



JSC "Design and Research Institute  
of Air Transport"

**LENAEROPROJECT**

# 2023



■ Architecture

■ General Planning

■ Engineering Surveys

■ Technological Solutions

■ Master Planning

■ BIM-Technologies

■ Engineering and Consulting Solutions

■ Research activities

■ Construction Management Plan

■ Certification

■ Comprehensive Surveys

■ Power Supply

■ Heating and ventilation

■ Cost estimates

■ Air navigation



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For more than six decades, "Lenaeroproject" has been a leading industry comprehensive research and design institute, providing development of projects for the construction, reconstruction, and modernization of ground-based air transportation infrastructure.

Thanks to a highly qualified team, the Institute is capable of solving the most complex tasks at the level of world standards. We have established ourselves as a reliable and responsible company with a positive business reputation.

Our hallmark for more than half a century has been professionalism, reliability, and quality of work execution.

Today, we continue to develop dynamically, expanding the scope of our activities and geography of projects, making a significant contribution to the development of the country's airport network.

**Chef-executive officer of JSC "Design and Research Institute of Air Transport  
"LENAEROPROJECT"**

**Pashchenko Fyodor Alexandrovich**







# 1. ABOUT

During the design process, "Lenaeroproject" uses modern innovative methods that are reflected in the spatial-planning, structural and technological solutions. Utilizing accumulated experience and advanced technologies, "Lenaeroproject" promptly and qualitatively solves tasks of various levels of complexity.





**Design of aerodromes and airports**



**Design of roads**



**Design of industrial and civil objects**



## Design

- Architectural design
- General planning
- Technological Solutions
- Development of project documentation
- Cost estimates and project of construction organization
- Design of air traffic navigation facilities
- Development of demolition and dismantling projects for building and constructions
- BIM – Technologies



## Master Planning

- Concept development and master-planning for the perspective development of airport
- Analysis of the current state of the object's infrastructure
- Feasibility study
- Development of airport forecasts based on key performance indicators
- Aviation traffic volumes forecasts
- Development of planning solutions for the airport terminal complex
- Concept development for the development of areas adjacent to the airport



## Surveys

- Engineering-geodetic surveys
- Engineering-geological surveys
- Engineering-hydrometeorological surveys
- Engineering-environmental surveys
- Ecological-ornithological surveys
- Land management works



## Inspections

- Comprehensive inspection of airfields
- Comprehensive inspection of buildings and structures
- Georadar inspections
- Geotechnical monitoring
- Survey of tall obstacles in the vicinity of the airfield and airdrome environs



## Engineering and consulting

- Pre-design studies and consulting services in the field of designing, construction, and reconstruction of aviation infrastructure objects
- Development of concepts and schemes for the development of air transport
- Preparation of regulatory documentation
- Author supervision over construction
- Technical supervision (construction control)
- Support for the commissioning of the object.



## Research

- Scientific and technical support for the design, construction, and operation of aerodromes
- Development of technological regulations
- Monitoring of the operational and technical condition of airport surfaces, buildings, and structures
- Research and development of new materials, equipment, and technologies used in construction
- Control tests of construction materials
- Execution of research work in various directions



## Certification

- Development of reports on operational and technical characteristics of the aerodrome
- Development of reports on ICAO aerodrome category and classification
- Development of reports on survey of obstacles in the vicinity of the aerodrome and its surrounding areas
- Preparation of evidentiary documentation for aerodrome certification
- Certification of aerodromes
- Certification of materials used in the construction and operation of aerodromes

The largest laboratory for airport construction materials in Russia  
(accreditation: RA.RU.21NU91 dated 12.03.2020, STAIL NoIL-SSK-00423 dated 27.07.2020)

- Testing materials for use on civil aviation aerodromes
- Research work

Saint Petersburg Aerodrome Certification Centre (SPACC)

- Certification for assessing compliance of civil aviation facilities with regulatory documents requirements.
- Development of evidence-based documents for aerodrome certification





## Analytical centre

- Market analysis of equipment and materials
- Procurement documentation for conducting a competitive procedure (tender) for selecting a general contractor for the construction of facilities
- Identification of intellectual property results, development, and changes to normative documentation
- Implementation of new solutions, innovative materials, and technologies in the field of airport and aerodrome design and construction
- Implementation of import substitution policy

## Development of a digital twin of the airport in collaboration with leading IT companies and research organizations in Russia

Continuously operating finite element models are being developed to solve multidisciplinary problems in conjunction with a wireless monitoring system. This will allow for the prediction of negative trends and the timely implementation of necessary compensatory measures. In conjunction with the digitization of air traffic movements and maintenance services, such a system will enable the identification of the causes of defects in aerodrome surfaces, and make informed and timely decisions on maintaining the operational condition of the aerodrome.

A geographic information system is being developed to aggregate elements of the digital twin.



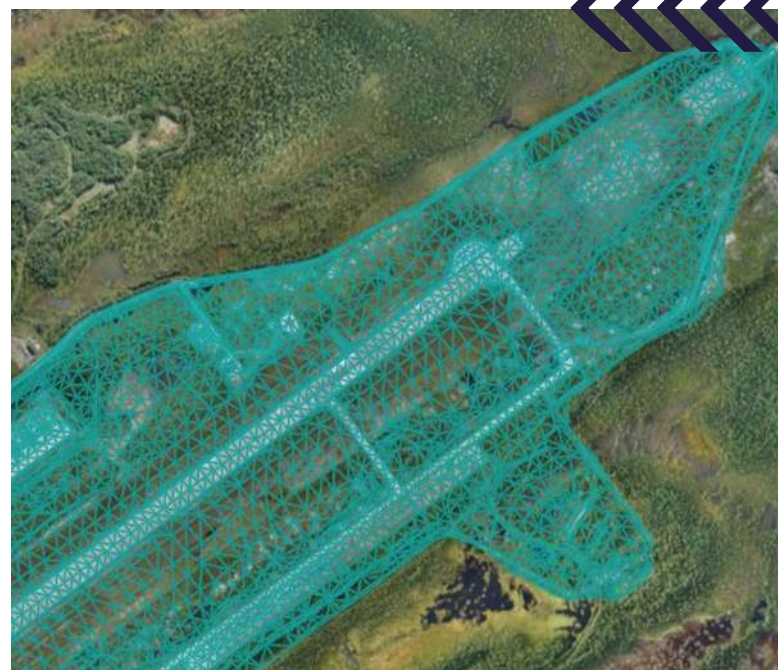
The "Geoscan 401 Lidar" unmanned complex is designed for laser scanning and subsequent construction of 3D models of terrain or individual objects.

With the help of this unmanned complex, experts in the field of engineering surveys carry out automatic airborne laser scanning and aerial photography.

The use of "Geoscan 401 Lidar" makes it possible to obtain a georeferenced orthophotomap, significantly reducing the time for topographic surveying and obtaining a digital terrain model while maintaining the necessary accuracy.



Unmanned complex "Geoscan 401 Lidar"



A georeferenced orthophotomap combined with a digital terrain model, obtained by performing aerial photography and airborne laser scanning.

Object: "Reconstruction of artificial coverings of airfield elements and the VDS of the Apatity (Khibiny) airport".



## 2. PROJECTS










#### TECHNICAL AND ECONOMIC INDICATORS:

- S** Building area: 4,285 sq.m  
Total area: 9,053 sq.m  
1<sup>st</sup> floor: 4,090 sq.m  
2<sup>nd</sup> floor: 2,082 sq.m  
3<sup>rd</sup> floor: 2,417 sq.m  
Basement: 454 sq.m
- V** 74 742 cubic meters
-  Combined capacity: 600 passengers/hour;  
Special Service sector (SSS) capacity: 20 passengers/hour

This project was developed using BIM-technologies





# BEZMYANKA Airport

📍 Samara, Samara region, Russia

Project development: 2022





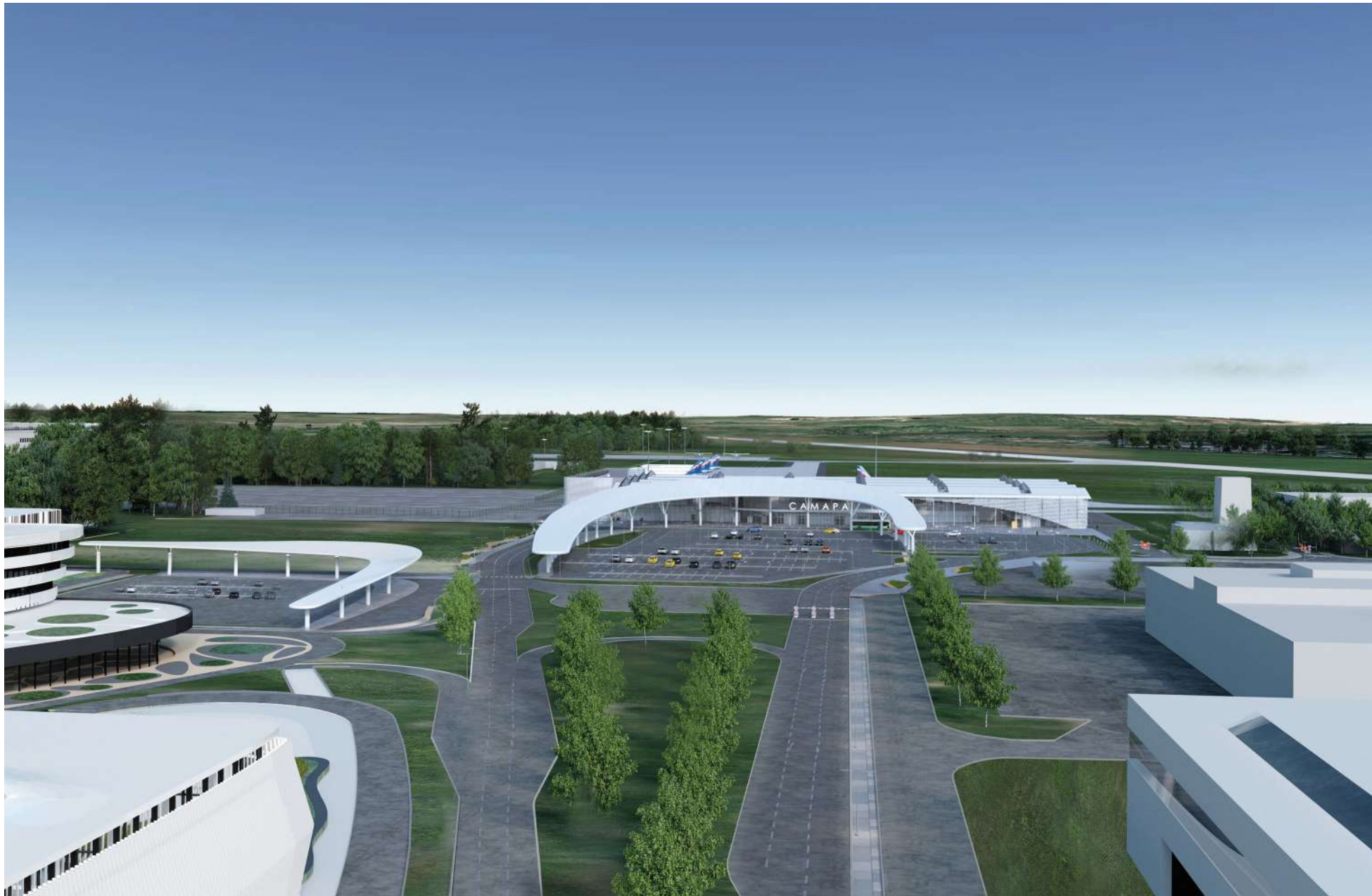
**TECHNICAL AND ECONOMIC INDICATORS:**

- S
 Building area: 11,430 sq.m  
 Total area: 16,412 sq.m  
 1<sup>st</sup> floor: 11,347 sq.m  
 2<sup>st</sup> floor: 4,233 sq.m  
 3<sup>st</sup> floor: 832 sq.m
- V
 115,137 cubic meters
- P
 Combined capacity during peak-hours:  
 600 passengers/hour

This project was developed using BIM-technologies











# POBEDILOVO Airport

📍 Pobedilovo, Kirov region, Russia

Development project: 2022







**TECHNICAL AND ECONOMIC INDICATORS:**

- S
 Building area: 5,113 sq.m  
 Total area: 10,106 sq.m  
 1<sup>st</sup> floor: 4,590 sq.m  
 2<sup>st</sup> floor: 3,412 sq.m  
 3<sup>st</sup> floor: 1,560 sq.m  
 Basement: 544 sq.m
- V
 74,949 cubic meters
- P
 Combined capacity: 600 passengers/hour

This project was developed using BIM-technologies



# TAYSHET Airport

📍 Tayshet, Irkutsk region, Russia

Project development: 2022



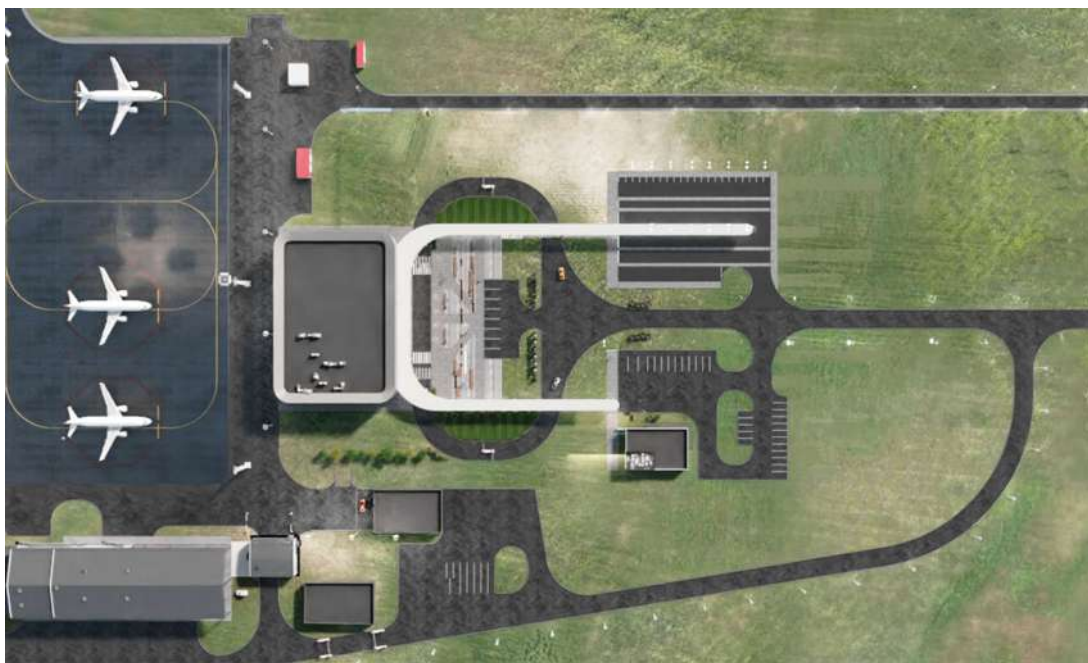




**TECHNICAL AND ECONOMIC INDICATORS:**

- S** Building area: 2,035 sq.m  
Total area: 2,202 sq.m  
1<sup>st</sup> floor: 1,902 sq.m  
2<sup>st</sup> floor: 300 sq.m
- V** 31,165 cubic meters
- Person icon** Combined capacity: 100 passengers/hour

This project was developed using BIM-technologies



# MIRNY Airport complex

📍 Mirny, Republic of Sakha (Yakutia), Russia

Project development: 2018-2019







#### TECHNICAL AND ECONOMIC INDICATORS:

- S
 Above-ground part: 7,890 sq.m.  
 Building area: 5,395 sq.m.
- V
 Above-ground part: 49,966 cubic meters  
 Extension (Gallery): 3,418 cubic meters
- ✈
 Capacity:
  - Overall: 300 passengers/hour
  - For domestic flights: 300 passengers/hour
  - VIP sector: 12/12 passengers/hour arrival/departure

This project was developed using BIM-technologies

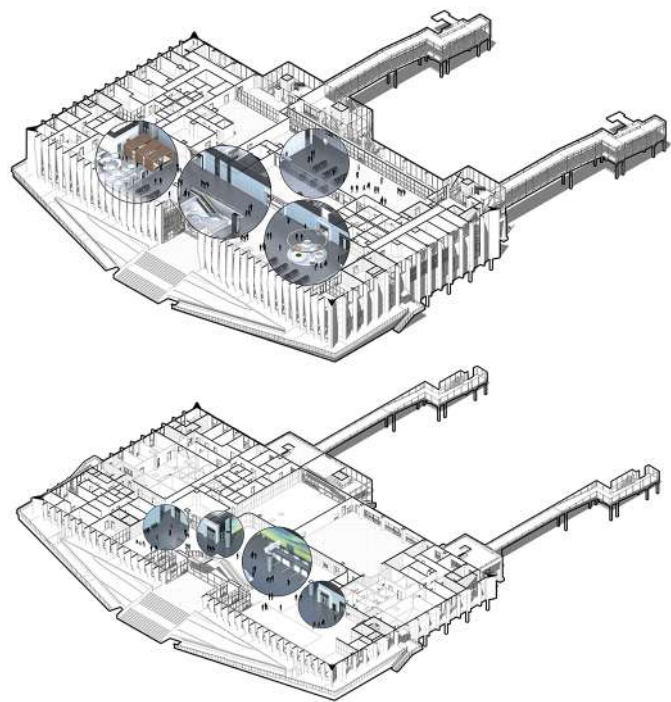






The authors of the new Terminal interior design at Mirny Airport used the natural features of the region to create an expressive image. For instance, LED panels with animations of the Northern Lights (Aurora Lights) were used in the registration zone, while sharp shapes and edges in the directions of the lattice ceilings, information stands, portals, or the inclined stained-glass window in the center of the atrium create dynamics, emphasizing the purpose of the airport, where everything is in constant motion and refers to the facets of a diamond or ice.





Materials such as glass panels for wall cladding or polished ceramic granite used in the main halls have reflective surfaces, which allows more natural light to enter and makes the interiors feel lighter.

In the VIP lounge interiors, more localized lighting sources and warm materials and textures, such as wood or carpet, create a contrast with the main halls and form an atmosphere of comfort and coziness. A unified design code for navigation signs was also developed for the interiors.










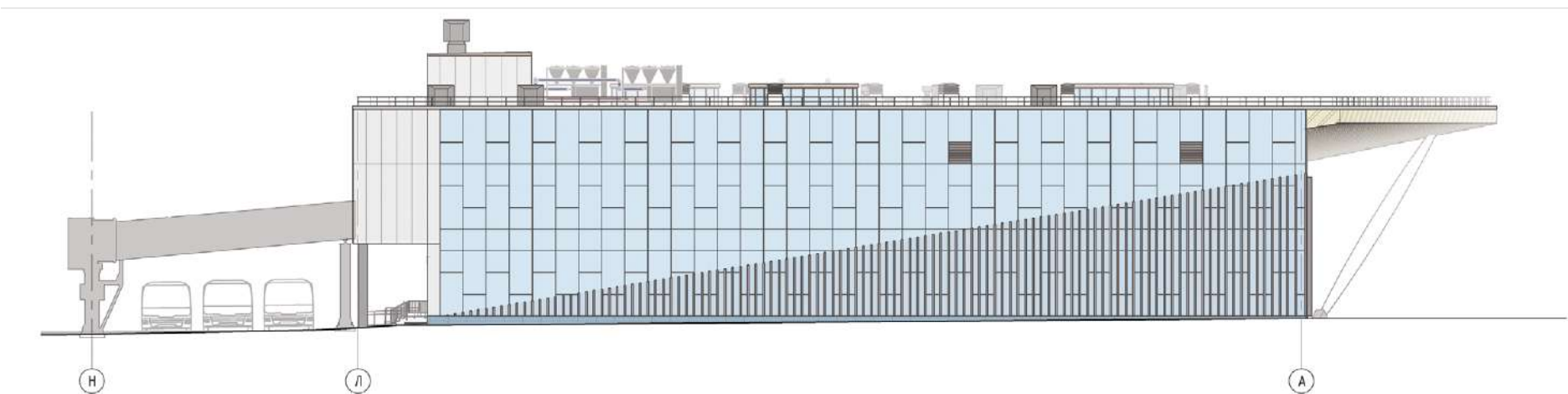


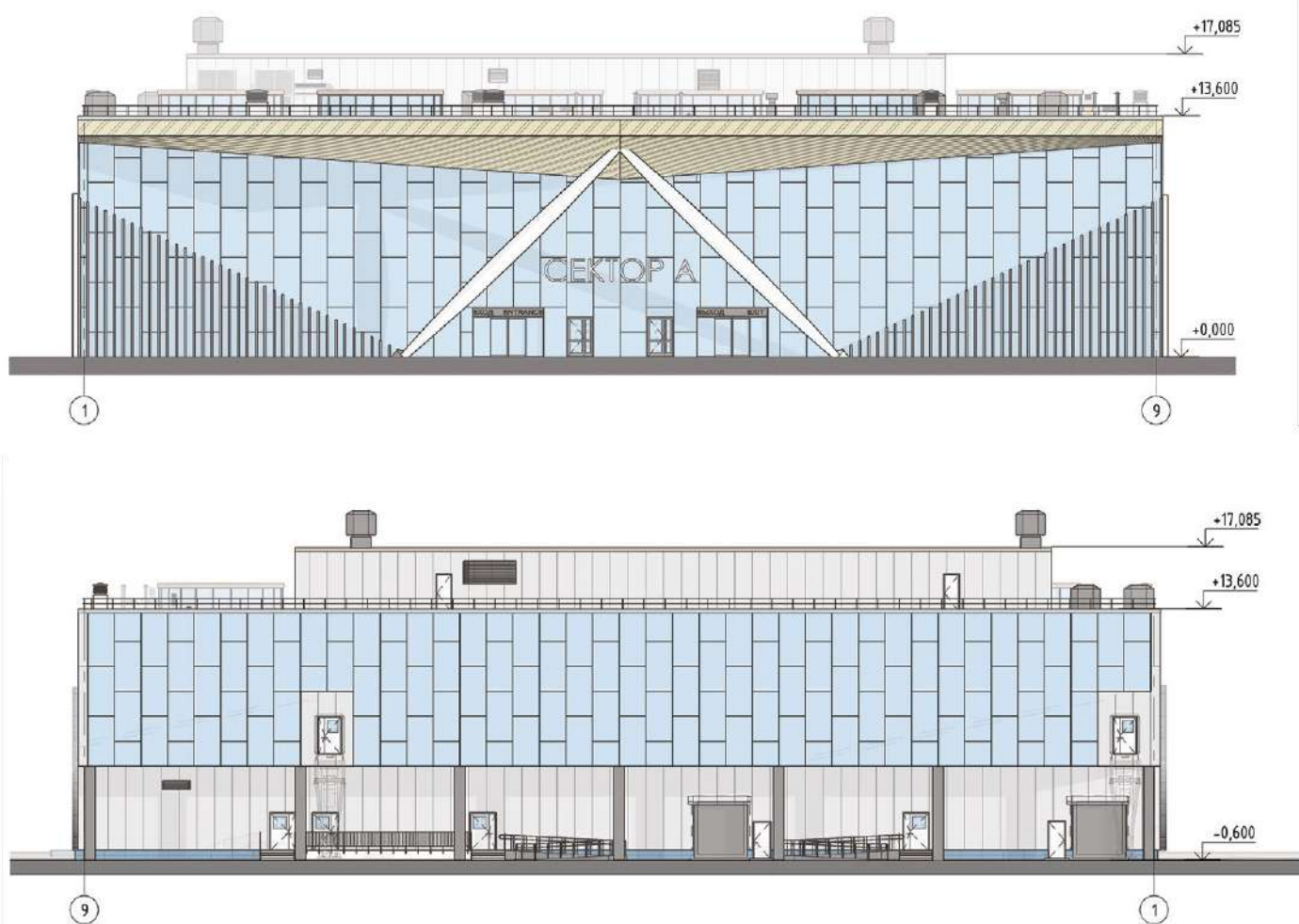
**TECHNICAL AND ECONOMIC INDICATORS:**

- S** Total area: 6,632 sq.m  
Built-up area: 3,839 sq.m
- V** ~ 53,936 cubic meters
-  Capacity during peak-hours for arrivals:  
400 passengers/hour (including 20 business class passengers/hour)

This project was developed using BIM-technologies









# MURMANSK Airport

📍 Murmashi, Murmansk region, Russia

Project development: 2020-2021







**TECHNICAL AND ECONOMIC INDICATORS:**

- S** Building area: 3,325.5 sq.m  
Total area: 7,732 sq.m  
1<sup>st</sup> floor: 3,241 sq.m  
2<sup>st</sup> floor: 3,015 sq.m  
3<sup>st</sup> floor: 978 sq.m  
Basement: 498 sq.m
- V** Above-ground part: 46,633 cubic meters  
Underground part: 1,406 cubic meters
- Person with suitcase icon** Peak-hour capacity: 400 passengers/hour  
(including 20 business class passengers/hour)

This project was developed using BIM-technologies









# YOSHKAR-OLA Airport

Yoshkar-Ola city, Mari El Republic, Russia

Project development: 2023







#### TECHNICAL AND ECONOMIC INDICATORS:

- S
 Building area: 5,167 sq.m  
 Total area: 5,997 sq.m
- V
 Above-ground part: 51,936 cubic meters  
 Underground part: 1,703 cubic meters
- ✈
 Airport complex capacity:
  - Peak-hour arrival capacity: 400 passengers/hour (including 20 business-class passengers/hour)
  - Number of meeting and seeing off persons per passenger: 0.45
  - Average number of baggage spaces per passenger: 1.5

This project was developed using BIM-technologies

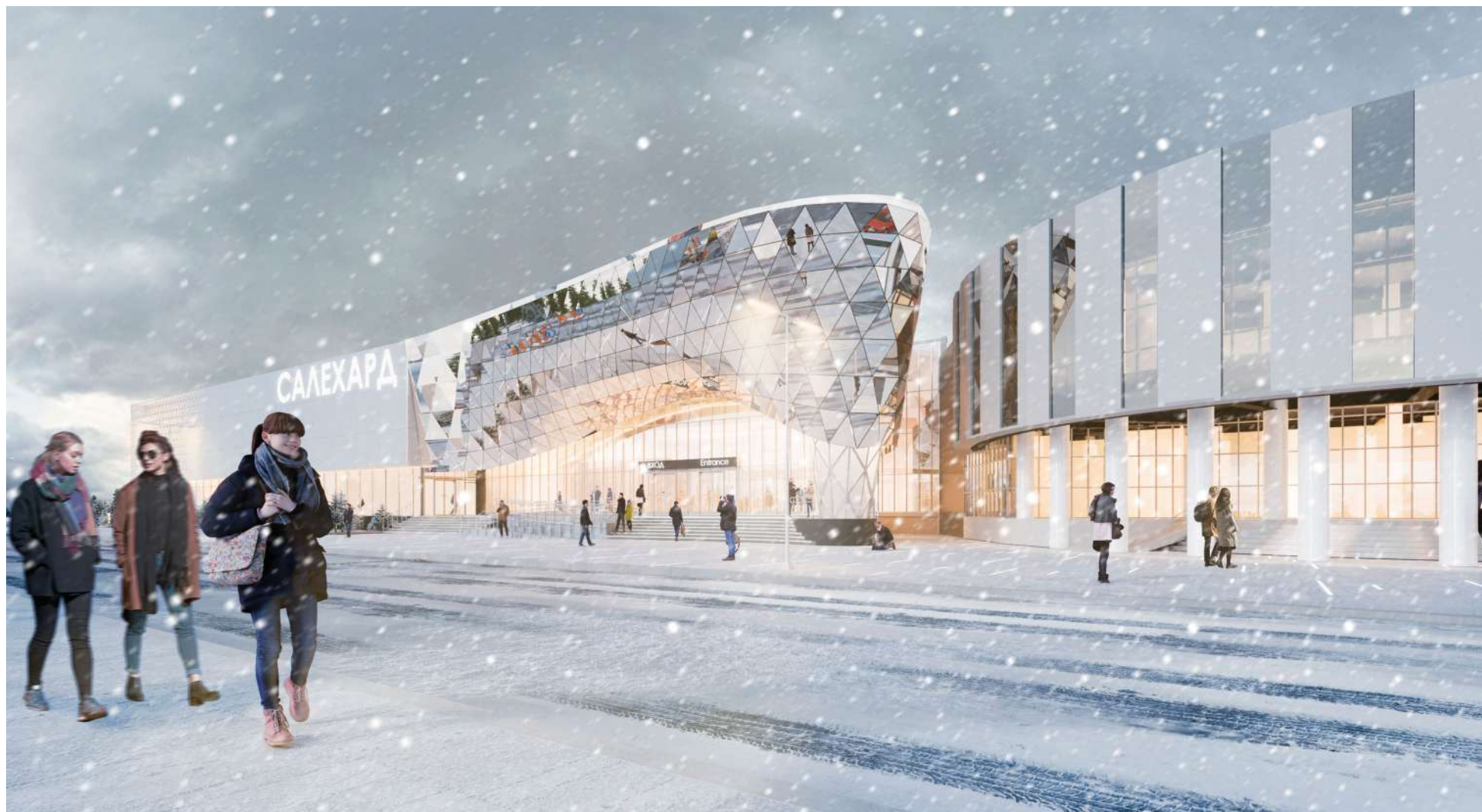




# SALEKHARD Airport

📍 Salekhard, Yamalo-Nenets Autonomous Okrug, Russia

Project development: 2021-2022





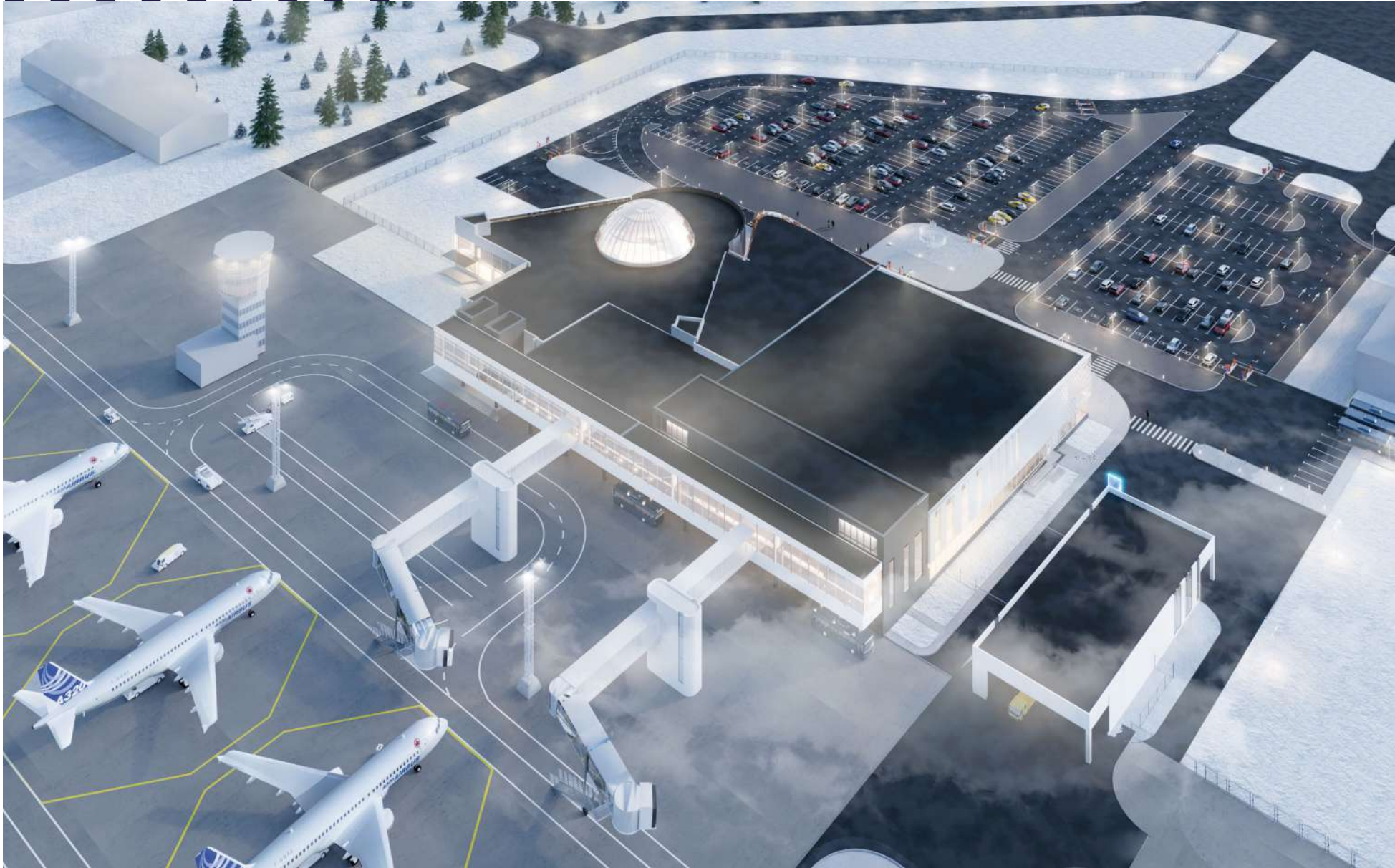
#### TECHNICAL AND ECONOMIC INDICATORS:

- S** Building area: 5,543 sq.m  
Total area: 10,314 sq.m
- V** 53,752 cubic meters
- Person with suitcase** Arrival peak-hour capacity: 400 passengers/hour

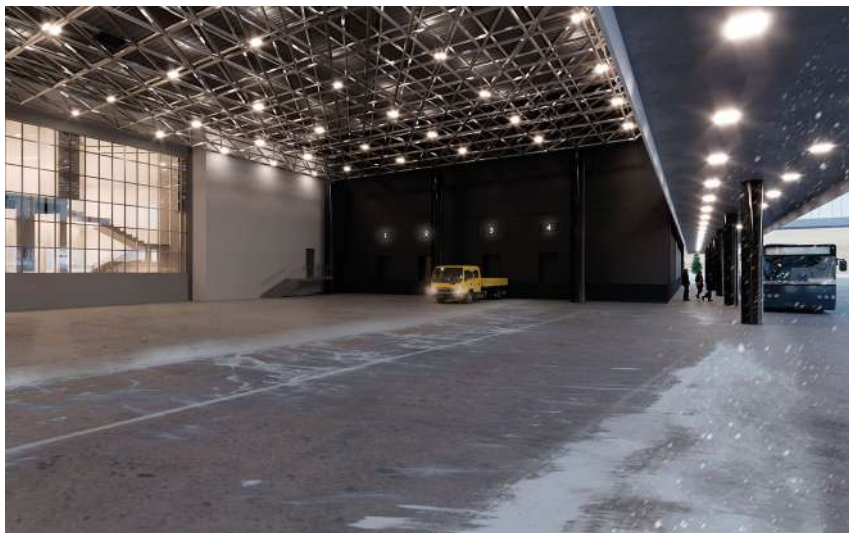
This project was developed using BIM-technologies











# SURGUT Airport

 Surgut, Khanty-Mansiysk Autonomous Okrug, Russia


Project development: 2021







**TECHNICAL AND ECONOMIC INDICATORS:**

- S** Building area: 9,584 sq.m  
Total area: 16,772 sq.m
- V** 86,903 cubic meters
-  Arrival peak-hour capacity: 1100 passengers/hour



This project was developed using BIM-technologies












📍 Kaluga, Kaluga region, Russia

Project development: 2021





**TECHNICAL AND ECONOMIC INDICATORS:**

- S** Building area: 3,839 sq.m  
Total area: 6,632 sq.m
- V** ~ 53,936 cubic meters
-  Arrival peak-hour capacity: 400 passengers/hour  
(including 20 business class passengers per hour)



This project was developed using BIM technologies





# KALUGA Airport (Reconstruction)


📍 Kaluga, Kaluga region, Russia

Project development: 2022





**TECHNICAL AND ECONOMIC INDICATORS:**

- S** Building area: 2,815 sq.m  
Total area: 4,025 sq.m  
1<sup>st</sup> floor: 2,188 sq.m  
2<sup>st</sup> floor: 1,837 sq.m
- V** 16,225 cubic meters
-  Capacity: 400 passengers/hour

This project was developed using BIM-technologies







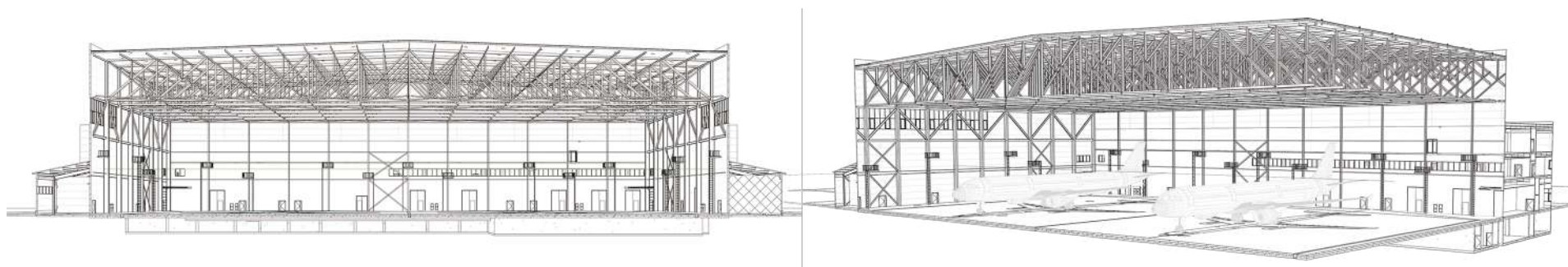




# ROSHCHINO Hangar Complex

📍 Tyumen, Tyumen region, Russia

Project development: 2018-2019



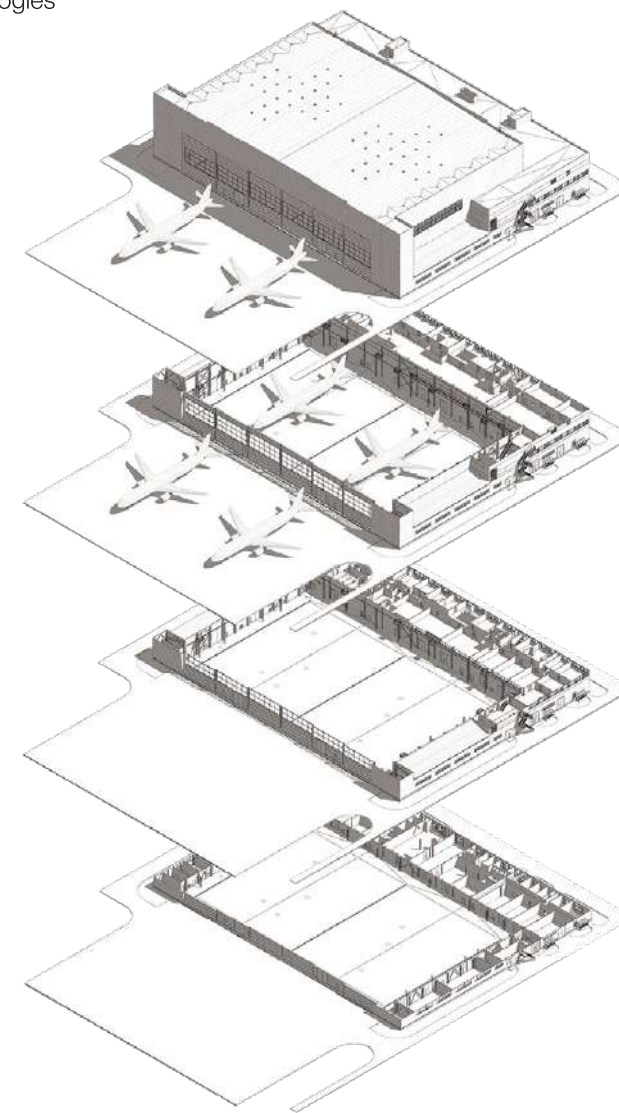
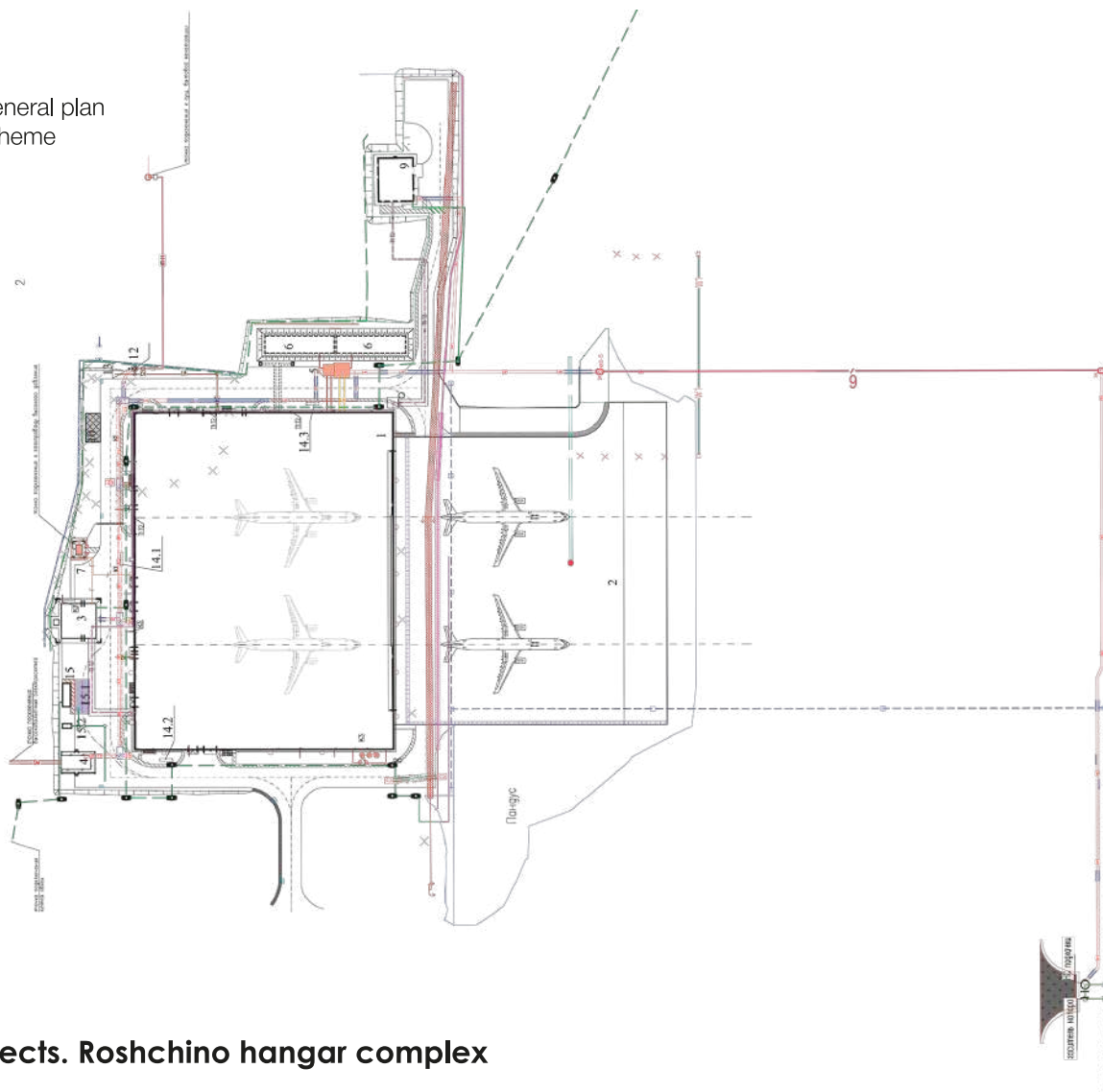
**TECHNICAL AND ECONOMIC INDICATORS:**

- S** Total area: 18,824 sq.m  
Building area: 10,672 sq.m
- V** 242,330 cubic meters

The designed hangar is intended for the maintenance of two aircraft (Airbus 320 and Airbus 321, according to the design specifications) and represents a weather-protected space where aircraft maintenance is carried out.

This project was developed using BIM-technologies

General plan scheme





## 2019

Development of design documentation and engineering surveys for the project "Reconstruction of the airport complex "Balandino" (Chelyabinsk)"

Development of design and working documentation, as well as survey works for the project "Construction of a hangar complex for the technical maintenance of two aircraft at the Roshchino airport in Tyumen"

Development of design documentation for the project "Reconstruction of the artificial runway "Solovki""

Performing project and survey works for the project "Equipping the ICAO airport in Lipetsk with an ILS-2700 landing radio beacon system with a MKpos-150"

Development of design documentation and engineering surveys for the project "Reconstruction of the airport complex "Begishevo" (2nd stage) in Nizhnekamsk, Republic of Tatarstan"

Development of design and working documentation for the project "Airport "Mirny" in the city of Mirny, Republic of Sakha (Yakutia)"

Development of design and working documentation, as well as engineering surveys for the project "Reconstruction of the airport fence" and obtaining a positive conclusion for LLC "International Airport Sabeta"

Performing project and survey works for the development of project and cost documentation for the repair of runway, apron, parking stands and taxiways at the "Dikson" airport branch of the "Krasnoyarsk airports" federal state unitary enterprise.

## 2020

Development of design and survey works for the reconstruction of the airport complex in Zeya, Amur Oblast.

Developments of design and survey works for the reconstruction of the airport complex in Ust-Nera, Republic of Sakha (Yakutia).

Development of design documentation for the development of the airport in Kaluga.



## 2021

Execution of works on the development of design and survey documentation for the object: "Polyarny' airport complex reconstruction (Pos. Udachny, Republic of Sakha (Yakutia))".

Execution of design and survey works for the object: "Airport complex reconstruction (Tynda city, Amur region)".

Execution of works on the development of design and survey documentation for the object: "Airport complex reconstruction (Magan village, Republic of Sakha (Yakutia))".

Execution of engineering surveys and adjustment of design documentation for the purpose of construction (reconstruction) of the capital construction project "Ekimchan airport reconstruction (Amur region)".

Execution of a complex of works on the design of the object: "Construction of a new domestic air terminal complex of Tomsk International Airport".

Execution of works on the development of design documentation and engineering surveys for the object: "Reconstruction of 2nd runway at Yakutsk airport (Stage III of construction), Republic of Sakha (Yakutia)".

Execution of a complex of works on the design of the object: "Reconstruction of the international/domestic air terminal complex of the Tyumen (Roschino) International Airport".

## 2022

Execution of works on the development of design documentation and engineering surveys for the object: "Reconstruction of the airport complex, as well as development of a project for the establishment of the aerodrome territory, with the allocation of subzones" (Markovo city, Chukotka Autonomous Okrug).

Execution of design and survey works for the object: "Reconstruction of the airport complex 'Ufa'".

Execution of design works for the object: "Reconstruction and development of the aerodrome of Krasnodar airport, Krasnodar Krai".

Execution of works on the development of design documentation and engineering surveys for the object: "Reconstruction of the aerodrome complex of Kemerovo airport".

Execution of works on the development of design documentation and engineering surveys for the object: "Reconstruction of the airport complex 'Talagi' (Arkhangelsk city)".

Execution of works on the development of design documentation for the object: "Overhaul of the Krechevitsy aerodrome" in Veliky Novgorod city.







# 3. LICENSES, CERTIFICATES





JSC "Lenaeroproject" is a member of several self-regulatory organizations (SROs):

**1. Self-regulatory organization "Association of Project Organizations of the North-West"**

No SRO-P-044-09112009 dated 09.11.2009.

Registration number of JSC "Plinil VT" "Lenaeroproject" in the SRO member register: P-015 dated 26.11.2009.  
Protocol No. 2 dated 26.11.2009.



**2. Self-regulatory organization "Association of Surveying Organizations of the North-West"**

No SRO-I-011-23122009 dated 23.12.2009.

Registration number of JSC "Plinil VT" "Lenaeroproject" in the SRO member register: I-007 dated 29.12.2009.  
Protocol No. 01 dated 29.12.2009.



**3. Self-regulatory organization "Union of Builders "Gas Distribution System. Construction"**

No SRO-C-048-12102009.

Registration number of JSC "Plinil VT" "Lenaeroproject" in the SRO member register: 797 dated 05.03.2019.  
Protocol No. 02-28-02/GS/19 dated 28.02.2019.



**4. Self-regulatory association "Baltic Association of Specialized Contractors in the Field of Energy Audit "BaltEnergoEffect"**

No SRO-E-022.

Decision protocol on admission to the SRO members No. 220-SAE/17 dated 02.02.2017.



**5. Non-profit organization "Association for the Development of Road Cement Concrete and Cement Concrete Coatings"**

Protocol No. 25 of the Board of Directors Meeting of the Non-Profit Organization "Association of Concrete Roads" dated 01.09.2022.







1. License for the right to carry out geodetic and cartographic activities, No78-00041F of 04.02.2013.
2. License for the right to conduct work related to the use of information that constitutes a state secret, No10272 of 13.06.2018.
3. License for the right to carry out activities in the field of the use of sources of ionizing radiation, No77.99.15.002.L.000034.03.09 of 16.03.2009.
4. STEIL Association. Certificate of accreditation of the testing center, No IL-SSK-00423 of 27.07.2020.  
Certificate for the right to conduct control tests of materials, soils and structures.
5. Certificate of conformity of the quality management system to GOST R ISO 9001-2015, issued by LLC "Test St. Petersburg", SMK NoPOCC RU.13SK03.00599 of 11.03.2022.
6. IQNet quality management system certificate, issued by LLC "Test St. Petersburg", IQNet NoRU-13SK03.00599 of 11.03.2022.
7. Certificate of conformity of the quality management system to MS ISO 9001:2015, issued by LLC "Test St. Petersburg", ACCREDIA NoRU.097A.00130 of 11.03.2022.
8. Certificate of occupational health and safety management system, issued by the European Union for Quality "Fortis", NoFORTIS.RU.0001.F0002437 of 20.12.2022.
9. Certificate of environmental management system, issued by the European Union for Quality "Fortis", NoFORTIS.RU.0001.F0003297 of 20.12.2022.
10. Certificate of conformity of the quality management system for the performance of work on construction, reconstruction and major repairs of capital construction projects to the requirements of GOST R ISO 9001-2015, issued by the European Union for Quality "Fortis", NoFORTIS.RU.0001.F0019297 of 20.12.2022.
11. Certificates for conducting design and survey works on the territory of the Republic of Belarus:
  - 11.1. Certificate for the development of sections of project documentation for construction projects of the first to fourth complexity classes, No 0002856-PR of 06.11.2019.
  - 11.2. Certificate for the performance of functions of the general designer, No 0001319-GP of 06.11.2019.



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11.1



11.2





# 4. PATENTS



- 1.** Patent of the Russian Federation No. 2714406 for the invention "METHOD OF VACUUM SEALING THE BASE OF A BUILDING STRUCTURE".  
Date of state registration in the State Register of Inventions of the Russian Federation - 14.02.2020.  
The term of the exclusive right to the invention and the establishment of the priority of the invention is calculated from 08.10.2019.
- 2.** Patent of the Russian Federation No. 2721851 for the invention "METHOD OF SEALING SNOW AND ICE COVER".  
Date of state registration in the State Register of Inventions of the Russian Federation - 25.05.2020.  
The term of the exclusive right to the invention and the establishment of the priority of the invention is calculated from 08.10.2019.
- 3.** Patent of the Russian Federation No. 2763640 for the invention "METHOD FOR INCREASING THE BEARING CAPACITY OF AIRFIELD PAVEMENTS IN CONDITIONS OF SALINE PERMAFROST SOILS".  
Date of state registration in the State Register of Inventions of the Russian Federation - 30.12.2021.  
The term of the exclusive right to the invention and the establishment of the priority of the invention is calculated from 17.08.2021.
- 4.** Patent of the Russian Federation No. 2767638 for the invention "METHOD OF BUILDING FOUNDATIONS FOR AIRFIELD AND ROAD SURFACES FROM NON-CONDITIONED SOILS".  
Date of state registration in the State Register of Inventions of the Russian Federation - 18.03.2022.  
The term of the exclusive right to the invention and the establishment of the priority of the invention is calculated from 17.08.2021.
- 5.** Patent of the Russian Federation No. 2767640 for the invention "METHOD OF BUILDING PREFABRICATED ROAD AND AIRFIELD COATINGS FROM PRE-STRESSED REINFORCED CONCRETE SLABS".  
Date of state registration in the State Register of Inventions of the Russian Federation - 18.03.2022.  
The term of the exclusive right to the invention and the establishment of the priority of the invention is calculated from 18.08.2021.
- 6.** Patent of the Russian Federation No. 2769655 for the invention "ROAD BARRIER FENCE RETAINING TWO-SIDED FOR HIGHWAYS".  
Date of state registration in the State Register of Inventions of the Russian Federation - 04.04.2022.  
The term of the exclusive right to the invention and the establishment of the priority of the invention is calculated from 16.08.2021.
- 7.** Russian Patent No. 2772062 for the invention "DEVICE FOR EVALUATING THE LEVELNESS OF AIRFIELD SURFACE".  
The date of state registration in the State Register of Inventions of the Russian Federation is May 16, 2022.  
The term of the exclusive right to the invention and the establishment of the priority of the invention is calculated from August 17, 2021.



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7



# CONTACT US



Obvodniy channel embankment, 122 lit. B,  
St Petersburg, Russia, 198095



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