

PLASTERBOARD PARTITIONS - TECHNOLOGICAL CARD

1. GENERAL

This card Technological consist of the construction of interior partitions between houses with gypsum boards on the third floor of our building. We are going to use this kind of surface in all the 72 flats. I chose this type of material for the realization of partitions for its quick and easy installation, in addition to its ease of hosting facilities. We will use this material in our building for separating rooms, except wet areas, because this material could have some problems with humidity. We are going to build our gypsum boards partitions before the laminate flooring pavement. I choose this kind of material because its an easy construction, and because we can host all the facilities inside this walls.

2. DESCRIPTION AND CONSTRUCTION SEQUENCE

The basic components of our walls are metal studs and gypsum boards.

These boards will have the following dimensions:

- Width: 600 to 1200 mm
- Height: from 2400 to 3000 mm
- Thickness: 6.5 to 23 mm

The ones we choose are: 1200mm wide, 2400mm high (will be conditioned by the height of the housing) and 15mm thickness. There is the option of introducing soundproofing in the partition, in order to provide more soundproofing.

We will use the trademark "PLADUR" for their reliability and warranty.

Below, we will describe the works, bearing in mind that should begin when the support surface is completely clean.

Construction sequence:

1. Stake in the ground with Tracer.
2. Placement of beams and uprights.
3. Placement of the door frame.
4. Installation of gypsum boards.
5. Mudding and taping joints.
6. Coating.

1. Stake in the ground with Tracer.

First of all, we need to rethink on the floor with Tracer.

2. Placement of beams and uprights

The floor and roof rails have to locate with great precision, this step is very important. Under the rail, place a tight band. Then, we will set screw studs to floor and ceiling, to ensure stability.

Once done, we can start by installing the uprights, to be ready every 40 or 60 cm.

3. Placement of the door frame

For doors, we will set the frame to the metal frame with screws.

The threshold should be properly enforced.

4. Installation of gypsum boards.

Once this is done, proceed to the plate installation on one side, with screws.

Then we put all the facilities which have to cross the partition.

Then proceed with the placement of the insulation between both sides of the partition.

Once completed, we install the plaques on the other side.

5. Mudding and taping joints.

At this time we start the meetings coating substances, that are not joints.

In the joints between panels apply a first coat of filler and then place a ribbon across the height of the plate, properly ironed.

To extend the second layer, we expect the drying of the previous. The last layer will be the third, which we call the finish coating. The corner boards, they are running in the same way as the previous.

Not be overcome tapes on other boards.

6. Coating

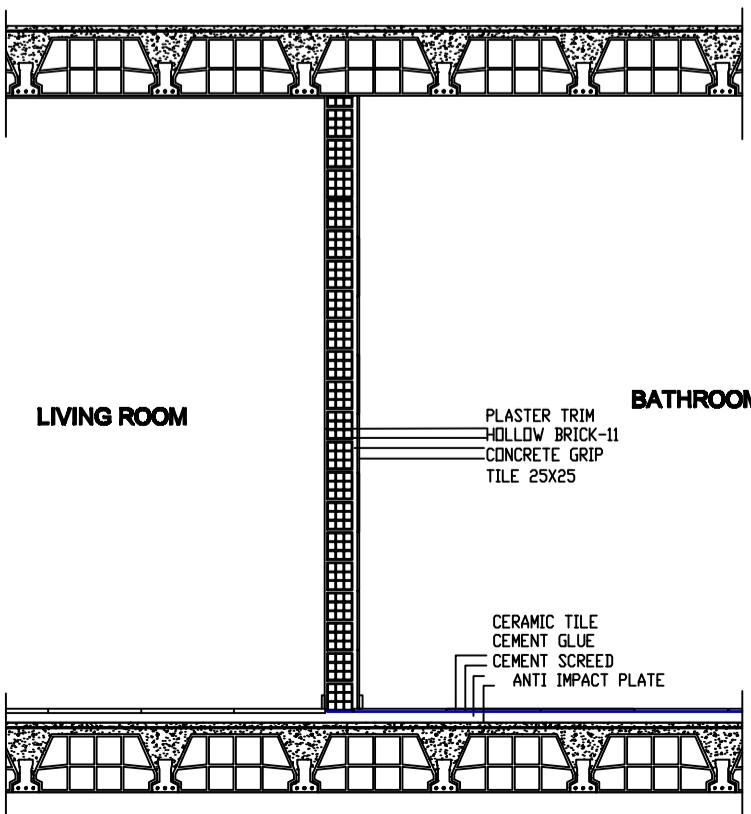
There are lots of possibilities when it comes to reverse these walls, but our execution, we will use beige paint. We will use a roller.

4. HUMAN SAFETY

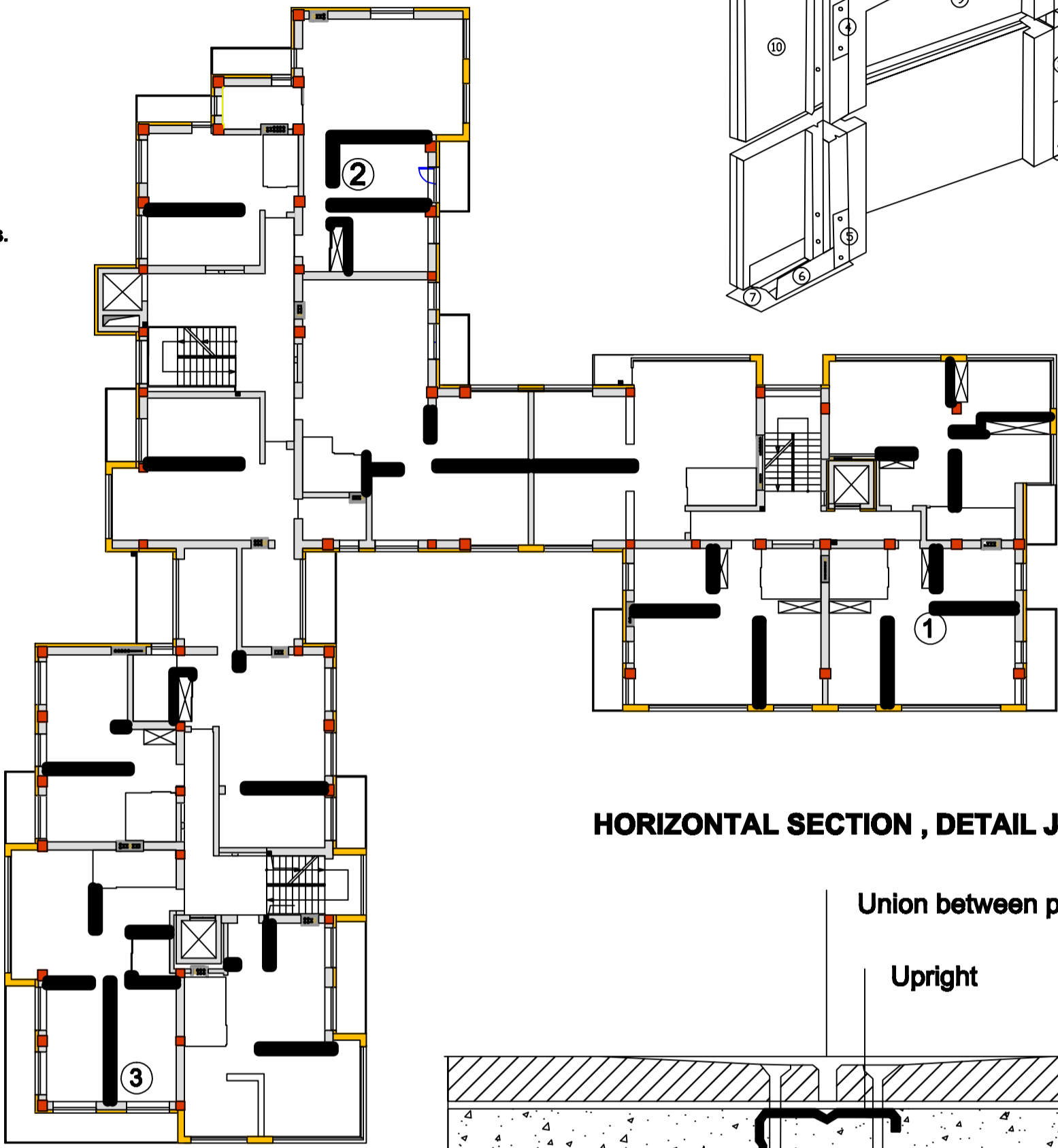
Although the works cannot be considered dangerous, the work will be carried out in accordance "with health and safety rules in construction request".

1. Workers are allowed to work only with the Knowledge of safety equipment.
2. Each worker must use Protective equipment (special clothing, footwear, gloves and respirators).
3. For Mixtures, Should Workers wear gloves and goggles.
4. Unnecessary collection of materials and debris from the workplace.
5. Should Be grounded electrical equipment.
6. Must Be All electrical devices absolutely clean.
7. All cables Must Be in perfect condition.

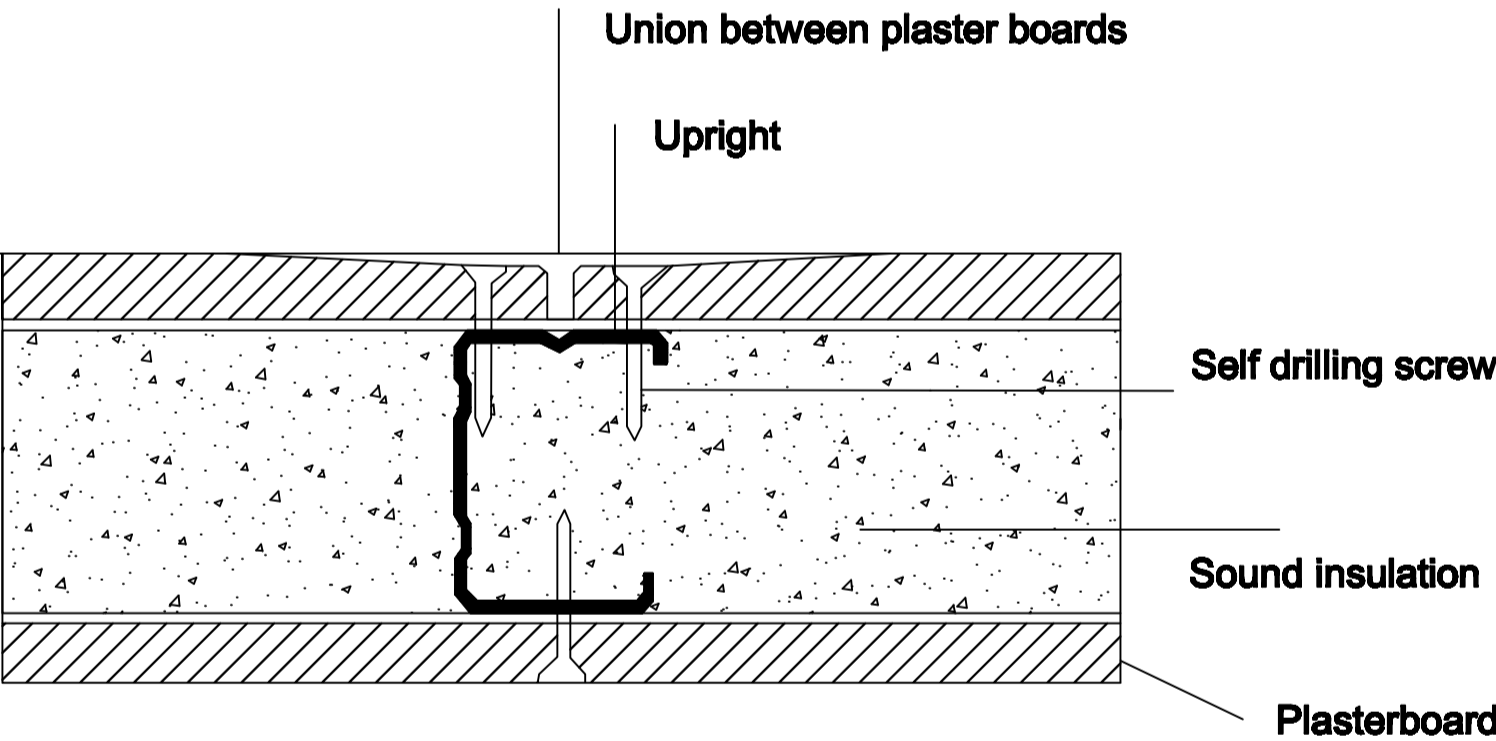
PARTITION BETWEEN BATH AND LIVING-ROOM



THIRD FLOOR E: 2/275



HORIZONTAL SECTION , DETAIL JOINTS



5. MECHANICS, MATERIALS AND TOOLS

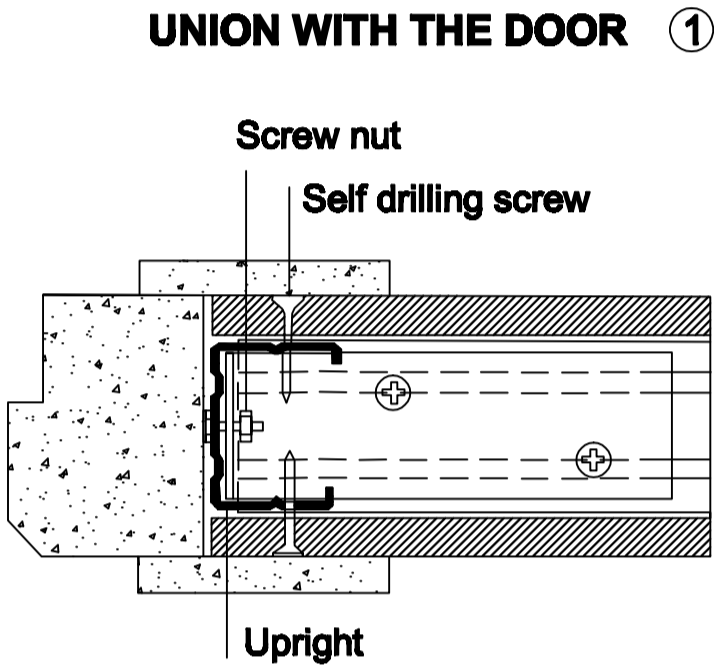
Num	NAME	UNITS	QUANTITY
1	Machines		
1.1	Drill screw	Unit	1
2	Materials		
2.1	Elastic band	m	150
2.2	Screws	mit	600
2.3	Crossbars and uprights	m	120
2.4	Plaster boards	m	208
2.5	Adhesive tape	m	221
2.6	Jointfiller	L	5
2.7	Paint	L	10
3	Tools		
3.1	Hammer	Unit	1
3.2	Level	Unit	1
3.3	Paint roller	Unit	1

3. ORGANIZATION OF WORKS

Id	Work name	Duration of the work	Number of work teams	Work teams	D-1	D2	D3	D4	D5	D6	D7	D8	D9	D10	D11	D12	D13	D14	D15	D16	D17	D18
1	RYGOS STREET BUILDING	14 dias																				
2	LAMINATED GYPSUM PARTITION THIRD FLOOR (281,04)	14 dias																				
3	STAKE IN THE GROUND WITH TRACER	1 dia	1	PLASTERBOARD PARTITIONS																		
4	PLACEMENT OF BEAMS AND UPRIGHTS	4 dias	1	PLASTERBOARD PARTITIONS																		
5	PLACEMENT OF THE DOOR FRAME	2 dias	1	PLASTERBOARD PARTITIONS																		
6	PLACEMENT OF NATURAL HARDWOOD TABLES	3 dias	1	PLASTERBOARD PARTITIONS																		
7	MUDDING AND TAPING JOINTS	1 dia	1	PLASTERBOARD PARTITIONS																		
8	PAINTS	3 dias	1	PAINTS																		

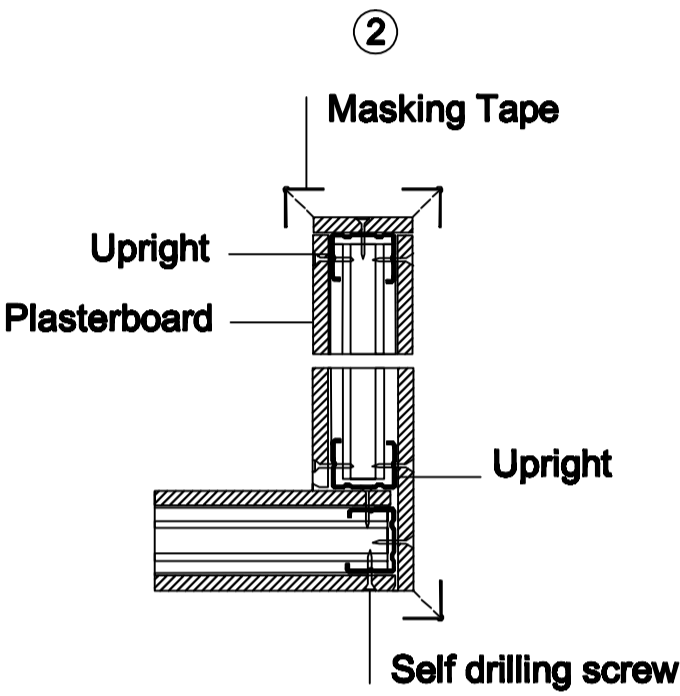
3D DETAIL DOOR

- 1 Upright. Galvanized steel profile C. (46mm)
- 2 Hollow reinforcement. Profile C Galvanized steel. (46mm)
- 3 Lintel reinforcement. Profile U Galvanized steel. (46mm)
- 4 Reinforcement bent pins of profile 3.
- 5 Reinforcement bent pins of profile 6.
- 6 Profile U Galvanized steel. (46mm)
- 7 Watertight neoprene band.
- 8 Door pine's frame.
- 9 Door leaf of two boards. (30mm)
- 10 Two plasterboard. (15mm)
- 11 Glass wool insulation. (40mm)

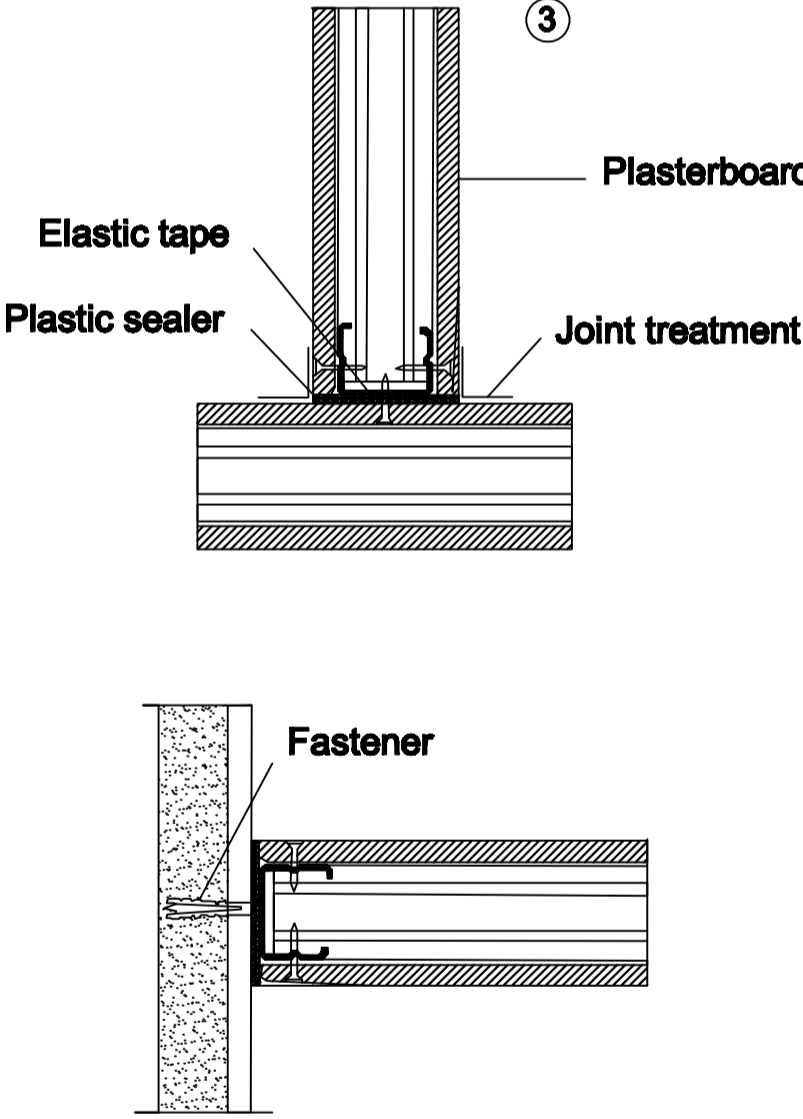


UNION WITH THE DOOR ①

CORNER ②



UNION WITH WALLS ③



10. TECHNICAL - ECONOMIC INDICATORS

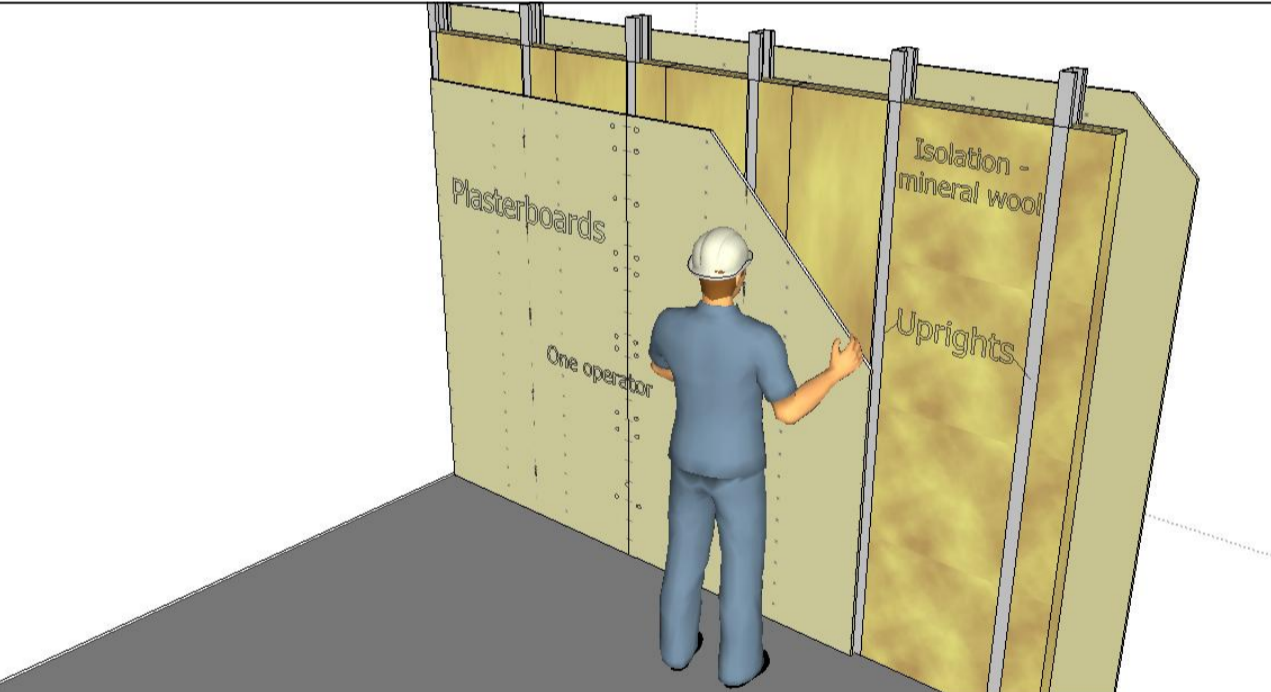
1. Quantity of works: 281m
2. Installation costs: 9.017,80 € or 31.130 Litas
3. Duration of works: 35 days / 9 floors = 3.89 days
4. Wage: 31.12 h x 8.80€ = 273.859 € or 944.8 Litas

BASIC RULES FOR CONSTRUCTION OF ACOUSTIC CONDITIONS IN BUILDINGS NBE - CA88 (Basic Construction Standards - CA88)

VERTICAL CONSTRUCTIVE ELEMENTS		MINIMUM AIR NOISE ISOLATION R IN dB (A)
INTERNAL PARTITIONS (vertical building elements, excluding doors) -Local-separator elements belonging to the same property, or user in residential buildings. -Elements separator local residential buildings or public health.	BETWEEN SAME-AREA OF USES	≥30
	BETWEEN DIFFERENT - AREA OF USES	≥35
SEPARATING WALL OF PROPERTY OR OTHER USERS -Dividing wall between properties and different users, in-use buildings private residential and office or administrative. -Room-dividers for different users in buildings residential use and public health. -walls separating buildings from classroom teaching purposes.		≥45
SPACER WALL OF INTERNAL AREAS -walls that separate the home or office space and office of building's common areas such as stairwells, hallways or corridors access, and local community service. -walls separating the rooms of the building's common areas, similar to those mentioned above, in residential buildings and public health. -walls separating the classrooms of the building's common areas, similar to those mentioned above, teachers use buildings.		≥45
COMPARTIMENTALIZATION OF HOUSING ROOM COMMUNITY TEAMS (For the NBE-CA88, community teams are defined as those susceptible to noise or vibration in normal use scheme, which part of the hydraulic systems: ventilation, air conditioning, transportation and electricity.		≥55

INSTRUCTIONS

For installing the laminate flooring we will one worker



Name and surname	Signature	Date	VILNIUS GEDIMINAS TECHNICAL UNIVERSITY	
Student	Vytautas Čeršius	~2021	Construction design of the multistorey dwelling-house at Rygos str. 11 in Vilnius	
Supervisor	Jonas Šepetavicius	~2021		
Consultant	Ramūnas Šešas	~2021	PLASTERBOARD PARTITIONS - TECHNOLOGICAL CARD	
Head of Department	Edmundas Kasišius	~2021		
Reviewer	Zilvinas Zavadskas	~2021	Department of Construction Technology and Management	