

Turning the Police Station into a MILS compatible module

By Jetro De Château



In the MILS Roads article of this issue we showed you why and how we converted our city to the MILS standard. That involved building road modules with different designs, but also elevating all of our existing buildings to a height compatible with the MILS road modules.

To be honest, I had already converted a number of my modular buildings to MILS modules, but the 10278 Police Station was the first LEGO® Modular Building I built as a MILS module from scratch.

What does it take to build a modular on a MILS base? The required height for modular building is determined by the height of the adjacent edge on our road modules. For us, the tiles of the building's adjoining module edge need to be placed one brick and two plates above the baseplate of the module. That means we needed an extra layer of plates compared to a standard MILS Basic Terrain Module. Of course that extra layer doesn't need to cover the entire surface of the module. I placed a layer of 1x plates along on the bricks that make up the perimeter of the module and then decided how many bricks I needed inside the module base to support the plates that make up the top. I then added a 2x4 plate to each of the 2x4 bricks. Or that was what I planned to do. When it came to building the base I had run out of 2x4 plates so

I used a combination of 2x4 and 2x2 plates instead. And because no one ever ends up seeing what is inside a MILS module any size or colour pieces that are handy (and fit) can be employed. Finally I covered the module with plates. I chose to use a mix of 16x16 plates and 8x16 plates. This allows me to use the LBG plates I sourced for my city MILS display for most of the base but also have some green at the back of the building.

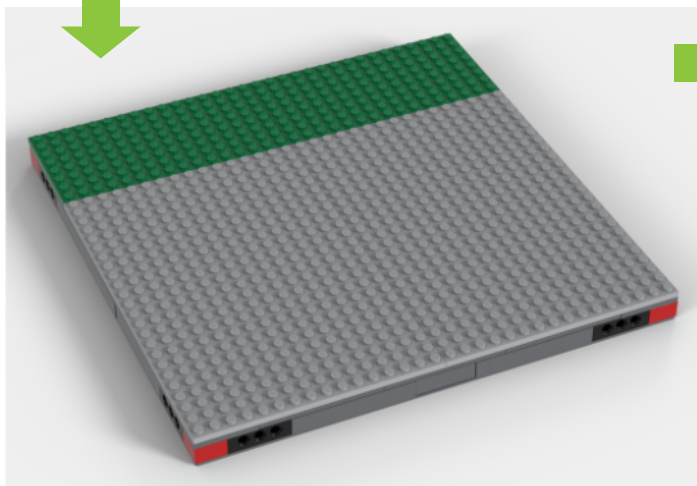
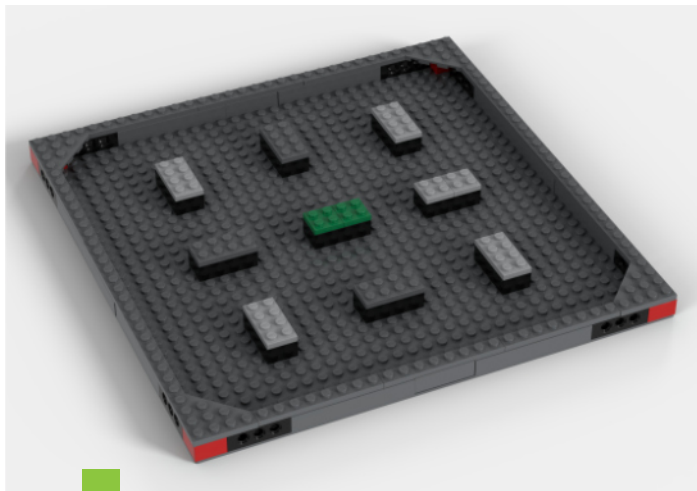
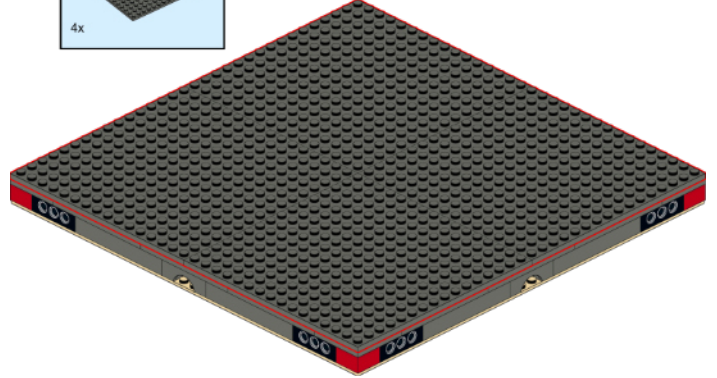
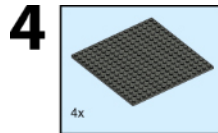
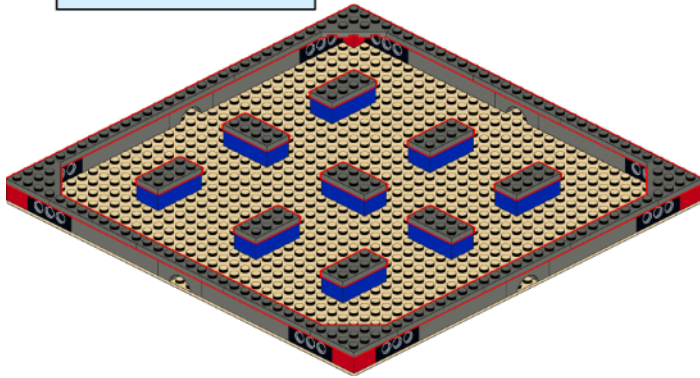
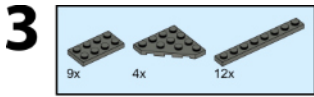
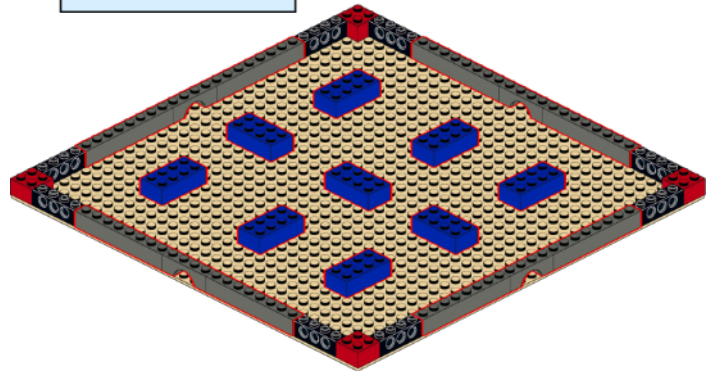
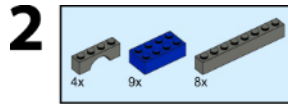
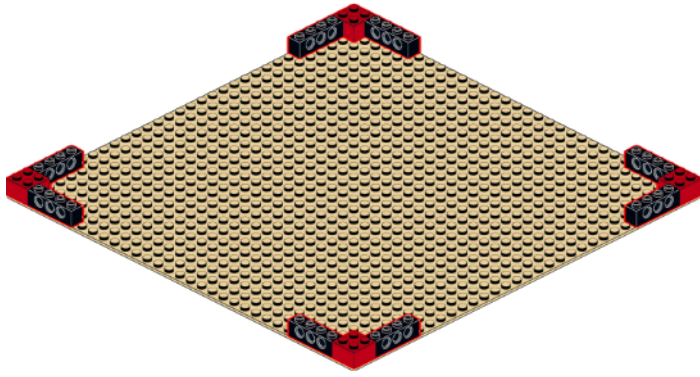
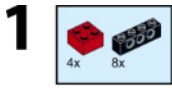
My parts list ended up being:

- 1 32x32 baseplate, dbg
- 4 1x4 brick, dbg
- 8 1x4 technic brick, black
- 8 1x8 brick, dbg
- 4 2x2 brick, red
- 9 2x4 brick, dbg
- 4 4x4 45° wedge plate, dbg
- 12 1x8 plate, dbg
- 4 2x4 plate, lbg
- 3 2x4 plate, dbg
- 2 2x2 plate, lbg
- 2 2x2 plate, green
- 2 8x16 plate, green
- 2 8x16 plate, lbg
- 2 16x16 plate, lbg

But I would encourage you to use whatever parts you have on hand to achieve your desired outcome.

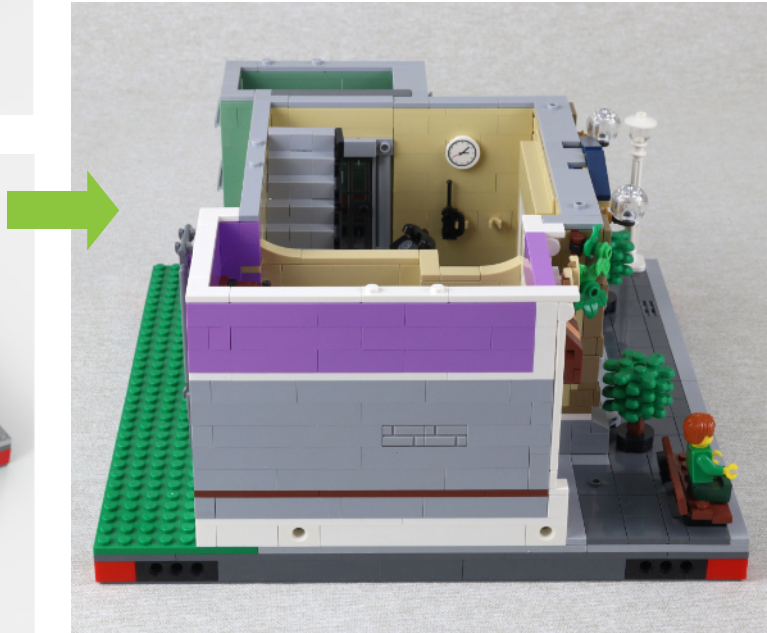
There are multiple advantages to placing a modular building on a MILS base. One of the first things you will notice is that the base of the building is much more stable and solid. It can be picked up by a corner without needing to worry about the baseplate flexing and some of the tiles and even bricks coming loose. I have also seen some of the corners of my modular buildings on traditional baseplates curling up over time. On a MILS base the corners stay perfectly flat. In addition, I don't have enough space to have all of my modular buildings on display, so I store a good number of them in plastic containers. Putting them into and – more importantly – taking them out of those containers is much easier and safer when the building has a MILS base. And that stability is not just limited to the ground floor of the modular. Precisely because the ground floor is so much more stable, it is a lot easier to remove and replace the higher levels of the building when you want to enjoy the scenes that take place inside the building.

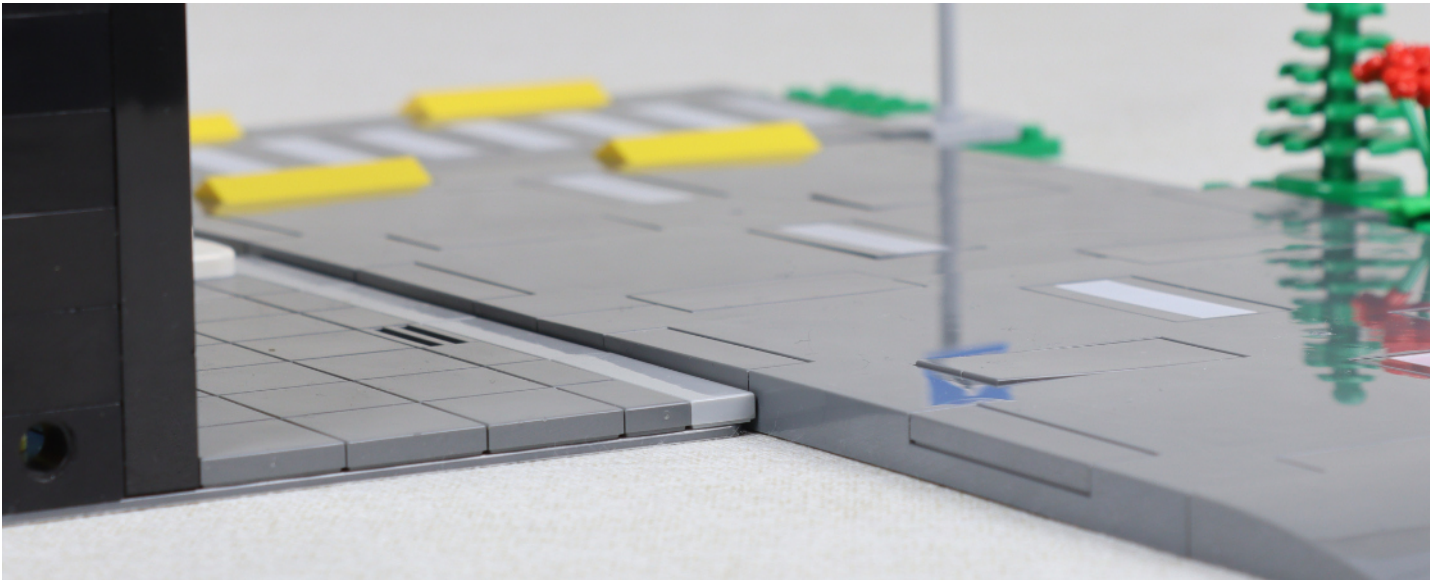
Most importantly though, it allows me to easily use my modular buildings with the MILS roads that I and the other HispaBrick members have created for our displays. Again, the sturdiness of the base makes moving the modules around to



As you can see, the elements used in these sample instructions don't match up 1:1 with the elements I used in my base for the Police Station. The instructions here show the "simplest" way to create such a base whereas I used the parts I had on hand when building the base for the police station. I also wanted the back yard of the police station to be green so it would fit in better with some of my other modules.

For more in-depth information on MILS, visit www.abellon.net/MILS/





put them into place easy and risk free, and provided you have a reasonably flat surface, everything lines up perfectly. This means it takes less time to set up and less time to break down.

Modular vs. thick road plates

Modular roads look a lot more polished than the baseplate road plates LEGO used to market. Recently though, LEGO introduced a new type of thick road plates based on a 16x16 stud footprint. Wouldn't those be a more convenient solution to use together with the modular buildings? Time to compare options.

I had already converted my Police Station to a MILS compatible module when the new thick road plates came out so I built a quick MOC of a modular building directly on a baseplate – the way the Police Station would look if built following the instructions from LEGO. I then

placed some of the new thick road plates next to that modular building to see how that worked.

As can be seen in the top picture, the pavement in front of the modular building (tiles on top of a baseplate) is slightly lower than the thick road plates (the same height as a plate and a tile). This means that when you place a thick road plate next to a standard modular building, the road is slightly higher than the building's pavement – a really strange look. On the other hand, modular buildings already have a pavement and it would make sense to have the road start immediately next to that pavement, just like it does with the thick road plates.

Now compare the way things look when you elevate the modular building to MILS level and place a MILS road module next to it. The height of the road ends up being one plate lower than the pavement – a much more realistic situation. On

the other hand, both the modular building and the road module include a pavement area, making the pavement twice as wide as originally intended. To be fair, this also happened when you used the previous thin road plates, but in that case the pavement area was lower than the pavement in front of the building. Personally I don't mind a wider pavement. Many towns and cities are creating more space for pedestrians, so a wider pavement is a fair representation. In addition you can use this extra space for other purposes as well. In the picture of the modular building next to the MILS road module you can see the area that corresponds to the pavement of the road module has been used for a green area, a nice way to separate the pedestrians from the motorised traffic. You can find more ideas for this extra space in our presentation of the road modules in this issue.

