



# Global Design Centre Bangalore

Capability Statement

OUTSTANDING PEOPLE -  
EXCEPTIONAL SOLUTIONS



## CONTENTS

### GDC BANGALORE

Our Vision and our new design centre.

### WATER TEAM

- ▶ Skills and Expertise
- ▶ Ongoing Projects

### STRUCTURES TEAM

- ▶ Software Skills
- ▶ Ongoing Projects

### RAIL TEAM

- ▶ Skills and Expertise
- ▶ Ongoing Projects

# GDC BANGALORE

Hyder Consulting's Global Design Centre (GDC) in India is located in Bangalore the State Capital of Karnataka. Bangalore is known as the Silicon Valley of India because of its position as the nation's leading IT exporter. It is a major economic centre and India's fastest growing urban metropolis. This strategic location was selected for Hyder's Indian Global Design Centre as it is close to the centre of our different regional time zones.

The Bangalore office was set up in October 2009 and has a multidisciplinary team comprising civil engineers, structural engineers, clean water modellers, wastewater modellers, railway signalling designers and civil, mechanical and structural CAD technicians.

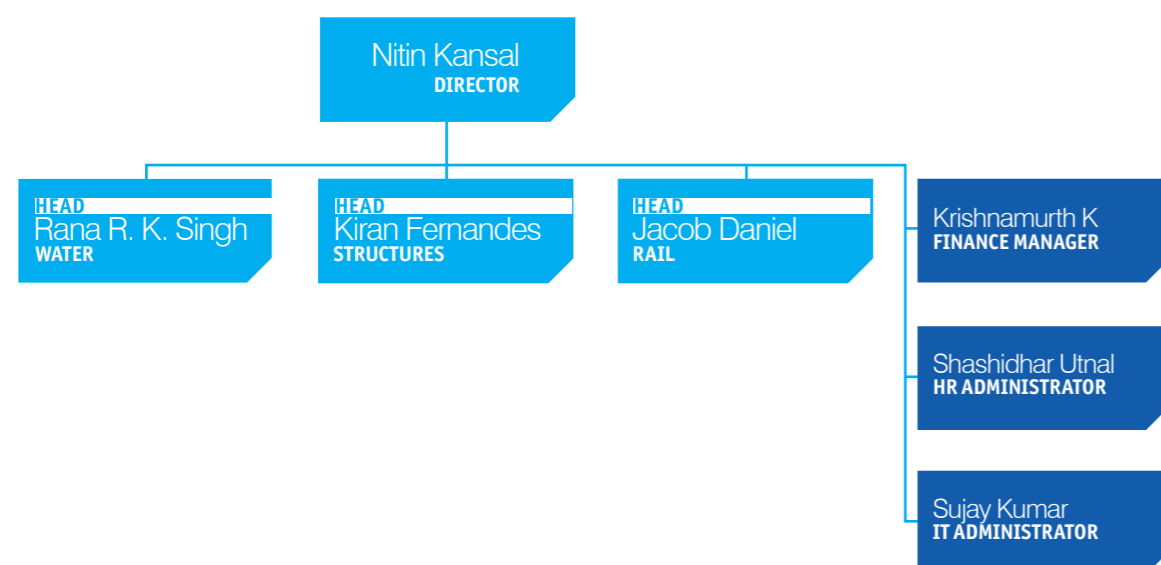
The team has experience of working on UK, Middle East region projects.

## Current Services

Bangalore GDC provides design services in the areas of:

- ▶ Water and waste water engineering
- ▶ GIS / water / wastewater modelling
- ▶ Civil and rail structural designs
- ▶ Rail signalling engineering.

## Management Structure

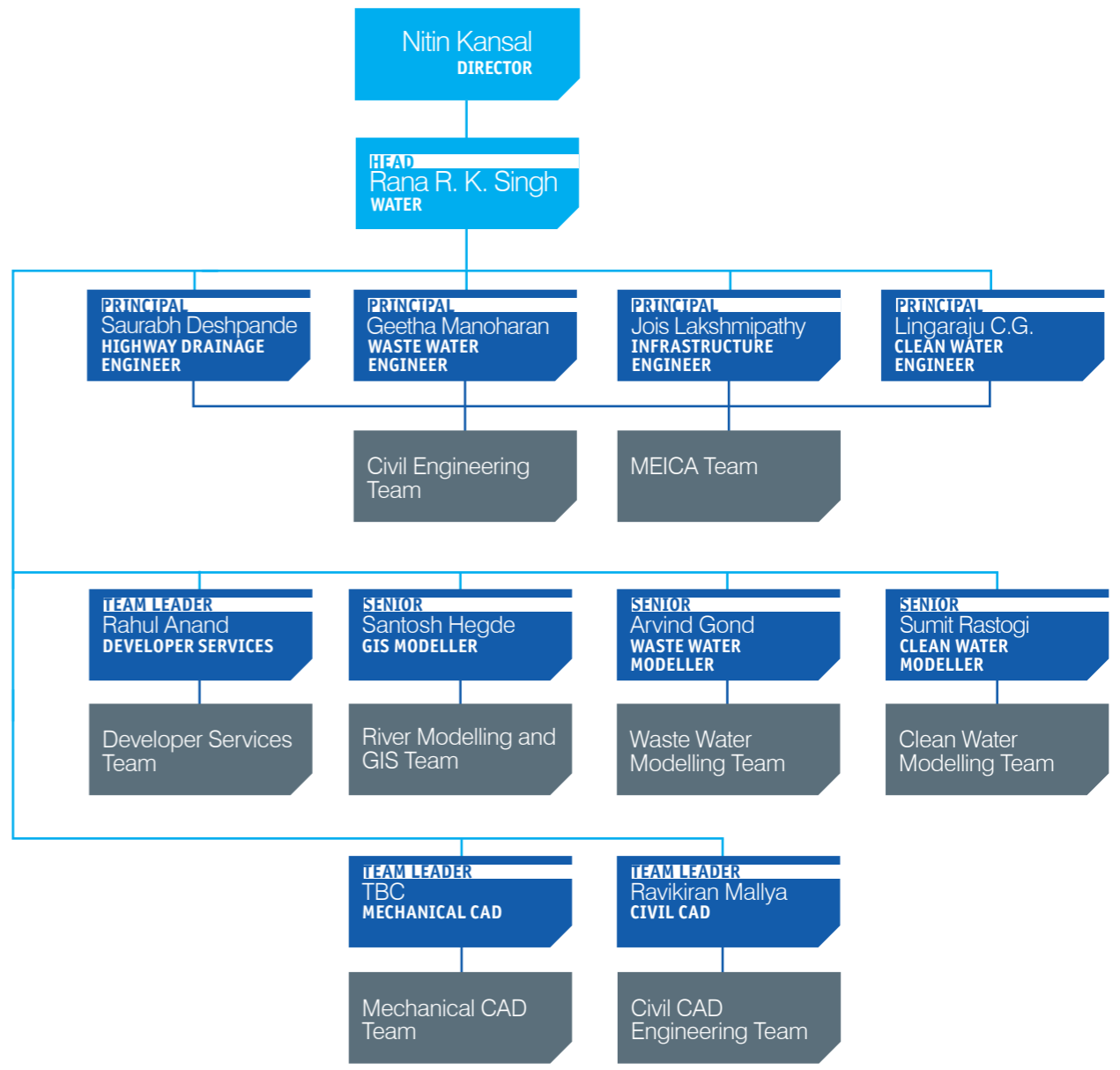


“ To provide commercial advantage and skilled resources to Hyder lead design offices and their clients by providing high quality designs in the Utilities and Rail sectors ”

Bangalore Design Centre's Vision



# WATER TEAM



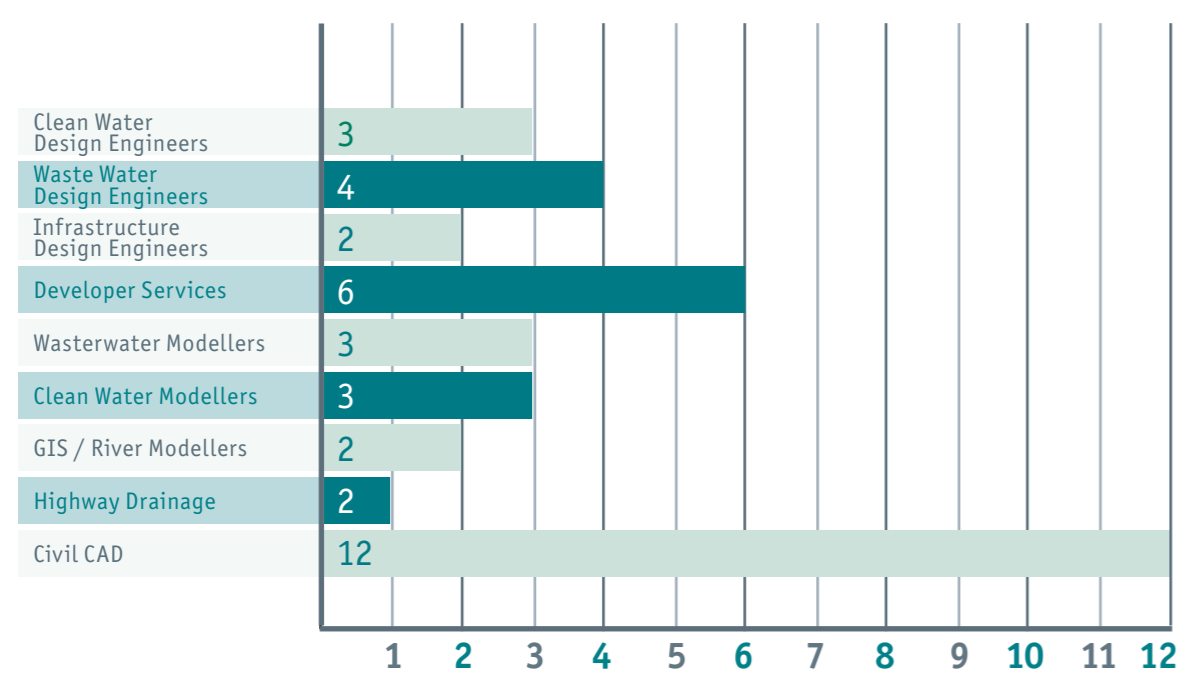
# SKILLS AND EXPERTISE

**SOFTWARE AVAILABILITY**  
 InfoWorks CS / WS  
 SynerGEE 4.3  
 AQUIS  
 MapInfo Professional 10  
 CADS RC  
 AutoCAD Civil 3-D,  
 AutoCAD 2010  
 AutoCAD LT  
 Revit 2011  
 WINDES  
 STAAD Pro

## Areas of Expertise

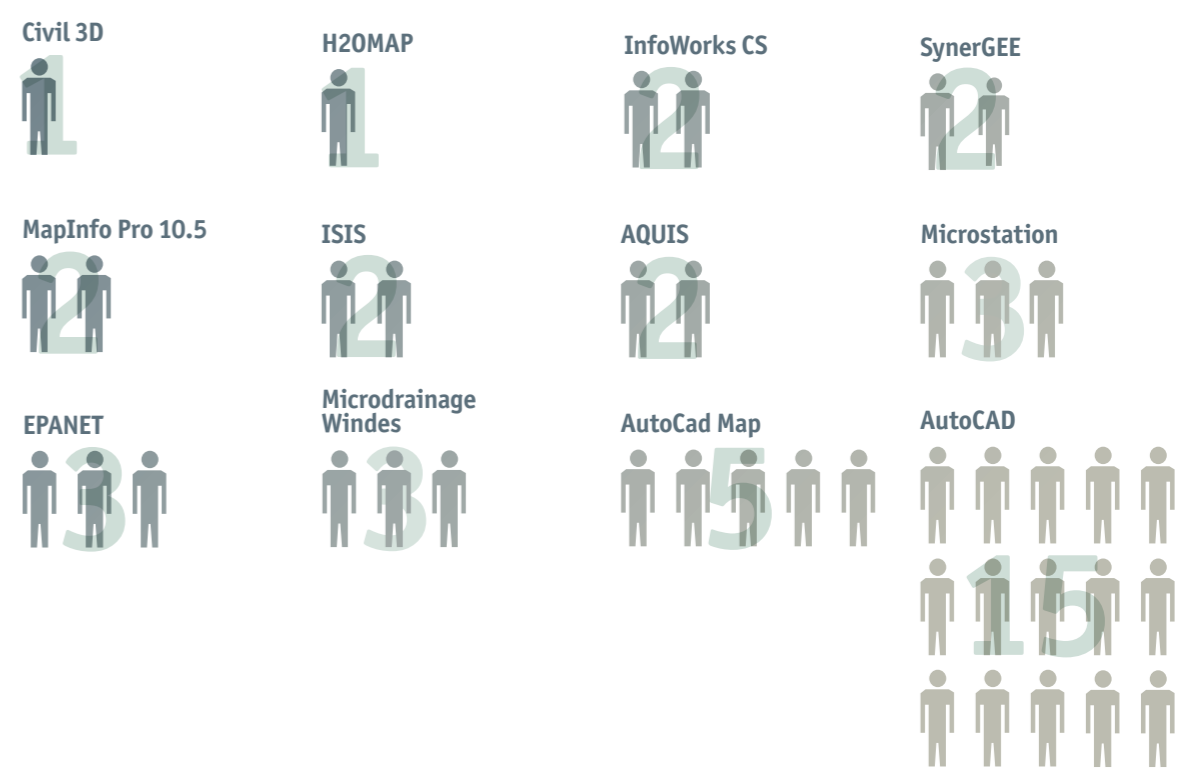
- ▶ Wastewater modelling
- ▶ Clean water modelling
- ▶ River modelling
- ▶ Concept / outline design of water / wastewater network
- ▶ Detailed design of water / wastewater network
- ▶ Feasibility study of treatment plant
- ▶ Detailed design of treatment plant
- ▶ GIS – Geo-Database modelling, mapping services
- ▶ Civil CAD Support
- ▶ Mechanical CAD Support

## Team Size



## Software Knowledge

- ▶ InfoWorks CS
- ▶ SynerGEE
- ▶ Aquis
- ▶ H2OMAP
- ▶ EPANET
- ▶ Microdrainage Windes
- ▶ ISIS – TUFLOW
- ▶ MapInfo Professional
- ▶ ESRI - ArcGIS 9.x
- ▶ AutoCAD Map
- ▶ WaterCAD
- ▶ SewerCAD
- ▶ StormCAD
- ▶ AutoCAD
- ▶ Civil 3D



# ONGOING PROJECTS

“ The experience has been a good one. Communications have been easy and productive. The design work and drawings have been delivered to a very high standard with fairly minimal re-work. All deadlines have been met and I am more than happy with the outcome.”

Rachel Spragg  
Senior Engineer  
Guildford

## Civil Outline/Detailed Design

- ▶ Developers Services, for Southwest Water UK Outline and detailed designs of following schemes:
  - » Water Requisition (Section 41), Water Diversion (Section 185)
  - » Sewer Requisition (Section 98), Sewer Diversion (Section 185), Sewer Adoption (Section 102 and Section 104)
  - » C3 Application, Partner Pack Preparation, tender documentation, estimates and offer letters
- ▶ SWW K5 - Detailed civil design of water / waste water pipeline, pumping stations, treatment work etc.
- ▶ Crossrail TWDP Detailed Civil Design for Thames Water, UK
- ▶ ADDC Detailed Design
- ▶ Emirati Neighbourhood detailed potable water design for Middle East
- ▶ Rosebud - Detailed design of sewer diversion for Australia
- ▶ Birwicklodge – Detailed design of sewer and storm water diversion for Australia
- ▶ CSG Pipeline detailed design for Australia.

## Wastewater Modelling Projects

- ▶ Model building for Tamworth, Severn Trent Water, UK
- ▶ MCERTS analysis for wastewater treatment work
- ▶ Retrospective model maintenance work for Tamworth, Severn Trent Water
- ▶ Ascot sewer treatment hydraulic modelling
- ▶ Emirati Stormwater modelling.

## Clean Water Modelling Projects

- ▶ Technical report preparation using SynerGEE for Severn Trent Water, UK
- ▶ Consultancy services for improvement and extension of water distribution network for various sectors in central region of Abu Dhabi Emirates
- ▶ Clean water modelling for Carpentaria Shire Council, Australia.

## Highway Drainage Projects

### Bolnore Village Phase 4 Private Works Design

- ▶ The design works for GDC involved the design of external levels and plot drainage for 190+ properties for Crest Nicholson.

### Mace Residential Scheme

- ▶ The GDC workscope involves the surface water design for 64 residential housing units at Barking Riverside Plot 2.11.1 East, including SUDS measures (permeable paving, rain garden design etc.) and surface water plot design for each dwelling.

### DCWW Water Mains Rehabilitation - Land Ownership Plans

- ▶ The GDC office prepared the Land Ownership plans for eight sites which included preparation of 63 drawings showing the details of land owners, tenants and parcel boundaries located in North Wales.

## GIS – Mapping

- ▶ Tidal Nene Hazard Mapping
- ▶ Welland Mapping
- ▶ CAFRA Studies
- ▶ Wallington Flood Mapping
- ▶ Barton Brook Mapping

## CAD Services – Mechanical

### Northampton Station Redevelopment Client: Transportation, Structural Solutions - Warrington

- ▶ Mechanical, electrical GA and schematic drawings for station building, foot bridge (Proposed), etc.

### Ph Buffering Plan, Australia Client: Water Utilities - Australia

- ▶ Plant layout and piping drawings

### Minffordd Quarry Building A and Building B

- ▶ Building services drawings

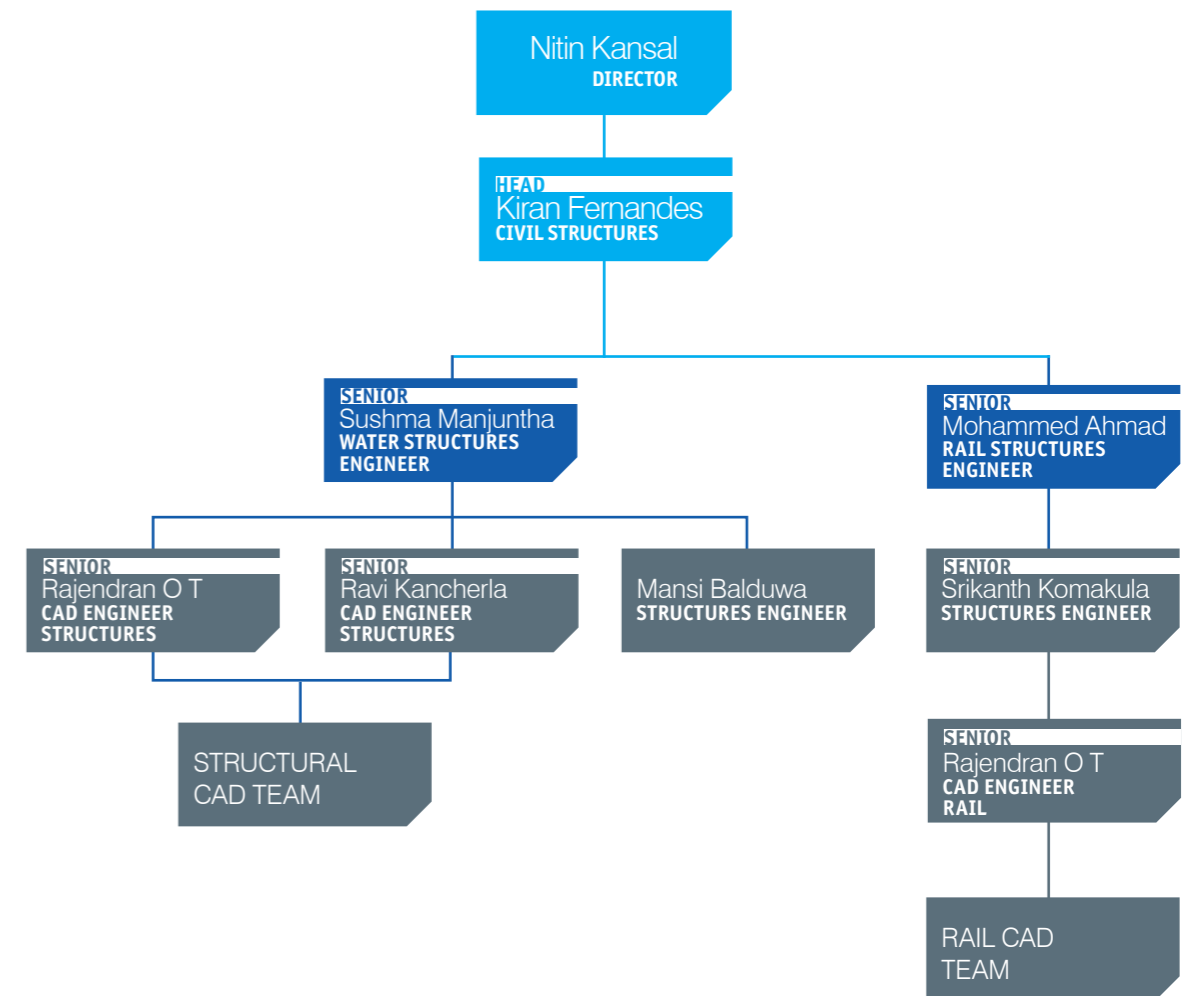
### Project Omega

Client: Water Utilities - UK

- ▶ Pand I diagrams for various units



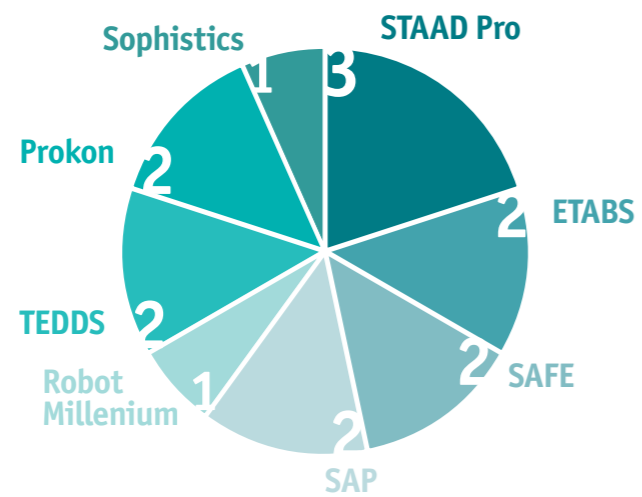
# STRUCTURES TEAM



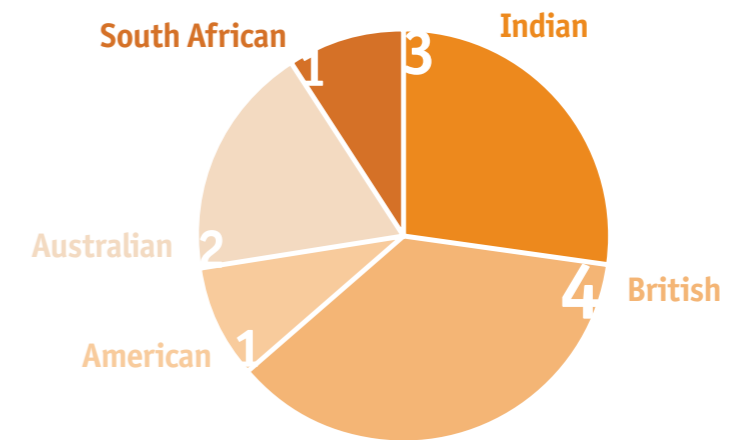
# SOFTWARE SKILLS

## SERVICES PROVIDED

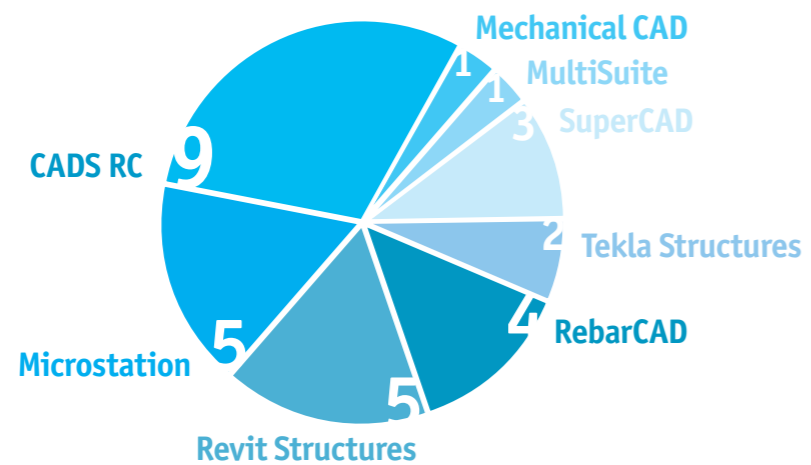
- ▶ Concept/ outline design of liquid and earth retaining structures
- ▶ Detailed design of liquid and earth retaining structures
- ▶ Preparation of general arrangement and reinforcement detailing and schedules to BS 8666:2005 or any international standard
- ▶ Detailed design of Rail infrastructure works
- ▶ CAD support for rail infrastructure works
- ▶ Graphics / visualisation



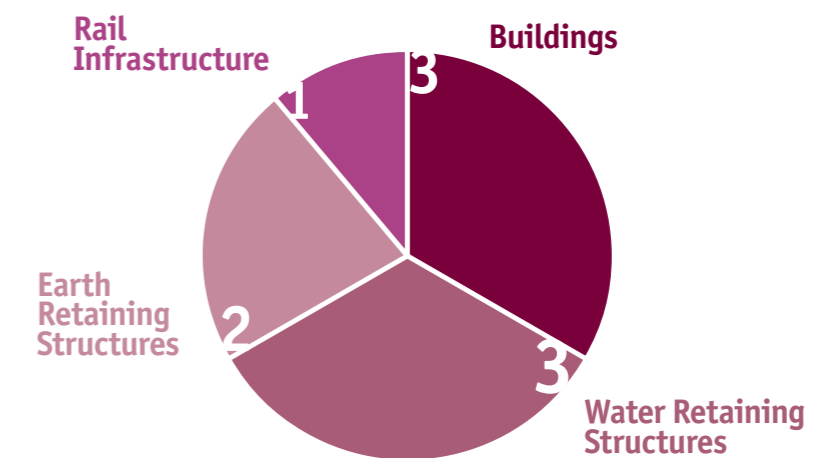
Analysis and Design



Codes of Practice



CAD and RC Detailing



Design Sectors



# MAJOR PROJECTS

## CAD / DETAILED DESIGN – WATER STRUCTURES

- ▶ Building services, structural and reinforcement drawings of Crosskennan pumping station, for Northern Ireland Water
- ▶ Reinforcement drawings of Garstings Hill pumping station, for Northern Ireland Water
- ▶ Detailed chamber drawings of potable water network for Abu Dhabi Transmission and Despatch Company / Astraco Construction
- ▶ Tender chamber drawings of irrigation network of village 2 and 3 for Al Falah Community, Aldar properties PJSC
- ▶ Detailed chamber drawings of potable water network for Abu Dhabi Transmission and Despatch Company / Torishima Pump Mfg. Co. Ltd.
- ▶ Crossness Waste Water Treatment Works for Thames Water, UK - Detailed civil and structural design, preparation of civil GA and RC drawings (Good for construction) for different components of treatment works
- ▶ Beckton Wastewater Treatment Works for Thames Water, UK- Detailed Structural design, preparation of RC drawings (Good for construction) for different components of treatment works
- ▶ Drift water Treatment Works for SWW – K5, UK – Detailed structural design and reinforcement detailing

- ▶ Tottiford Water Treatment Works for SWW – K5, UK – Detailed structural design and reinforcement detailing

- ▶ Innisfail Water Treatment Works, Australia – Detailed structural design and reinforcement detailing

## CAD SERVICE – CIVIL STRUCTURES

### A487 Porthmadog – Minffordd and Tremadog By-Pass

Client: Transportation, Structural Solutions - Birmingham

- ▶ Concrete outlines, reinforcement detailing using CADS RC for the headwalls and wing walls for 10 culverts

## CAD SERVICE – RAIL INFRASTRUCTURE

### Northampton Station Redevelopment (ongoing)

Client: Transportation, Structural Solutions - Warrington

- ▶ GA drawings for station building, foot bridge (existing and proposed), multi-storied car park, etc.

### Manchester Victoria Station Redevelopment

Client: Transportation, Structural Solutions – Warrington

- ▶ NCWD drawings submission for downside canopy and western footbridge
- ▶ Topo survey, existing/proposed GA drawings, sections elevations and details for downside canopy and western footbridge.

### London Euston Station

Client: Transportation, Structural Solutions - Warrington

- ▶ Form A submission drawings for station concourse/platform roof remedial works
- ▶ Topographical survey drawing
- ▶ Existing and proposed GA drawings, detail drawings of remedial works for concourse/platform roof.

### Epsom Station (ongoing)

Client: LDB, Building Structures - London

- ▶ Updates to general arrangements
- ▶ R.C. detailing using CADS RC
- ▶ Circa 200 drawings.

### Morpeth and Alnmouth Station

Client: Transportation, Structural Solutions – Warrington

- ▶ Form B submission drawings
- ▶ Site survey and location plan.

### Truro Station

Client: Transportation, Structural Solutions – Warrington

- ▶ NCWD drawings submission for downside canopy and western footbridge
- ▶ Topo survey, existing/proposed GA drawings, sections elevations and details for downside canopy and western footbridge.

### Keyham Station

Client: Transportation, Structural Solutions – Warrington

- ▶ Form B detail drawing submission for the Proposed Footbridge, topo survey and location plans, existing GA drawings.

### Reading Area Signalling

Client: Transportation, Structural Solutions – Warrington

- ▶ Form A submission drawings, typical REB location, layout and detail drawings
- ▶ Utility services drawing.

### River Blythe Underbridge Strengthening Works

Client: Transportation, Structural Solutions – Warrington

- ▶ Form B submission drawings
- ▶ Site survey and location plan
- ▶ Existing embankment section drawings
- ▶ Existing and proposed GA drawings
- ▶ Proposed steelwork strengthening drawings for Main/Cross girders, painting works details
- ▶ Abutment defects and repair works detail drawing.

### Finnart Viaduct Bridge Strengthening Works

Client: Transportation, Structural Solutions – Warrington

- ▶ Form B submission drawings
- ▶ Site survey and location plan
- ▶ Existing/proposed bridge GA drawings, metal work, access walkway GA and detail drawings
- ▶ Structural defects and repair works detail drawings
- ▶ Proposed steel painting and waterproofing detail drawings
- ▶ Deck and timber detail drawings.

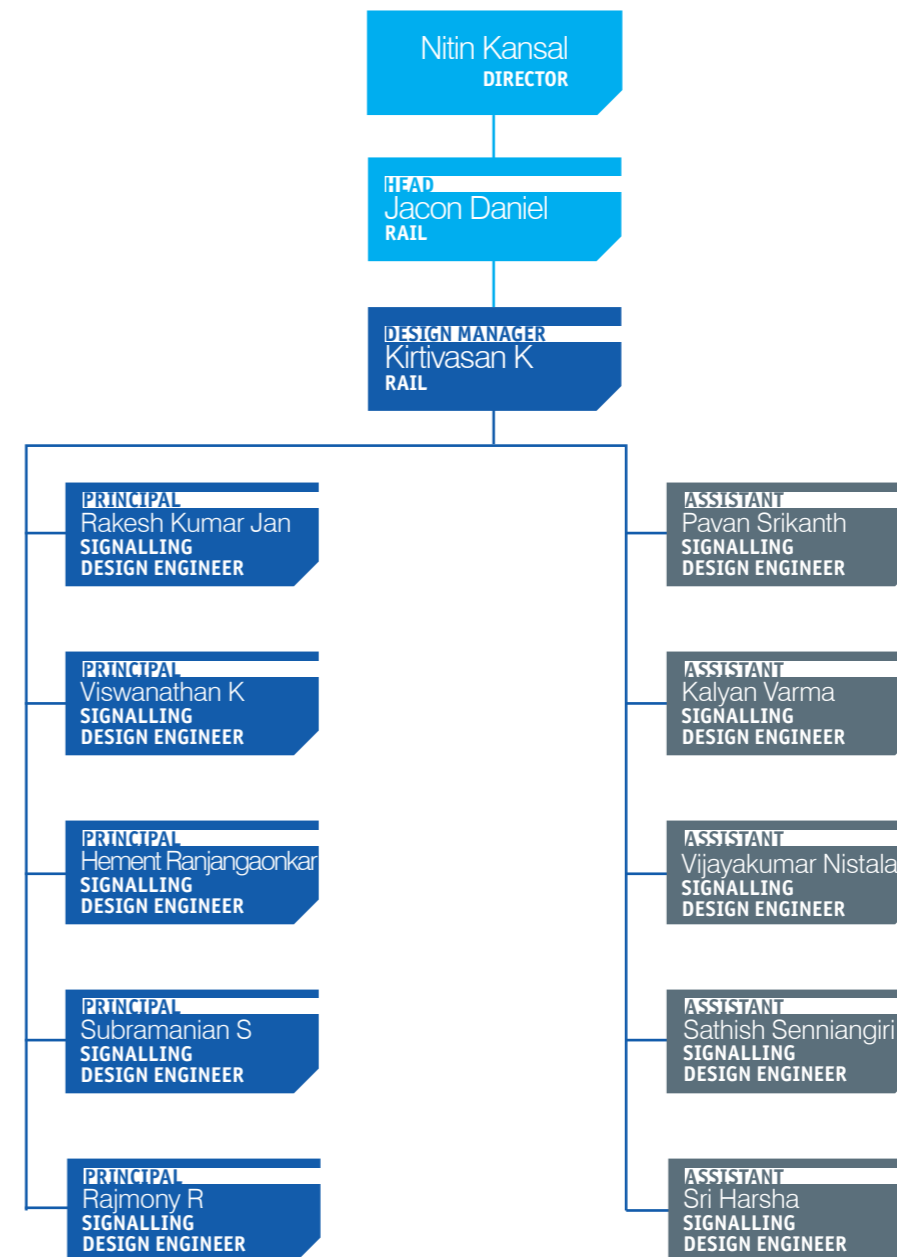
### Hornsey Depot (ongoing)

Client: Transportation, Structural Solutions – Warrington

- ▶ Form B submission drawings
- ▶ Site survey and location plan
- ▶ Existing/proposed access walkway and cleaning facility works detail drawings
- ▶ Proposed platform GA, plan, elevation, section and detail drawings
- ▶ Proposed GA and standard ramp drawings, support details, foundation and drainage detail drawings.



# RAIL TEAM



# PROJECTS AND EXPERTISE



## AREAS OF EXPERTISE

### UNDER GROUND

#### Westinghouse DTGR – system

- ▶ Design of signalling scale plan, DTGR-plan
- ▶ Design of DTGR-control table and scheme plan
- ▶ Design of Ladder logic and wiring series (track circuits, signal etc)
- ▶ Design of power cubicle and voltage drop calculation
- ▶ Location designs

#### Thales TBTC system

- ▶ Design of Volume 2 Book wiring including modifications
- ▶ Design of interface with existing relay rooms
- ▶ Design of change over design using change over cubicle and plate rack
- ▶ Voltage drop calculation power load calculation
- ▶ Preparation of scale plans and installation location plans

### MAIN LINE

- ▶ Design of scheme plan, location area plan and aspect sequence chart
- ▶ Design of control table for big and small schemes
- ▶ Detailed signalling design for location, REB and relay room for free wired interlocking including SSI (except data preparation)
- ▶ Preparation of documents like SDS, FPS, OPS and correlation scope documents etc
- ▶ Level crossing signalling design
- ▶ Power calculation

## RAIL SIGNALLING – PROJECTS

### East Grinstead Platform extension

Client: Colas / Network Rail

- ▶ Signalling design modification for Platform extension work at East Grinstead for GRIP 5-8
- ▶ The work involves preparation of stage scheme plan, control table, SSI location design, panel modification, cable plans, bonding plans and source record update.

### Wessex 9 and 10 Platform extension

Client: Volker Rail / Network Rail

- ▶ Signalling design modification for GRIP 5-8 stages for stations in package Wessex 9 and 10
- ▶ The work involves preparation of control table, SSI location design, location area plan, panel modification, cable plans and source record update etc .

### Software

- ▶ Microstation
- ▶ PLANS

### IRSE licenses

Signalling principals designer	1.1.150D	6 No
Signalling design verifier	1.1.160	4 No
Signalling scheme designer	1.1.150A	1 No
Signalling designer	1.1.150C	2 No

**OUTSTANDING PEOPLE -  
EXCEPTIONAL SOLUTIONS**





# CONTACT

To find out how our Bangalore team can help you and your projects in general,  
please contact

**Hyder Consulting India Pvt Ltd**  
# 150, 5th Floor, Tower A  
Diamond District, Old Airport Road, Kodihalli  
Bangalore- 560008, India

[www.hyderconsulting.com](http://www.hyderconsulting.com)