



SYSTEM3E®

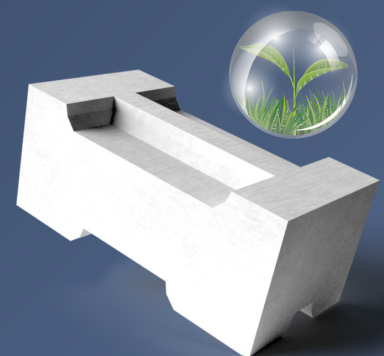
MODULAR 03 ONE TRUCK HOUSE

ASSEMBLY INSTRUCTION

The Modular 03 assembly instruction demonstrates the process of construction from the foundation slab to the finished roof.

The building is designed to be executed with SYSTEM 3E technology.

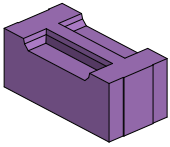
It contains 327 SYSTEM 3E elements, 3 sets of lintels-one for each window, prefabricated roof structure and finishing materials for a hip roof, external door, and windows.



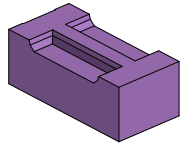
MODULAR 03 ONE TRUCK HOUSE

ASSEMBLY INSTRUCTION

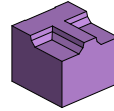
SYSTEM 3E ELEMENTS - 327 PCS.



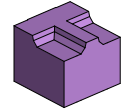
SO 300 WP - 20 pcs.



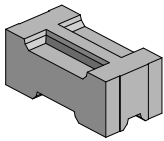
SO 300 W - 4 pcs.



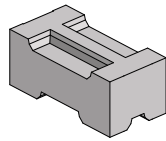
SO/2 300 W - 1 pcs.



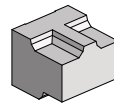
SO/2 300 P - 2 pcs.



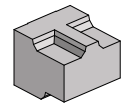
S1 WP - 146 pcs.



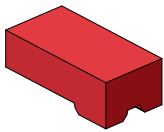
S1 W - 37 pcs.



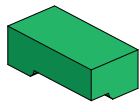
S1/2 W - 15 pcs.



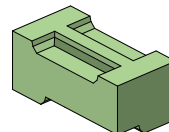
S1/2 P - 5 pcs.



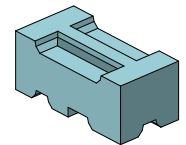
SZL - 2 pcs.



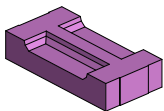
SZP - 2 pcs.



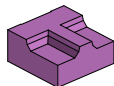
SNP - 20 pcs.



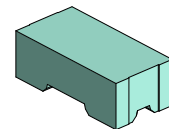
SNL - 20 pcs.



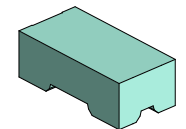
EN WP - 9 pcs.



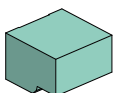
EN/2 W - 1 pcs.



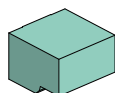
SZ/E0 WP - 25 pcs.



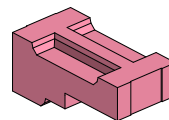
SZ/E0 W - 4 pcs.



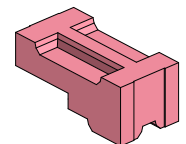
SZ/2 W - 4 pcs.



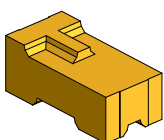
SZ/2 P - 2 pcs.



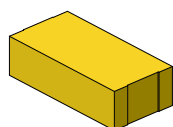
EPN WP P - 3 pcs.



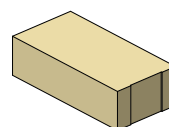
EPN WP L - 2 pcs.



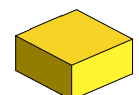
E0/2 WPL - 3 pcs.



EU 200 WP - 3 pcs.



EU 200 W - 2 pcs.



EU/2 200 W - 1 pcs.

MODULAR 03 ONE TRUCK HOUSE

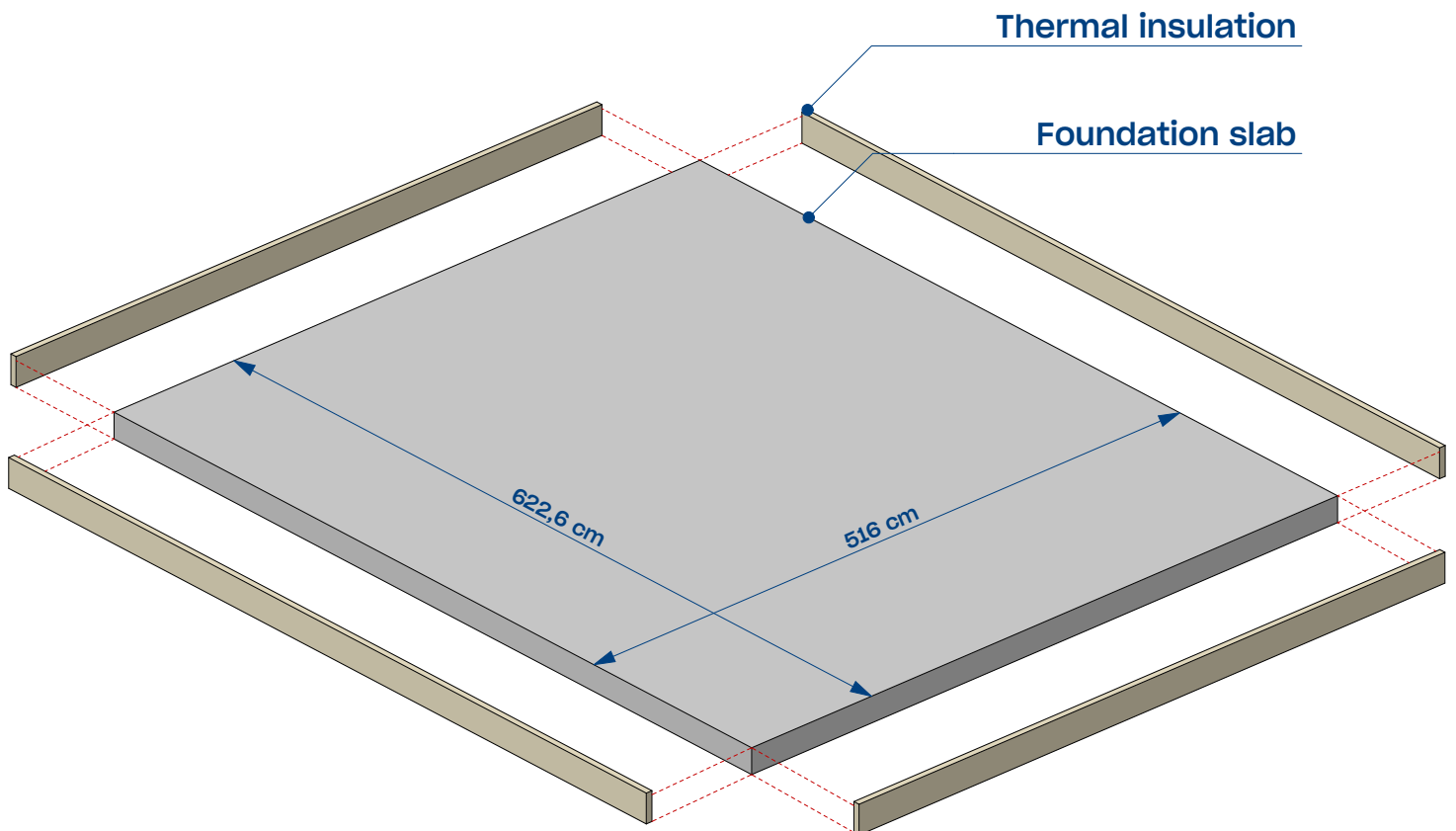
ASSEMBLY INSTRUCTION

EXECUTION GUIDELINES

The foundation slab should be prepared locally and should be designed and calculated by licensed structural designers in accordance with local site conditions, local building codes and norms. Slab geometry should follow the drawing below.

General SYSTEM 3E structural indications in separate document-STRUCTURAL DESIGN

1 Foundation



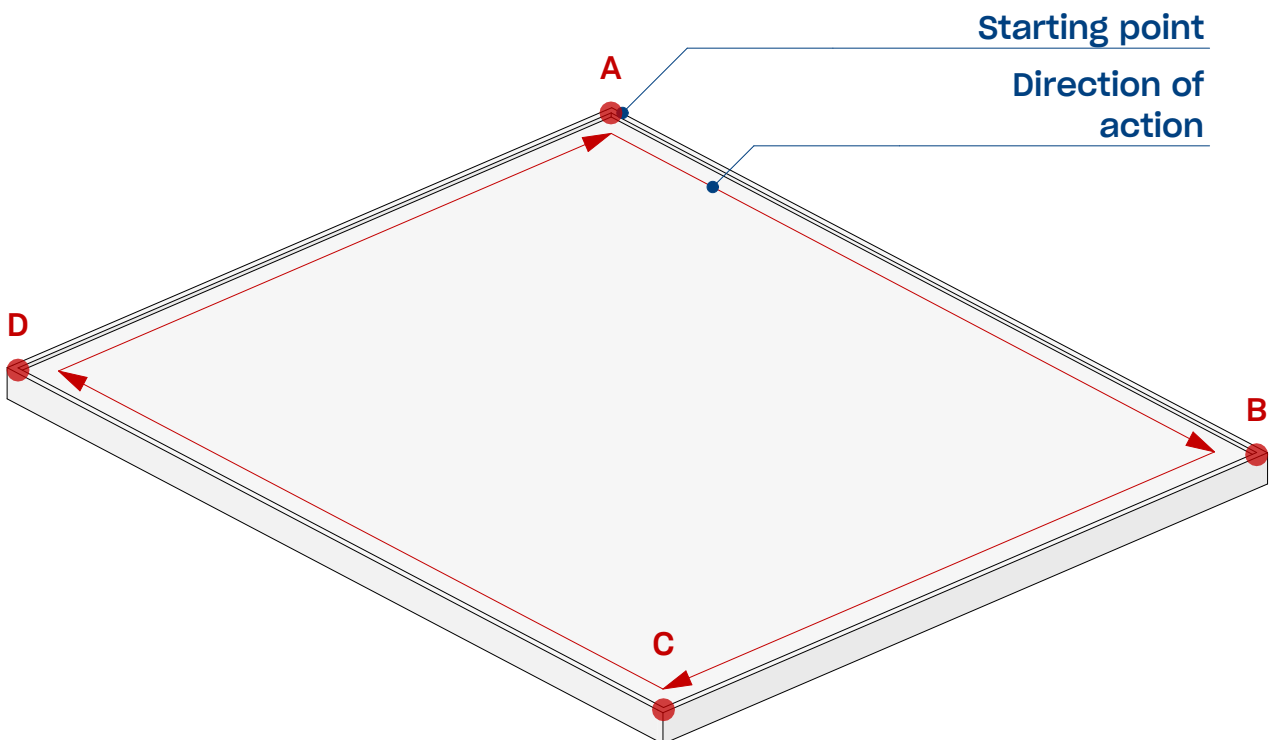
MODULAR 03 ONE TRUCK HOUSE

ASSEMBLY INSTRUCTION

EXECUTION GUIDELINES

The first layer should be started from the first corner of the foundation slab. Keep the direction of action to be taken- from point A, through B,C,D to point A.

2 Before starting



MODULAR 03 ONE TRUCK HOUSE

ASSEMBLY INSTRUCTION

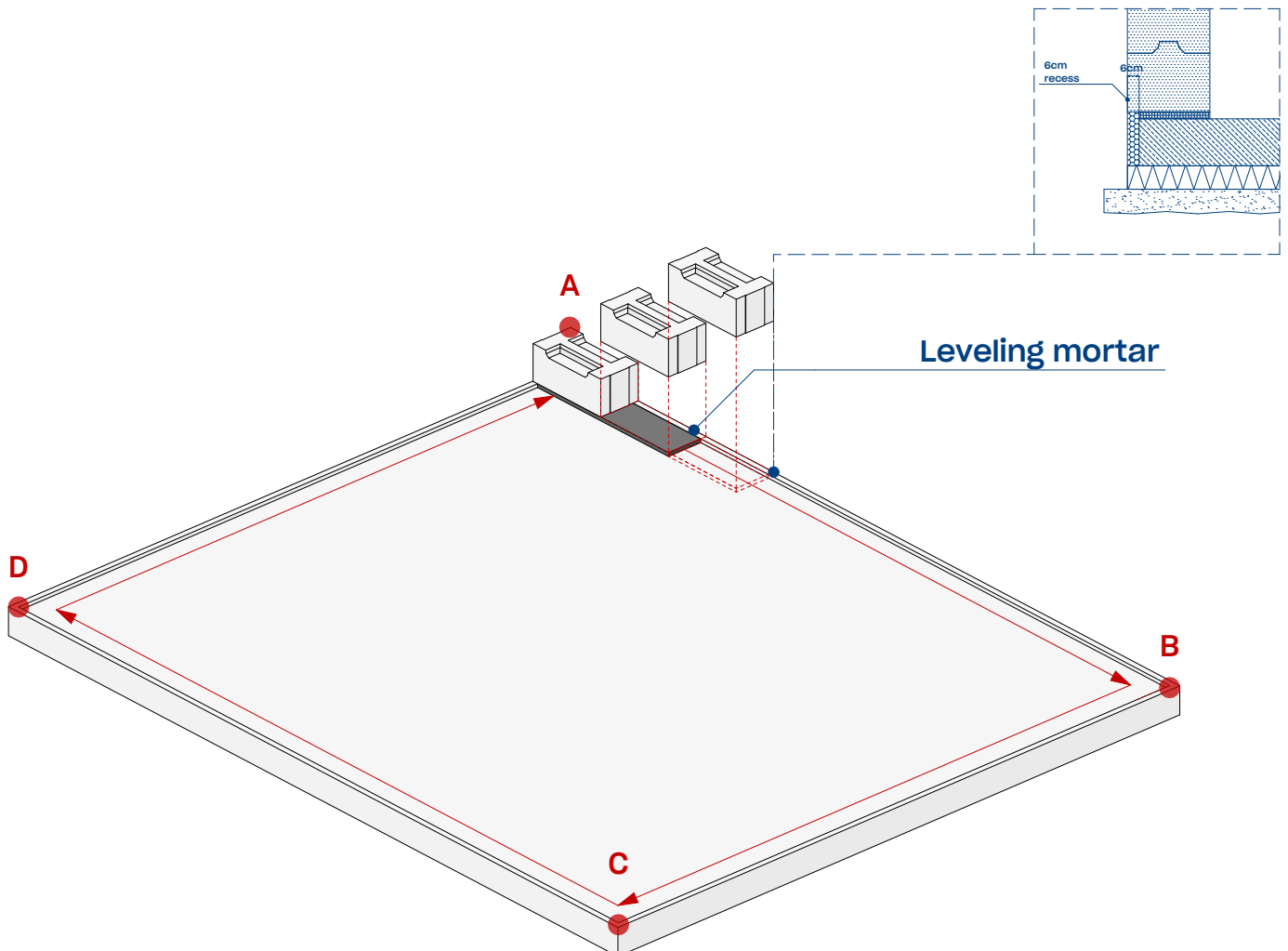
EXECUTION GUIDELINES

Imperfections of foundation's concrete works should be eliminated with 3cm of leveling mortar laid on horizontal waterproofing bituminous membrane to protect the wall from capillary rising moisture.

First layer of the elements overhang 6 cm in relation to the foundation slab. The 6cm recess is for concrete slab thermal insulation. Use a mason's line or level to control the level and height between elements at corner.

Place subsequent blocks between corners and ensure the upper surface of the elements is at the same height. In door openings place EU types of elements. Complete the entire first layer.

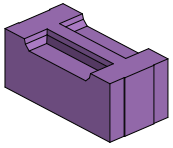
3 Leveling mortar



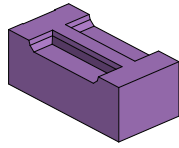
MODULAR 03 ONE TRUCK HOUSE

ASSEMBLY INSTRUCTION

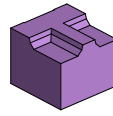
ELEMENTS



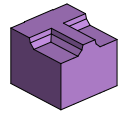
SO 300 WP - 20 pcs.



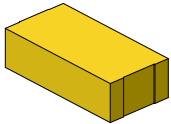
SO 300 W - 4 pcs.



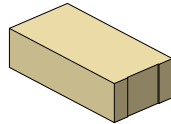
SO/2 300 W - 1 pcs.



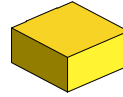
SO/2 300 P - 2 pcs.



EU 200 WP - 3 pcs.

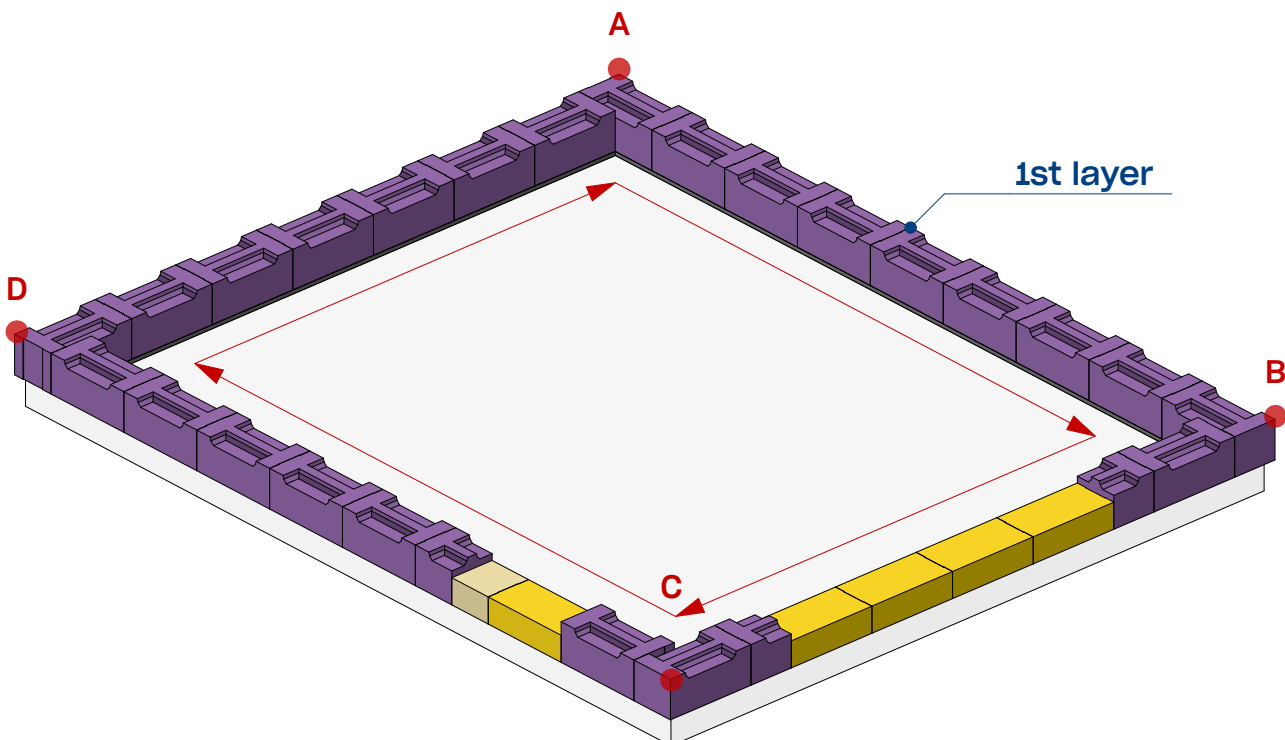


EU 200 W - 2 pcs.



EU/2 200 W - 1 pcs.

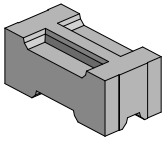
4 Start layer - 1st layer



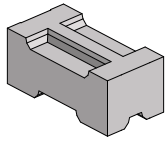
MODULAR 03 ONE TRUCK HOUSE

ASSEMBLY INSTRUCTION

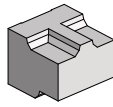
ELEMENTS



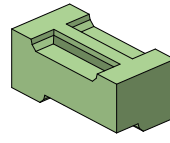
S1 WP - 16 pcs.



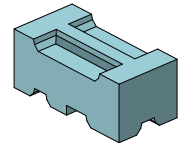
S1 W - 5 pcs.



S1/2 W - 1 pcs.



SNP - 2 pcs.



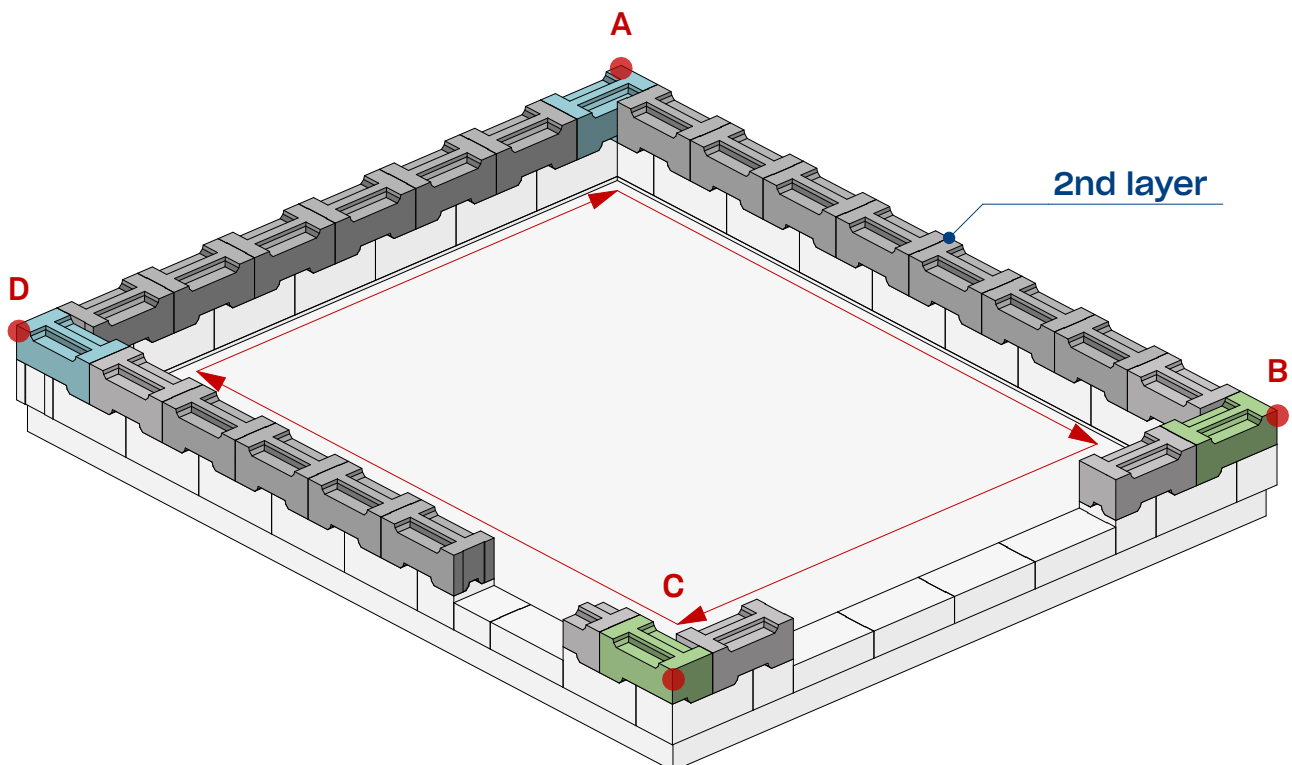
SNL - 2 pcs.

5

Second layer SYSTEM 3E elements

Ensure proper cleaning of the upper surface of elements before laying the next layer of SYSTEM 3E elements. Lay successive layers without mortar using a click-click principle starting from the first corner.

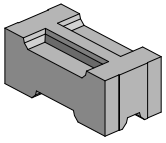
Leave the openings for doors and windows according to the assembly scheme.



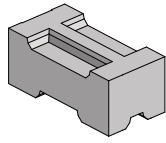
MODULAR 03 ONE TRUCK HOUSE

ASSEMBLY INSTRUCTION

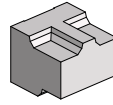
ELEMENTS



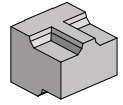
S1 WP - 16 pcs.



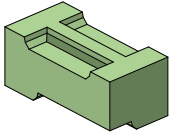
S1 W - 4 pcs.



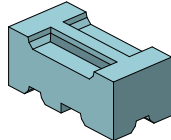
S1/2 W - 2 pcs.



S1/2 P - 1 pcs.

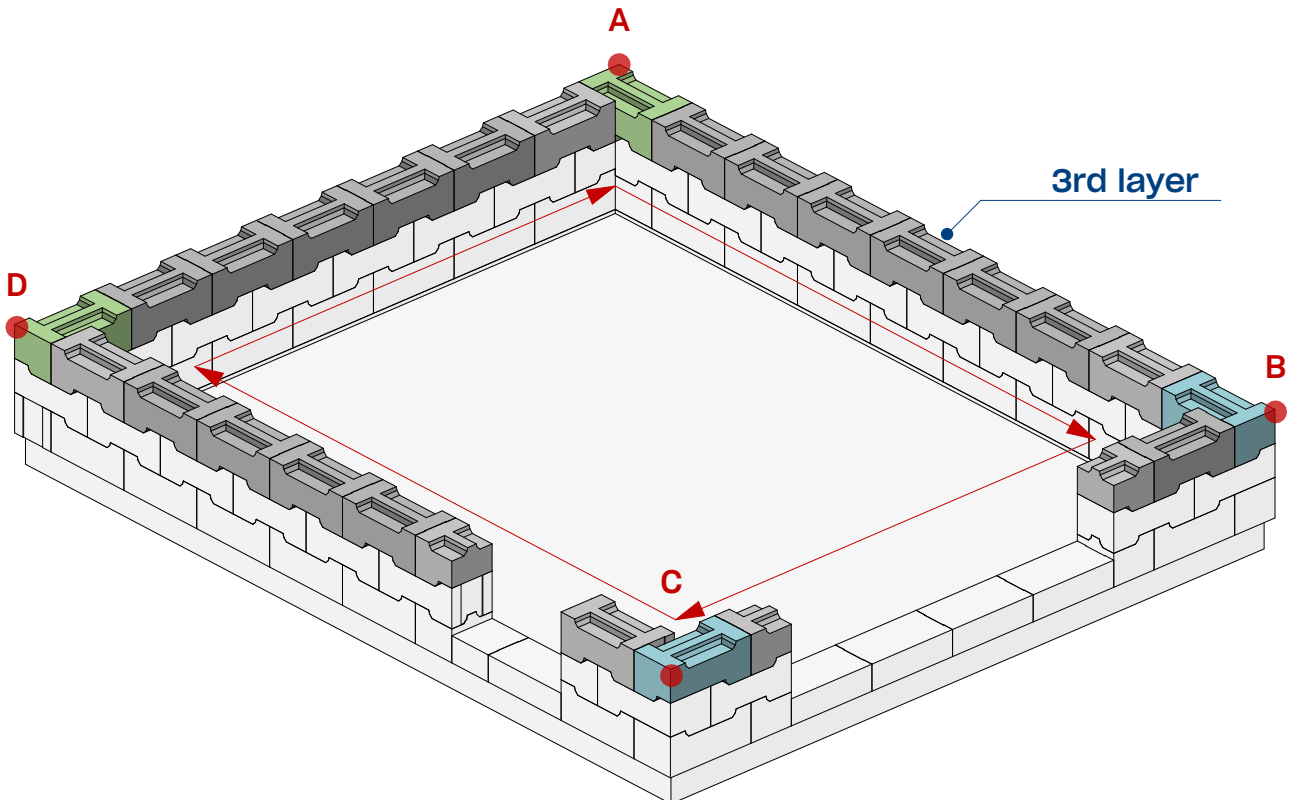


SNP - 2 pcs.



SNL - 2 pcs.

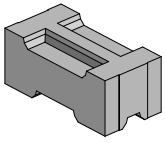
6 Third layer SYSTEM 3E elements



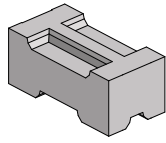
MODULAR 03 ONE TRUCK HOUSE

ASSEMBLY INSTRUCTION

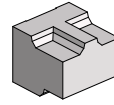
ELEMENTS



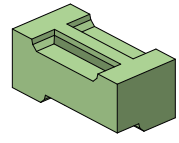
S1 WP - 14 pcs.



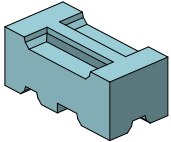
S1 W - 6 pcs.



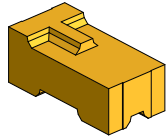
S1/2 W - 2 pcs.



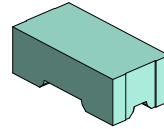
SNP - 2 pcs.



SNL - 2 pcs.

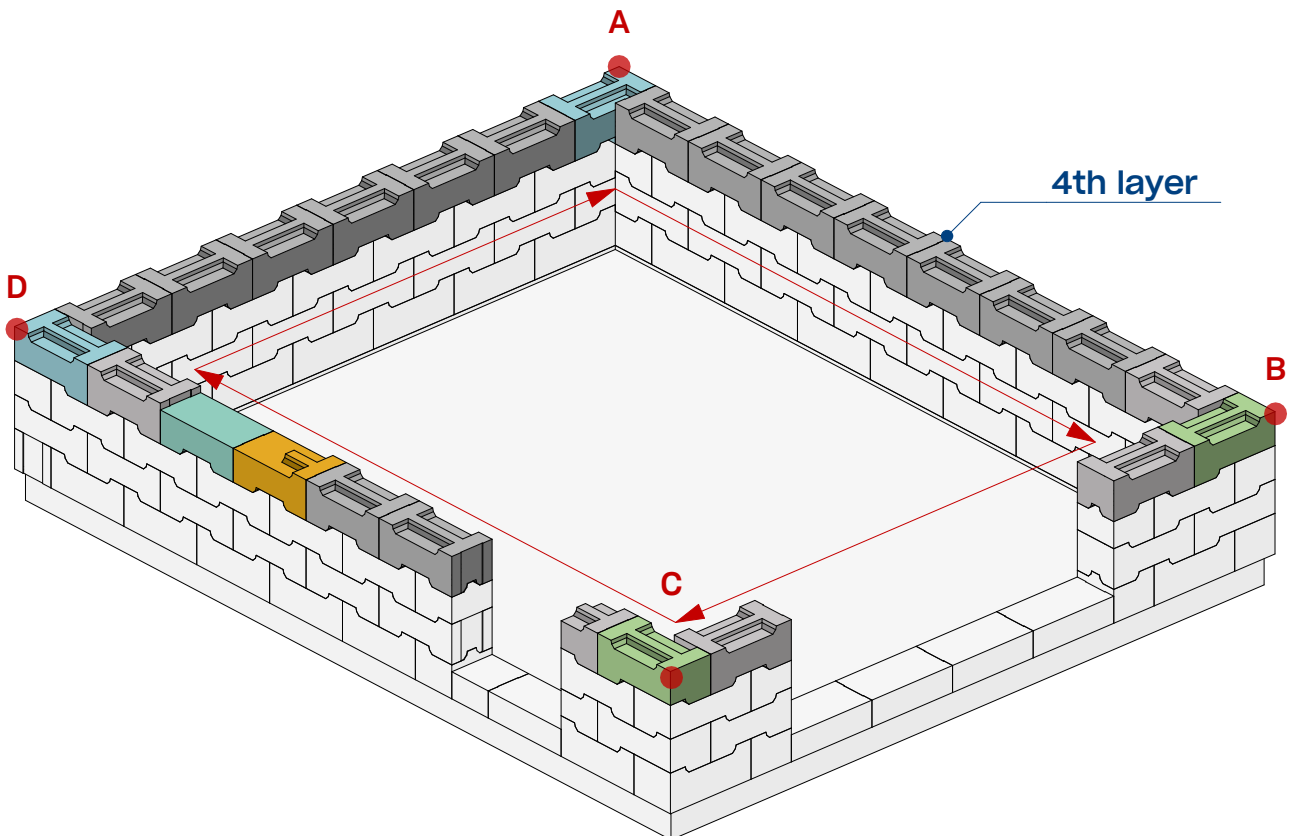


EO/2 WPL - 1 pcs.



SZ/EO WP - 1 pcs.

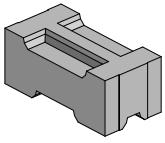
7 Fourth layer SYSTEM 3E elements



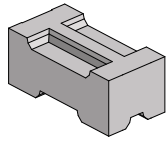
MODULAR 03 ONE TRUCK HOUSE

ASSEMBLY INSTRUCTION

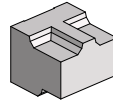
ELEMENTS



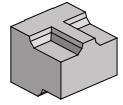
S1 WP - 13 pcs.



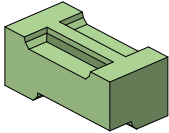
S1 W - 4 pcs.



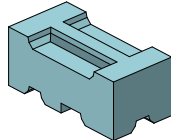
S1/2 W - 1 pcs.



S1/2 P - 3 pcs.

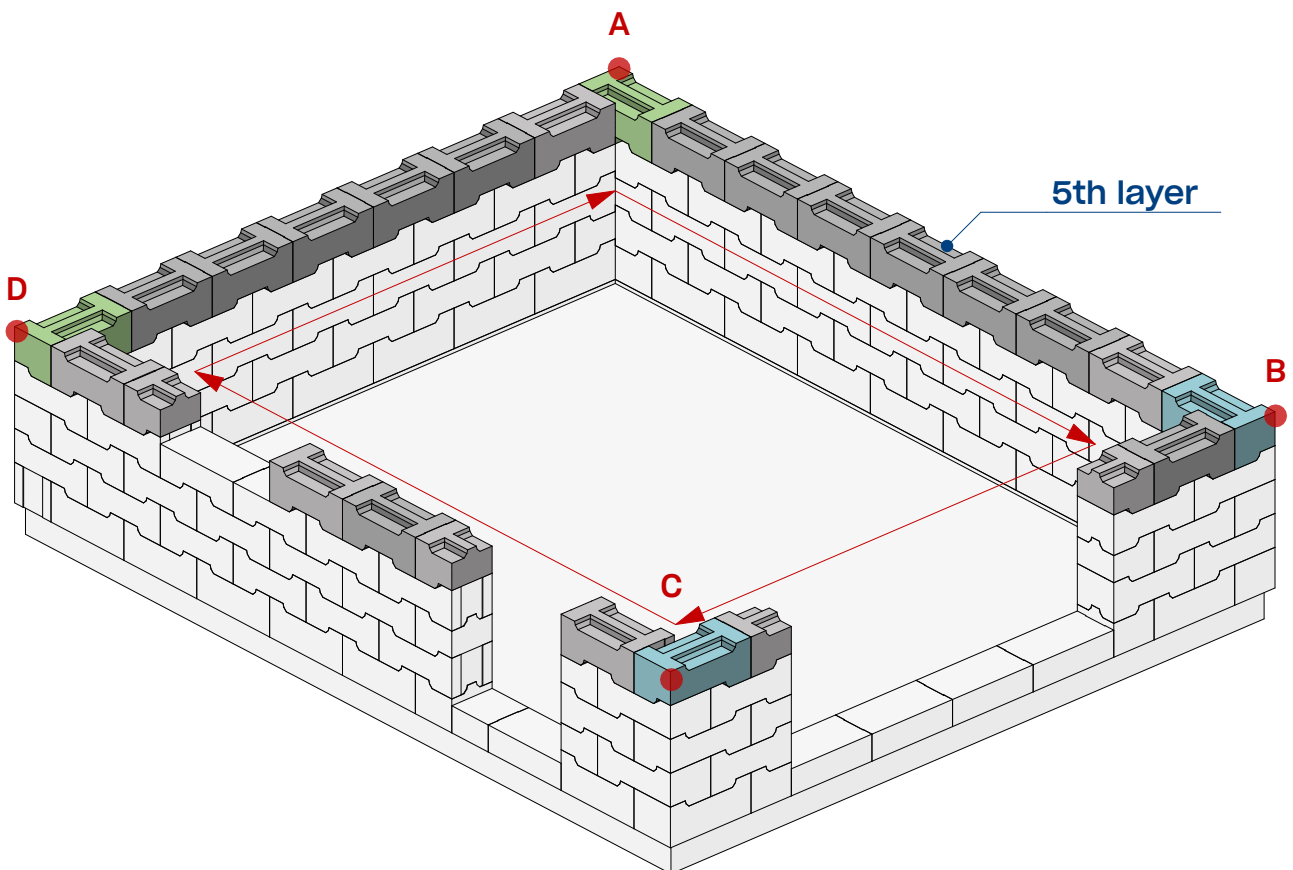


SNP - 2 pcs.



SNL - 2 pcs.

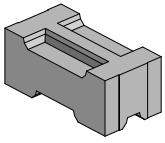
8 Fifth layer SYSTEM 3E elements



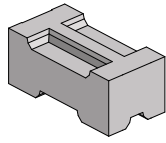
MODULAR 03 ONE TRUCK HOUSE

ASSEMBLY INSTRUCTION

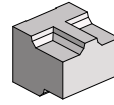
ELEMENTS



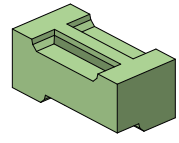
S1 WP - 13 pcs.



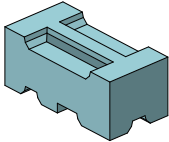
S1 W - 5 pcs.



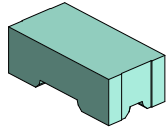
S1/2 W - 2 pcs.



SNP - 2 pcs.



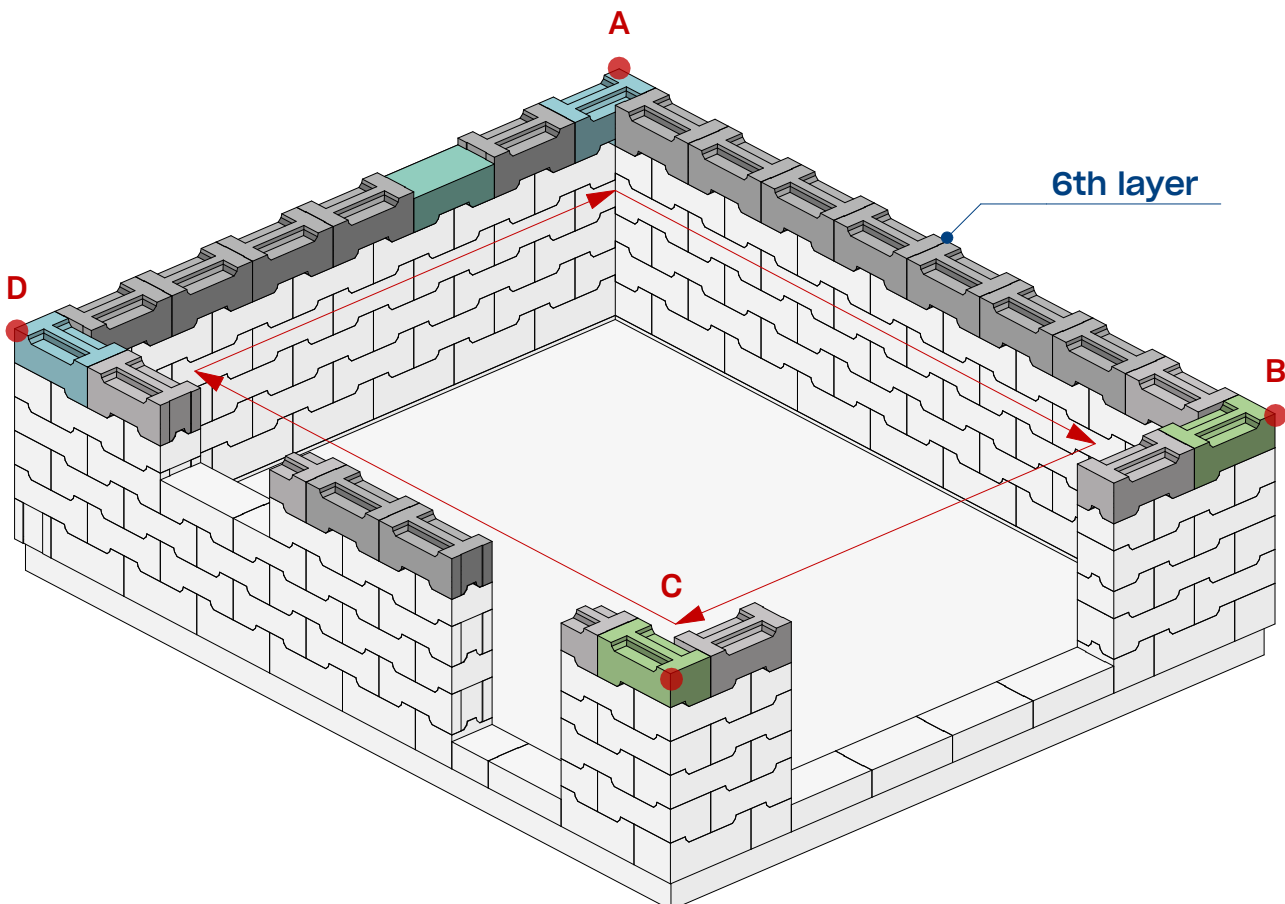
SNL - 2 pcs.



SZ/E0 WP - 1 pcs.

9

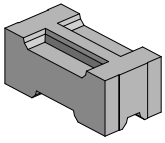
Sixth layer SYSTEM 3E elements



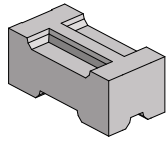
MODULAR 03 ONE TRUCK HOUSE

ASSEMBLY INSTRUCTION

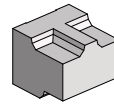
ELEMENTS



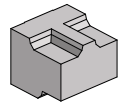
S1 WP - 11 pcs.



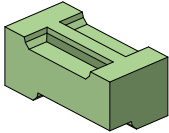
S1 W - 5 pcs.



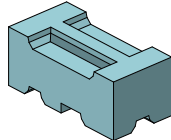
S1/2 W - 3 pcs.



S1/2 P - 3 pcs.

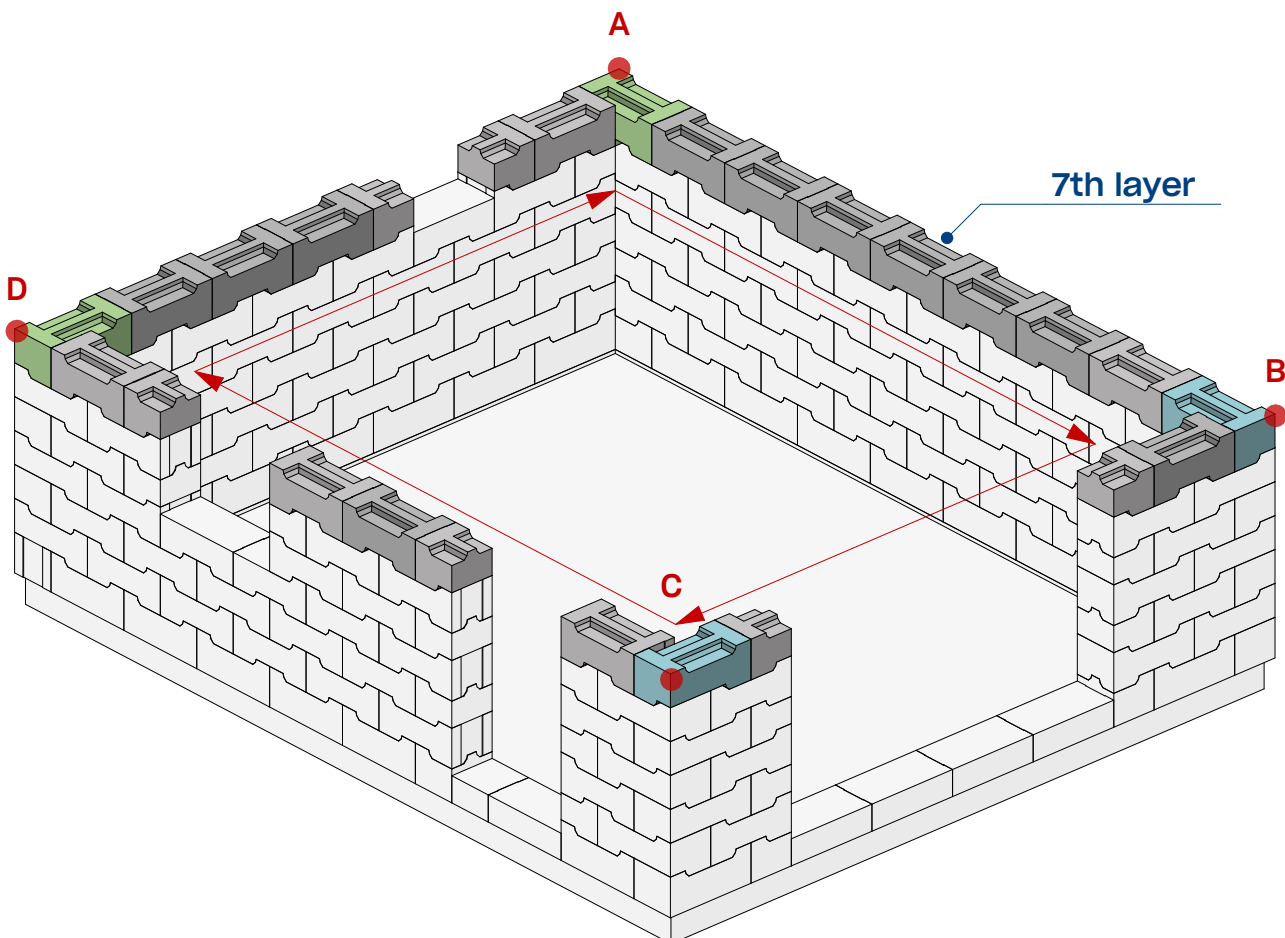


SNP - 2 pcs.



SNL - 2 pcs.

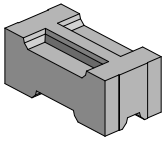
10 Seventh layer SYSTEM 3E elements



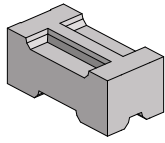
MODULAR 03 ONE TRUCK HOUSE

ASSEMBLY INSTRUCTION

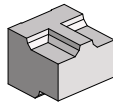
ELEMENTS



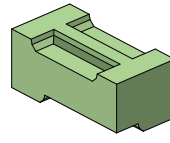
S1 WP - 12 pcs.



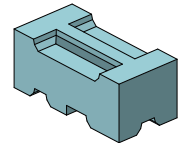
S1 W - 6 pcs.



S1/2 W - 2 pcs.



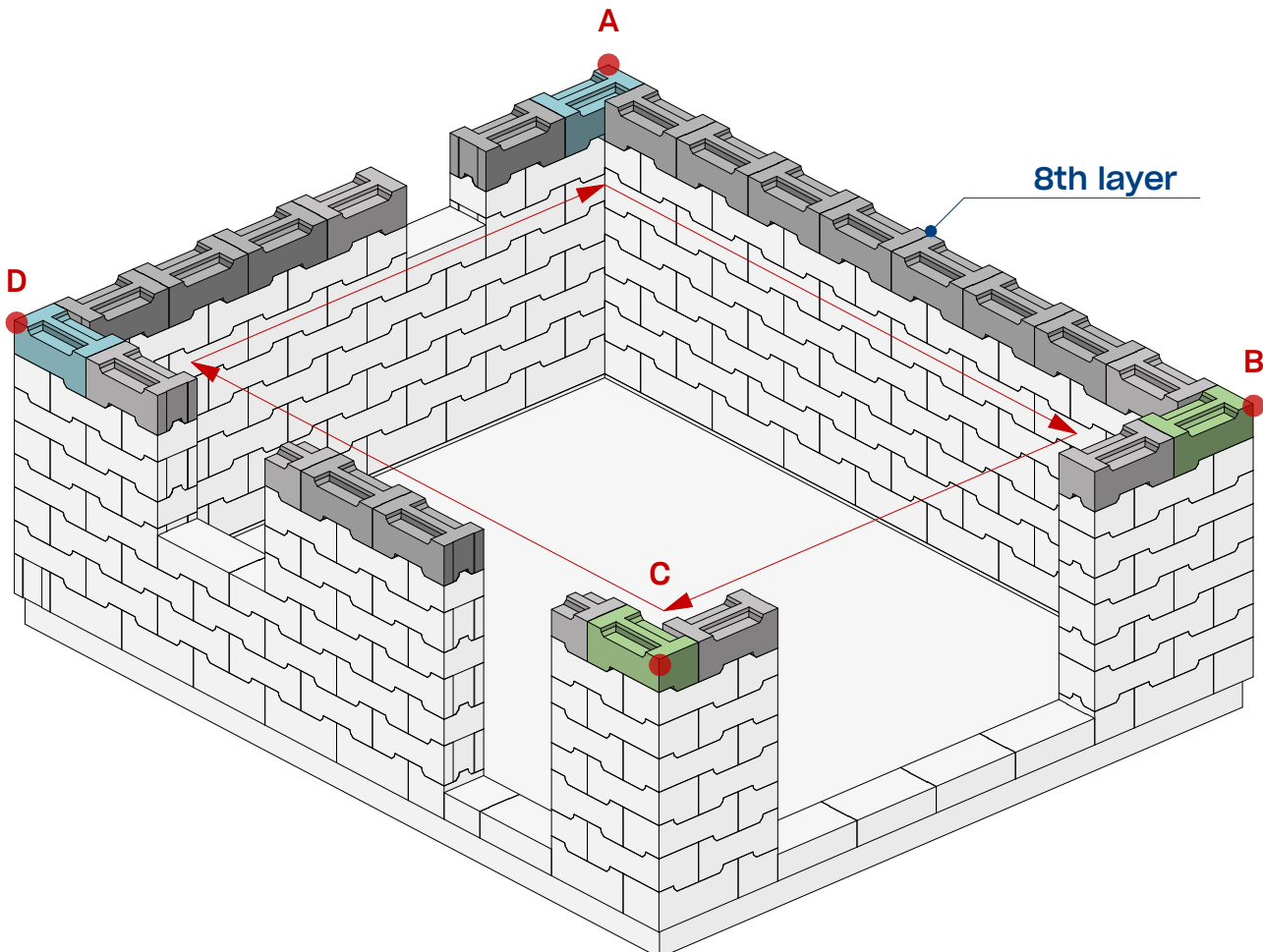
SNP - 2 pcs.



SNL - 2 pcs.

11

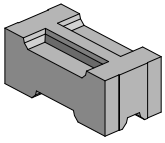
Eight layer SYSTEM 3E elements



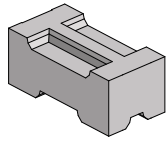
MODULAR 03 ONE TRUCK HOUSE

ASSEMBLY INSTRUCTION

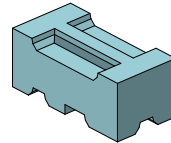
ELEMENTS



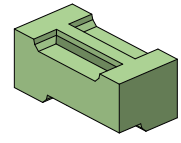
S1 WP - 11 pcs.



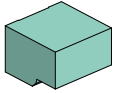
S1 W - 3 pcs.



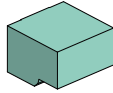
SNL - 2 pcs.



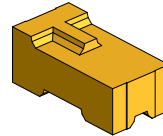
SNP - 2 pcs.



SZ/2 W - 3 pcs.



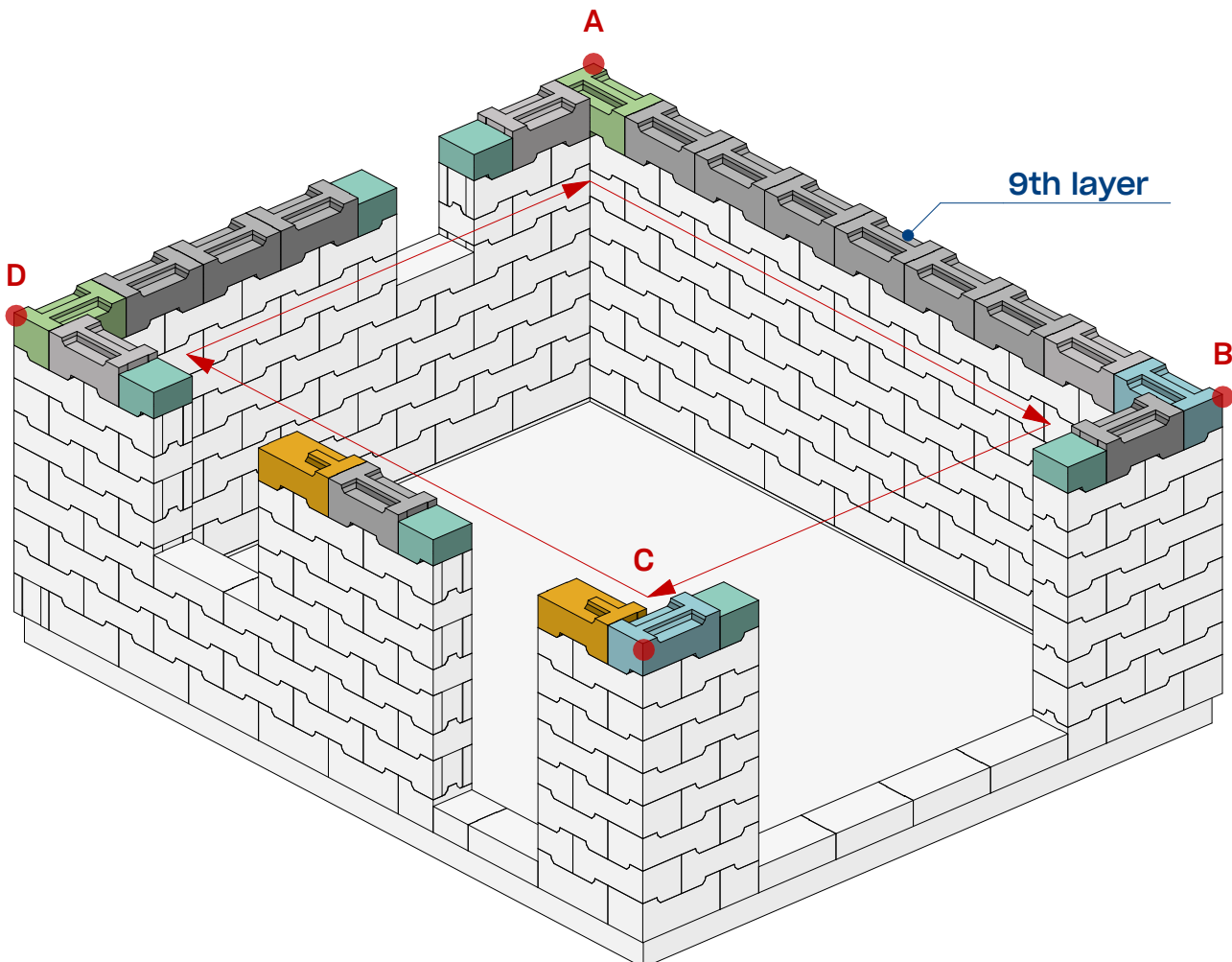
SZ/2 P - 3 pcs.



E0/2 WPL - 2 pcs.

12

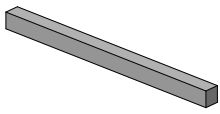
Ninth layer SYSTEM 3E elements



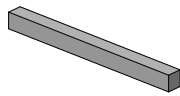
MODULAR 03 ONE TRUCK HOUSE

ASSEMBLY INSTRUCTION

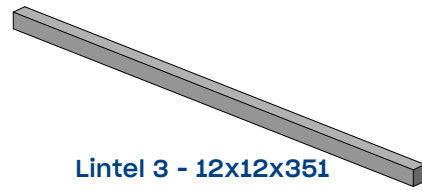
ELEMENTS



Lintel 1 - 12x12x140
2 pcs.



Lintel 2 - 12x12x175
4 pcs.



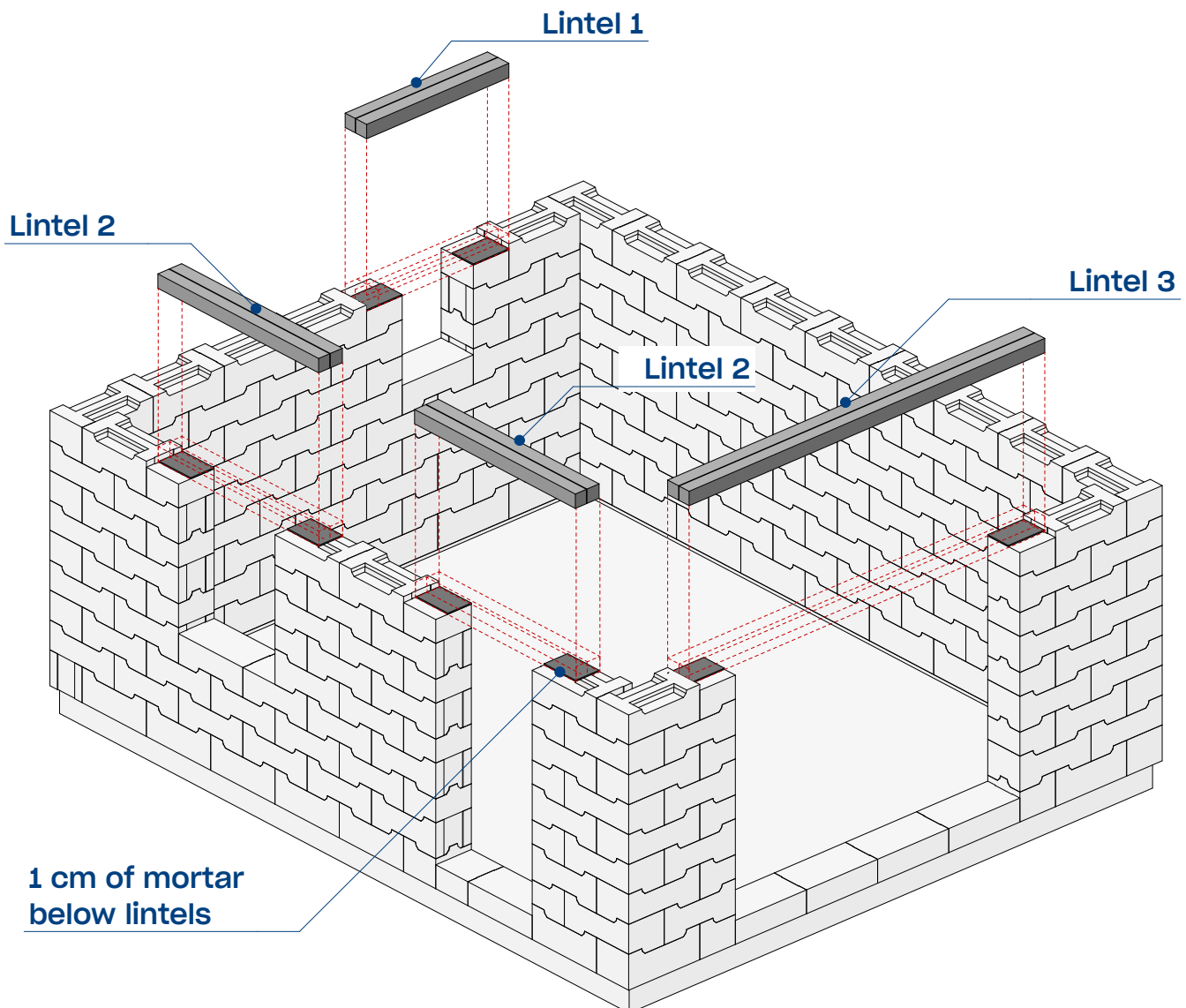
Lintel 3 - 12x12x351
2 pcs.

13

Lintel placement

Place prefabricated concrete lintels according to assembly scheme.

On the flat surface of under-lintel elements place 1 cm of mortar to eliminate looseness and assure rigidity. Each window opening will be closed with one set of two lintels aligned with interior elevation, leaving recess for thermal insulation from the exterior of the building.



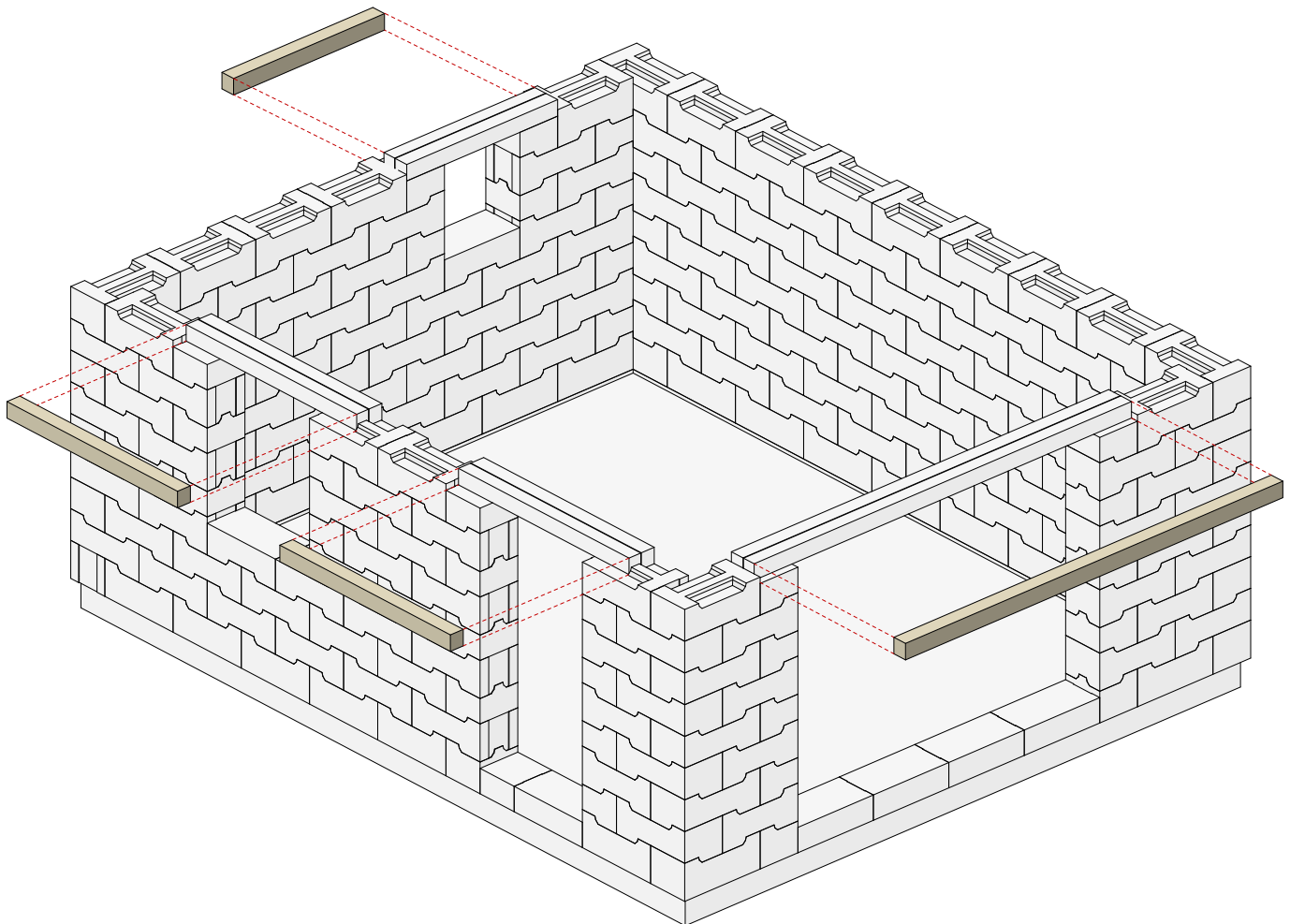
MODULAR 03 ONE TRUCK HOUSE

ASSEMBLY INSTRUCTION

EXECUTION GUIDELINES

Place the thermal insulation - 12cm thick in front of each lintel.

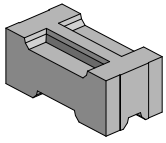
14 Lintels insulation



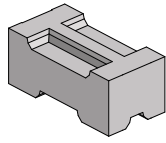
MODULAR 03 ONE TRUCK HOUSE

ASSEMBLY INSTRUCTION

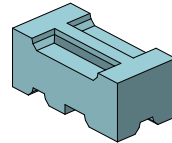
ELEMENTS



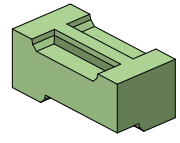
S1 WP - 11 pcs.



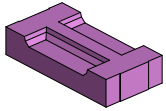
S1 W - 3 pcs.



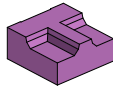
SNL - 2 pcs.



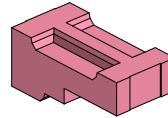
SNP - 2 pcs.



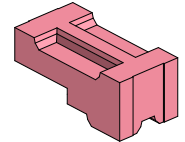
EN WP - 9 pcs.



EN/2 W - 1 pcs.



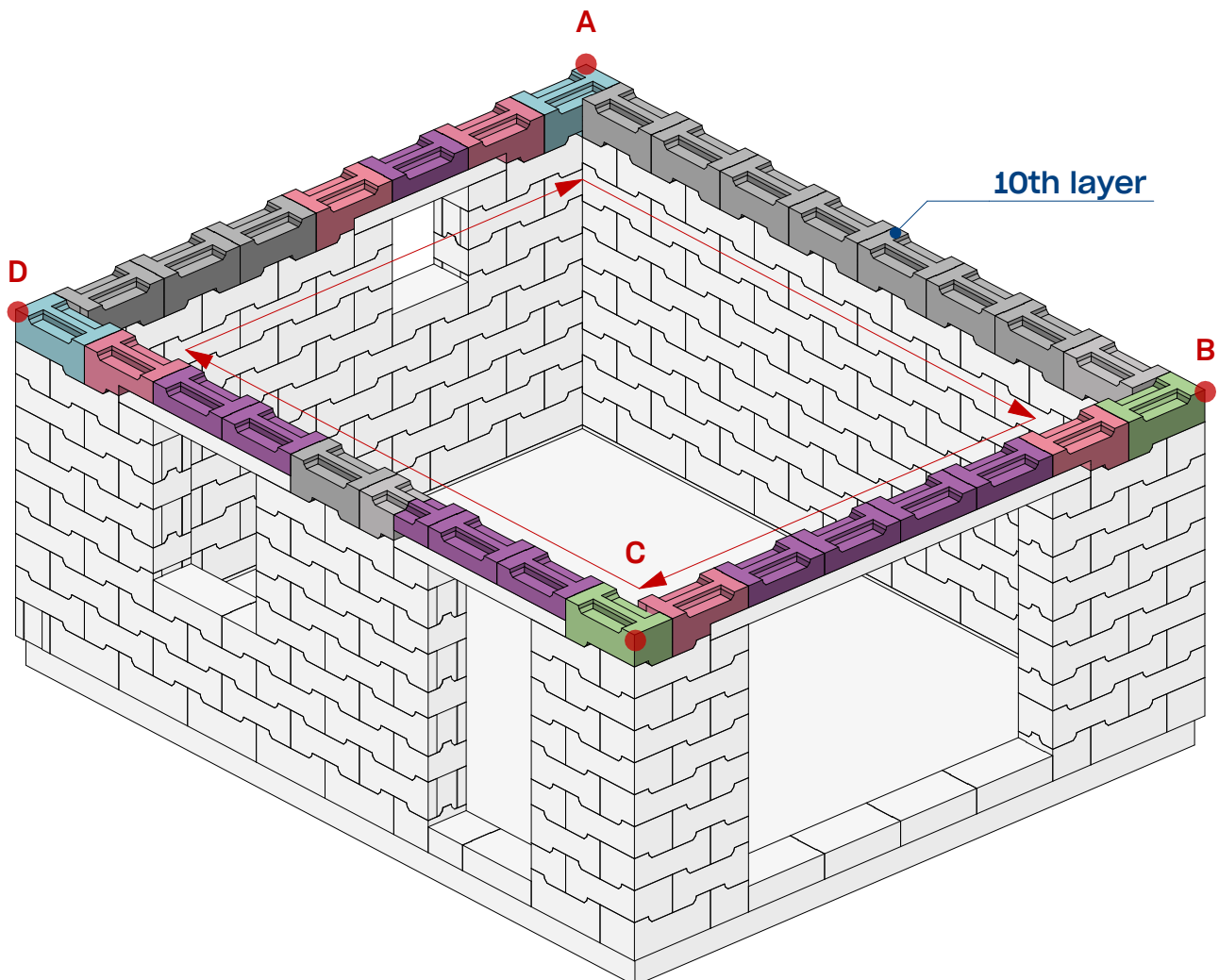
EPN WP P - 2 pcs.



EPN WP L - 3 pcs.

15

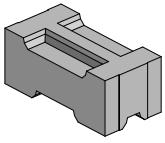
Tenth layer SYSTEM 3E elements



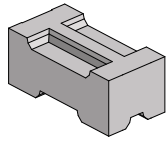
MODULAR 03 ONE TRUCK HOUSE

ASSEMBLY INSTRUCTION

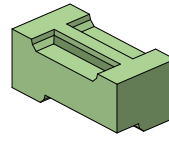
ELEMENTS



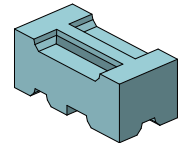
S1 WP - 23 pcs.



S1 W - 4 pcs.



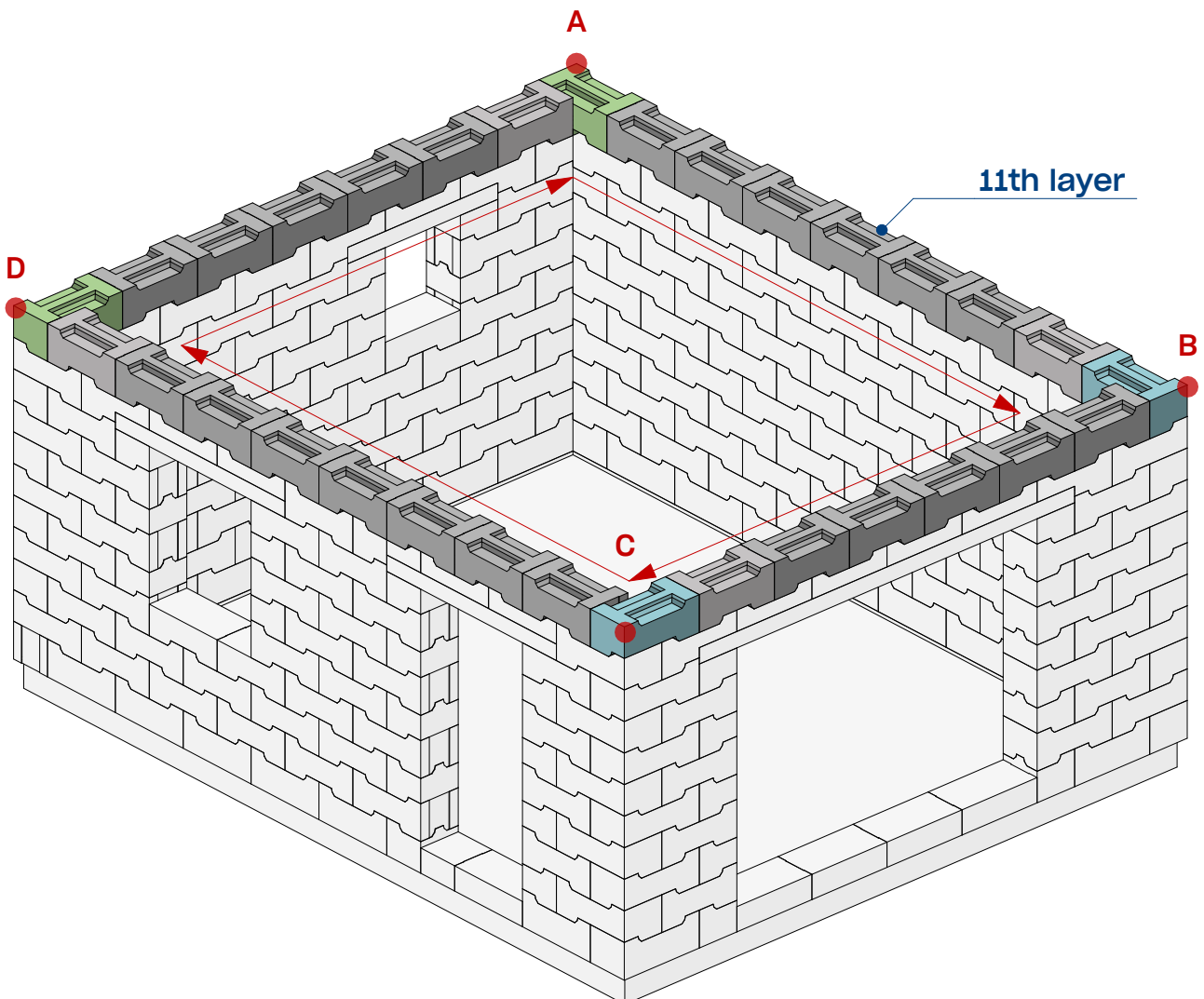
SNP - 2 pcs.



SNL - 2 pcs.

16

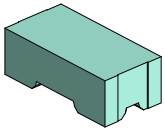
Eleventh layer SYSTEM 3E elements



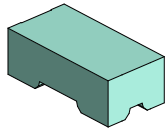
MODULAR 03 ONE TRUCK HOUSE

ASSEMBLY INSTRUCTION

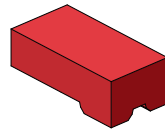
ELEMENTS



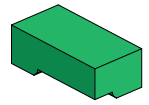
SZ/EO WP - 25 pcs.



SZ/EO W - 4 pcs.



SZL - 2 pcs.



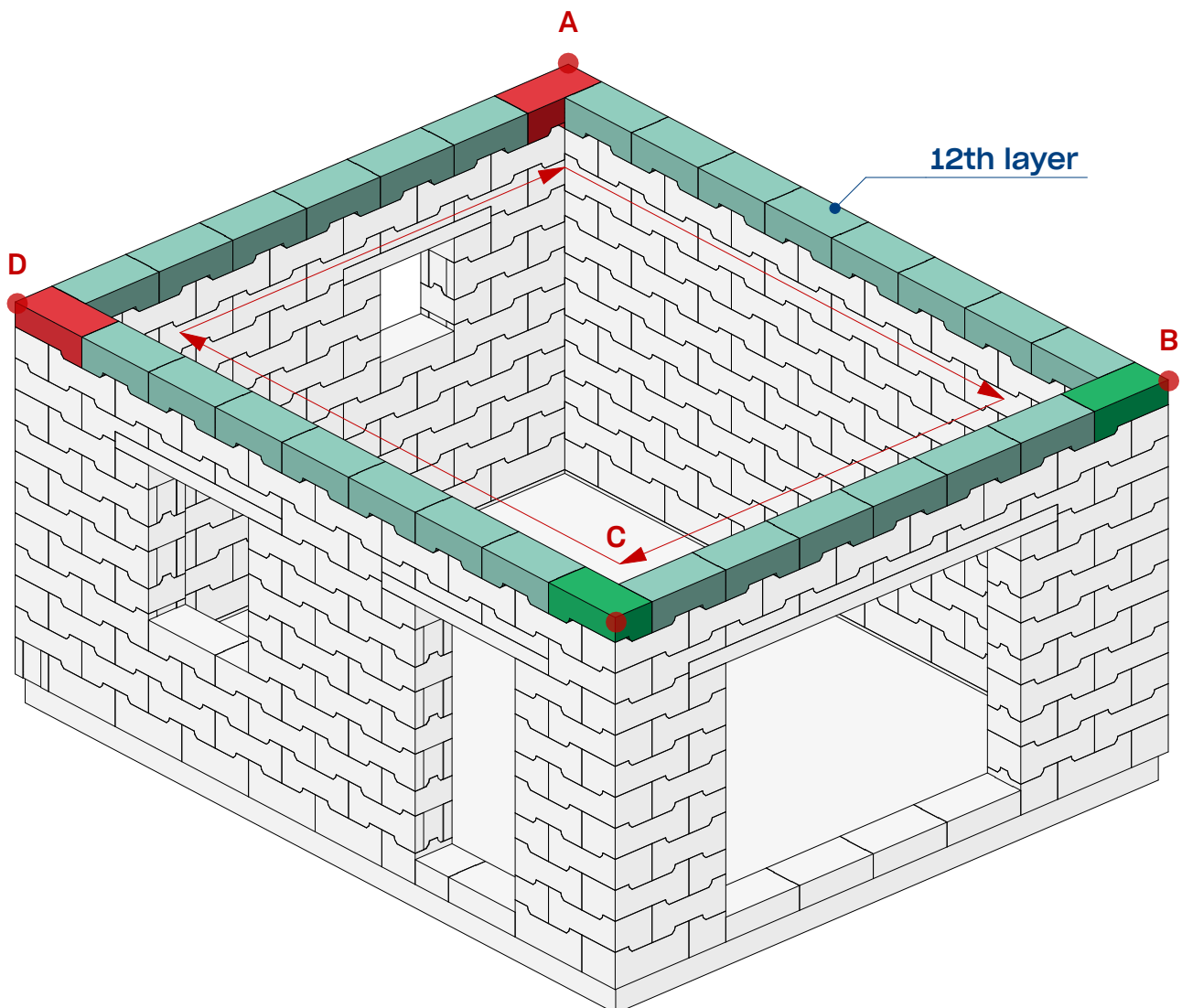
SZP - 2 pcs.

17

Twelfth layer SYSTEM 3E elements

Ensure proper cleaning of the upper surface of elements before laying the last layer of SYSTEM 3E elements. Lay successive layers without mortar using a click-click principle starting from the first corner.

The last layer of element's top creates flat surface for the roof structure installation.



MODULAR 03 ONE TRUCK HOUSE

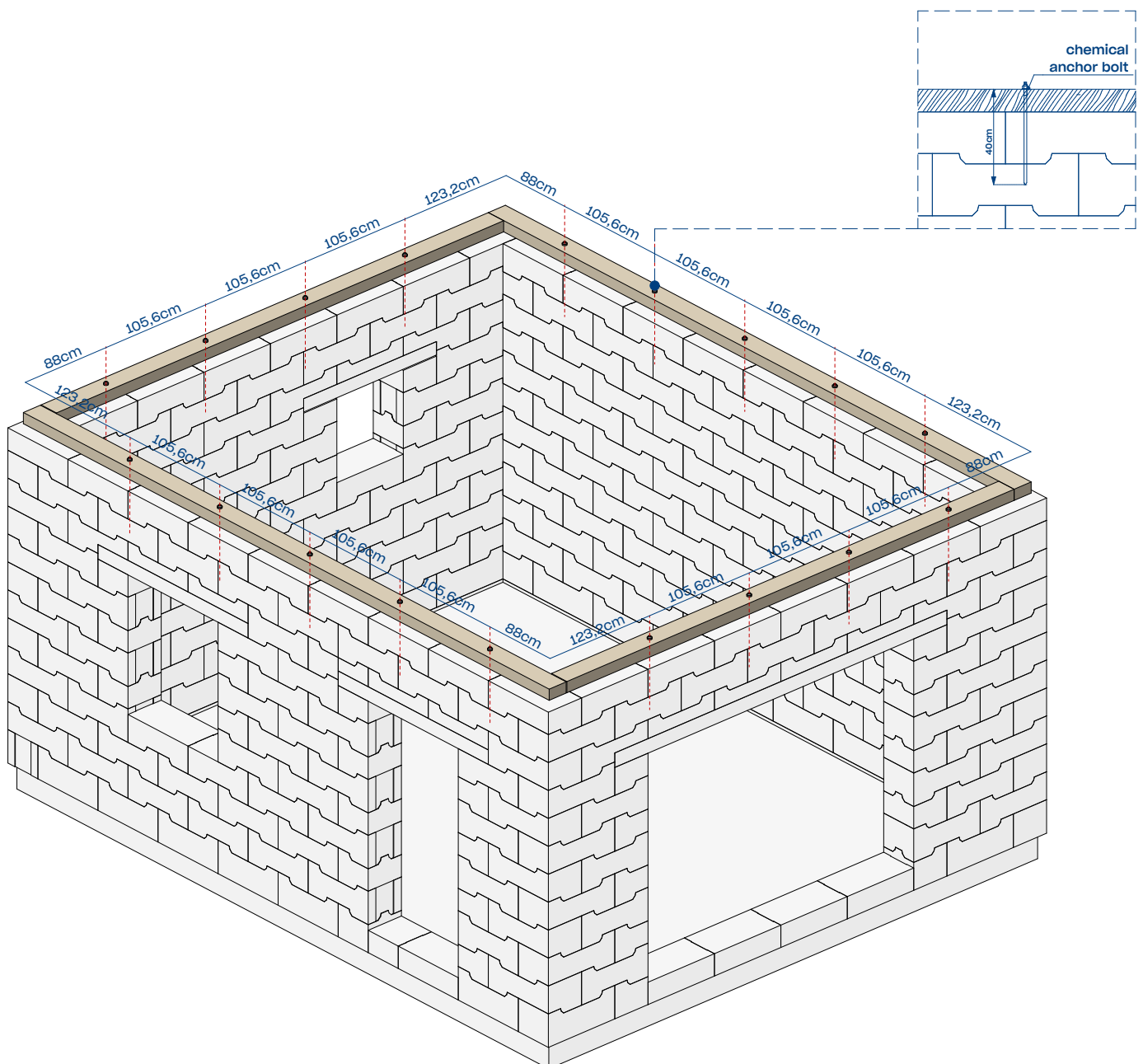
ASSEMBLY INSTRUCTION

EXECUTION GUIDELINES

The timber top plate should be installed with chemical anchors through the last two SYSTEM 3E wall element's.

Follow the spacing of the anchoring according to the STRUCTURAL DESIGN document.

18 Timber top plate and anchoring



MODULAR 03 ONE TRUCK HOUSE

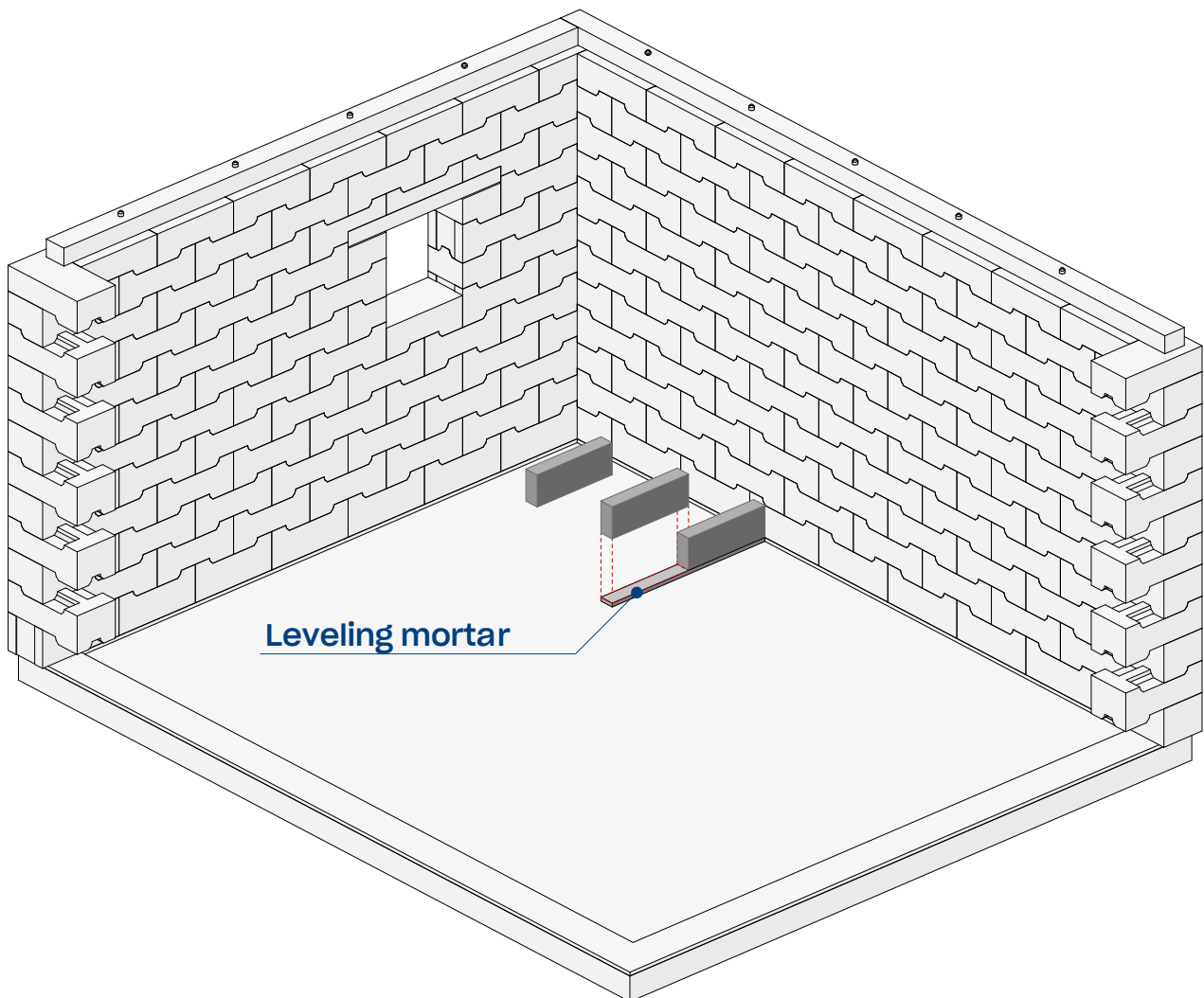
ASSEMBLY INSTRUCTION

EXECUTION GUIDELINES

Before placing the first layer of internal D1 115 elements the imperfections of foundation's concrete works should be eliminated with 3cm of leveling mortar.

After each layer of internal elements there should be a layer of mortar plastering. Construction of this wall is based on a traditional masonry work including placing mortar. Every 3 elements-use internal wall connectors.

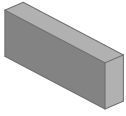
19 Leveling mortar layer for partition walls



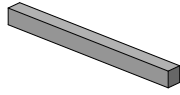
MODULAR 03 ONE TRUCK HOUSE

ASSEMBLY INSTRUCTION

ELEMENTS



D1 115 - 75 pcs.



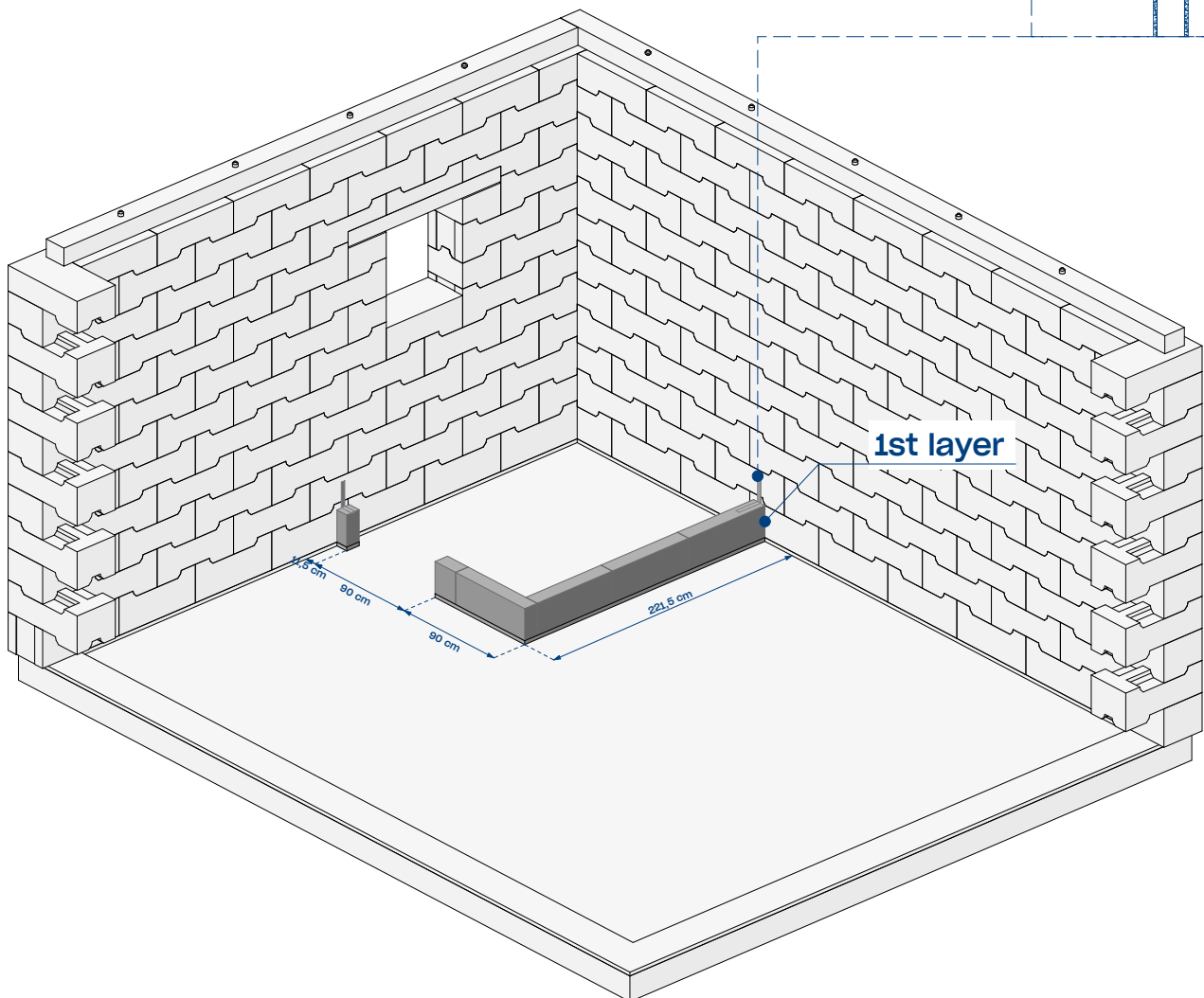
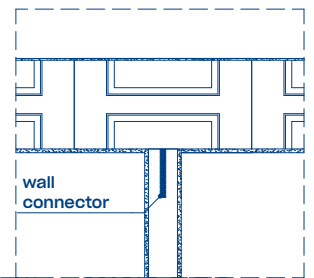
Lintel 4-140,8 cm
1 pcs.



Wall connectors
12 pcs.

20

Partition walls installation



MODULAR 03 ONE TRUCK HOUSE

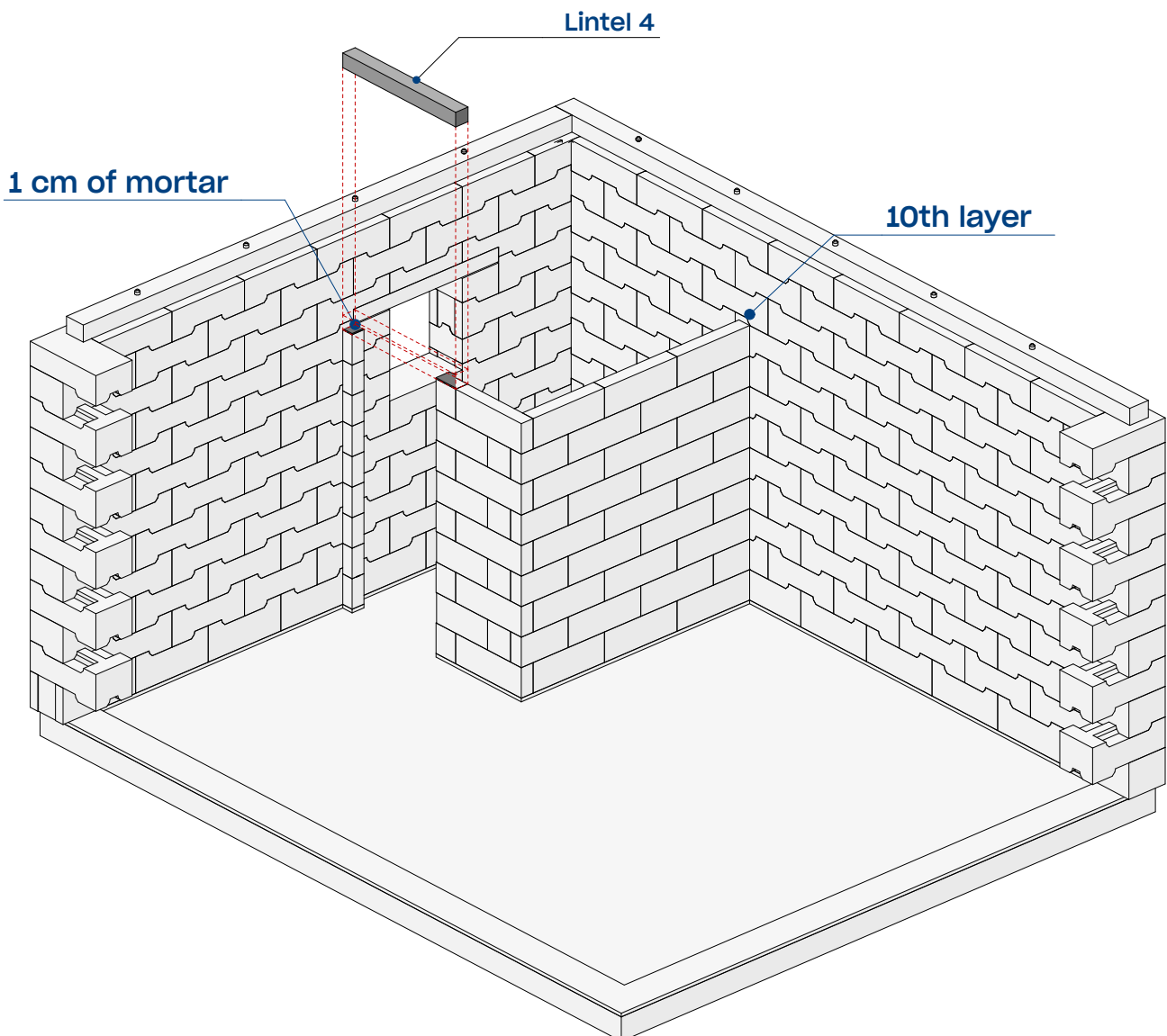
ASSEMBLY INSTRUCTION

ELEMENTS

Place prefabricated concrete lintel on 9th layer of internal wall elements according to assembly scheme.

On the flat surface of under-lintel elements place 1 cm of mortar to eliminate looseness and assure rigidity.

21 Internal lintel



MODULAR 03 ONE TRUCK HOUSE

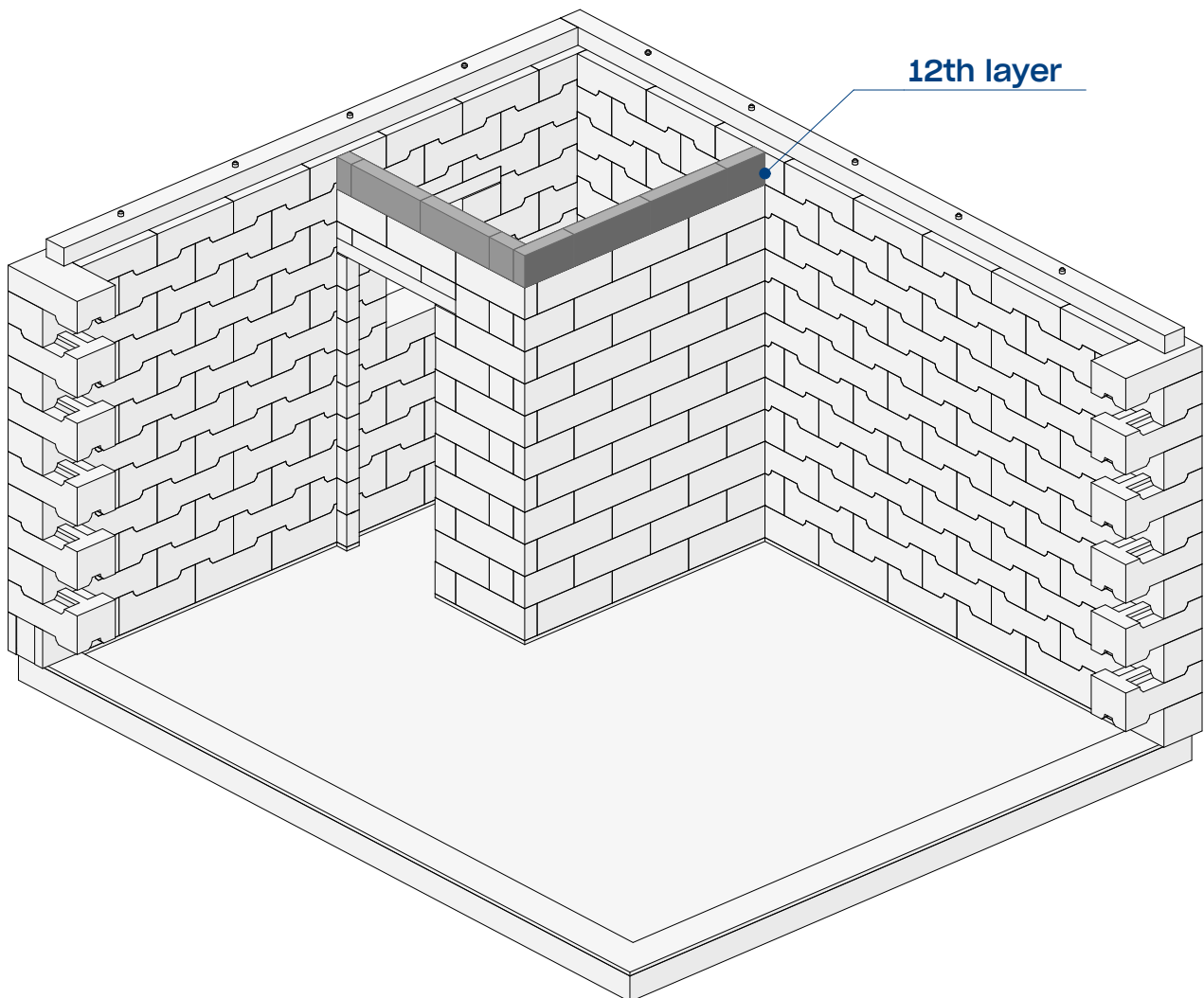
ASSEMBLY INSTRUCTION

EXECUTION GUIDELINES

Place last layer of D1 115 elements.

22

Internal walls installation



MODULAR 03 ONE TRUCK HOUSE

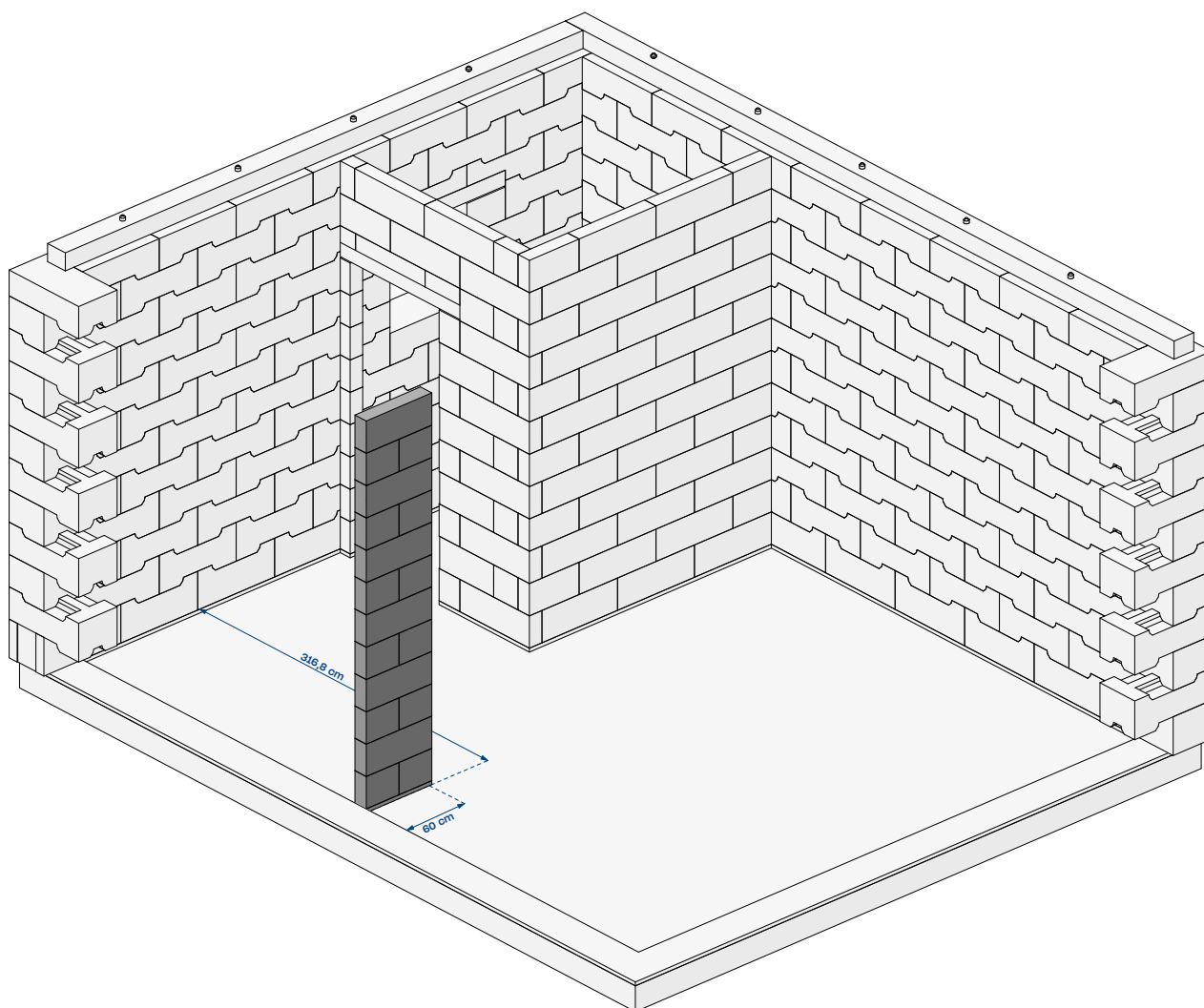
ASSEMBLY INSTRUCTION

EXECUTION GUIDELINES

Place the elements according to the assembly scheme.

After each layer of internal elements there should be a layer of mortar plastering. Construction of this wall is based on a traditional masonry work including placing mortar. Every 3 elements use internal wall connectors.

23 Internal walls instalation



MODULAR 03 ONE TRUCK HOUSE

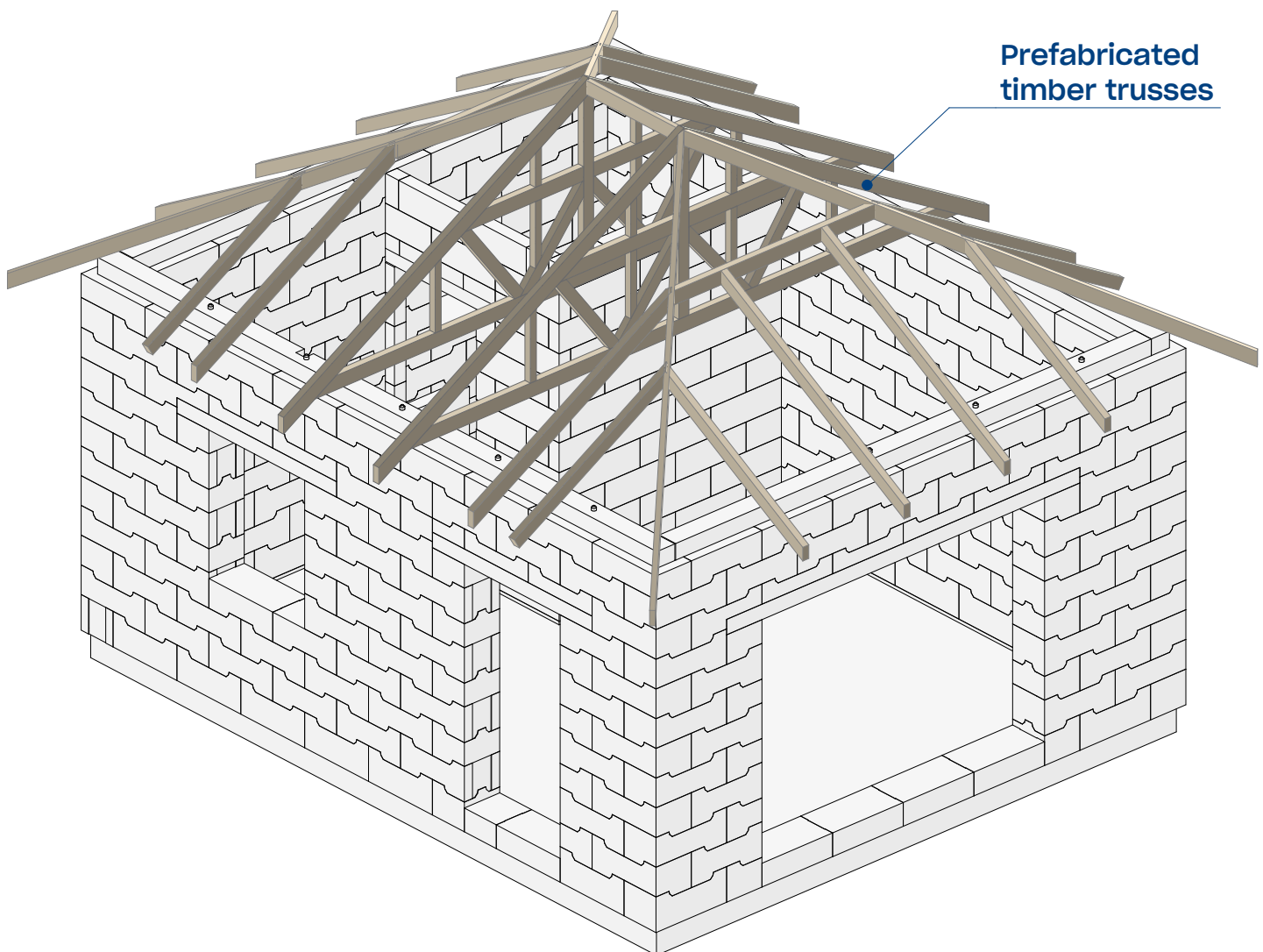
ASSEMBLY INSTRUCTION

EXECUTION GUIDELINES

Prefabricated Roof trusses to be installed on timber top plate.

Follow detailed structural design for the trusses spacing and anchoring guidelines.

24 Roof timber trusses installation



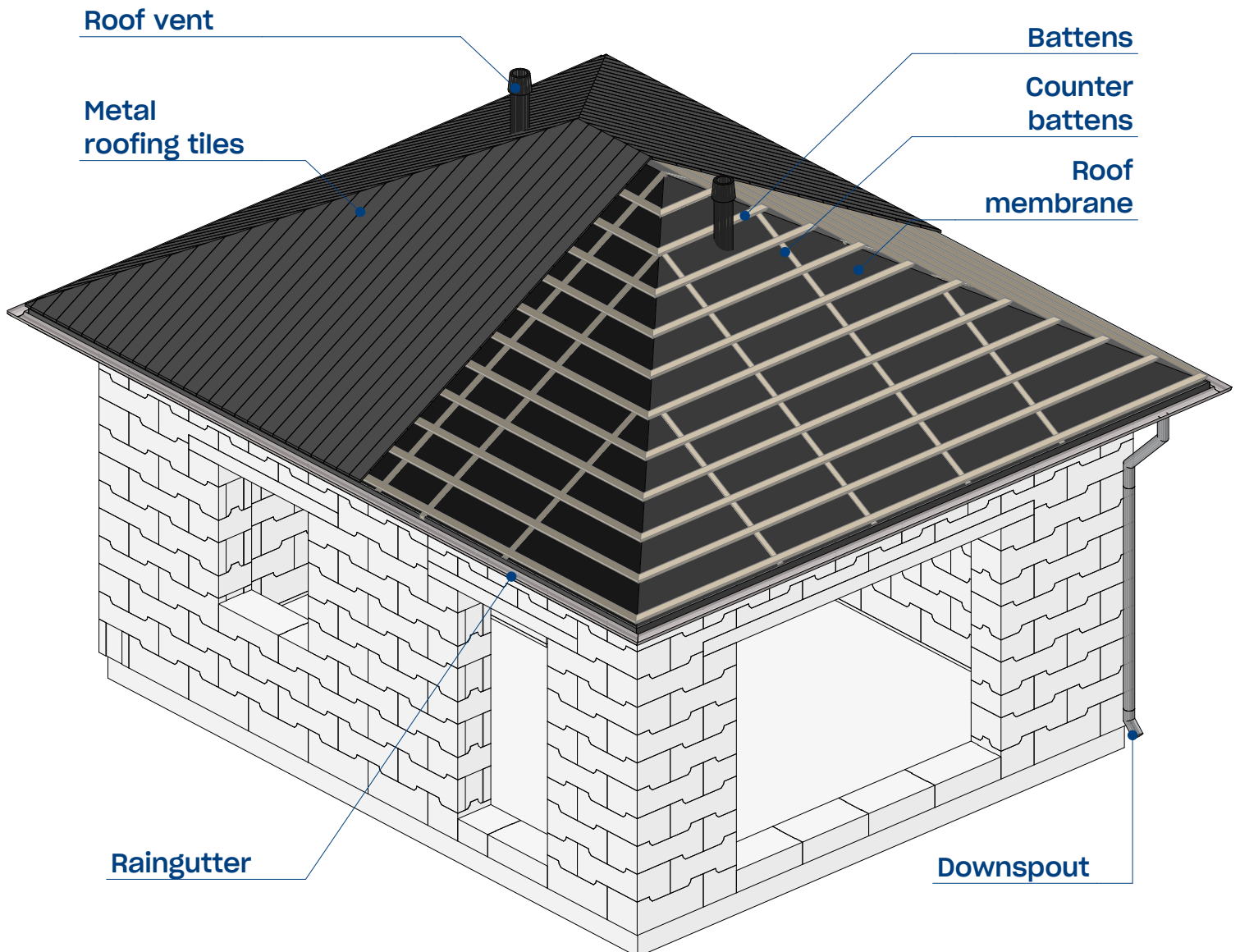
MODULAR 03 ONE TRUCK HOUSE

ASSEMBLY INSTRUCTION

EXECUTION GUIDELINES

The roof covering made of metal roofing tiles, includes rainwater gutters ,downspouts and roof vents.Roofvent connected to the bathroom's ceiling vent with the flexible ventilation pipe. Roofing tiles installed on full decking with wooden battens and counter-battens. The full decking should be covered with vapor barrier membrane. Thermal insulation of the roof should be designed to meet local requirements.

25 Roof components



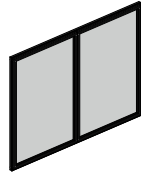
MODULAR 03 ONE TRUCK HOUSE

ASSEMBLY INSTRUCTION

ELEMENTS



Window 01
105,6x125



Window 02
281,6x209



Window 03
70,4x75



Door D1
105,6x209



Door D2
90x209

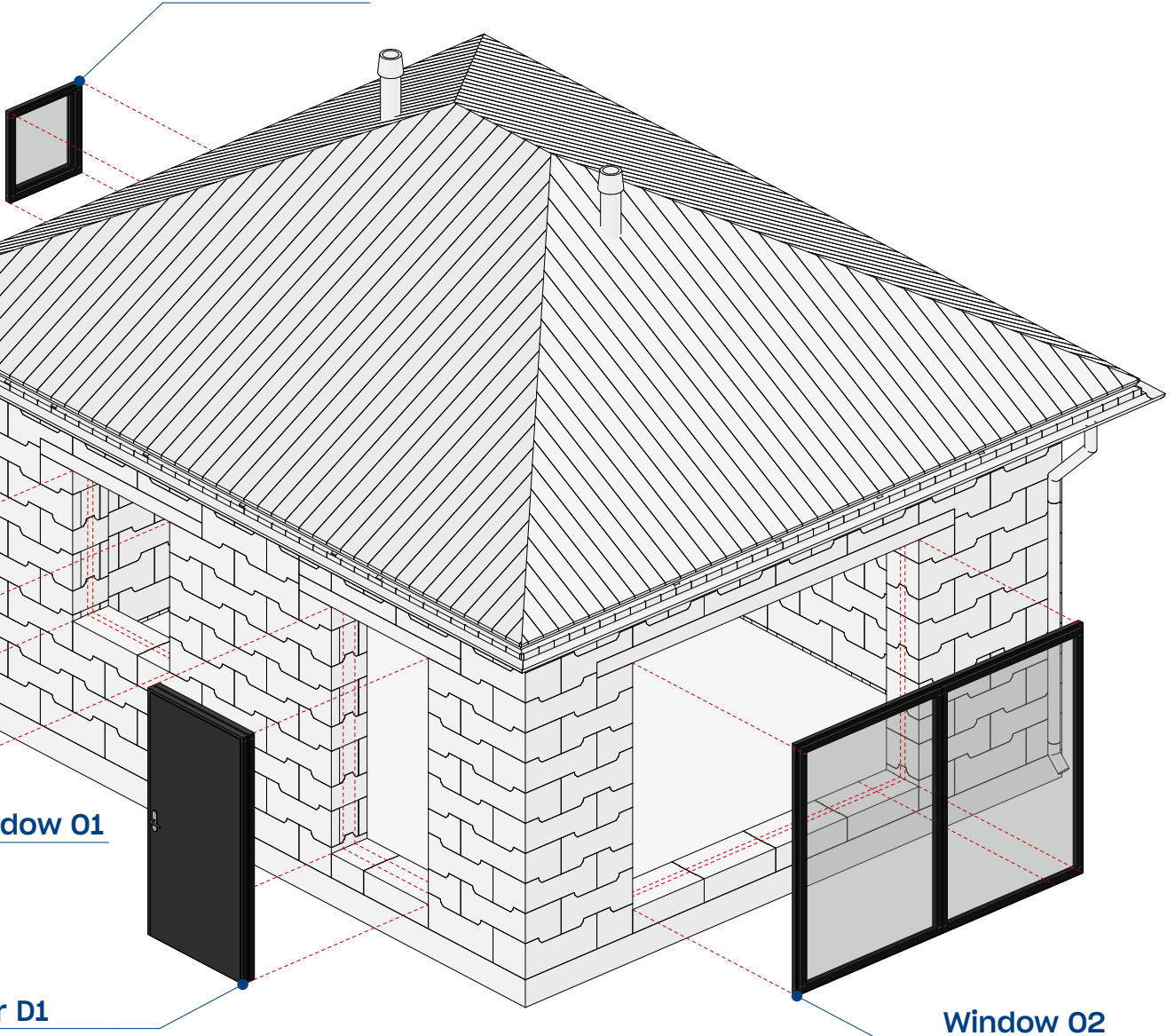
26

Doors and windows installation

Doors and windows installation in the center of SYSTEM 3E external wall with the use of dedicated window frame system and chemical bolts.

Window and door frames should be installed before the SYSTEM 3E wall finishing with plaster.

Window 03



Window 01

Door D1

Window 02

MODULAR 03 ONE TRUCK HOUSE

ASSEMBLY INSTRUCTION

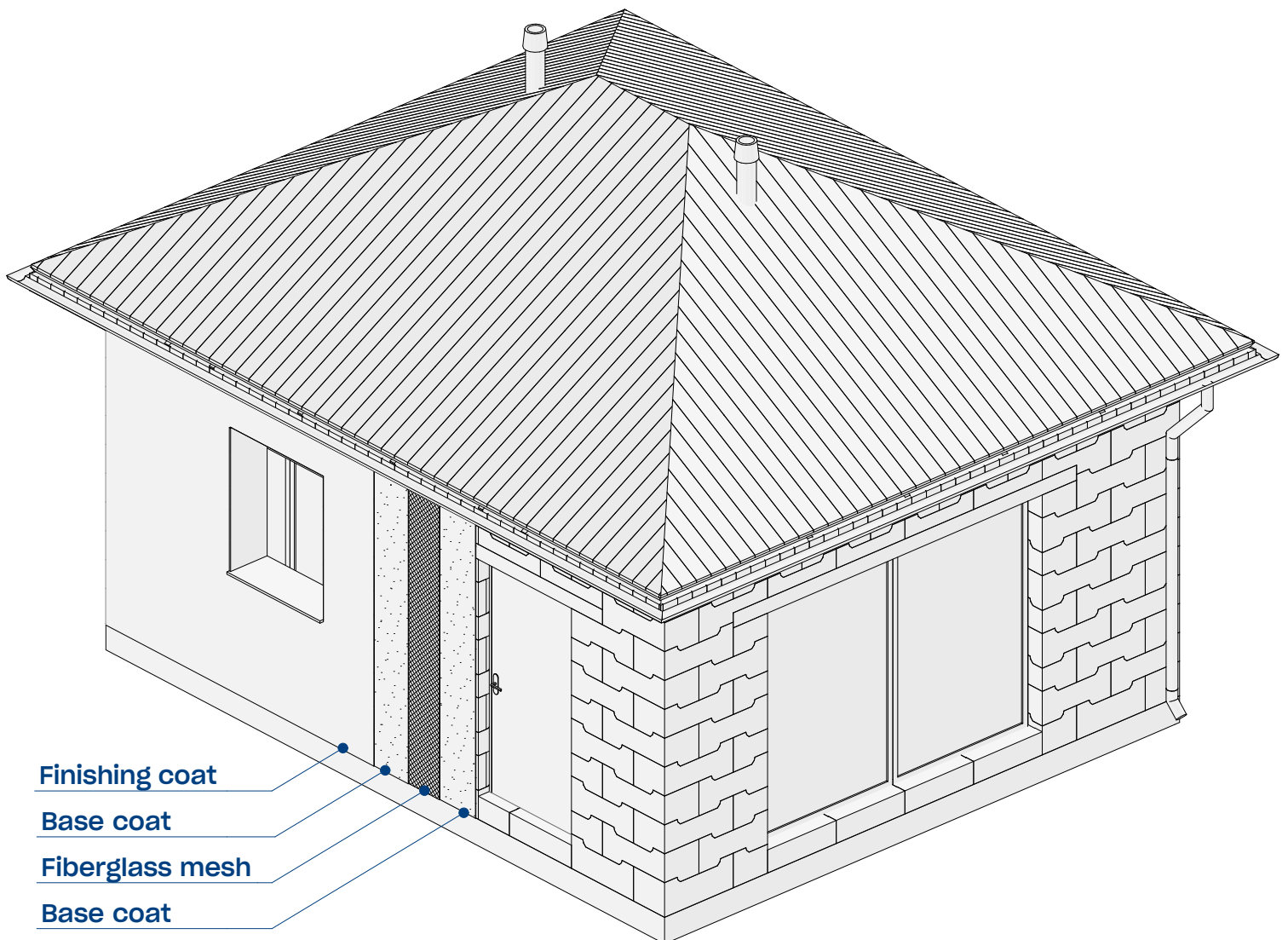
ELEMENTS

Finish SYSTEM 3E walls with a layer of cement or cement-lime adhesive mortar with embedded fiberglass mesh and external plaster.

On the interior use a thin plaster layer, considering protection with a primer. Gypsum, lime, and cement-lime plasters can be used.
Plaster coats for internal and external walls are not included.

26

External plaster



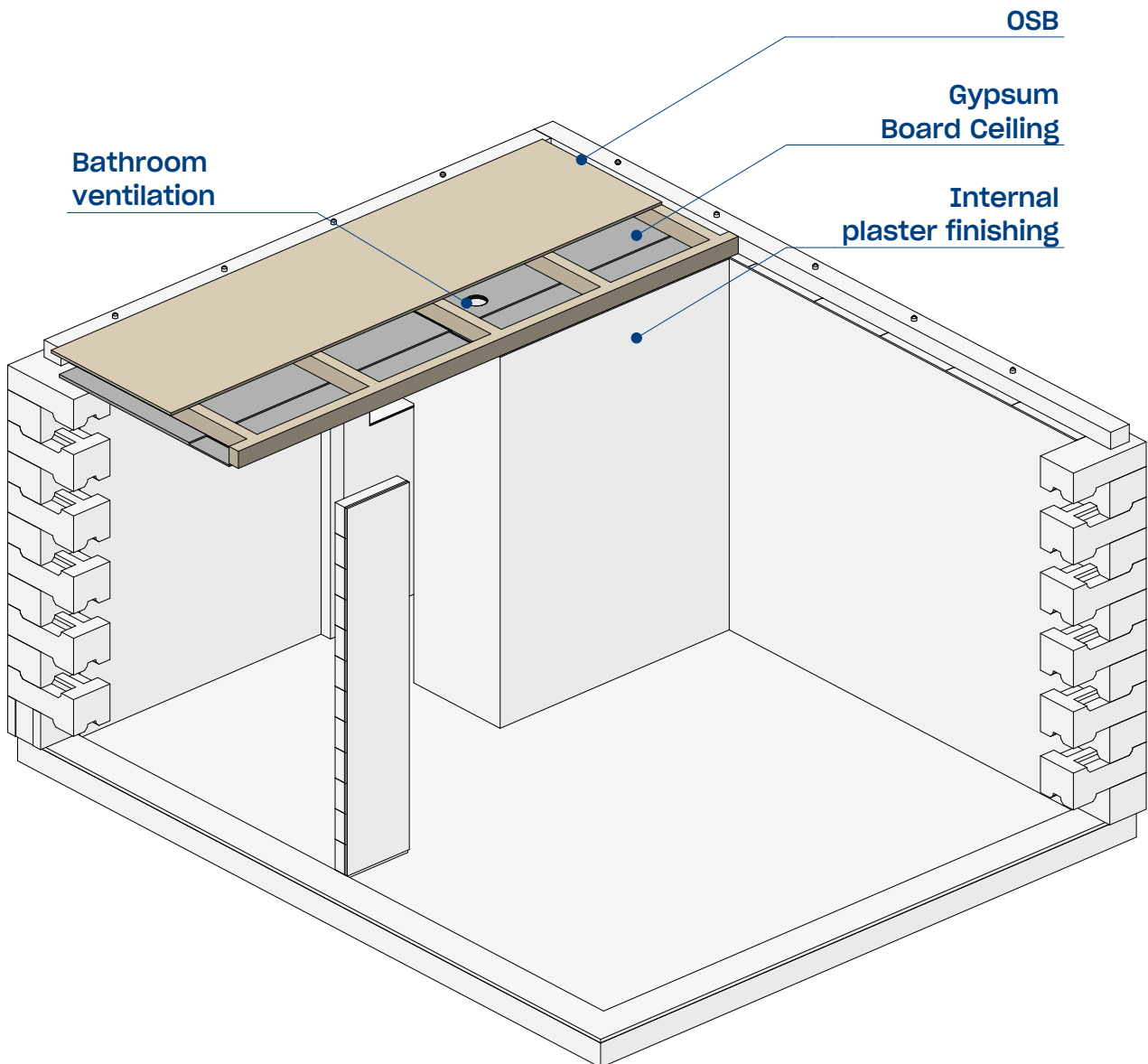
MODULAR 03 ONE TRUCK HOUSE

ASSEMBLY INSTRUCTION

EXECUTION GUIDELINES

On the interior use a thin plaster layer, considering protection with a primer. Gypsum, lime, and cement-lime plasters can be used. Suspended Dry Wall ceiling on dedicated aluminum framing. The top of the ceiling under the roof should be finished with OSB sheets for the possibility of Thermal Insulation and HVAC equipment installation.

27 Internal plaster and ceiling



MODULAR 03 ONE TRUCK HOUSE

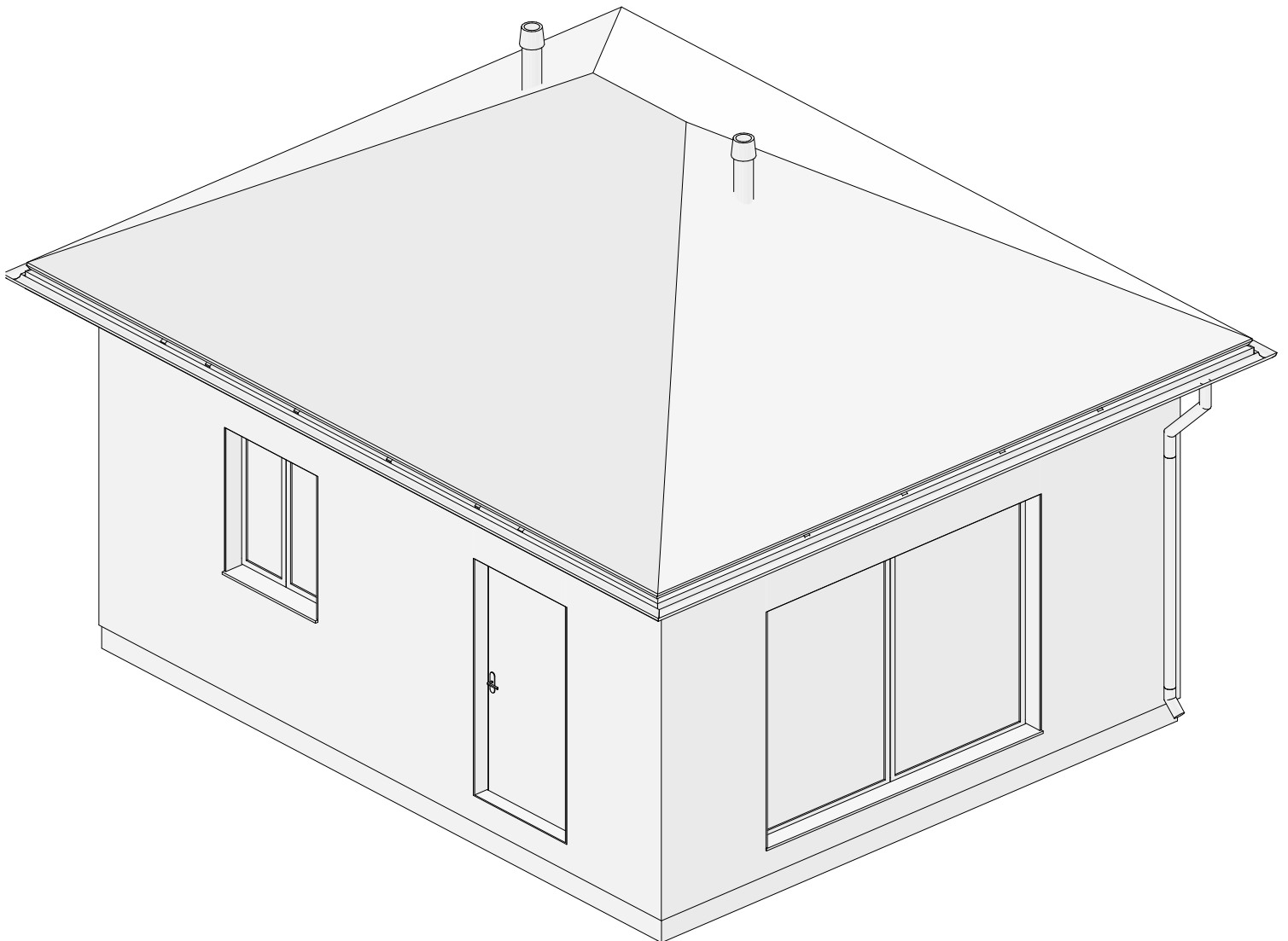
ASSEMBLY INSTRUCTION

EXECUTION GUIDELINES

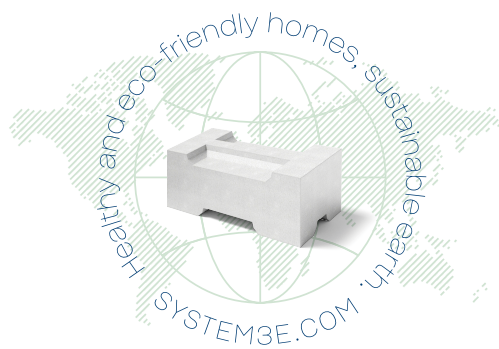
The Shipment of the Modular 03 building includes SYSTEM 3E elements for external and internal walls, Prefabricated Roof Trusses, Roof Covering System with accessories, External doors and windows.

The interior and exterior finishing materials, Electrical, Sanitary, HVAC installations, additional thermal insulation are open for the customization to local conditions and client's individual requirements.

29 Building shell



SYSTEM3E[®]



see our
website
system3e.com

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