

Dossier

### **Parallel Digital** is a company specializing in the use of the BIM manager and digital technology in the construction process, with offices in Rome, Geneva and Paris.

The construction world is slow to evolve next to other sectors: it is behind in technological innovation, process management, construction practices, enhancement of existing buildings and caution in the consumption of resources.

We believe that the professions must reposition themselves at the centre of the construction process and trigger the necessary change. The development of the BIM methodology (Building Information Modelling) is in our opinion the first step to make for this change to come about.

Through BIM, **Parallel Digital** is aiming at innovation in the construction sector and at bringing about changes in the life cycle of a building and infrastructures in general. The immediate consequence of this innovation calls into question the logic ruling the relationships between different disciplines and businesses. BIM requires working in a group to bring about new synergies, new types of collaboration and new professional profiles.

**Parallel Digital** is the architectural studio **it's** and the engineering company **INGENI's** answer to the need to change the world of construction.

**Parallel Digital's** main clients include Amazon, Grisoni Zaugg, Salini Impregilo and Jacobs.

### Human resources

NAME	DEGREE	ROLE
- Partners -		
Alessandro Cambi Siena o6/o6/1976	Architect	Administration and management Project manager Research activity
Francesco Marinelli Rome 07/11/1975	Architect	Administration and management Project manager Research activity
Paolo Mezzalama Rome 04/06/1975	Architect	Legal representative of Parallel Digital s.r.l. Administration and management Project manager BIM research
- Technical director -		
Paolo Mezzalama Rome 04/06/1975	Architect	Control of technical compliance of projects
- Freelance professionals and employees -		
Bruna Dominici Rome 13/05/1984	Architect	Project manager
Emanuele Andreoni Rome 14/09/1985	Architect	Design architect
Mattia Biagi Rome 12/04/01987	Architect	Design architect

Annachiara Bonora Civitavecchia (RM) 20/08/1987	Architect	Design architect
Claudia Di Canossa Principauté de Monaco 18/03/1985	Architect	Design architect
Matteo Sarrocco Rome 17/02/1984	Architect	BIM Manager
Chiara Di Battista Rome 01/11/1989	Master of architecture	BIM coordinator MEP - architecture
Davide Quadrozzi Rome 13/11/1989	Architectural engineer	BIM coordinator Building site - structure - MEP
Andrea Reina Rojas Las Palmas des Gran Canaria (Spain) 11/08/1989	Architectural engineer	BIM coordinator Architecture - structure Quantity surveyor
Antonio Vellucci Gaeta (LT) 28/10/1986	Bachelor of architecture	BIM coordinator Architecture
Alessandro Alessi Civitavecchia (RM) 27/05/1987	Architect	BIM specialist Architecture
Giulia Di Francesco Rome 18/11/1983	Architect	BIM specialist Architecture
Maria Rita Longo Frosinone (FR) 02/11/1981	Architect	BIM specialist Architecture
Enrico Mele Rome 20/10/1986	Architect	BIM specialist Architecture
Gianfranco Antonio Policella Nardò (LE) 31/10/1989	Architect	BIM specialist Architecture

ValeriaTaormina Rome 20/04/1986	Architect	BIM specialist MEP - architecture - energy efficiency
Elena Cambianica Trescore B. (BG) 19/11/1986	Master of architecture	Management assistant Rome
Julie Martinais Enghien-les-Bains (France) 16/05/1987	Diploma in Turistic Management	Management assistant Paris

### Partners



#### Alessandro Cambi

Alessandro Cambi was born in Siena on 6th June 1976.

He enrolled in the Faculty of Architecture at the University of Florence in 1996 and graduated (with a project for a university area, La Plaine Saint-Denis, designed with S. Rodriguez), after two years studying at La Défense and La Villette Schools of Architecture in Paris, in July 2002. He worked with architectural practices in Siena, Paris (Buffi Associés SA, working on projects for the 2006 Olympic Games in Turin, the Faculty of Medicine in Rouen and Galeries Lafayette in Lyon) and Rome (Studio Sartogo, for the University of Bologna project), while continuing his own architectural research through design projects and competitions.

The result of this line of activity was his affiliation with Scape in January 2005. In 2016 he leaves the Scape Group and along with Francesco Marinelli and Paolo Mezzalama, 3 of 4 professional members of Scape S.p.A. and Offscape S.A.S., founds two new professional realities: PARALLEL DIGITAL srl and IT'S srl, both operating in the offices of Rome, Paris and Geneva; two companies created with the purpose of hybridizing architectural methods with the know-how of other fields, contaminating different kinds of knowledge in an attempt to increase job horizons. He has tutored national and international workshops and held conferences at the university architectural faculties of Ferrara, Genoa, Reggio Calabria and Rome. In 2012 he has been a visiting lecturer at the Faculty of Architecture at the University of Roma Tre.

Since the 2013 he has been professor at the Faculty of Architecture at the University of Ferrara. He is a member of the Order of Architects of Siena, n. 521.

#### Francesco Marinelli

Francesco Marinelli was born in Rome on 7th November 1975.

He entered the Faculty of Architecture at the University of Roma Tre in 1994, where he followed a line of study involving architecture and the city and architecture and landscape in their various forms. He graduated with a first class degree in 2002 with a project on the morphologic structure of the city of Rome, mentored by Alessandro Anselmi.

In 2002, he set up the Scape project with Paolo Mezzalama and Ludovica Di Falco. The result of this line of activity was his affiliation with Scape in January 2005. In 2016 he leaves the Scape Group and along with Alessandro Cambi and Paolo Mezzalama, 3 of 4 professional members of Scape S.p.A. and Offscape S.A.S., founds two new professional realities: PARALLEL DIGITAL srl and IT'S srl, both operating in the offices of Rome, Paris and Geneva; two companies created with the purpose of hybridizing architectural methods with the know-how of other fields, contaminating different kinds of knowledge in an attempt to increase job horizons. He has tutored and coordinated numerous workshops, both national and international, and has held conferences at the Faculty of Architecture in Milan, Genoa, Florence, Reggio Calabria, Rome, the Pratt Institute-Rome and the University of Waterloo-Rome. From 2002 to 2010, he collaborated on courses of Design and Planning with the Faculty of Architecture, Roma Tre, with Alessandro Anselmi (2002-2006), Francesco Cellini (2006-2007) and Paolo Desideri (2007-2010). Since 2010 he has been a visiting lecturer at the Faculty of Architecture, Roma Tre. He is a member of the Order of Architects of Rome, n°15082.



#### Paolo Mezzalama



Paolo Mezzalama was born in Rome on 4th June 1975.

After receiving his diploma from the French Lycée in Rome, in 1993 he enrolled in the Faculty of Architecture at Roma Tre, where he developed his interest in architectural planning, above all at an urban development level.

He graduated in February 2001, with mentor Alessandro Anselmi.

In 2001-2002, collaborating with Studio Salvioni in Rome, he worked on various residential building projects and, with Francesco Cellini, on the project for a housing complex in Orvieto and the new FAO headquarters in Rome. From 2001 to 2009 he was assistant to Stefano Cordeschi at the architectural planning course at the Faculty of Architecture at Roma Tre.

He has held conferences in the university faculties of Milan, Rome, Waterloo-Rome and the March School of Architecture in Moscow.

In 2002 he set up the Scape project with Francesco Marinelli and Ludovica Di Falco. In 2016 he leaves the Scape Group and along with Alessandro Cambi and Francesco Marinelli, 3 of 4 professional members of Scape S.p.A. and Offscape S.A.S., founds two new professional realities: PARALLEL DIGITAL srl and IT'S srl, both operating in the offices of Rome, Paris and Geneva; two companies created with the purpose of hybridizing architectural methods with the know-how of other fields, contaminating different kinds of knowledge in an attempt to increase job horizons.

Since 2010, he has been a visiting lecturer at the Faculty of Architecture, Roma Tre. He is a member of the Order of Architects of Rome, n°14744.





It's HUB



**Project Description** New hub in the ex-Industrial district close to the train station Tiburtina.

**Location** Via Pettinengo, 72 – Rome (Italy)

**Client** Ital Elettronica s.r.l.

Project team Architecture: It's BIM: Parallel Digital Structures: Antonio Del Buono Fluids: Gian Luca Brizzolari

Task/Activities Drawing production BIM Coordination BIM Modeling 4D/5D production Model authoring Data authoring Design review Lightning analysis Site analysis Digital fabrication **Energetic performance** Classe A++

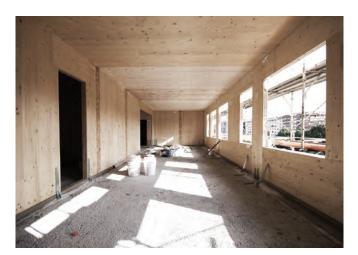
**Chronology** 2016-in progress

**Gross area** 469,76 sq m

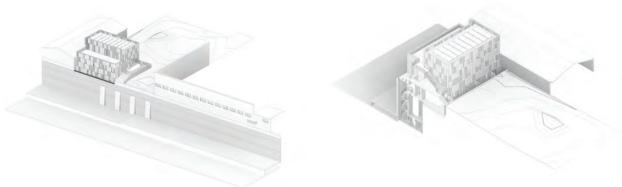
**Budget** 490.560,00 €



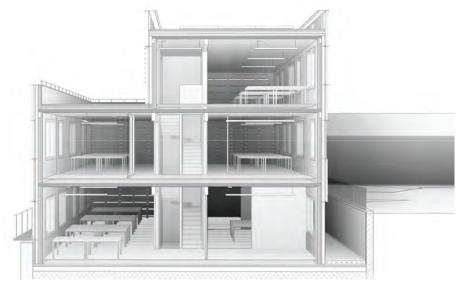








Aerial views



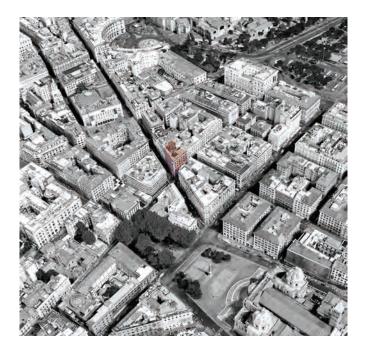
Cross section



Longitudinal section



## New headquarters of Confcooper



**Project Description** Restructuration of an historic building in offices

**Location** Via Torino, 153 – Rome (Italy)

**Client** Confcooper Società Cooperativa

Project team

Architecture: It's BIM: Parallel Digital Structures: Dedalo Ingegneria Fluids: AG&C Associati s.r.l. Practices: Piùtrentanovesei architetti Security: Francesco Bindi Landscape: Paisà

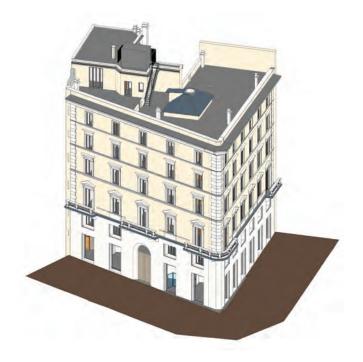
Task/Activities

BIM Coordination Cloud Points survey Architectural BIM model MEP BIM model Drawing production 5D production Model authoring Data authoring Design review

**Energetic performance** Classe G

**Chronology** 2017 – in progress

**Gross area** 3.530 sq m





Esisting

Demolished

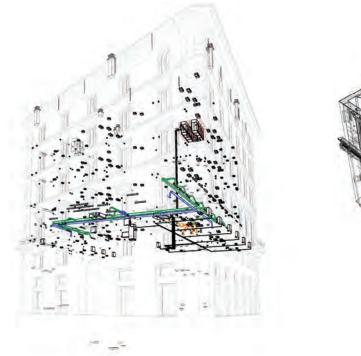


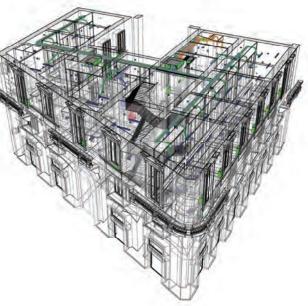
New



Complete design







MEP model

Clash detection



## **Espace Tourbillon ZIPLO**

**Project Description** Three buildings for the settlement of industrial and artisan activities and underground parking.

### Location

Rt. De la Galaise, 1228, Plan-les-Ouates, Genève canton, Switzerland (CH)

### Client

Implenia Suisse SA

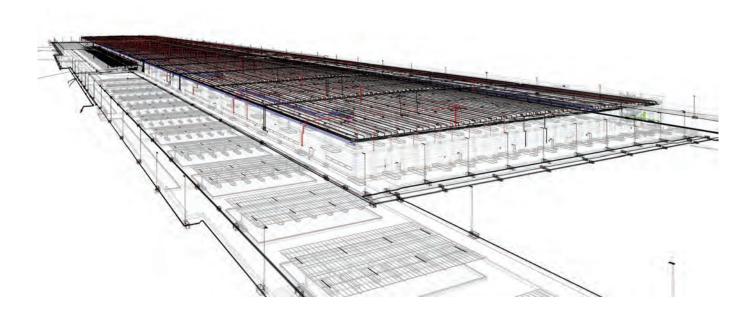
### Task/Activities

Digital coordination of the disciplines (architectural, structural and MEP) acting in the project.

### Chronology

2017-2018

Gross area 85.740 sq m



### New logistics site Amazon – Vercelli

The building is made up a warehouse - storage and goods handling area - spread over a floor space of approximately 100,000 sq.m., and a nucleus of offices.

Our team had the job of modelling in collaboration with Jacobs Italia and Enetec during the executive phase of the project, hence receiving both the designs and the initial technical specifications on which to base the location or ex novo modelling of families.

Remote collaboration between the different companies was achieved by working in the Cloud. Thanks to the constant updating of all the models and also to the rigour imposed by the Bim Execution Plan (BEP), that dictated the software to be used and relative versions, the methods of renaming families and models, the Level of Detail required (LOD 300) and the processes of monitoring and exchange of models, it was possible to guarantee homogeneity and quality.

Each model was sub-divided into worksets "confining" each person's job with the aim of avoiding overlap, or causing delay and errors during modelling.

Every element was equipped with a series of parameters that, at any given moment, provided all previously assigned information.

Only by establishing the right parameters and correctly connecting all the elements is it possible to create systems that Project Description Modelling plants in Revit, LOD 300

**Location** Larizzate, Vercelli - Italy

**Client** Jacobs Italia S.p.A., Enetec

#### Project team

Project Management, Air, water and fire system design: Jacobs Italia Electrical Project Management: Enetec Architecture Project: SpazioTre

Task/Activities BIM Modelling BIM Implementation

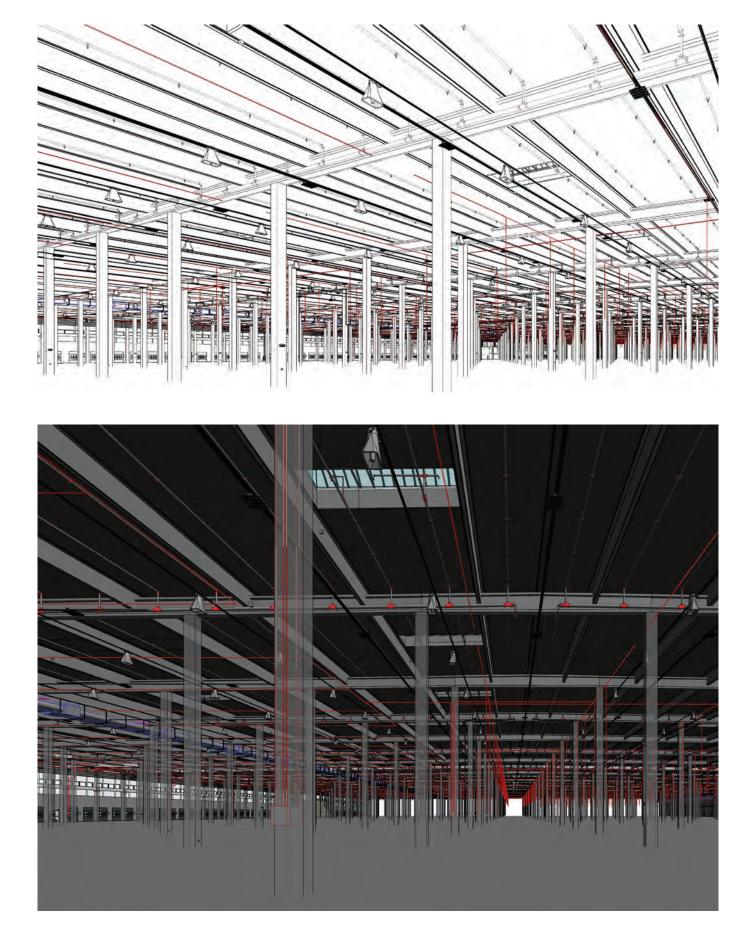
Energetic performance Classe A

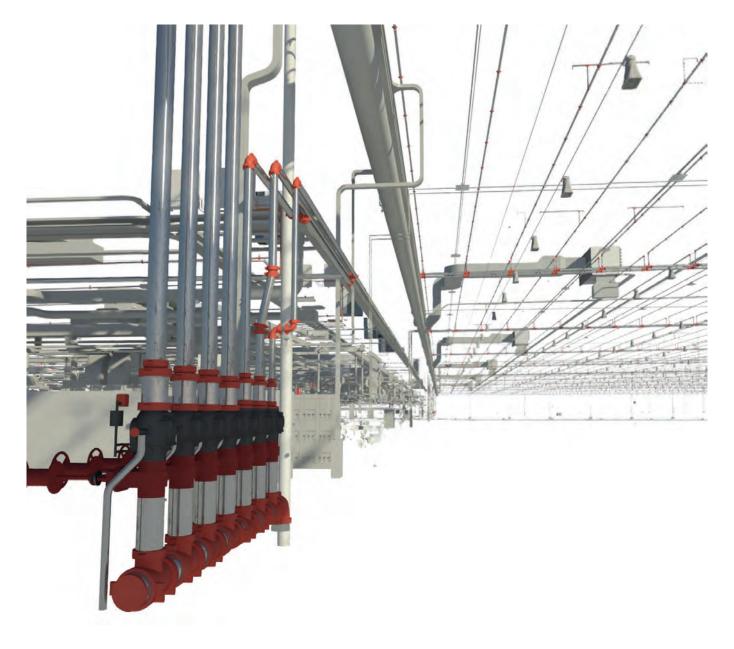
Chronology 2017

**Gross area** 110.000 sqm

link to manifolds ("Fire protection wet" or "Fire protection dry") in the case of the fire protection system, or circuits that link to the electric board, in the case of the electric power system. In such a way the models assumed a greater significance with respect to simple 3D modelling, offering the possibility to anyone at any moment to physically see the system and understand its characteristics through the information given.

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### New fulfillment center for Amazon

Amazon's new distribution centre has been defined the largest project currently being constructed in central-southern Italy and the first in Europe running on an automated robot system. It is located north of the capital, more precisely, in the northeast of Rome, bordering on the Province of Rieti, in the area of Passo Corese, in the Comune of Fara in Sabina.

The construction is made up of a large industrial building for use as a warehouse (approx. 50,000 sq.m. per floor) with three floors, with an annex for offices (approx. 8,000 sq.m.).

It has been carried out by Parallel Digital, in collaboration with Jacobs Italia, using BIM coordination on site and LOD 350 modelling.

From the start, every model - one for each function area – was set up with worksets to better subdivide the work of each of the users within the sector/area and for each floor, as the building has several floors.

This sub-division, clearly respecting the BEP (BIM Execution Plan), prevented overlapping and/or interference between different local job files to avoid delays or errors during modelling.

Every family contained in the various models was parameterized, in a detailed manner, to suit the needs and functions required.

The optimal result of this approach can be seen above all in the Fire Safety model, HVAC model and Plumbing model, where each function system effectively corresponds to a virtual system.

#### **Project Description**

BIM Coordination and Modelling Revit, LOD 350

#### Location

Passo Corese, Rome (Italy)

#### Client Jacobs Italia S.p.A., Enetec

**Project team** Project Management:

Jacobs Italia Structures: Ing. Renato Vita, Ing. Paolo Serdoz Fluids: Enetec Architecture: Spazio3 Architettura BIM Management and Modeling Revit, LOD 350: Parallel Digital

#### Task/Activities

BIM Coordination BIM Modelling BIM Implementation

Energetic performance Classe A

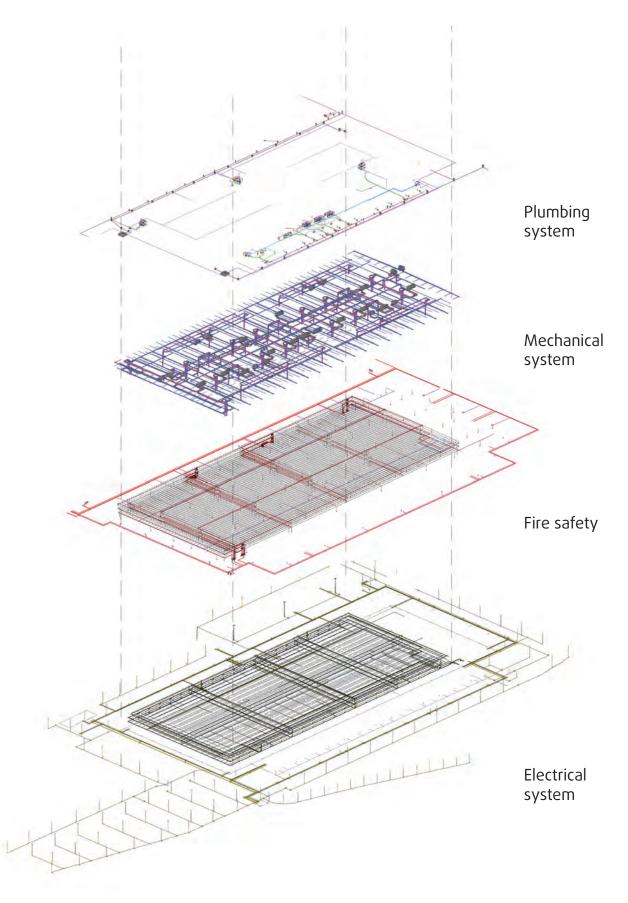
**Chronology** 2016-in progress

**Gross area** 120.000 sqm

In the execution phase, work on site involved coordination between the architectural and structural aspects and the function areas by means of weekly reports following continual checks carried out on site, so as to keep full control over macro-categories.

In the construction phase there was parallel checking and coordination of the function areas to allow for changes to modelling in the built architectonic and structural parts.

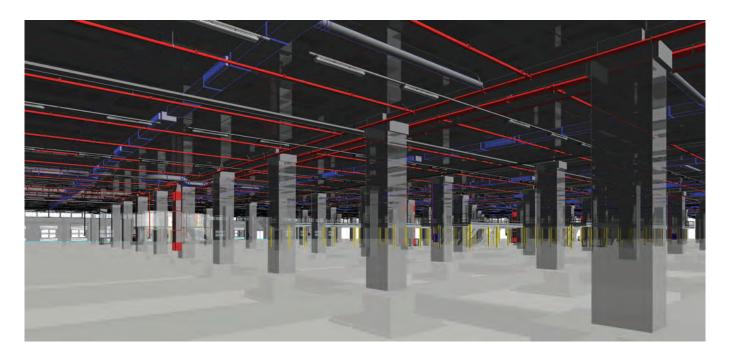
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## **Red Line North**

The Doha Metropolitan Area is one of the most important projects in the Middle East landscape of these years, attracting a large part of workers from all around the world. The project consists of the development and construction of three lines (red, green, gold) for a total of 40 stations and a total length of 76 km. In the first phase of development of the metropolitan network, the project is entrusted to UNStudio. An Architectural Branding Manual is created, which presents the typical station layout through guidelines, details and choice of materials to ensure quality for the design of the entire transport network. The development of executive projects is entrusted to several joint ventures for each subway line, dealing with layout development, detail study, project co-ordination, and work execution.

Parallel Digital was in charge of 7 stations. Our task was the BIM coordination in phase M<sub>3</sub> (Milestone M<sub>3</sub>, with special attention to the design of interior finishes) of architectural discipline, of a complex team of workers located in different cities around the world. The objectives were to facilitate the management of workflow, to produce LOD 300 models, to extract graphs and metric calculations.

#### **Project Description**

Bim Coordination of the architecture and landscape design of the two major stations of the Redline North

#### Location

Doha, Qatar

#### Client

One Works S.p.A for ISG (Impregilo – SK E&C – Galfar Al Misnad JV)

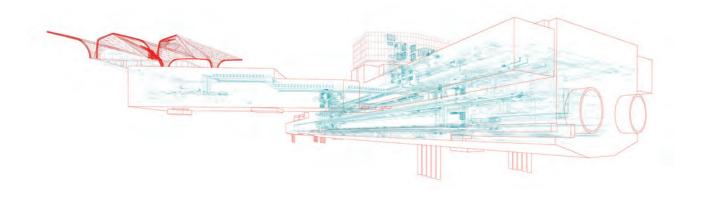
#### Project team

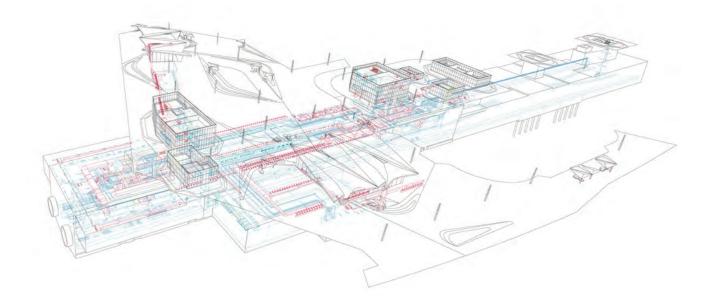
Architecture design: One Works Architecture BIM coordination: Parallel Digital MEP design: Italferr Civil design: Cowi Lighting design: Metis Lighting

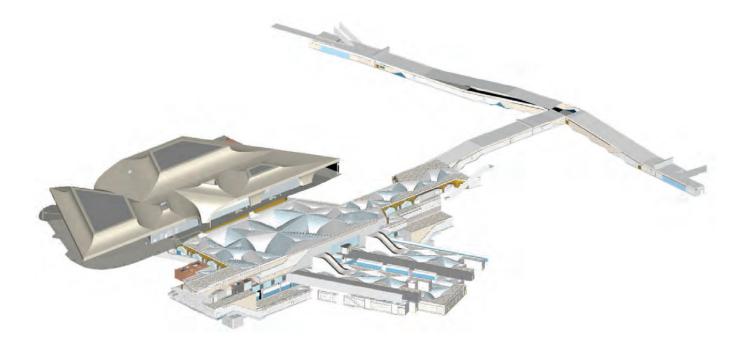
#### Task/Activities

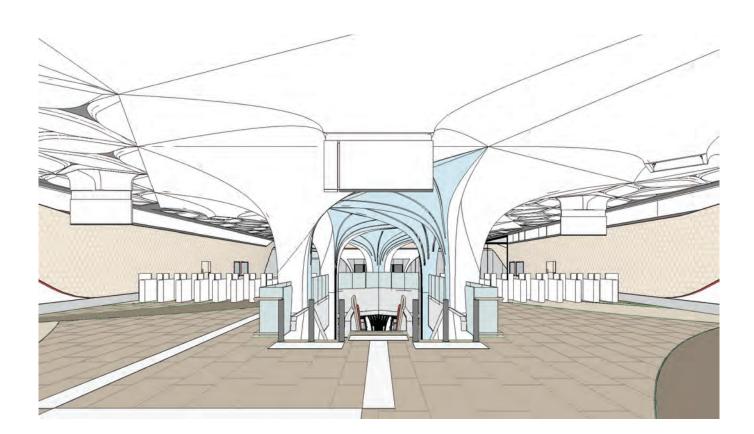
Bim Coordination 3D modeling Bill of quantities, Clash detection Training

**Chronology** 2016 – in progress

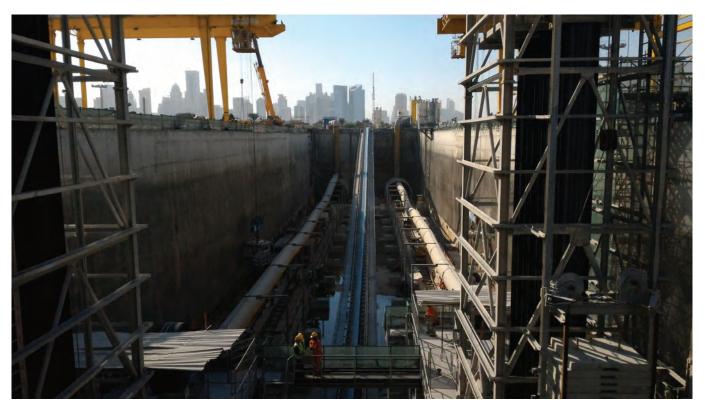








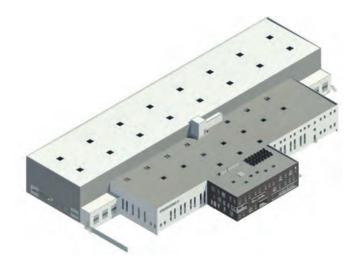








## Halle Marchon, Rossens, Switzerland



#### **Project Description**

Administration, offices, showroom and storage of the MARCHON brand.

#### Location

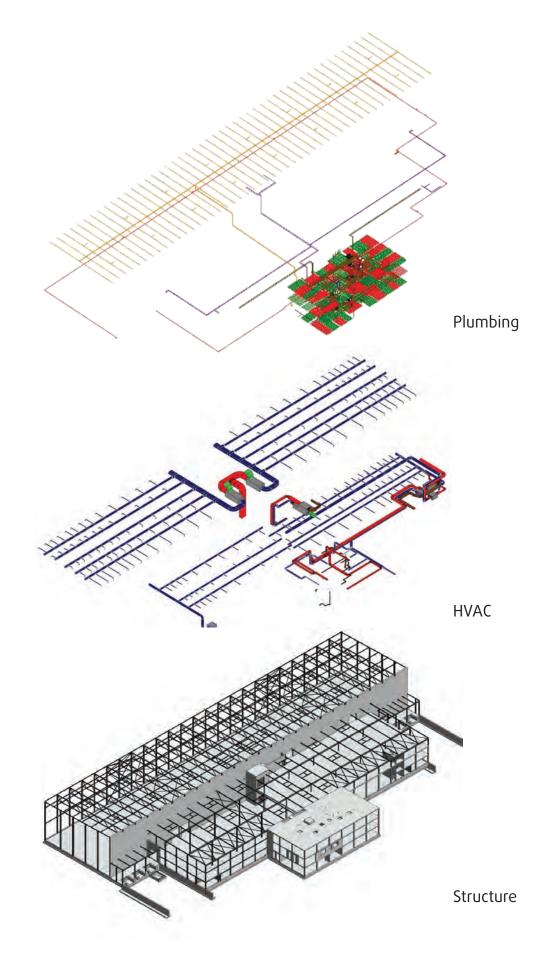
Route de Montena 67, 1728 Rossens, Fribourg canton, Switzerland (CH)

**Client** Grisoni-Zaugg SA

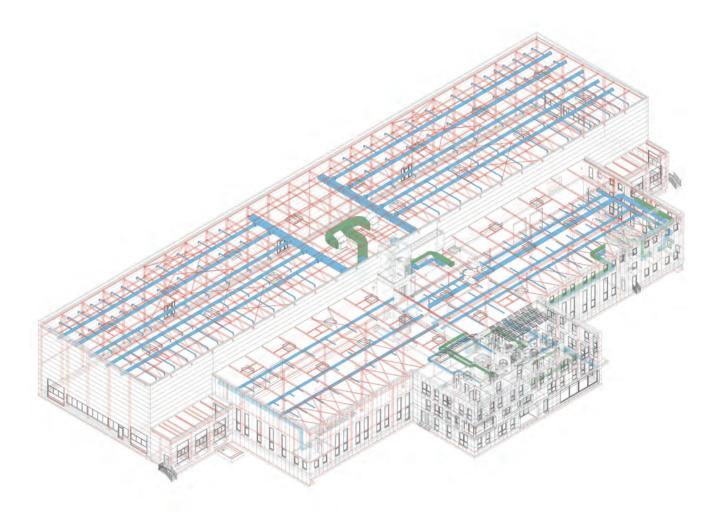
Task/Activities Reproduction with the BIM methodology of the Architectural, Structural and MEP models. Bill of quantities of the materials and of the elements used in the project. Take off of the project surfaces and volumes and verification of their respect of the Switzerland law. Estimation of the construction site timing.

**Chronology** 2015-2016

**Gross area** 8.144 sq m













### **CHRONOLOGY**

#### 2017

RESTRUCTURATION OF AN HISTORIC BUILDING IN OFFICES Location: Via Torino, 153 - Rome (Italy) Client: Confcooper Società Cooperativa Schedle: in progress Gross area: 3.530 sqm

THREE BUILDINGS FOR THE SETTLEMENT OF INDUSTRIAL AND ARTISAN ACTIVITIES AND UNDERGROUND PARKING Location: Rt. De la Galaise, 1228, Plan-les-Ouates, Genève canton, (Switzerland) Client: Implenia Suisse SA Schedle: in progress Gross area: 85.740 sq m

NEW LOGISTICS SITE AMAZON – VERCELLI Location: Larizzate, Vercelli - (Italy) Client: Jacobs Italia S.p.A., Enetec Gross area: 110.000 sqm

#### 2016

NEW WAREHOUSE FOR AMAZON Location: Passo Corese, Rome (Italy) Client: Jacobs Italia S.p.A., Enetec Schedle: in progress Gross area: 120.000 sqm

IT'S HUB - CONSTRUCTION OF NEW OFFICES FOR IT'S AND PARALLEL DIGITAL Location: Via Ignazio Pettinengo, 72 - Rome (Italy) Client: Ital Elettronica s.r.l. Schedle: in progress Gross area: 469,76 sqm Budget: 490.560,00 €

DOHA - RED LINE NORTH Location: Doha (Qatar) Client: One Works S.p.A for ISG (Impregilo – SK E&C – Galfar Al Misnad JV) Schedle: in progress

#### 2015

ADMINISTRATION, OFFICES, SHOWROOM AND STORAGE OF THE MARCHON BRAND Location: Route de Montena 67, 1728 Rossens, Fribourg canton (Switzerland) Client: Grisoni-Zaugg SA Gross area: 8144 sq m



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