



ALEKSANDR

ALEKHIN

BUILDING DESIGN ENGINEER

BIM / TIMBER FRAME / STRUCTURAL DESIGN

BUILDING SERVICES / CONSTRUCTION DOCUMENTATION

SELECTED WORKS | 2019-2026

Saint Petersburg · Open to remote work and project collaboration

PROFILE

Engineering judgement grounded in practice

Low-rise residential design from concept to construction documentation

6+

YEARS

~200

RESIDENTIAL PROJECTS

5

ARCHITECTS LED

10-15

PROJECTS / MONTH SUPERVISED

PROFESSIONAL PROFILE

Building Design Engineer with more than six years of experience in low-rise residential design. Expertise covers architectural and structural documentation, timber-frame BIM detailing, foundations, roofs and coordinated building services. Former Chief Architect with experience leading design teams and reviewing documentation before estimating, procurement and construction.

CORE EXPERTISE

- Architectural & structural documentation
- Timber-frame BIM modelling and detailing
- Foundations, floors and roof structures
- Heating, water, drainage and electrical systems
- Design review, coordination and site supervision
- Schedules, specifications and construction drawings

SOFTWARE

ARCHICAD

ARCHIFRAME

REVIT

AUTOCAD

LUMION

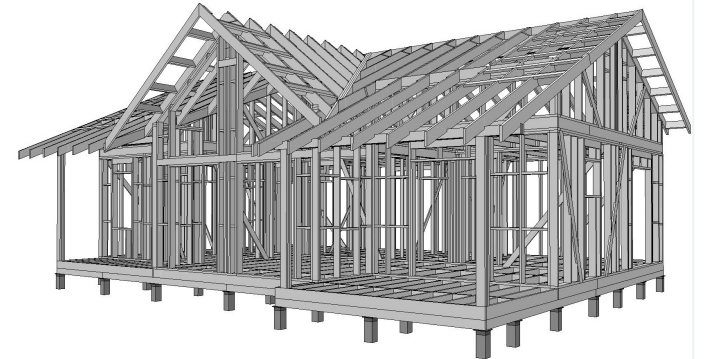
MS EXCEL

Single-Storey Timber-Frame House

Leningrad Region · Architectural and structural design · BIM documentation



ARCHITECTURAL CONCEPT + STRUCTURAL BIM



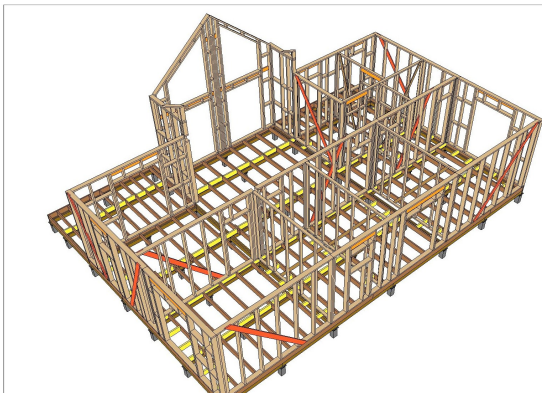
PROJECT SCOPE

Complete timber-frame structural package:
floor structure, wall panels, roof framing,
connection details, schedules and coordinated
construction documentation.

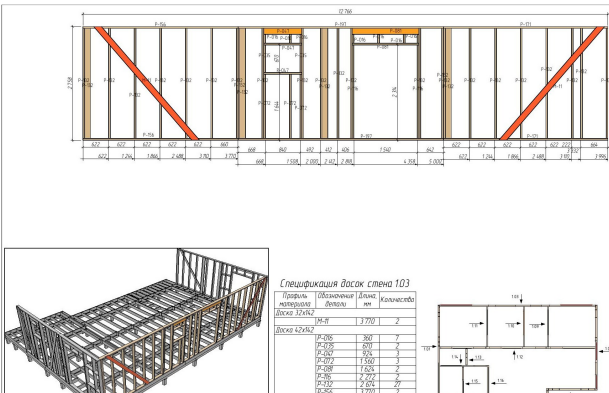
Frame logic from floor structure to wall panels



BUILT-UP TIMBER PILE GRILLAGE



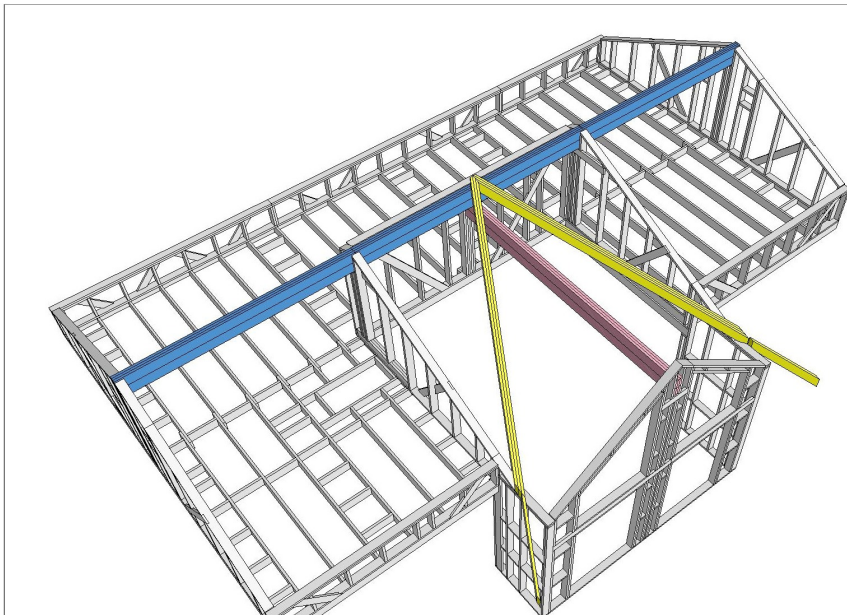
WALL FRAME MODEL



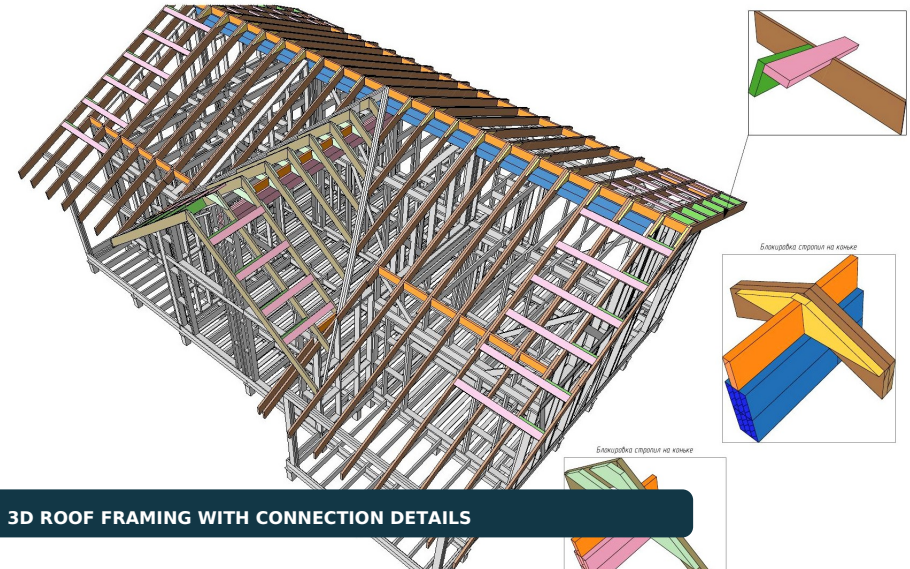
WALL PANEL SHOP DRAWINGS

Roof structure and construction detailing

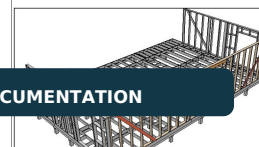
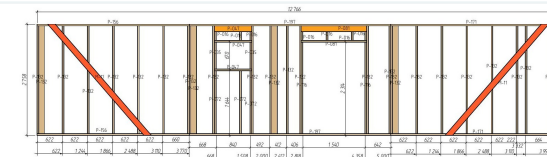
3D roof framing with connection details and schedules



ROOF SUPPORT SYSTEM MODEL



3D ROOF FRAMING WITH CONNECTION DETAILS



WORKING DOCUMENTATION

Спецификация досок стропила 103

Позиция	Обозначение	Единица измерения	Количество
1	Доска 103	м	1.270
2	Доска 103	м	1.270
3	Доска 103	м	1.270
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5	Доска 103	м	1.270
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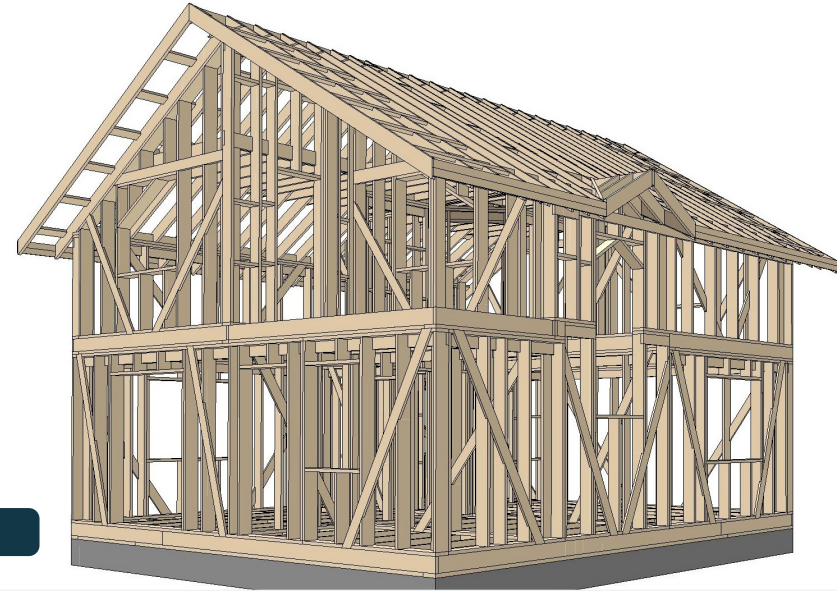


Timber-Frame House with Attic Storey

Leningrad Region · Timber-frame structural system



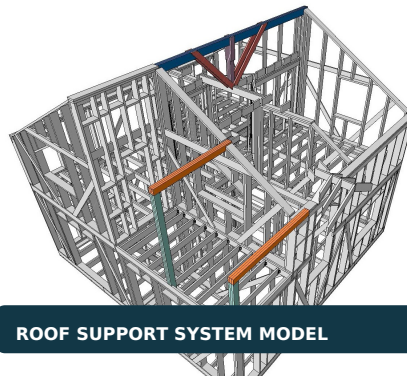
ARCHITECTURE



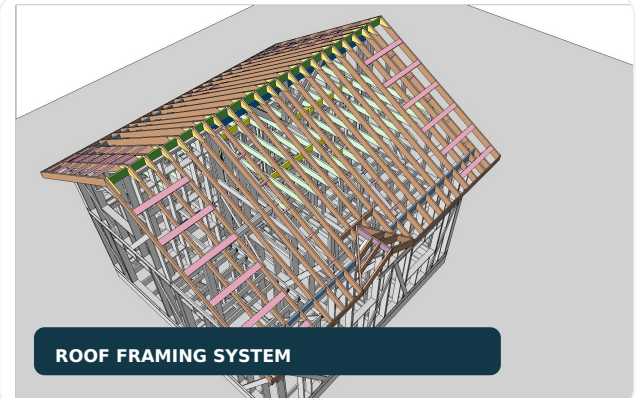
FULL FRAME



INTERMEDIATE FLOOR



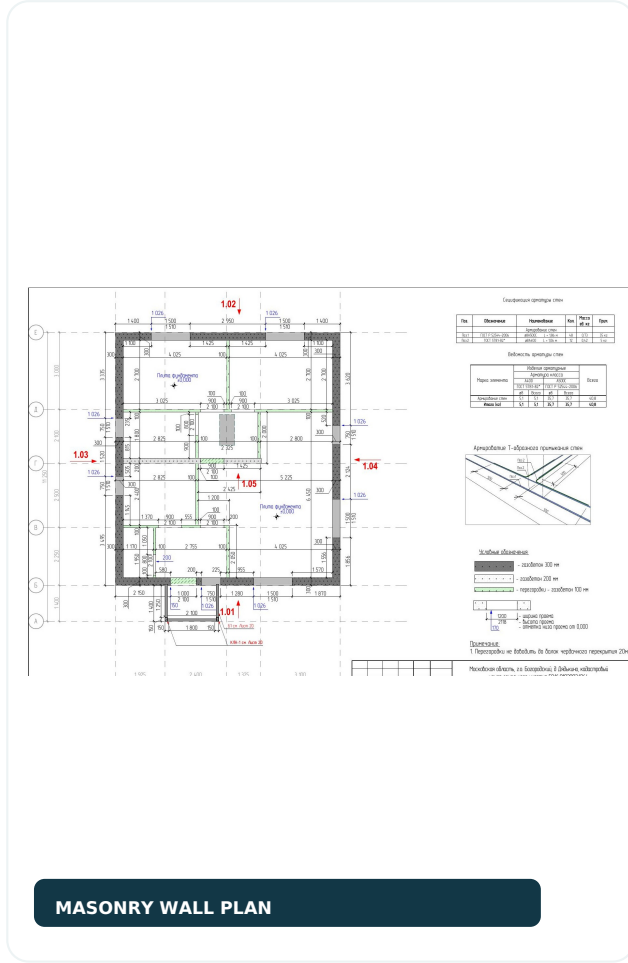
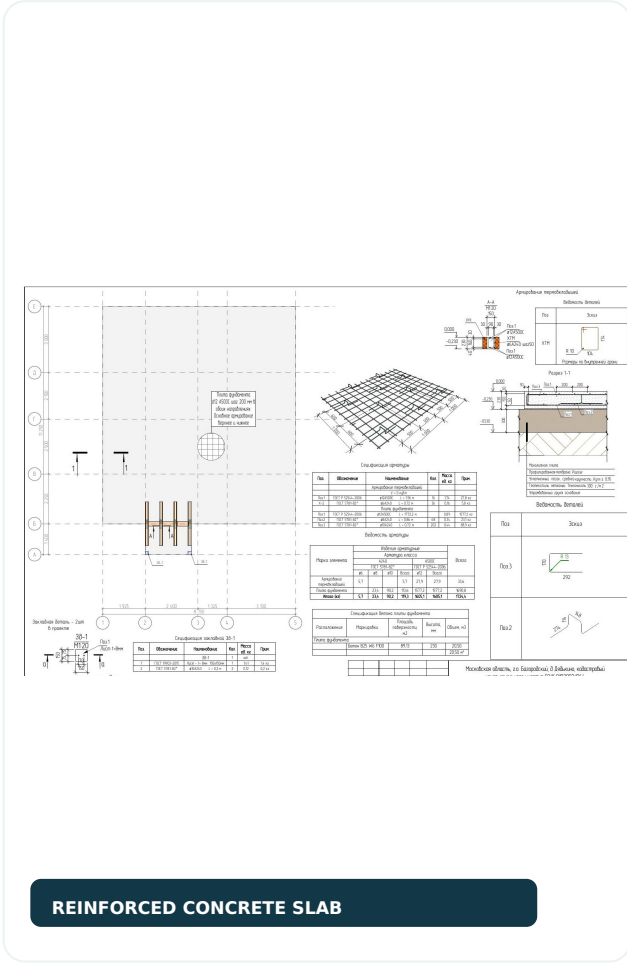
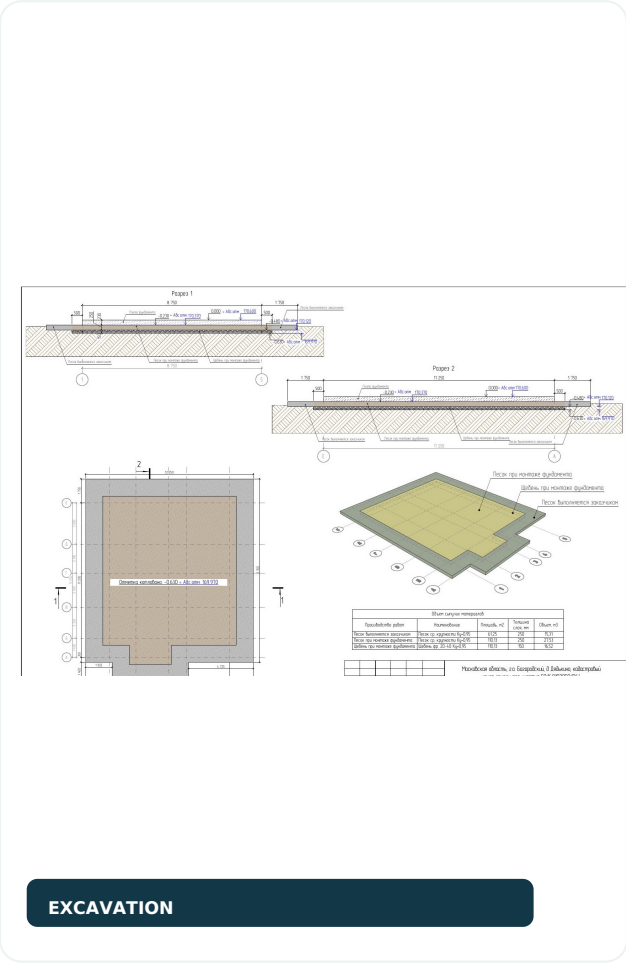
ROOF SUPPORT SYSTEM MODEL

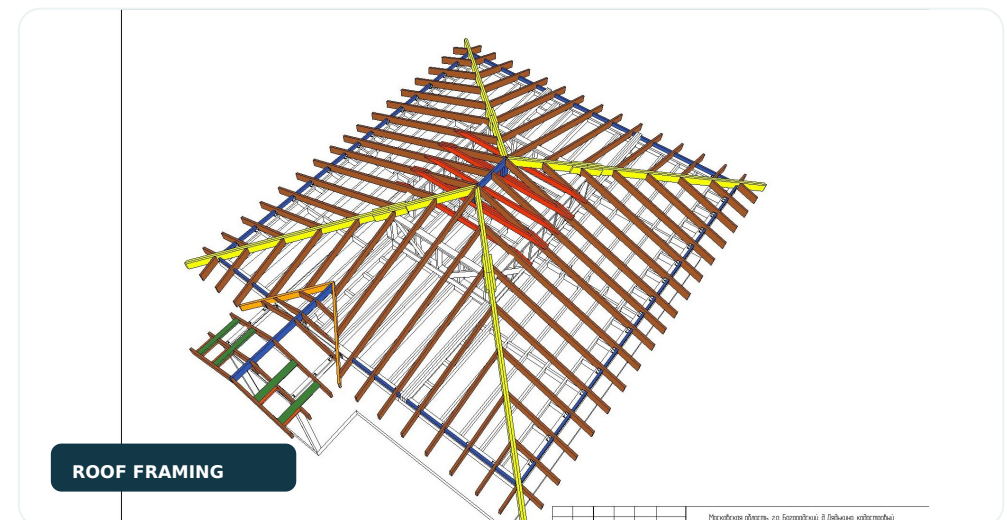
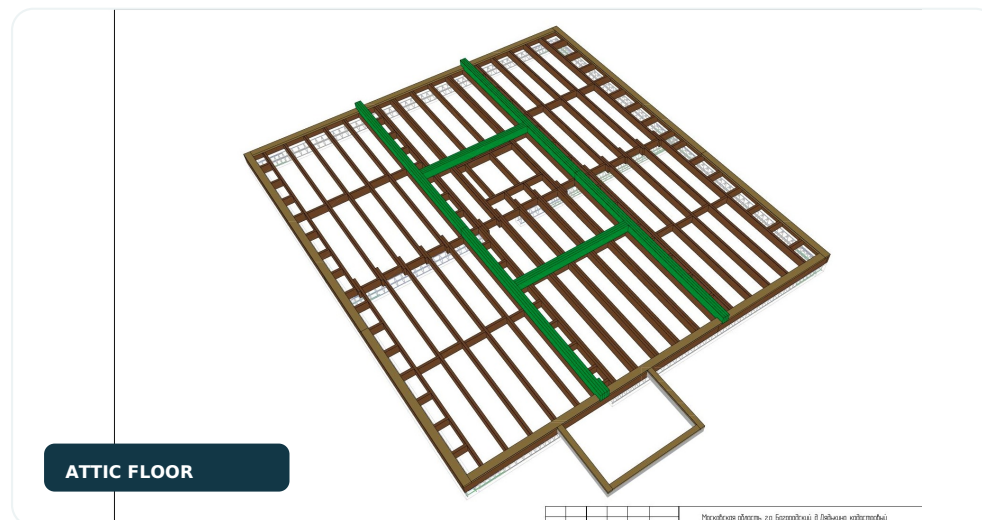
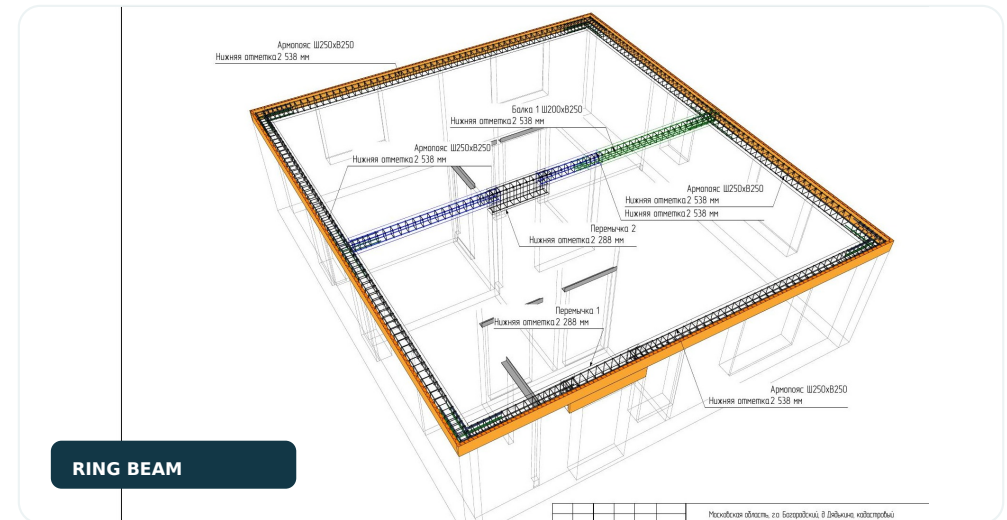


ROOF FRAMING SYSTEM

Aerated Concrete House

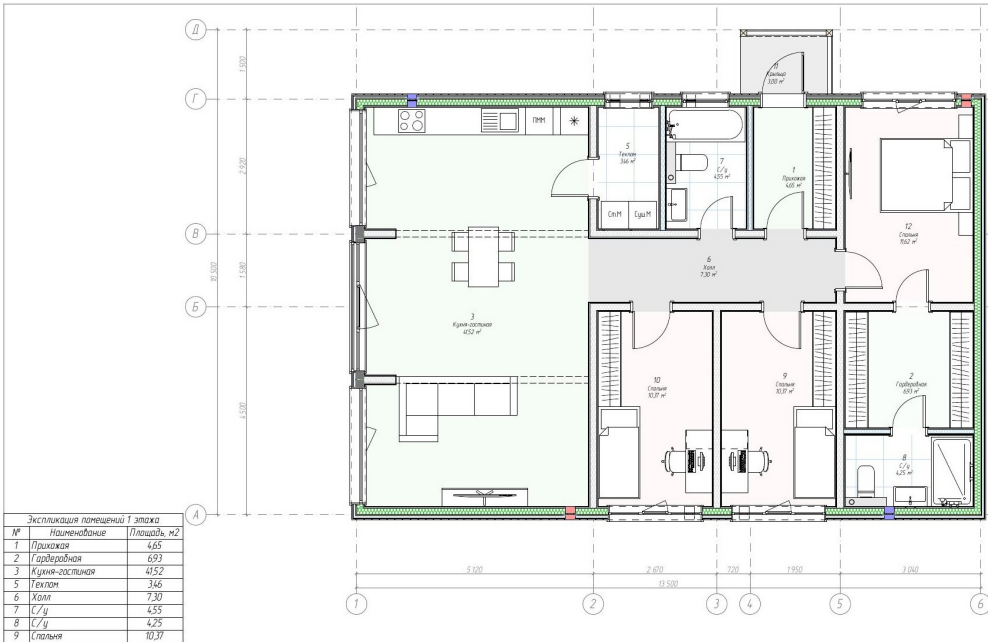
Moscow Region · Excavation, reinforced concrete slab and masonry wall plans



[illegible]

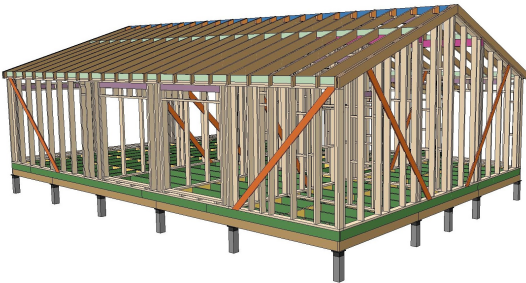
Integrated Residential Design

Architecture · Timber structure · Building services · Electrical systems



Детальность исполнения дверных проёмов					
Обозначение проёма	Количество	Размеры проёма, мм	Размеры проёма в стене, мм	Вид стенового материала	Площадь проёма
ДВ-1	1	900×2 000	1 000×2 100	Бетон	180
ДВ-2	3	800×2 000	900×2 100	Бетон	160
ДВ-3	2	800×2 000	900×2 100	Бетон	160
ДВ-4	1	700×2 000	800×2 100	Бетон	140

Детальность исполнения оконных проёмов					
Обозначение окна	Количество	Размеры проёма, мм	Размеры проёма в стене, мм	Вид стенового материала	Площадь проёма
ОК-1	1	1 200×1 500	1 300×1 600	Бетон	180
ОК-2	1	1 200×1 500	1 300×1 600	Бетон	180
ОК-3	1	1 200×1 500	1 300×1 600	Бетон	180
ОК-4	1	1 200×1 500	1 300×1 600	Бетон	180

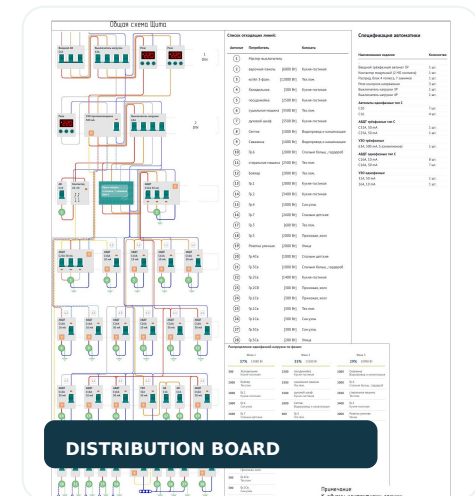
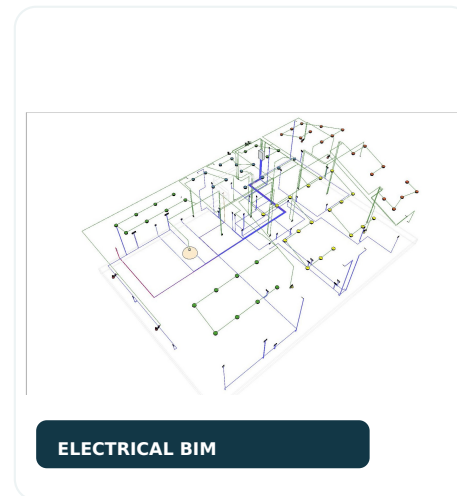
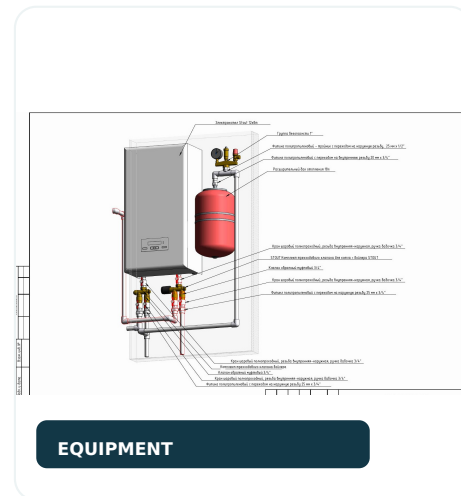
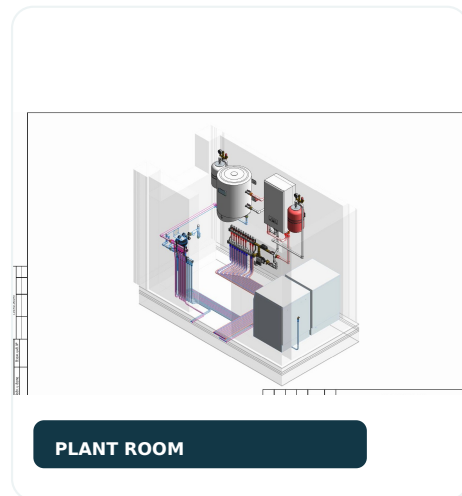
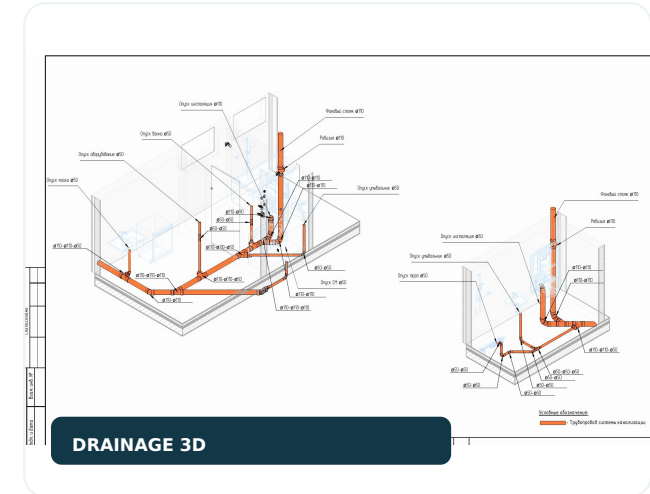
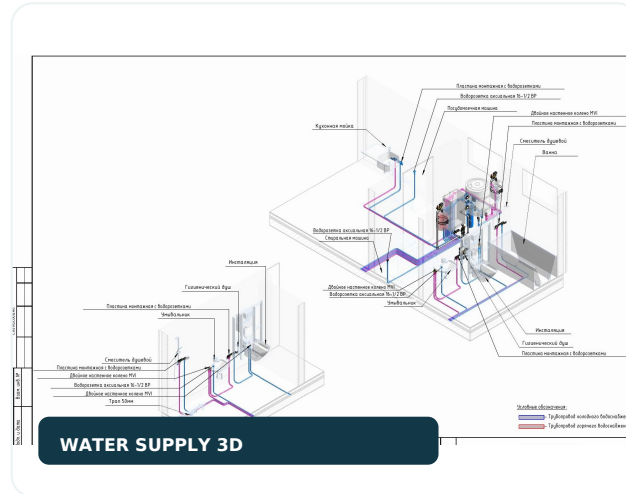
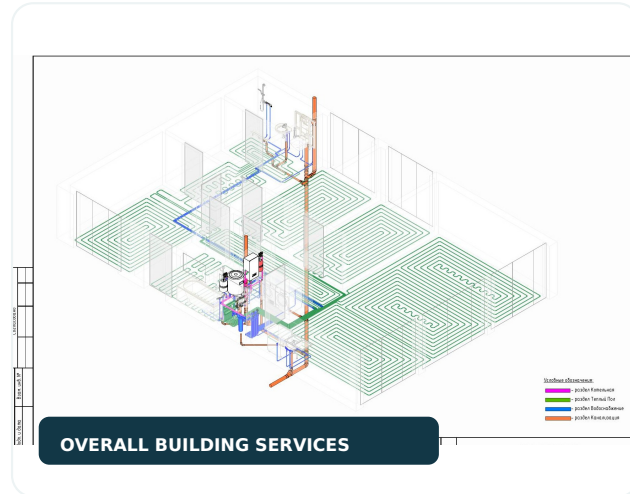


ONE COORDINATED OBJECT

Integrated residential design:
architecture, structures, heating, water
supply, drainage and electrical systems.

Building services designed in plan and 3D

Heating · Water supply · Drainage · Plant room · Electrical distribution



Hands-On Timber-Frame Construction

Personal participation in floor, wall and roof-frame assembly · 2024-2025



FLOOR STRUCTURE



FIRST WALL PANEL



COMPLETED WALL FRAME



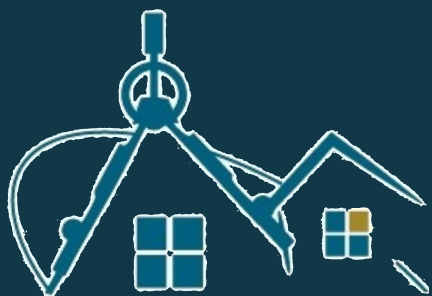
INTERMEDIATE FLOOR



ROOF FRAMING



ENCLOSED STRUCTURE



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Building Services · Construction Documentation

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Saint Petersburg

Open to remote work and project collaboration with architectural, engineering and construction teams.

AVAILABLE FOR

Residential BIM modelling · Timber-frame documentation
Structural packages · Building services design
Design review · Remote project support

SELECTED WORKS | 2019-2026