

Claims

- 1 A system for assembling a road, the system comprising a plurality of plastic support
5 structures and a plurality of road deck elements, wherein each of the support
structures comprises a base plate and at least one column extending, or for
extending, upwardly from the base plate for supporting at least partly one of the road
deck elements, each of the road deck elements being configured such that in an
10 assembled and as road useable condition of the system rainwater predominantly
flows away over the road to one or more positions next to the road, and/or to a slit-
sized interruption of the road across the road.
- 2 A system according to claim 1, wherein the support structures and/or the road deck
elements are connectable such that in an assembled condition at least one tunnel is
formed between the road decks and the base plates, wherein in an assembled
15 condition of the system a road is formed and the least one tunnel extends in a length
dimension of the road.
- 3 A system according to claim 1 or 2, wherein at least a number of the support
structures are free from having along the entire circumference of the base plate
upwardly extending wall members extending in a direction parallel to the at least one
20 column.
- 4 A system according to claim 1, 2 or 3, wherein for at least one and preferably each
support structure it applies that the at least one column has a first end that has a
seamless connection with the base plate or is connectable with the base plate, or
wherein for at least one and preferably each support structure it applies that the at
25 least one column has a second end that has a seamless connection with a carrier plate
or is connectable with a carrier plate, for carrying in a assembled condition of the
system one or more adjacently placed road deck elements.
- 5 A system according to claim 4, wherein the system comprises a carrier plate that has a
seamless connection with at least two columns, or that is connectable with at least
30 two columns.
- 6 A system according to any one of claims 1-5, wherein at least one of the plurality of
support structures is at least partly usable as a water attenuation or water infiltration
structure.

- 7 A system according to any one of the previous claims, wherein at least one and preferably each of the columns is provided with a connector part for connecting with at least a part of one of the road decks, so that the respective road deck is supported by at least one column.
- 5 8 A system according to any one of the previous claims, wherein each road deck element is provided with an outer layer that is usable as a road surface.
- 9 A system according to any one of the previous claims as far as dependent of at least claim 7 and 8, wherein each road deck element is provided with a connection side that is opposite the outer layer and that is provided with connection structures which are each releasably connectable with one of the connector parts.
- 10 10 A system according to any one of the previous claims wherein the system comprises a number of gutter elements.
- 11 A system according to claim 10, wherein at least one of the gutter elements is separately connectable to at least one of the road deck elements and/or to at least one of the support structures.
- 15 12 A system according to claim 10, wherein at least one of the gutter elements is at least partly integrated in at least one of the support structures and/or at least one of the road deck elements.
- 13 A system according to one of claims 10 - 12, wherein at least one of the gutter elements is at least partly integrated in, or connectable to, at least one of the columns.
- 20 14 A system according to any one of the previous claims, wherein at least one of the plurality of road deck elements comprises plastic.
- 15 A system according to any one of the previous claims, wherein at least one of the plurality of road deck elements comprises fibers.
- 25 16 A system according to any one of the previous claims, wherein at least one of the plurality of road deck elements comprises a structure having a plate shaped part that forms in an assembled and as road useable condition an upper deck level of the respective road deck element, whereas the structure has a cell-structured part as a lower deck level.
- 30 17 A system according to claim 16, wherein the plate shaped part forms the upper most deck level.

- 18 A system according to claim 17, wherein the plate shaped part comprises a non-plastic, preferably a ceramic, material for providing a friction enhancing surface and/or for providing a wear resistant surface.
- 19 A system according to any one of claims 16-18, wherein the structure comprises a sandwich structure, having the cell-structured part between the plate shaped part that forms an upper deck level and another plate shaped part that is provided at a side of the cell-structured part that is opposite the plate shaped that forms the upper deck level.
- 20 A system according to any one of claims 16-19, wherein the cell structured part comprises a honeycomb structure, such that each honeycomb has its axis directed towards the plate shaped part that forms an upper deck level of the respective road deck element.
- 21 A system according to any one of the previous claims wherein at least one of the road deck elements is configured for placement as a single element directly on top of one or more adjacently placed support structures.
- 22 A system according to any one of the previous claims, wherein the plastic comprises recycled plastic.
- 23 A system according to any one of the previous claims, wherein the system only consists of a plurality of plastic support structures and a plurality of road deck elements or only consists of a plurality of plastic support structures, a plurality of road deck elements and a plurality of gutter elements.
- 24 A method of assembling a road, wherein the method comprises:
providing a plurality of plastic support structures and a plurality of road deck elements, wherein each of the support structures comprises a base plate and at least one column; connecting at least one of the road deck elements with at least one of the plastic support structures so that a road module is formed having at least one road deck element and at least one plastic support structure, and connecting adjacently placed plastic support structures and/or adjacently placed road deck element.
- 25 A method according to claim 24, wherein the method comprises:
placing the support structures adjacent each other such that the support structures have, relative to the direction of gravity, the base plates at a relatively low position and each of the at least one column extending upwardly from a base plate;

placing the plurality of road deck elements adjacent each other such that the road deck elements are supported by the adjacently placed support structures, and a road deck is formed by the adjacently placed road deck elements and supported by the columns.

- 5 26 A method according to claim 25, wherein placing the plurality of road deck elements adjacent each other comprises placing the road deck elements on top of the adjacently placed support structures and placing the plurality of road deck elements adjacent each other as a single layer, such that the road deck elements are directly supported by the columns.
- 10 27 A method according to claim 24, comprising connecting adjacently placed road modules.
- 28 A method according to claim 25 or 27, wherein each road module comprises at least one support structure and at least one road deck element.
- 29 A method according to claim 28, wherein the method comprises connecting road modules with each other.
- 15 30 A method according to claim 29, wherein the method comprises lining up road modules to form at least a part of a road.
- 31 A method according to anyone claims 25-30, wherein the method comprises connecting the support structures and/or the road deck elements such that in an assembled condition at least one tunnel is formed between the road decks and the base plates, wherein in the assembled condition a road is formed and the at least one tunnel extends at least in a length dimension of the road through a plurality of road modules.
- 20 32 A method according to any one of claims 25-31, wherein the method is free from a step of applying to each of the support structures along the entire circumference of the respective base plate upwardly extending wall members in a direction parallel to the at least one column.
- 25 33 A method according to any one of claims 25-32, wherein providing a plurality of plastic support structures comprises providing a plurality of plastic support structures having for each base plate the at least one column seamlessly connected with the base plate.
- 30 34 A method according to any one of claims 25-33, wherein providing a plurality of plastic support structures comprises providing a plurality of plastic support structures such that for each base plate the at least one column is connectable to the base plate.

- 35 A method according to any one of claims 25-36, wherein for at least one and preferably each support structure the at least one column has a first end that is connectable with the base plate.
- 36 A method according to any one of claims 25-35, wherein the at least one column has a
5 second end that is connectable or is connected with a carrier plate for carrying in a assembled condition of the system one or more adjacently placed road deck elements.
- 37 Method according to claim 36, wherein the method comprises connecting the carrier plate with at least two columns.
- 10 38 A method according to any one of the previous claims 24-29, wherein providing a plurality of plastic support structures comprises providing a plurality of support structures which are at least partly usable as a water attenuation or water infiltration structure.
- 39 A method according to any one of the previous claims 24-30, wherein providing a
15 plurality of plastic support structures comprises providing a plurality of plastic support structures of which each column has a second end and wherein each road deck element is provided such that it is connectable to a number of the second ends, the method further comprising connecting at least one road deck element to a number of second ends.
- 20 40 A method according to any one of the previous claims 24-39, wherein providing a plurality of road deck elements comprises providing a plurality of road deck elements which are each provided with an outer layer that is usable as a road surface.
- 41 A method according to any one of the previous claims 24-40, wherein the method further comprises providing a number of gutter elements.
- 25 42 A method according to claim 41, wherein the method comprises separately connecting the gutter elements to at least one of the road deck elements and/or to at least one of the support structures.
- 43 A method according to claim 41, wherein providing a number of gutter elements comprises providing at least one of the gutter elements such that it is at least partly
30 integrated in one of the support structures, or in one of the road decks.
- 44 A method according to any one of claims 24-43, wherein providing a plurality of road decks elements comprises providing a plurality of road decks elements of which at least one comprises a structure having a plate shaped part as an upper deck level of the respective road deck element and a cell-structured part as a lower deck level.

- 45 A method according to claim 44, wherein the plate shaped part forms the uppermost deck level.
- 46 A method according to claim 45, wherein the plate shaped part comprises a ceramic material for providing a friction enhancing surface and/or for providing a wear resistant surface.
- 5 47 A method according to any one of claims 44-46, wherein the structure comprises a sandwich structure, having the cell-structured part between the plate shaped that forms an upper deck level and a plate shaped part that is provided at a side of the cell-structured part that is opposite the plate shaped that forms an upper deck level.
- 10 48 A method according to any one of claims 44-47, wherein the cell structured part comprises a honeycomb structure, such that each honeycomb has its axis directed towards the plate shaped part that forms an upper deck level of the respective road deck element.
- 49 A road deck element having the shape of a trapezoid.
- 15 50 A road deck element of which a cross section is a trapezium.
- 51 A road deck element according to claim 49 or 50, having further the features of a road deck element as cited in one of claims 8 – 21.