of the outfall to the River Wheeler. Site topography, limited usable land, existing asset condition and nearby ancient woodland all influence the coordinated layout and construction strategy.

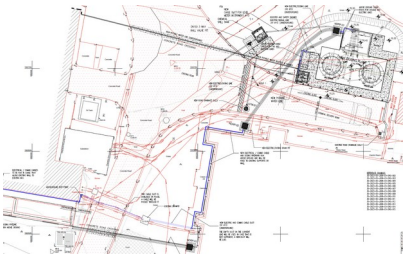
Scheme information shown where applicable; detailed FEBUS scope varies by commission.

Thames Water Ferric Dosing Schemes

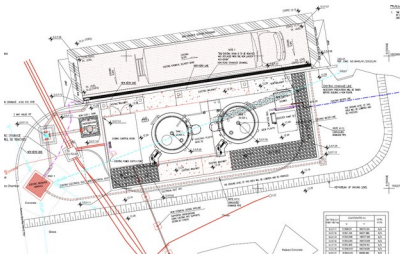
Five-site civil & structural design programme supporting ferric-dosing upgrades at Aldershot, Esher, Dorking, Chertsey and Weybridge.

5 SITES **CIVIL & STRUCTURAL DESIGN**

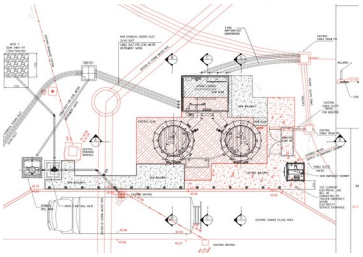
ALDERSHOT



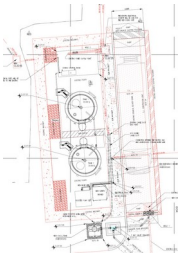
ESHER



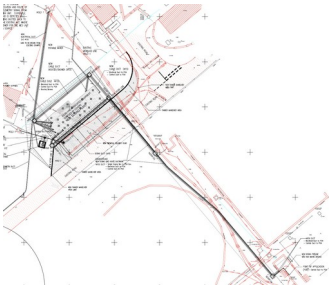
DORKING



CHERTSEY



WEYBRIDGE



PROGRAMME SCOPE

- Ferric storage tank & dosing slabs, safety showers, RC detailing and bar-bending schedules
- Road/surface drainage, potable-water connections and cable/dosing ductwork with drawpits
- Chemical interceptor tanks, tanker-bay layouts and site setting-out
- Site-specific slab extensions or new slabs, plus road widening where required

Five coordinated sites · ferric dosing infrastructure · drainage · utilities · ducting · access · reinforced concrete

Common design standards were applied across the programme while adapting slab, tanker-access, drainage and utility solutions to the constraints of each operational site.

WHAT WE SOLVE

Complexity lives at the interfaces.

Across the selected portfolio, the recurring engineering challenge is not a single discipline - it is how systems, sites and construction constraints interact.

01 **Hydraulic capacity**

Flow, headloss, peak conditions, backwash, recirculation and network interfaces.

02 **Nutrient compliance**

Ammonia and phosphorus upgrades, dosing, biological treatment and tertiary solids removal.

03 **Brownfield integration**

Tie-ins, live assets, temporary operation, existing structures and limited site information.

04 **Access & constructability**

Cranage, tanker routes, safe maintenance access, installation sequence and buildable layouts.

05 **Pumping & pipelines**

Pump-away schemes, pressure mains, route constraints, long sections and crossings.

06 **Multidisciplinary coordination**

Mechanical, process, civil, structural, electrical, ICA and CAD/BIM resolved as one design.

CLIENTS & PARTNERS

Trusted in demanding delivery environments.

Projects delivered for and alongside leading water utilities, contractors, developers and international delivery partners across the UK and overseas.

PROJECT FOOTPRINT

England · Wales · Angola · Saint Lucia · UAE

Company presence: United Kingdom + Türkiye

FEBUS

CONTACT FEBUS

Bring us the project.
We will bring the engineering.

Multidisciplinary engineering, procurement and manufacturing support for water & infrastructure.

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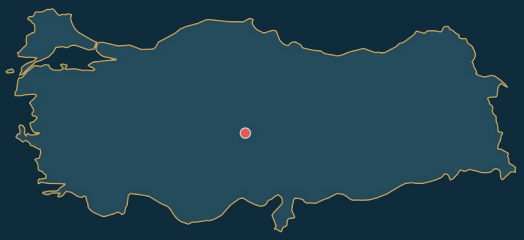
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