



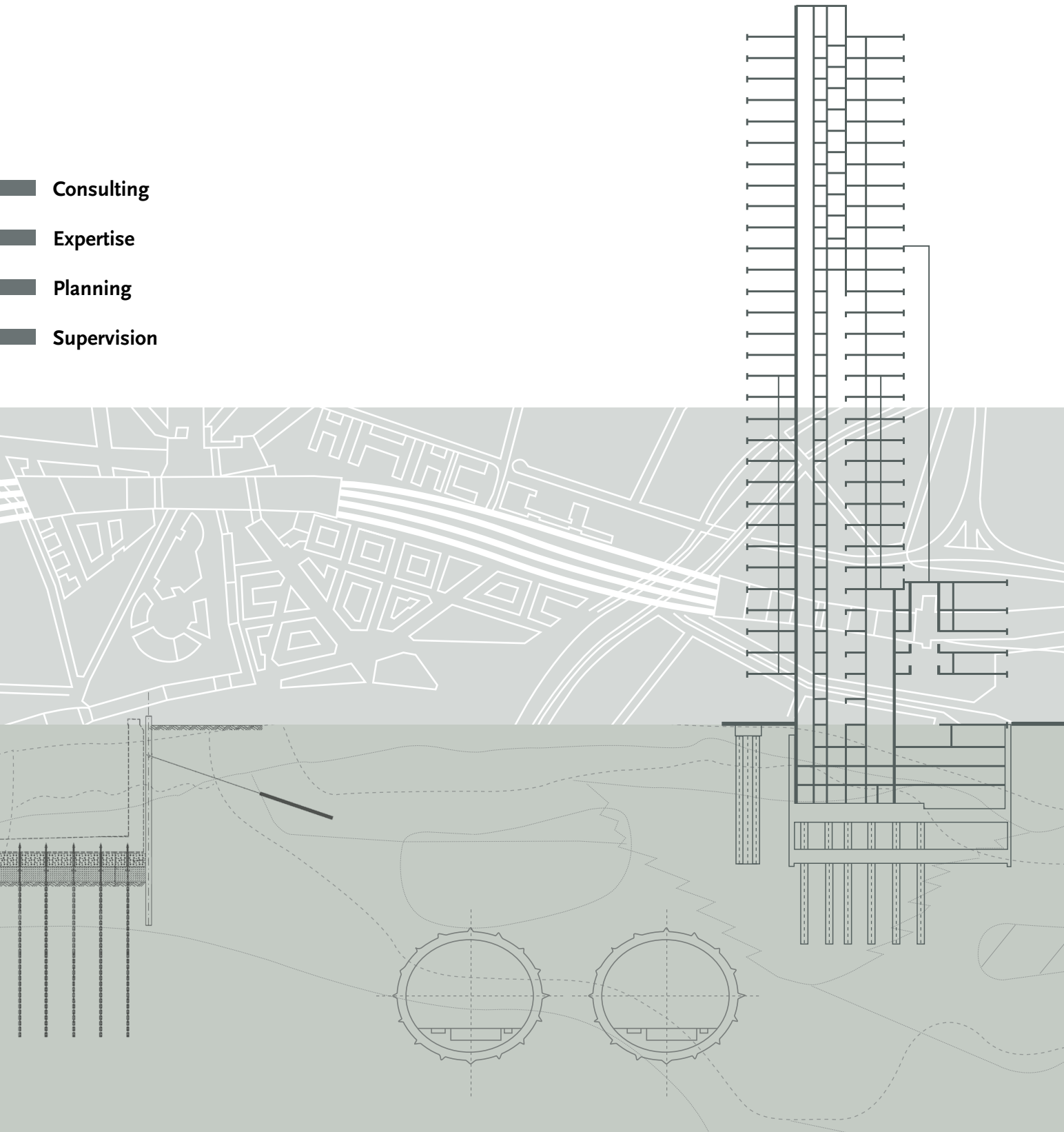
**GuD** GEOTECHNIK und  
DYNAMIK CONSULT GmbH

■ Consulting

■ Expertise

■ Planning

■ Supervision



## Expertise and Consulting

Site investigation  
Geotechnics  
Environmental Geotechnics  
Contaminated Sites  
Soil and structural Dynamics  
Geothermics

Every construction needs a stable foundation. Closely developed cities, former mining areas or earthquake regions for example put a higher demand on Geotechnics. Here, engineers and geologists of GuD Consult explore and advise so that the foundation does not turn into a risk for

the planning process. The environment also is an important topic for our future and our constructions. With our analysis we can help eliminate any contamination suspicion. Or make sure contaminated sites are refurbished, bonded or sealed.

# When dealing with foundation and soil,



### Offshore Wind Energy

We are involved with site investigation, evaluation and foundation expertise as well as the planning and design of foundation systems of several offshore projects in the German North and Baltic Sea. We hereby utilize newly developed calculation methods concerning cyclic soil behavior and experimental load capacity evaluation of deep foundation systems. We advise manufacturers and energy providers worldwide with planning and establishing wind parks on and off shore.

### O<sub>2</sub>-World – Arena at Ostbahnhof, Berlin

The O<sub>2</sub>-World, one of the most modern multipurpose halls and home to the Berlin Ice Hockey and Basketball national league teams, was built on an area of ca. 120,000 m<sup>2</sup> at the Berlin Ostbahnhof. As foundation experts and planners of this extensive refurbishment of the pollutants and ground water, our engineers have made use of this area possible.



### VZB Traffic Facilities in Central Areas and Hauptbahnhof Berlin

As geotechnical and hydrological experts for the Deutsche Bahn AG, we supervise the reorganization of traffic flow for the 8 km long railway tunnel in the center of Berlin. Apart from this, we acted as geotechnical experts, geotechnical inspectors and supervisors for ground engineering for the newly built Hauptbahnhof.



## Planning

Excavation pits  
Foundations  
Structural Engineering, Tunnels  
Port and Hydraulic Engineering  
Rehabilitation and Renaturation

We apply our knowledge of foundations also to planning of geotechnical structures - with safe and cost efficient solutions for excavation pits, foundations or design of ground improvements. Lasting forms of energy like geothermics and wind power have long

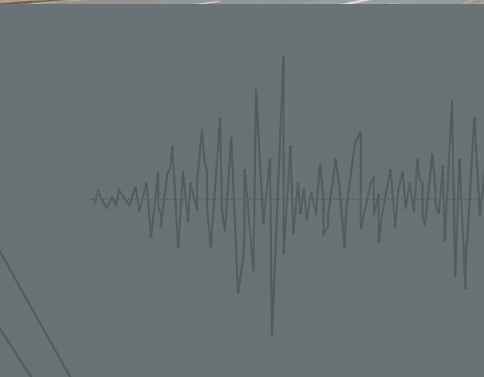
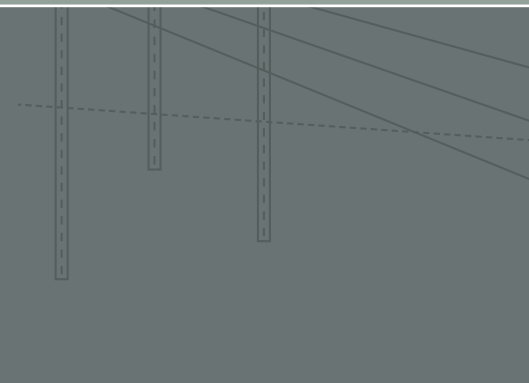
since been an important part of our project work. Renaturation planning or rehabilitation design of contaminated and polluted sites and constructions are part of our understanding of sustainability in the building industry.

GuD engineers will find the right solutions. In



### The New Center of Berlin

The building of the SONY Center and the Beisheim Center at Potsdamer Platz, the redesigned Leipziger Platz or the new U.S. Embassy at Brandenburg Gate – we were involved. Our engineers provide support for the creation of the new Berlin center with subsoil expert reports and foundation consultation concerning the planning of foundation pits and foundation systems like the combined pile and raft foundations system or the assessment of vibration records from the adjacent traffic ways.



### Fast Tram and Opera House Krakow, Poland

We have recorded and cataloged the vibrational response of the neighboring buildings for the redesign of vast parts of the underground tram tracks in Krakow. For the directly adjacent newly constructed opera house we have made a prognosis on the structural vibrations and secondary airborne noise in order to design the necessary track insulations along the railroad tracks.

### Total High Rise, Berlin

For one of the highest buildings of the future Europacity we planned the excavation pit for the three lower floors with a size of 4.200 m<sup>2</sup> in 12 m depths. The load of the 17 story high rise is into the ground by a complicated pile-raft foundation. The complicated subsoil conditions with up to 15 m of organic soil and the future adjacent tunnel constructions of the Deutsch Bahn had to be taken into consideration.



### City-Tunnel Leipzig

As designers and supervisors for one of the largest European compensation grouting measures we have made securing of the adjacent buildings of the construction of the 3.5 km long city tunnel, which crosses under the Leipzig city center with two tubes, possible. We have also planned and supervised measures for ground freezing at the passage of the station "Markt" and at the crossing under the building complex "Am Halleschen Tor".





# Supervision



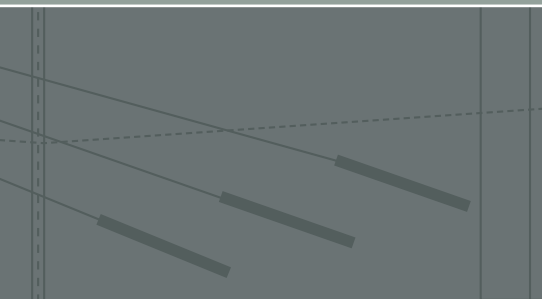
**GuD** GEOTECHNIK und  
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Construction Management  
Quality Control  
Monitoring  
Measurement Technology

What use it good planning without precise implementation? We supervise construction and safety in compliance with all technical standards and ensure the time frame and budget. At the same time, our quality control ensures complete control and documentation of all proceedings. Our services range

from geotechnical measurements to static and dynamic load bearing capacity analysis. Utilizing modern measurement and data technology we also supervise vibration emission from traffic and construction.

## Germany and across the world.



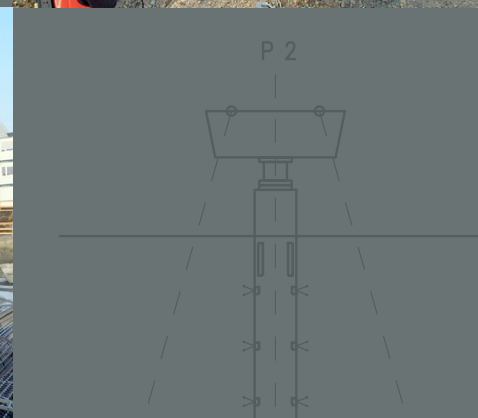
S  
S1  
S2

The Train Line Augsburg – Olching was extended to four tracks. The 10.1 km long track with different foundation solutions and 19 different types of bridges had to be examined in detail and redesigned.



### Nord-Süd-Stadtbahn Cologne

A 28 m deep excavation pit with a 20,000 m<sup>2</sup> diaphragm wall enclosure and a station carcase of 28,000 m<sup>3</sup> concrete volume was erected at the station "Heumarkt" for the new underground city line in Cologne. We were in charge of the local construction and site supervision. After the horrific collapse of the building pit at "Waidmarkt" and the adjacent Cologne City Archives we took over the site supervision for the resumed construction of the track crossover building.



### Berlin-Brandenburg Airport

By being involved in the planning of ground improvement measures for streets, the geotechnical examination of rail links, subsoil investigations and foundation advice for office buildings, the implementation of geotechnical controls and the task of local construction supervision, we have successfully contributed to the realization of this ambitious project.

### UNOSUGEN and DGEN

power plants in Gujarat, India

We oversaw the construction of two 400 MW and 1,200 MW combined cycle gas turbine power plants (CCGT) in the Indian federal state of Gujarat in terms of quality control and supervision for foundation measures. We supervised the quality of the construction material and the manufacturing of more than 8,000 piles. We examined the load bearing capacity and integrity of the foundation elements and took over the project management for the special civil engineering phases.

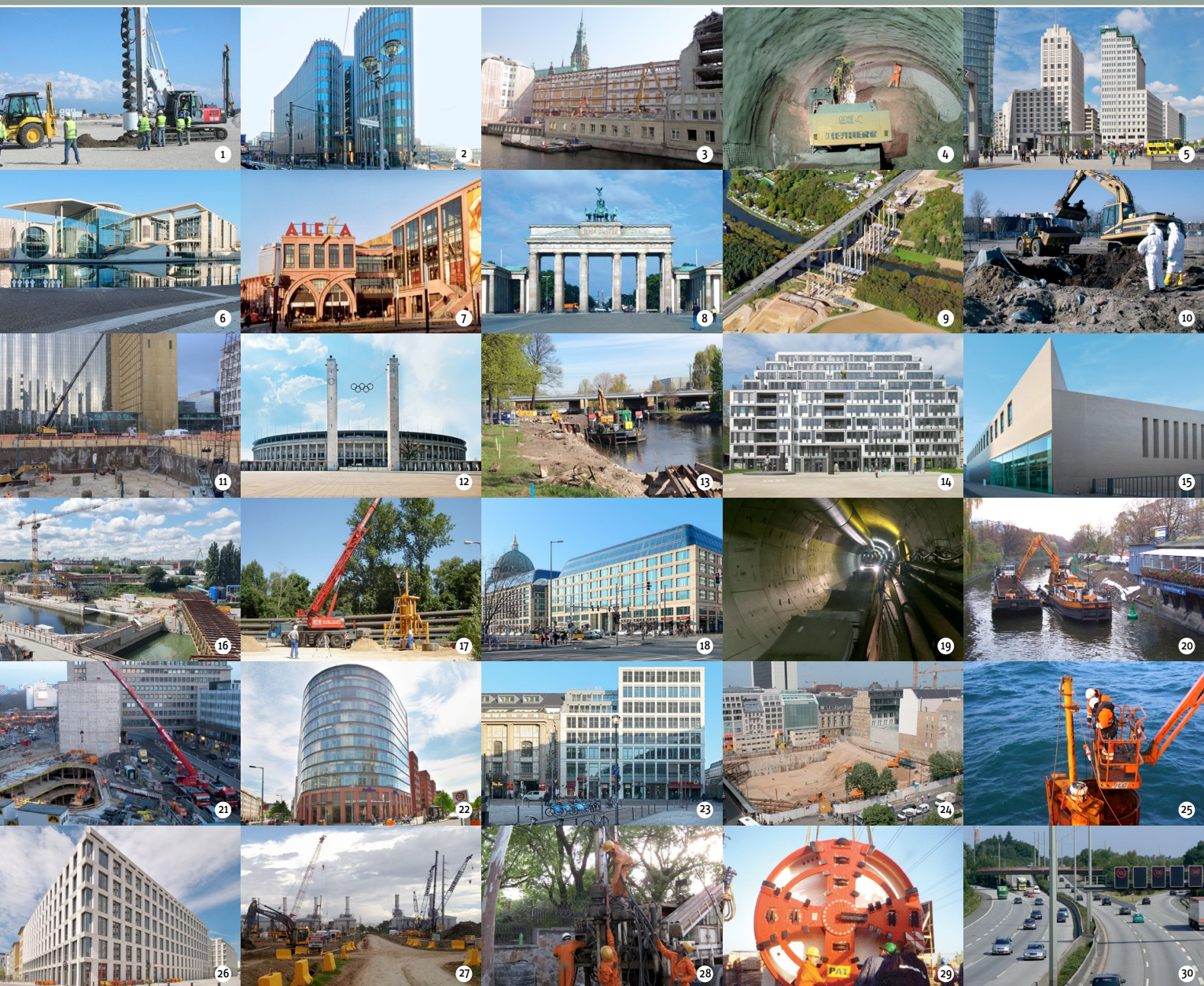




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GuD Consult engineers are involved with many renowned projects in Berlin, Germany and all over the world and provide their expertise as well as rising to the challenges. Traditionally, we take part in the latest scientific developments due to our close contacts to universities, colleges and scientific research units. We nurture the interdisciplinary exchange through our diverse involvement with associations and expert committees. We take part in important exhibitions and conferences in our line of business and like to share our expert knowledge with our clients and project partners. If you are looking for expertise and experience, please do not hesitate to contact us. We are looking forward to providing you with the perfect solution!

## Since 1980: Expertise and Experience in the field of civil engineering and geo sciences



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- 3) Accredited and sworn expert by Chamber of Industry and Commerce. Area of expertise: Foundations, water management, ground vibrations
- 4) EBA-expert for Geotechnics for Railway Construction
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