

Construction, Erection, Infrastructure

SERVICES AND SECTORS

Paragon Risk Engineering's construction team provides specialist construction, erection and infrastructure risk engineering services for insurance company clients, developers and contractors. We provide our services typically across all built environment sectors in many geographies throughout the world.



FOR MORE INFORMATION CONTACT:

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SERVICES AND OFFERINGS

- Construction, erection and infrastructure risk advice and risk engineering
- Specialist CAR, EAR, Non-negligent Damage and JCOP surveys
- Infrastructure surveys operational highways, bridges, dams, railways, pipelines etc.
- EL, PL and H&S surveys
- Loss prevention programme assessment, development and management
- Opinion of Risk Reports, Desktop Review Reports, Prospect Reports, PML Studies, Geotechnical Assessments
- Risk identification, risk assessment and mitigation management
- · Fire risk assessments
- Fire risk management training

SECTORS

Paragon Risk Engineering provides construction, erection and infrastructure risk engineering services associated with sectors including:

- Civil construction & operational infrastructure roads, pipelines, outfalls, ports, harbours, tunnels, railways, bridges, utilities, dams etc.
- Buildings high-rise, retail, residential, offices, hotels, hospitals, leisure facilities, schools, stadia, stations, maintenance facilities
- Engineering / erection power plants, oil & gas installations, hydro-electric plants, process treatment plants, renewables etc.



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SPECIALIST RESOURCES AND EXPERTISE

Paragon Risk Engineering has a construction team of 15 specialist consultants capable of delivering construction, erection and infrastructure risk engineering services and a further 15 capable of delivering builder's risk surveys on a range of projects worldwide.



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RESOURCES

- Paragon Risk Engineering's Construction Team is headed by Glyn Hassall (Head of Construction).
 Glyn is a Chartered Civil Engineer with 30 years' experience in the construction and insurance industry.
- Our Construction Team comprises 15 consultants geographically spread, operating from UK, Italy, Dubai, Sri Lanka, US, Mexico, Argentina and Ivory Coast. With Paragon's resources we are able to provide economical risk engineering services on construction projects around the world.
- All of our construction risk engineering work is coordinated and managed through our Head of Construction based in London.

EXPERTISE

- Our Construction Team has a full range of disciplines to support our risk engineering work including Civil, Geotechnical and Structural Engineering, Chemical Engineering, Fire Protection Engineering and Services Engineering.
- Within the wider Paragon Risk Engineering team we are able to call on specialist operational risk engineering expertise, which is of considerable benefit during the testing and commissioning phases of complex construction / erection projects.



Paragon's Construction Team Construction, Erection, Infrastructure

PROJECT EXAMPLES - CIVIL ENGINEERING PROJECTS

Paragon Risk Engineering has a number of Civil Engineers in our Construction Team. Our Civil Engineers have complimentary technical skills developed from lengthy periods in industry and from time spent servicing the construction / erection insurance market.



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PROJECT EXAMPLES – CONSTRUCTION SURVEYS

Roads and Highways

- Sir Solomon Hochoy Highway (Trinidad)
- Airport Approach (Bahamas)
- A160 Immingham Bypass (UK)
- A11 Bodmin Bypass (UK)
- A11 Widening Thetford (UK)

Bridges

- 3rd Bosphorous Crossing (Turkey)
- A282 / M25 Viaduct Interchange (UK)
- Bidbid to Sur (Oman) 6 No balanced cantilever bridges and 30km of highway

Hydro-power Plants (with Dams)

- Tacoma (Venezuela) River Impounding
- · Alpaslan (Turkey) River Impounding

Hydro-power Plants (with Tunnels)

- · Gilboa (Israel) Pumped Storage Scheme
- · Santa Teressa (Peru) River Diversion Tunnel Project

Pipelines

- Bicentenario Oil Pipeline (Colombia)
- · Brecon to Tirley Gas Pipeline (UK)
- · National Grid Gas Pipeline Hull (UK)

Ports and Harbours

 Asmar Comsa Port (Chile); Paita Port (Peru); Terminal Lobito (Angola)

Railways

- Lockerbie Bridge West Coast Mainline (UK)
- Maintenance Blds Hornsey/Crawley (UK)

Tunnels

- · Holmesdale Tunnel Refurbishment
- Alpaslan Dam (Turkey), Gilboa (Israel), Santa Teressa (Peru), Eurasia (Turkey)



Paragon's Construction Team Construction, Erection, Infrastructure

PROJECT EXAMPLES - BUILDING PROJECTS

Paragon Risk Engineering is delivering risk engineering services on a range of building projects from small bespoke high-risk projects to prestigious high-rise and award winning urban regeneration projects. Projects cut across all building sectors including mixed- use, retail, offices, residential, leisure, hotels, hospitals, schools, stadia, stately homes etc.



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PROJECT EXAMPLES – CONSTRUCTION SURVEYS

Mixed Use

 The Shard; Battersea Phase 2; Al Shaya Towers (Kuwait); Sea Containers House; Nova Development Victoria

Retail

 Oxford Westgate; Southend Shopping Centre; Liverpool 1 Shopping Centre

Offices

 The Leadenhall Building (52 storeys); 5 Broadgate – Building and Fit-out (12 storeys); Aldgate Tower (18 storeys)

Residential

Battersea Phase 1 (17 storeys); Millharbour (36 storeys); Orion Tower (32 storeys); Kingsgate House (13 storeys); Embassy Gardens (18 storeys)

Stadia and Leisure

 London Olympic Park Redevelopment; Highbury Redevelopment; DG One Leisure Centre Dumfries; Festival Hall Theatre Refurbishment

Hotels

10 Trinity Sq; Soffitel Hotel T5; Duke Street

Hospitals / Research Facilities

 Francis Crick Institute; Bristol Royal Infirmary; Finchley Memorial Hospital

Schools

 Oasis Academy, West Hull Academy; Bourne Academy; Skegness Academy

Stately Homes

 Witanhurst House; Tottenham Court House Redevelopment; Ascot House



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PROJECT EXAMPLES - ERECTION PROJECTS

Paragon Risk Engineering undertakes physical site surveys and desktop reviews of erection projects. We have expert engineers to advise on construction phases and expert engineers to advise on testing / commissioning / start-up / initial operational phases.



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PROJECT EXAMPLES – CONSTRUCTION SURVEYS

Refineries

- Rosneft Refineries (Russia): Tuapse, Novokuybyshevsk, Achinsk
- · Gazprom Kirinsk (Eastern Russia)
- Gazprom Moscow Refinery (Russia)
- Montana Refinery Upgrade (US)
- Diamond Green Diesel Plant (US)

Gas Facilities

- Gazprom Kazach'Ya Compressor Plant (Southern Stream) (Russia)
- LNG Storage Mauritius

Chemical / Process Plants

- Gazprom Novyi Urengoi polyethylene plant
- ICA Flour Daniels (Mexico)
- IRPC Propylene Plant (Thailand)

Power Plant Projects

- Footprint Power Plant (Boston, US)
- Mill Creek Air Compliance Project (US)
- Calpine Los Esteros Power Plant (Ph2) (US)
- JPM Power Fuel Conversion Project (US)
- Fenix Power Plant (Peru)
- RTI Warm Syngas Project (US)
- Invenergy Nelson Power Plant (US)

PROJECT EXAMPLES – DESKTOP REVIEWS

- Jangmung Power Plant Construction (South Korea)
- Wirye Power Plant Construction (South Korea)
- Shandong Yuhang Methanol Plant (US)
- · Linde / Gaz Metro Plant (Canada)



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PROJECT EXAMPLES - OPERATIONAL INFRASTRUCTURE

Paragon Risk Engineering undertakes physical site surveys, desktop reviews and PML studies of operational infrastructure assets around the world. Our team of engineers has excellent technical understanding of risks associated with such assets



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PROJECT EXAMPLES

Bridges

- Almeda Bridges Concession (US) operational bridge risk surveys
- Tolna / Duna Highway Concessions (Hungary) operational highway and bridge risk survey
- Chicago Skyway (US), Incheon Bridge (Korea), Gefyra Rion – Antirion Bridge (Greece), Confederation Bridge (Canada) - desktop risk reviews

Railways

- Fenoco Railway Concession (Colombia) operational railway survey
- Trafigura Railway Concession (Colombia) operational railway survey
- JSCo Railways (Russia) desktop review
- · Warsaw Metro (Poland) desktop review

Roads and Highways

- N3TC, Bakwena, TRAC Highway Concessions (South Africa) – operational highway risk surveys and PML assessments
- E18 Highway Concession (Norway) operational highway risk survey
- M1 and A12 Belfast Highway Concession (Northern Ireland) – operational highway risk survey and PML assessment
- Sebes-Turda Road (Romania), Bratislava Ring Road (Slovakia) – desktop risk reviews
- Gateway (Canada), Korean H/W PMLs

Operational Dams

- Llyn Clywedog Dam and Hydro-power Facility (UK) risk survey
- Carsington Dam (UK) risk survey



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PROJECT EXAMPLES - CONTRACTOR / DEVELOPER SERVICES

Paragon provides risk management services for Contractors and Developers. We advise on management of insurable risks, fire risk management and water risk management. We provide specialist training and undertake site specific fire risk assessments.



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PROJECT EXAMPLES

Construction Site Fire Risk Assessments

- MOD Project SLAM single living accommodation programme: Dishforth, Thorney Island, South Cerney,
- Residential Development Hungate (York), Carlow House (London), Great Dunmow, The Stage (London)
- North Wales Prison Project (Wrexham)
- Liverpool John Moores University (Liverpool)
- The Shard (London)
- Sterling House office redevelopment (London)

Construction Site Fire Risk Management Support

- The Shard fit-out (London)
- Park House (London)
- Arla Dairies (Aylesbury)
- Witanhurst House (London)

Construction Site Training

- 1 Day Fire Risk Management Course Galliard Construction, Canary Wharf Contractors, CP UK
- ½ Day Fire Risk Management Course Land Securities, Lend Lease
- Fire Marshal Training Laing O'Rourke

Construction Risk Management Advise

- Laing O'Rourke
- Lend Lease
- Galliard
- Land Securities
- Witanhurst Construction
- Arla Dairies



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CLIENTS AND CLIENT TESTIMONIALS

Paragon Risk Engineering has a wide Client base with work being sourced generally from major insurance hubs around the world. Our largest construction / erection / infrastructure clients are currently centred in London, UK, with construction business currently being developed in Dubai, US, Latam and Europe.



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CLIENT EXAMPLES

Insurance Carriers

- Aviva
- Starr
- Enstar
- Munich Re
- AIG
- HDI
- Allianz
- · AXAXL, Swiss Re, Castel, RSA, Everest

Contractors

Laing O'Rourke, Lend Lease, Galliard, McLaren

Developers

 Land Securities, Arla, Witanhurst Construction, REM (The Shard), HdeW

Brokers

A J Gallagher, Marsh / JLT

TESTIMONIALS

- Carrier "Thank you for producing this survey report. It is very detailed and covers off all of the key aspects from an insurance perspective."
- Carrier "Thanks for your support and two very well prepared desktops".
- Contractor "We found it (the survey) very constructive and detailed".
- Contractor "...thank you for your observations / recommendations which are appreciated".
- Training Many thanks for the training, we've had really positive feedback.