

# bus station tilburg



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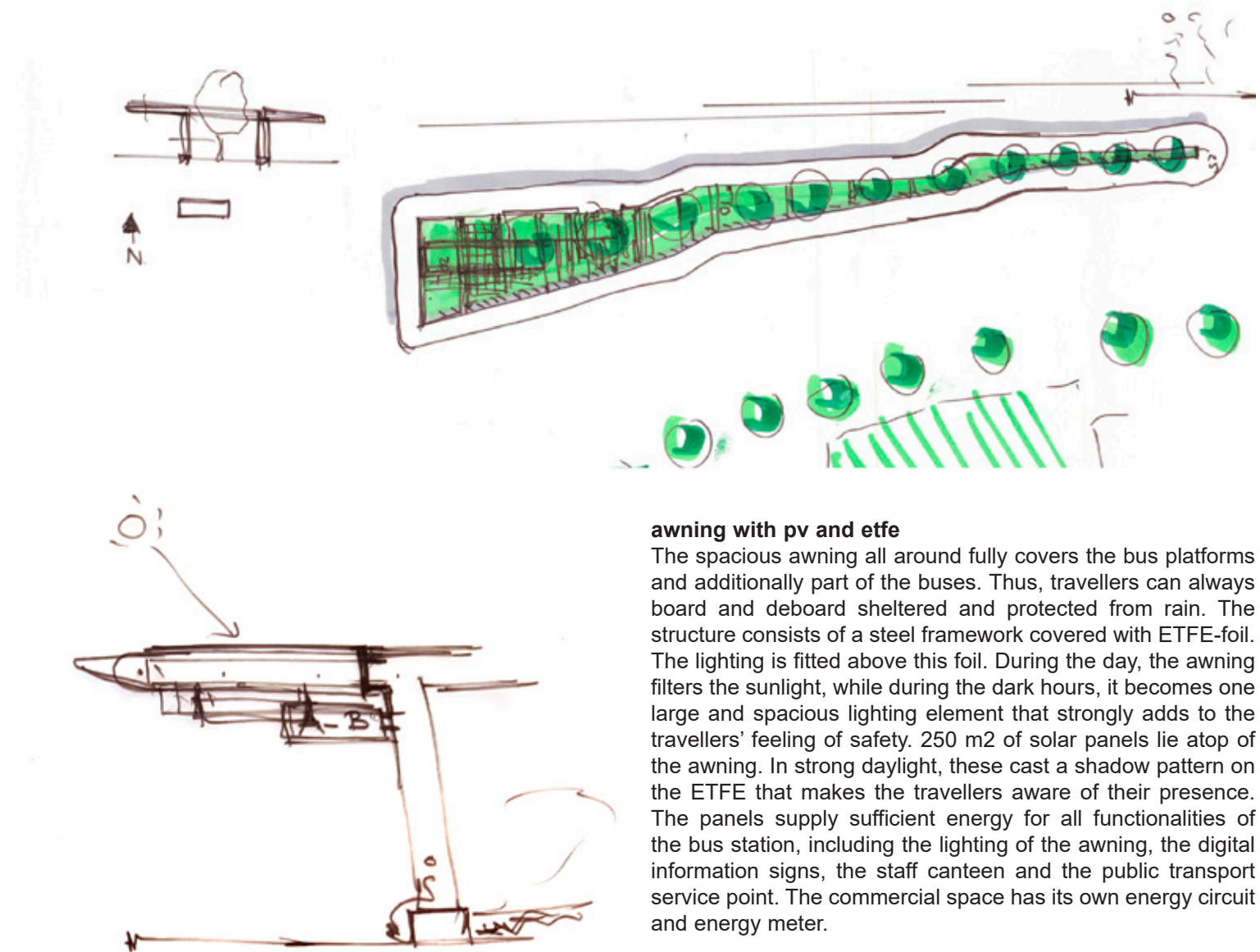


# bus station tilburg

The new bus station in Tilburg is a part of the large-scale revitalization of the Tilburg public transport hub. It is fully tailored to the comfort of the travellers and to a clear and pleasant traffic flow. The facility is situated on the west side of the train station, roughly at the place that also occupied the former bus station, but with the location of the former Tilburion apartment block included on the far west side. Just like the renovation of the train station and the new bicycle parkings in the railway zone, the bus station was designed by cepezed architects. The new public transport facility generates its own energy and its design is thoroughly integrated.

## minimalistic circuit

The basic setup consists of a series of very thin columns with an evenly minimalistic awning structure on top of them. The construction forms a triangular circuit with a length of over 160 meters and an open space in the centre. The bus positions are arranged around the outer side; six for boarding and one for deboarding. The awning circulation runs from 14 to 30 meters width in total and has two offsets in its contour. These are primarily functional and align with the urban context, but visually, they also resonate elegantly with the monumental roof structure of the train station. This also has an articulated structure and moreover seems to float, just like the bus station awning. The setoffs divide the overall structure into three segments. In the centre of every segment, there is green plantation surrounded by a sitting edge for the travellers. On the wide end of the circuit, the centre additionally contains a pavilion. This houses a staff canteen for the bus drivers, a public transport service point and a commercial space that has to find its function yet. An elevated terrace adjoins this commercial space.



## awning with pv and etfe

The spacious awning all around fully covers the bus platforms and additionally part of the buses. Thus, travellers can always board and deboard sheltered and protected from rain. The structure consists of a steel framework covered with ETFE-foil. The lighting is fitted above this foil. During the day, the awning filters the sunlight, while during the dark hours, it becomes one large and spacious lighting element that strongly adds to the travellers' feeling of safety. 250 m<sup>2</sup> of solar panels lie atop of the awning. In strong daylight, these cast a shadow pattern on the ETFE that makes the travellers aware of their presence. The panels supply sufficient energy for all functionalities of the bus station, including the lighting of the awning, the digital information signs, the staff canteen and the public transport service point. The commercial space has its own energy circuit and energy meter.

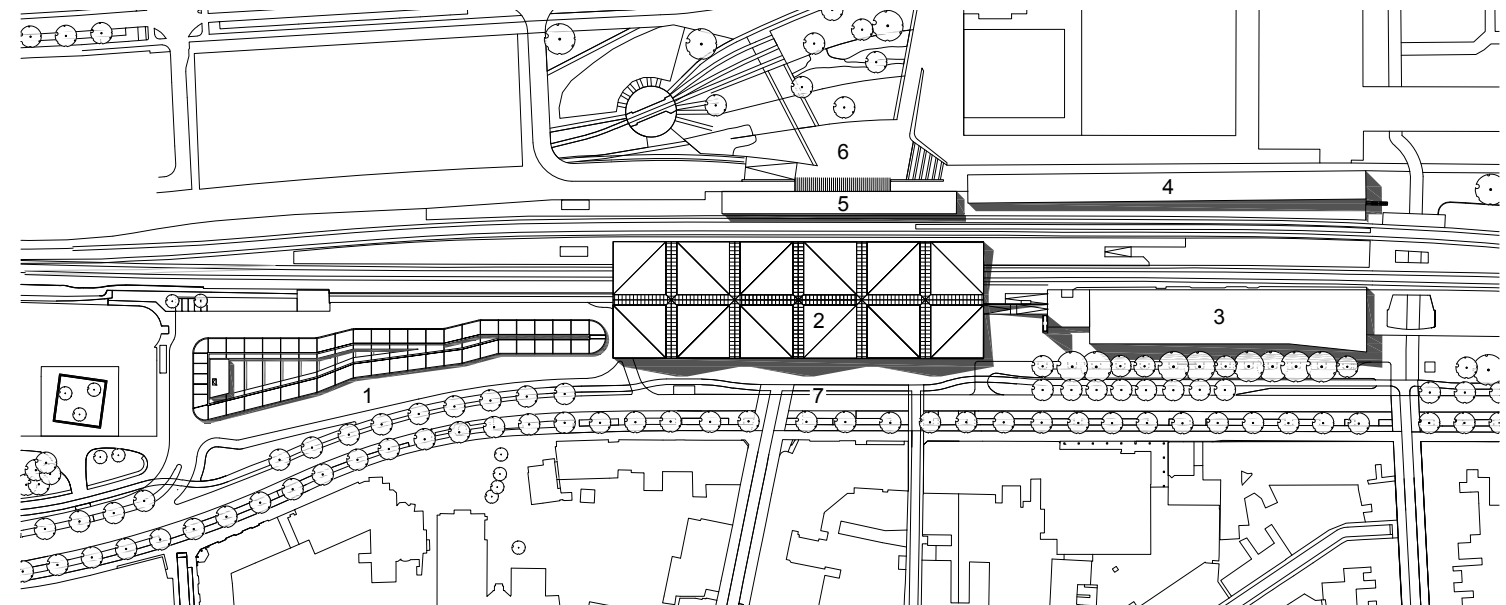
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### integral materialization and detailing

Based on considerations regarding aesthetics as well as comfort, functionality and the use of materials, a lot of attention was paid to a setup, materialization and detailing that is as elementary as possible. Cepezed conceived a clear and pure system for the bus station and engineered it meticulously. For example, the thin columns composed of steel plates and strips also contain water drainage and electric cabling. The S.O.S.-button and intercom are also integrated into one of the columns. The folded sheet steel that functions as the central load-bearing stability beam also functions as a gutter. The lighting of the terrace adjoining the pavilion is integrated into the beams spanning the awning structure at that point. The sitting edges of black pigmented concrete contain a number of seats executed in strip steel with integrated heating. The drainage holes in the load-bearing gutter are also used for fixation of the stretched ETFE-foil, while the digital information displays are invisibly fastened. The pavilion has a function in the overall stability of the awning. Also, movement sensors have been integrated into the steel edge of the awning every 14 meters. These respond to the presence of busses and people so that the lighting is sufficient in every situation while the use of energy is kept to a minimum.



site - scale 1:3000

1. bus station with awning
2. train station building; nationally listed monument, original design by architect Van der Gaast; expanded with inter-district connection, transfer and new north entrance
3. bicycle parking south side
4. bicycle parking north side
5. platform 4 with new platform roof
6. north square
7. south square (centre side)

### Inclusive, low maintenance and future proof

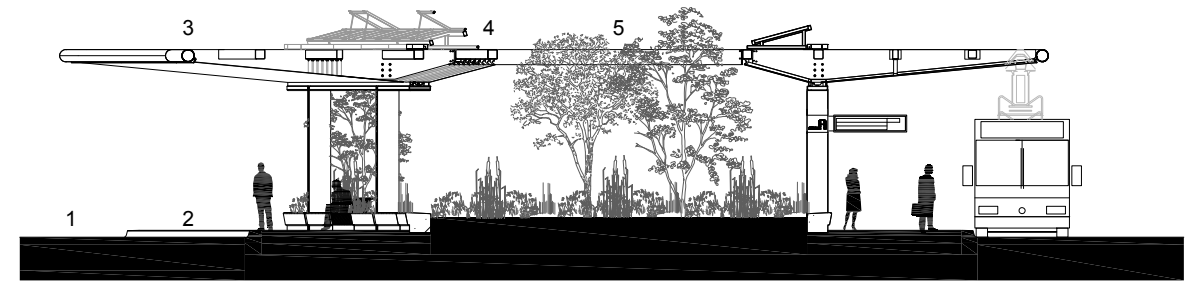
The bus station was also designed for inclusiveness. For example the elevated terrace can be reached by wheel chairs through a ramp and the hand rails between the terrace and the platforms have been provided with braille signing. The ETFE foil of the awning is self-cleaning and hardly needs any maintenance. For service on the solar panels and electrical equipment, the awning circulation is easily accessible via the pavilion and a walkable cable gutter. The overall unornamented design with a minimum of edges and corners reduces the costs for cleaning. Additionally, for the future the bus station is already prepared for the placement of extra electrical equipment that can quickly charge electrical busses.

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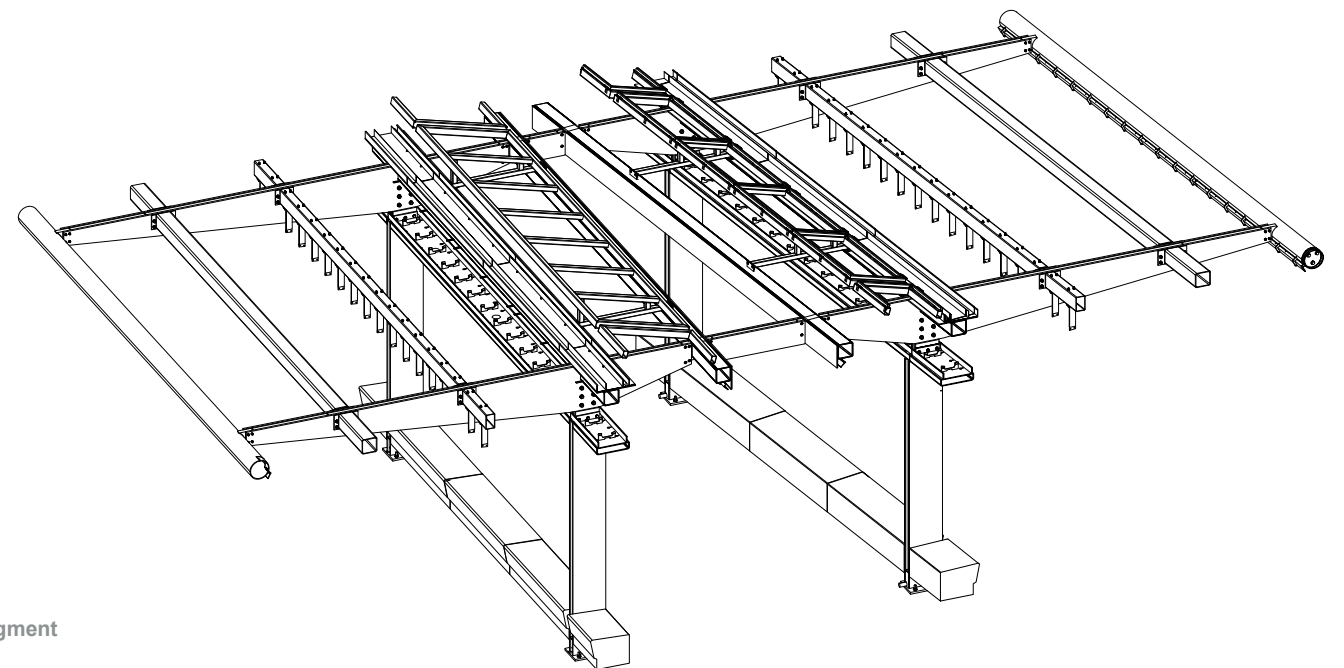


## awning construction



section  
1:200

- 1. bus lane
- 2. platform
- 3. awning
- 4. solar panels
- 5. landscaped garden with seating edge around it



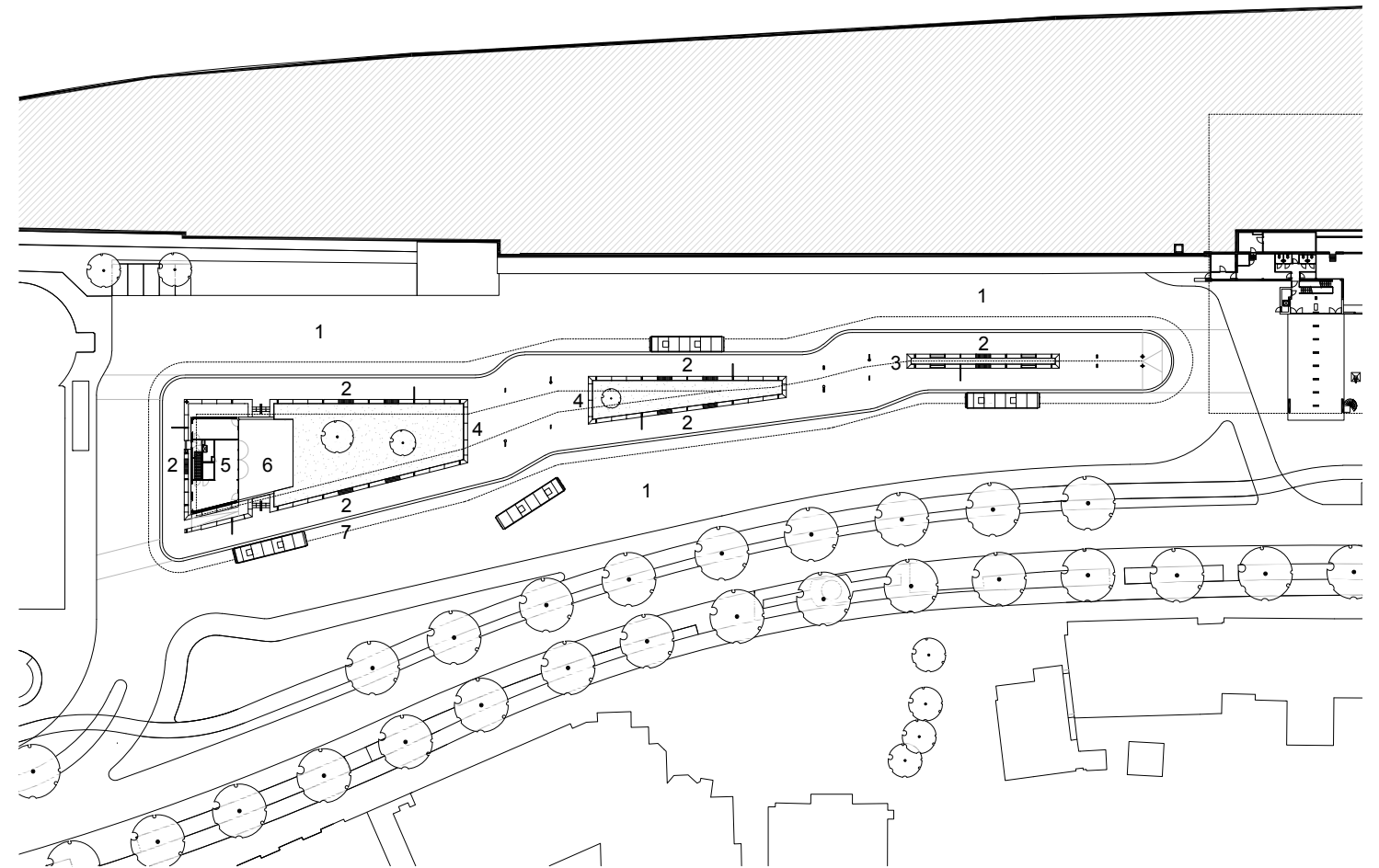
fragment

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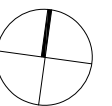


plan  
1:1100



1. bus lane
2. platform
3. concrete seating edge with integrated display for static travel information
4. landscaped garden with seating edge around it
5. driver's building, also including public transport services and commercial room
6. terrace
7. awning

0m 5m

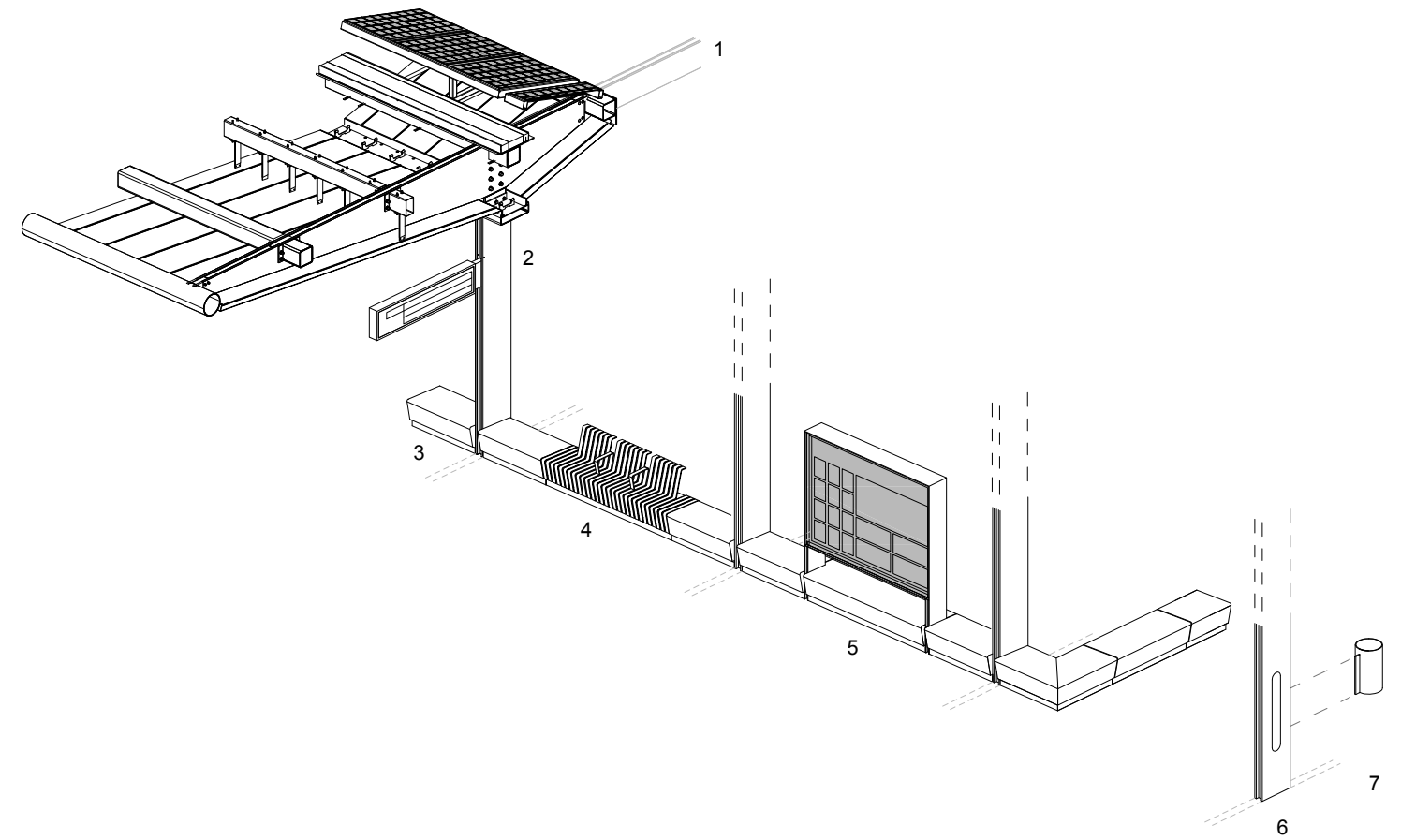


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## building components



1. awning with framework for solar panels
2. composite column with digital display travel information
3. concrete seating edge
4. strip steel bench with heating, integrated in concrete seating edge
5. display static travel information integrated in seating edge
6. composite column with integrated s.o.s.-panel and intercom
7. waste bin

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## INFORMATIE

### Station Tilburg

Uitgaande				Inkomende				Lijn	Doel	Frequentie	Opmerkingen
Uitgaande	Inkomende	Uitgaande	Inkomende	Uitgaande	Inkomende	Uitgaande	Inkomende				
10:00	10:05	10:10	10:15	10:20	10:25	10:30	10:35	1	Utrecht	15 min	
10:15	10:20	10:25	10:30	10:35	10:40	10:45	10:50	2	Amsterdam	30 min	
10:30	10:35	10:40	10:45	10:50	10:55	11:00	11:05	3	Rotterdam	15 min	
10:45	10:50	10:55	11:00	11:05	11:10	11:15	11:20	4	Den Haag	15 min	
11:00	11:05	11:10	11:15	11:20	11:25	11:30	11:35	5	Brussel	15 min	
11:15	11:20	11:25	11:30	11:35	11:40	11:45	11:50	6	Antwerpen	15 min	
11:30	11:35	11:40	11:45	11:50	11:55	12:00	12:05	7	Londen	15 min	
11:45	11:50	11:55	12:00	12:05	12:10	12:15	12:20	8	Paris	15 min	
12:00	12:05	12:10	12:15	12:20	12:25	12:30	12:35	9	Madrid	15 min	
12:15	12:20	12:25	12:30	12:35	12:40	12:45	12:50	10	Barcelona	15 min	
12:30	12:35	12:40	12:45	12:50	12:55	13:00	13:05	11	Valencia	15 min	
12:45	12:50	12:55	13:00	13:05	13:10	13:15	13:20	12	Sevilla	15 min	
13:00	13:05	13:10	13:15	13:20	13:25	13:30	13:35	13	Granada	15 min	
13:15	13:20	13:25	13:30	13:35	13:40	13:45	13:50	14	Malaga	15 min	
13:30	13:35	13:40	13:45	13:50	13:55	14:00	14:05	15	Granada	15 min	
13:45	13:50	13:55	14:00	14:05	14:10	14:15	14:20	16	Malaga	15 min	
14:00	14:05	14:10	14:15	14:20	14:25	14:30	14:35	17	Granada	15 min	
14:15	14:20	14:25	14:30	14:35	14:40	14:45	14:50	18	Malaga	15 min	
14:30	14:35	14:40	14:45	14:50	14:55	15:00	15:05	19	Granada	15 min	
14:45	14:50	14:55	15:00	15:05	15:10	15:15	15:20	20	Malaga	15 min	
15:00	15:05	15:10	15:15	15:20	15:25	15:30	15:35	21	Granada	15 min	
15:15	15:20	15:25	15:30	15:35	15:40	15:45	15:50	22	Malaga	15 min	
15:30	15:35	15:40	15:45	15:50	15:55	16:00	16:05	23	Granada	15 min	
15:45	15:50	15:55	16:00	16:05	16:10	16:15	16:20	24	Malaga	15 min	
16:00	16:05	16:10	16:15	16:20	16:25	16:30	16:35	25	Granada	15 min	
16:15	16:20	16:25	16:30	16:35	16:40	16:45	16:50	26	Malaga	15 min	
16:30	16:35	16:40	16:45	16:50	16:55	17:00	17:05	27	Granada	15 min	
16:45	16:50	16:55	17:00	17:05	17:10	17:15	17:20	28	Malaga	15 min	
17:00	17:05	17:10	17:15	17:20	17:25	17:30	17:35	29	Granada	15 min	
17:15	17:20	17:25	17:30	17:35	17:40	17:45	17:50	30	Malaga	15 min	
17:30	17:35	17:40	17:45	17:50	17:55	18:00	18:05	31	Granada	15 min	
17:45	17:50	17:55	18:00	18:05	18:10	18:15	18:20	32	Malaga	15 min	
18:00	18:05	18:10	18:15	18:20	18:25	18:30	18:35	33	Granada	15 min	
18:15	18:20	18:25	18:30	18:35	18:40	18:45	18:50	34	Malaga	15 min	
18:30	18:35	18:40	18:45	18:50	18:55	19:00	19:05	35	Granada	15 min	
18:45	18:50	18:55	19:00	19:05	19:10	19:15	19:20	36	Malaga	15 min	
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19:30	19:35	19:40	19:45	19:50	19:55	20:00	20:05	39	Granada	15 min	
19:45	19:50	19:55	20:00	20:05	20:10	20:15	20:20	40	Malaga	15 min	
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20:15	20:20	20:25	20:30	20:35	20:40	20:45	20:50	42	Malaga	15 min	
20:30	20:35	20:40	20:45	20:50	20:55	21:00	21:05	43	Granada	15 min	
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21:00	21:05	21:10	21:15	21:20	21:25	21:30	21:35	45	Granada	15 min	
21:15	21:20	21:25	21:30	21:35	21:40	21:45	21:50	46	Malaga	15 min	
21:30	21:35	21:40	21:45	21:50	21:55	22:00	22:05	47	Granada	15 min	
21:45	21:50	21:55	22:00	22:05	22:10	22:15	22:20	48	Malaga	15 min	
22:00	22:05	22:10	22:15	22:20	22:25	22:30	22:35	49	Granada	15 min	
22:15	22:20	22:25	22:30	22:35	22:40	22:45	22:50	50	Malaga	15 min	
22:30	22:35	22:40	22:45	22:50	22:55	23:00	23:05	51	Granada	15 min	
22:45	22:50	22:55	23:00	23:05	23:10	23:15	23:20	52	Malaga	15 min	
23:00	23:05	23:10	23:15	23:20	23:25	23:30	23:35	53	Granada	15 min	
23:15	23:20	23:25	23:30	23:35	23:40	23:45	23:50	54	Malaga	15 min	
23:30	23:35	23:40	23:45	23:50	23:55	00:00	00:05	55	Granada	15 min	
23:45	23:50	23:55	00:00	00:05	00:10	00:15	00:20	56	Malaga	15 min	
00:00	00:05	00:10	00:15	00:20	00:25	00:30	00:35	57	Granada	15 min	
00:15	00:20	00:25	00:30	00:35	00:40	00:45	00:50	58	Malaga	15 min	
00:30	00:35	00:40	00:45	00:50	00:55	01:00	01:05	59	Granada	15 min	
00:45	00:50	00:55	01:00	01:05	01:10	01:15	01:20	60	Malaga	15 min	



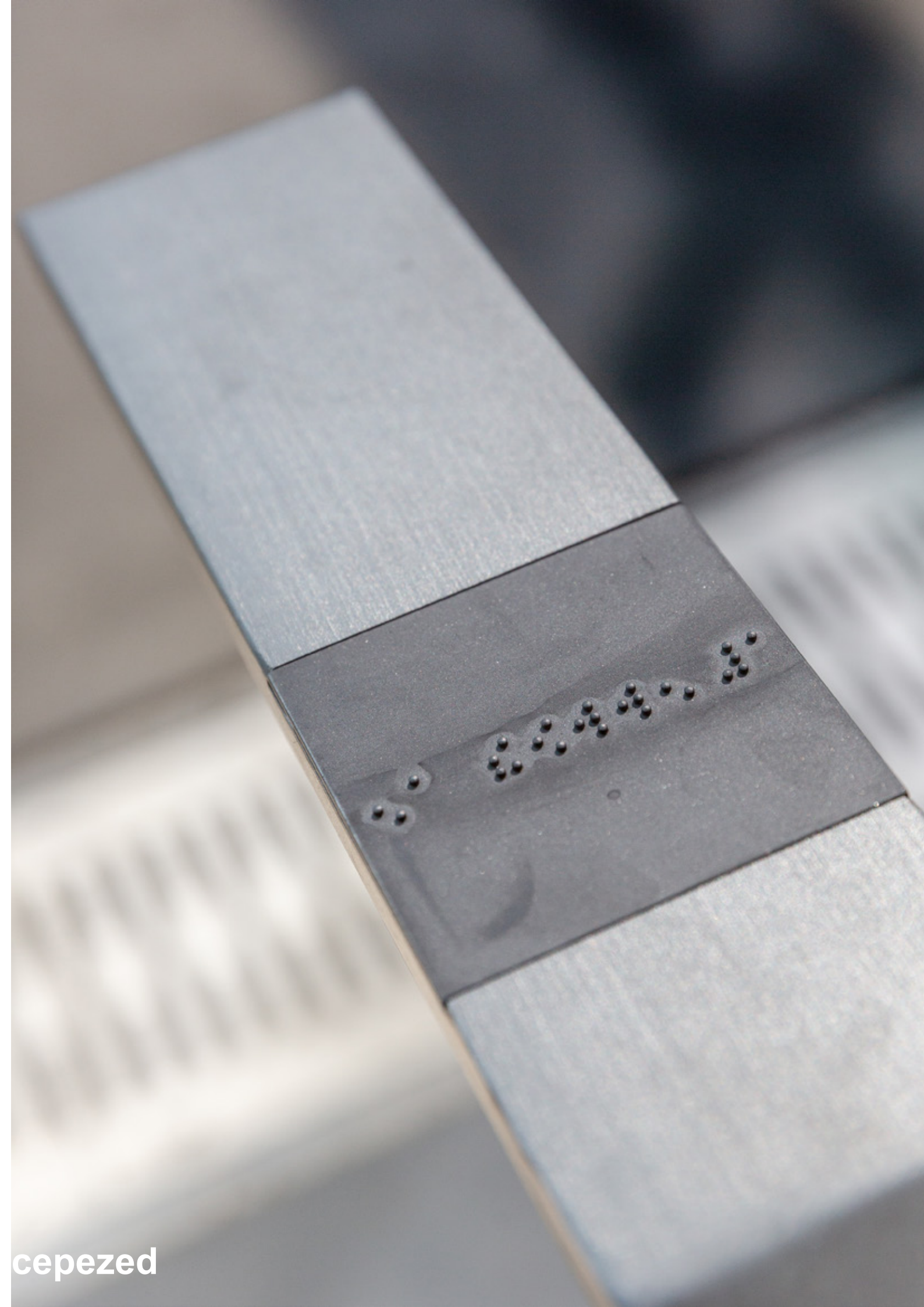
Bravo  
actueel met OVMO





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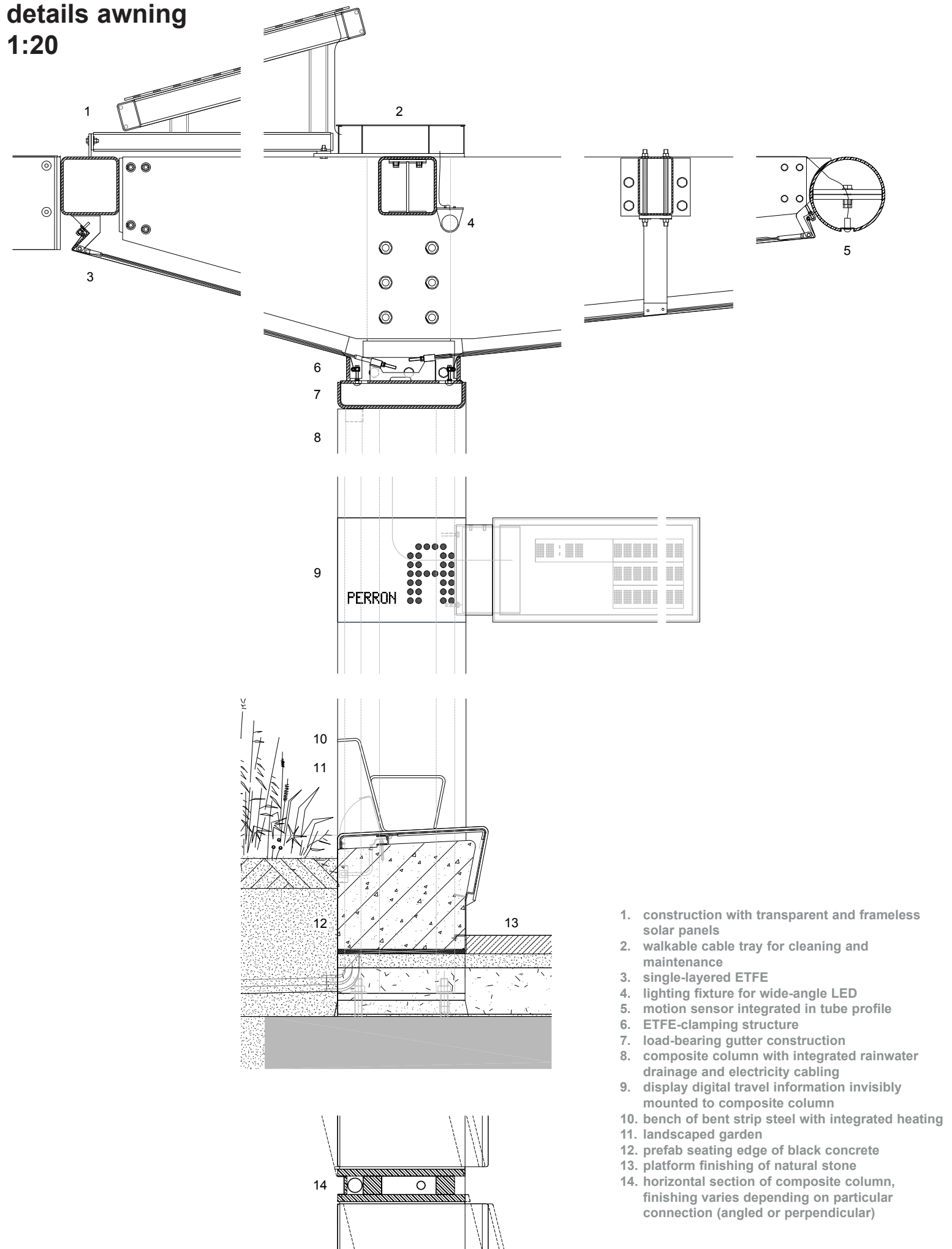


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## details awning 1:20



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# colophon

## project

bus station Tilburg

## address project

Spoorlaan, Tilburg, Netherlands

## client

City council Tilburg

## architect

architectenbureau cepezed, Delft

## structural engineering

IMd Raadgevende Ingenieurs, Rotterdam

## consultant mechanical & electrical engineering

Nelissen Ingenieursbureau b.v., Eindhoven

## consultant building physics, fire safety and sustainability

Nelissen Ingenieursbureau b.v., Eindhoven

## landscape architect/ urban planner

Atelier Quadrat, Rotterdam

## lighting

Atelier LEK, Rotterdam

## main contractor

BAM Infra bv, Gouda

## contractor steel construction

Buiting Staalbouw, Almelo

## contractor installations

Hoppenbouwers Techniek, Udenhout

## etfe roof

Buitink - Technology, Duiven

## design phase

oktober 2016 – september 2017

## construction phase

maart 2018 – maart 2019

## length and width | gfa building

160 m en 30 m (at widest point) | 108m<sup>2</sup> bvo

## sustainability

250 m<sup>2</sup> of solar panels on the roof; yield = Zero use on the electric bill (in Dutch: Nul Op de Meter, NOM)

## photography

cepezed | Lucas van der Wee

## drawings and sketches

architectenbureau cepezed

## note

For high-resolution images and more information about the project, please contact our PR department; +31 (0) 15 215 0000 | [pr@cepezed.nl](mailto:pr@cepezed.nl)

→ Want to know more? View the project page [here](#)

Would you like to discuss this further with us? → Mail [bd@cepezed.nl](mailto:bd@cepezed.nl) or call our business development team at +31 (0)15 2150000

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