



Curriculum Vitae

Marco Ruggiero

Dpy. Head Construction Management PINI group

Date of birth: 06/06/1976

Language skills: Italian (Native); English (Advanced, C1); German (Advanced, C1); Spanish (Basic, A2); French (Basic, A1-A2)

Education and Qualifications

2001 MSc in Civil Engineering, Politecnico di Milano
 2022 FIDIC Certified Adjudicator

Main trainings

2008 Swiss federal blasting certificate - type B (Swiss Federal Blasting Society)
 2010 Swiss federal blasting certificate - type C (Swiss Federal Blasting Society)
 2020 FIDIC Module 2 - Claims under FIDIC + highlights of the main changes introduced by the 2017 Update of the Red & Yellow Books (FIDIC)
 2021 FIDIC Module 3 – Understanding DABs (FIDIC)
 2021 Construction Adjudication – Module 1 (Chartered Institute of Arbitrators)

Memberships

Italian Tunneling Society - SIG (member n. 3145)
 Dispute Resolution Board Foundation – DRBF (member n. 4058)
 Chartered Institute of Arbitrators – CI Arb (member n. 6090539)

Professional profile

MSc in Civil Engineering with 20 years’ experience working in Construction Management. Main fields of expertise: Underground Works (both drill & blast and TBM excavation) and Hydraulic Structures (dams, hydropower plants) in relation to International Projects.
 Experience on projects in Switzerland and abroad during all construction phases (from site installation up to commissioning). Specialized in Contract Management, Claim Management, Negotiations and Mediations with Contractors (> 300 Mio USD negotiated claims).
 Involved since 2010 as Employer’s consultant in Dispute Adjudication Boards and in litigation procedures (Ceneri Lot 851, disputed value ca. 15 Mio USD).
 Focus on work ethic, critical thinking, problem solving, negotiation and conflict management.

Highlights

- Solid Engineering background
- FIDIC Certified Adjudicator
- Dispute resolution
- Mediation skills
- > 20 years’ experience in Civil Engineering & Infrastructure projects
- Foreign languages proficiency
- Tunnels
- Hydropower
- Infrastructures

Work experience (summary)

2019 – today **Pini Group SA, Lugano**
 Deputy Head of Construction Management - PINI Group

2019 **AF Consult Switzerland AG, Baden**
 Group leader Hydropower department

2006 – 2018 **AF-Toscana SA, Lugano**
 Head of the Tunneling Construction Management department (Lugano branch)

2002 – 2006 **Lombardi SA, Minusio**
 Project Engineer

Main references

Underground works / Construction

2020 – 2021	Function: Chief resident Engineer
Project	Construction works for the interchange niches of the “La Maddalena” gallery – Italy
Client	TELT: Tunnel Euralpin Lyon Turin
Cost, period	approx. 40 M. EURO, 2020 - 2022
Description	The project consists in the construction of 22 crossroads niches for vehicles, ranging from 30 to 65 m in length, one of which is planned to be connected to the future connection tunnel with the Val Clarea safety stop. Main works: Moving of the existing tunnel installations to the invert and construction of the temporary road; Excavation (by means of Drill & Blast) and realization of the primary lining of the 22 interchange niches; reconstruction of the primary lining of the existing tunnel; waterproofing and final lining. Rock overburden up to 2000 m.
Services, Project phases	SIA Phase 52 - Construction
2019 – today	Function: Deputy project manager and deputy Chief resident Engineer (2019 – 2019); Chief resident Engineer (2019 – ongoing)
Project	High Luminosity Large Hadron Collider Project (LHC) - New structures at Point 5 - France
Client	CERN: European Organization for Nuclear Research
Cost, period	approx. 70 M. EURO, 2016 - 2024
Description	The Project of the Large Hadron Collider (LHC) consists of a circular underground ring of 27 km with eight sites located on the circumference of the tunnel. Point 5, located in France, is one of the largest sites and includes a large experimental cavern, a large adjacent service cavern, several shafts with large diameter and various interconnection tunnels. The project – run under a modified version of FIDIC red book - involves the construction of a shaft with a height of 60 m, a cavern with a length of 50 m, several technical galleries connected with the existing LHC, other surface works (technical galleries, road and landscaping, buildings, etc.). The excavation in rock (molasses) is performed with road header/rock breaker, in soft ground (moraine) with excavator bucket.
Services, Project phases	SIA Phase 52 - Construction
2018 – 2019	Function: Project Manager Construction phase / Chief Site Engineer
Project	N2 Maroggia tunnel rehabilitation works- Lot 9101 – Switzerland
Client	FEDRO (Federal Roads Office)
Cost, period	0.7 M. CHF, 2018 – 2019
Description	Rehabilitation (civil works) of the 2x 600m Maroggia highway tunnels.
Services, Project phases	SIA Phase 52 - Construction
2010 – 2019	Function: Deputy Project Manager Construction / d. Chief Site Engineer (2015 – 2019) Deputy Project Manager Construction phase / d. Chief Site Engineer lot 852 (main lot) / Member of the Project Technical Committee (2010 – 2019)
Project	Ceneri base tunnel – main works – Switzerland
Client	Alptransit Gotthard AG
Cost, period	1.6 Bn. CHF, 2010 – 2020
Description	Realization of two railway tunnels; transversal connections every 300 m. Total length 2x 15.4 km. Excavation method: drill and blast with full and partial face excavation (tunnel average cross section: 65 m ² , 47 connections with cross section of 30 m ² , 2 bypass caverns with 400 m length each and variable cross section 65 up to 230 m ²). Overburden varying from 15 m up to 800 m. Crossing of fault zones and rock veins containing asbestos fibers. Waterproofing, unreinforced and reinforced concrete lining, platforms, civil finishing works, equipment installation. Erection of technical buildings for the rail equipment.
Services, Project phases	SIA Phase 52 - Construction

2015 – 2016	Function: Member of the project board
Project	Coldrerio tunnel reconstruction – Switzerland
Client	SBB (Swiss Federal Railways)
Cost, period	33 M. CHF, 2015 – 2016
Description	Complete re-excavation of the railway tunnel within the project "4 meters corridor". Main technical solutions adopted: execution of secant poles with 1.5 m diameter and variable length (between 14 and 36.5 m); realization of a new lining in reinforced concrete (realized before the demolition of the existing tunnel); demolition of the old tunnel; putting into service. Jobs performed in proximity of a highway and of main road with high traffic volumes, while the railway line was in exercise.
Services, Project phases	SIA Phase 52 - Construction
2008 -2010	Function: Dpy. Project manager Construction phase / d. Chief Site Engineer lot 851 (2007 – 2010); Project manager Construction phase / Chief Site Engineer lot 812 (2007 – 2009)
Project	Ceneri base tunnel – preparatory works - Lot 851 (FIS / CAOP) – Switzerland
Client	Alptransit Gotthard AG
Cost, period	120 M. CHF, 2008 – 2010
Description	Realization of the access tunnel (FIS). Length 2.3 km, slope 4.9% (descending), cross section 74 m ² ; variable overburden (50 up to 700 m). Excavation method: mechanized excavation with a gripper TBM machine (main beam) Ø=9.7 m and 160 m length. Realization of the installation caverns (CAOP) and of the first segment of the railway tunnel. Ca. 160'000 m ³ excavation volume; total length ca. 850 m (caverns) + 500 m (railway tunnel). Variable cross section (from 65 m ² up to 270 m ²). Excavation method: drill and blast, with both full face and partial face excavation (up to three benches). Lot 812 tunnel wastewater treatment plants. Construction and commissioning of 2 plant with 3 treatment lines each with a total capacity of 120 l/s for the treatment and recycling of tunnel construction wastewaters.
Services, Project phases	SIA Phase 52 - Construction

Hydraulic works

2018	Function: Project Engineer for the civil works
Project	Upper Yeywa HPP – Myanmar
Client	IGE Hydropower co. ltd
Cost, period	2016 – ongoing
Description	The project comprises a 90m high concrete gravity dam with a crest length of 243m, a gated spillway in the dam centre with a discharge capacity of 8,900m ³ /sec, two power intakes, two headrace tunnels of 10m diameter each leading to an open-air powerhouse located on the left bank of the river with an installed capacity of 280MW.
Services, Project phases	Technical assessment of a slope collapse during construction works in the powerhouse area (slope design, construction methods)
2004 – 2006	Function: Project Engineer
Project	Tirso gravity dam – Italy
Client	Consorzio di bonifica dell'Oristanese
Cost, period	1982 – 2000
Description	Testing / Putting into service of the gravity dam (h = 100m, L = 580 m)
Services, Project phases	Site expertises / stability analysis
2004	Function: Site Engineer
Project	Val d'Arbola dam – Switzerland
Client	Elin SA
Cost, period	1957 – 1958
Description	Capacity enhancement works of the dam spillway.
Services, Project phases	Site supervision

2003	Function: Project Engineer
Project	Troina HPP – Italy
Client	Enel greenpower
Cost, period	2009 – 2013
Description	Final design of the intake and headrace renovation and penstock substitution. Head = 420m, installed capacity = 48 MW, headrace tunnel length = ca. 7 km.
Services, Project phases	Preliminary design
2003	Function: Project Engineer
Project	Kárahnjúkar hydroelectric project – Iceland
Client	Paresa S.p.A.
Cost, period	900 M. CHF, 2004 – 2008
Description	Largest hydroelectric power plant in Iceland with an installed capacity of 690 MW; ca. 50 km headrace tunnels.
Services, Project phases	Pressure shafts (2x400m) lining preliminary design
2002	Function: Project Engineer
Project	Dietro la Torre HPP – Italy
Client	Enel greenpower
Cost, period	2006 – 2009
Description	Feasibility study for the entire plant renovation (penstock, powerhouse, water outflow).
Services, Project phases	Feasibility study
2002	Function: Project Engineer / Site Supervisor
Project	Morobbia arch dam – Switzerland
Client	AMB Aziende Municipalizzate Bellinzona
Cost, period	1967 – 1972
Description	Stabilization of the dam embankments through rock bolts.
Services, Project phases	Design, site supervision
2002	Function: Project Engineer
Project	Roggiasca arch dam – Switzerland
Client	Elin SA
Cost, period	1964 – 1965
Description	Arch dam (h = 68m, L = 177 m).
Services, Project phases	Hydraulic modelling and calculations for the spillway and water outflow tunnels

Railway infrastructures

2006	Function: Project Engineer for the civil works
Project	FMV railway line, Mendrisio-Stabio segment – Switzerland
Client	SBB (Swiss Federal Railways)
Cost, period	36 M. CHF, 2006 – 2011
Description	New railway connection (double platform) between Mendrisio and Varese, length = 6.5 km. 2 new bridges, new railway underpasses and adaptation of the existing ones, new train station (Stabio) and adaptation of the existing one (Mendrisio); adaptation of the A2 highway underpass. Feasibility study verification and optimization, costs estimate.
Services, Project phases	SIA Phase 21 - Preliminary project

Trainings

- 09/2021 DRBF Administration and Practice Workshop
DRBF, Online
- 01-02/2008 Price analysis in the construction field
Swiss building constructors society, Switzerland
- 12/2017 Price adjustments in the construction field
Swiss building constructors society, Switzerland

Publications

- 05/2019 Marco Ruggiero, Antonio Malaguti, Fabio De Martino
Geo-mechanical behaviour and monitoring system in the Ceneri Base Tunnel
ITA-AITES / WTC 2019