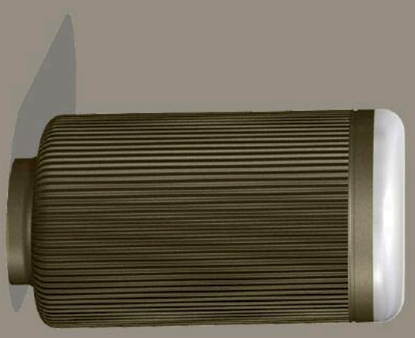

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# *N. Foster design passenger shelter*

N. Foster *design passenger shelter*

## Overview

### *Colours*

Green
RAL 6014

Chain metal grey
JCD 7002

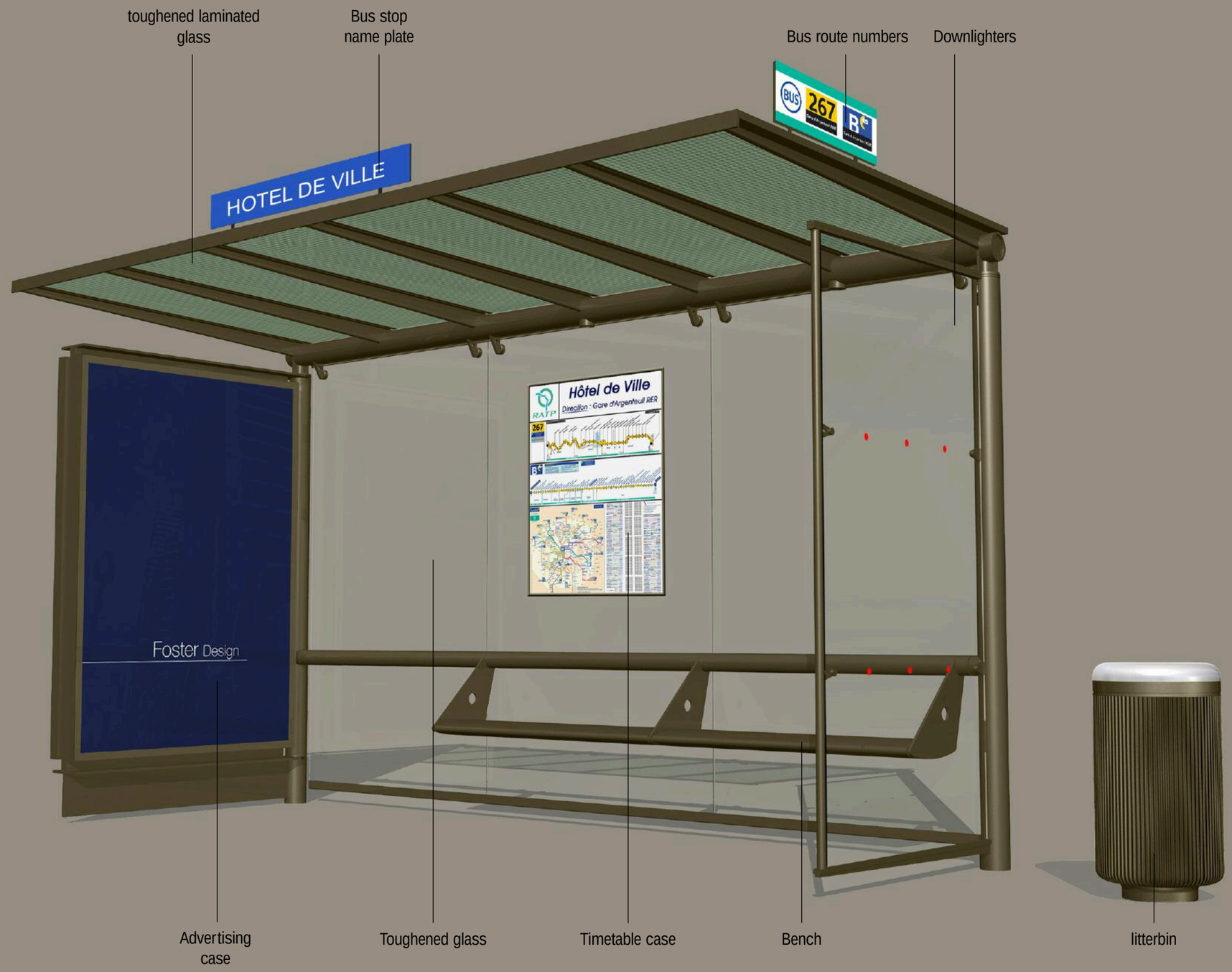
***Other colours from our range by customer choice***

***Designed by N.Foster and developed by JCDecaux***

***12 people sheltered***

***5/6 seat capacity***

***6.8 m² covered area***

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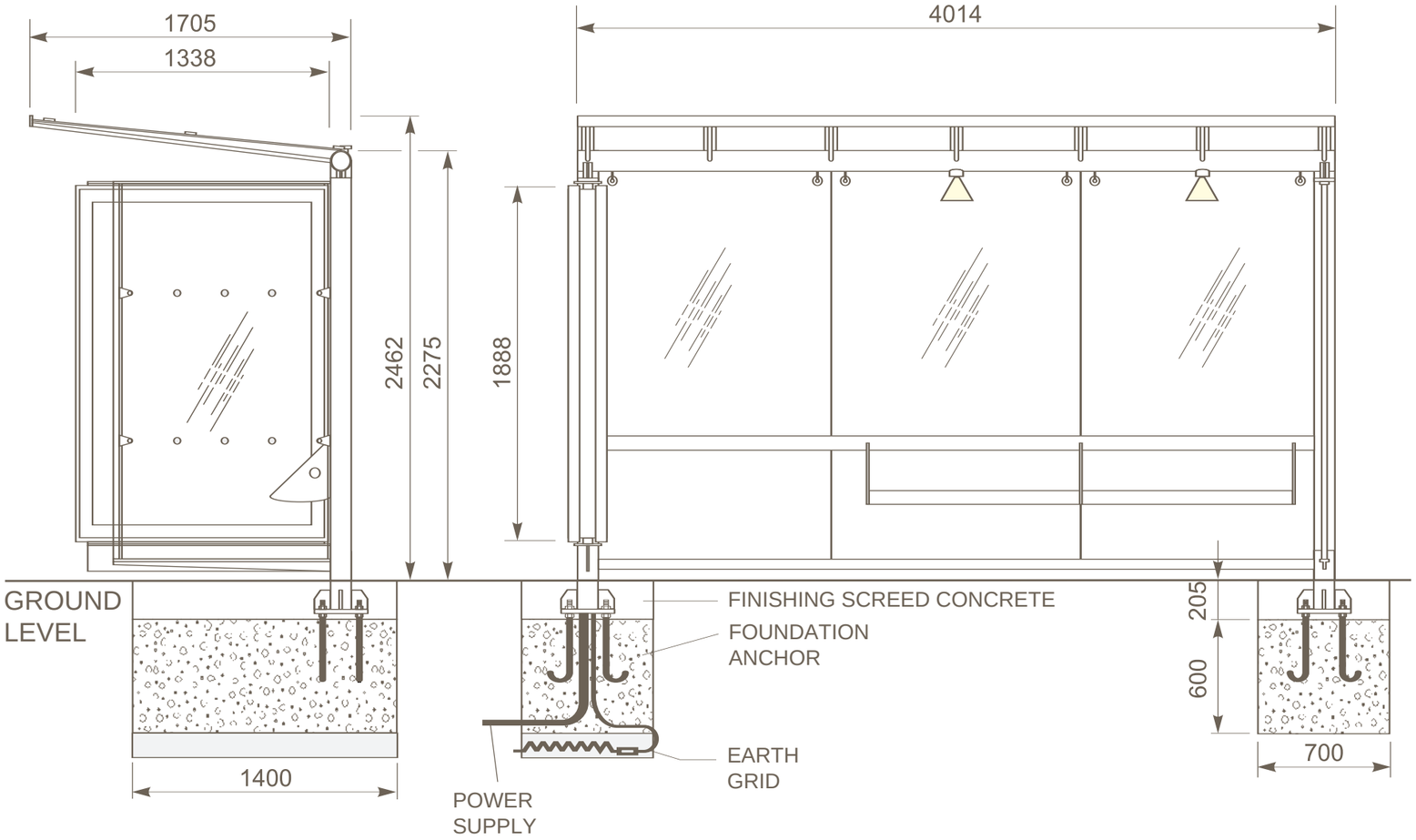
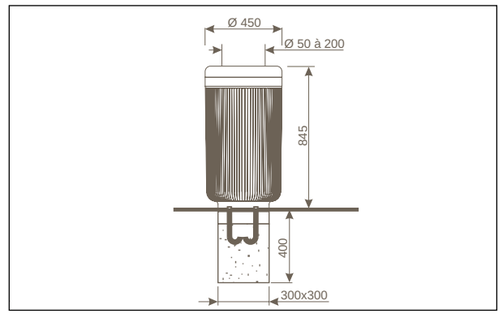
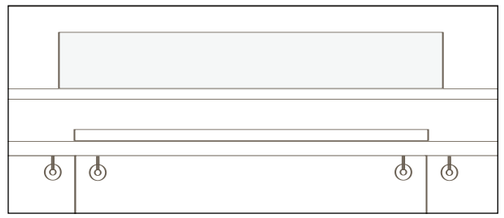



**Option, if contracted :**
**Litterbin**



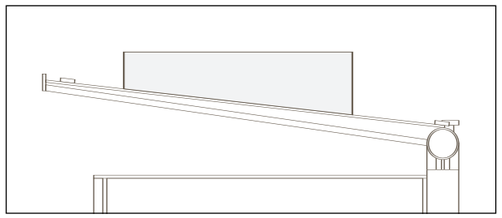

Capacity 60 litres
Basket and body in rotomoulded, mass pigmented high density black polyethylene
Lid in pressed aluminium
Unlocked via special security key to remove the basket
Sealing kit available in the event of anti-terrorism measures

**Option, if contracted :**
**Stop name**



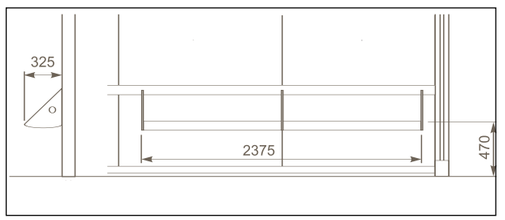
Painted aluminium plate fixed to the roof
Self-adhesive vinyl lettering
Dimensions to suit requirements

**Option, if contracted :**
**Bus route numbers and directions**



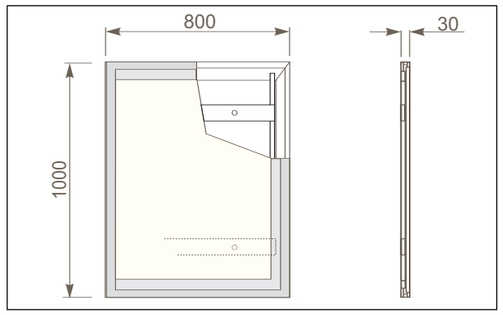
Painted aluminium plate
Self-adhesive vinyl lettering
Dimensions to suit requirements

**Bench**




Moulded structural foam and glass reinforced polyester sandwich
Requires no separate foundations

**Timetable case**




Secured to one of the rear glasses
Assembled from extrusions
Fixings to NF E25/27
3 mm thick polycarbonate glazing
Anti mist system
Dimensions to suit requirements

*N. Foster design passenger shelter*
*Drawing*

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# Technical description

## Structure

**FRAME**

Comprised of two tubular uprights connected by the bench cross-member and topped by the roof

One of the posts is fitted with a door to access the electrical supply. Serves for cable routing

**WALLS**

An assembly comprised of three rear and one return glass, secured to the frame by glass cleats. Toughened glass used throughout (this type of glass forms small cube-shaped pieces in the event of breakage, avoiding the risk of injury)

Glass terminated a few centimetres above ground level to accumulation of litter inside the shelter

**ROOF**

A welded steel construction, supporting 6 panels of toughened laminated glass, which cannot fall in the event of breakage

The glass is specially treated to reduce the heat of the sun rays by more than 50%

Waterproofing is ensured by seals fitted in the glazing bars

Maximum load bearing capacity 250kg/m$^2$

Sloped to drain rainwater behind rear glass

## Advertising case

Of aluminium extrusion construction, borne by top and bottom arms welded to a frame upright. Fitted with two top hung doors

Dust and water ingress protection index: IP34

Houses the mains connection board.

Lit with 4 fluorescent tubes

Excellent backlight quality provided by internal diffusers

Posters may be suspended by clips or a fold and rail system

Contributes to the internal illumination of the shelter

## Foundations

Comprised of concrete slabs incorporating foundation anchors and providing services inlets

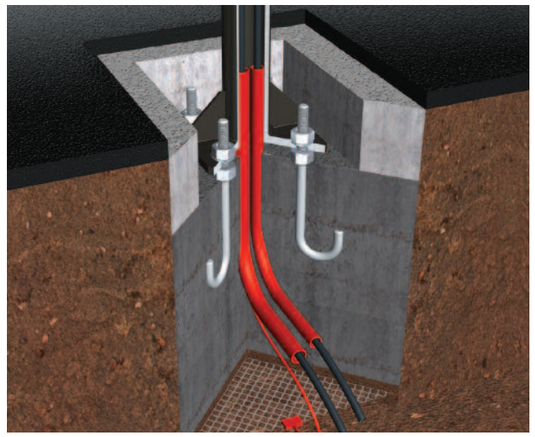
Calculated for extreme weather conditions

Fitted with an earth grid with copper connection for earthing of the structure

The slab dimensions are optimised to minimise surface area occupied. A high quality finish is ensured around the posts

Gradients up to 6% are catered for as standard

The shelter can be mounted on a steel frame if required



## Bench

Comprised of a 5/6 person seat secured to the shelter frame

Central separation prevent misuse of the bench

An ergonomically designed seat

Fitted with a backrest

Requires no separate foundations

## Materials

| MATERIALS | ANTI-CORROSION TREATMENT | FINISH | MAIN ITEMS |
|---|---|---|---|
| steel | hot dip galvanizing<br>spun galvanizing | 80 micron powder coating | posts bench arms roof glasslegs<br>foundation anchors |
| stainless steel | passivation | beadblasting and electropolishing | bench seats<br>fixings |
| aluminium | anodisation | 80 micron powder coating | adcase ; timetable case<br>name and line number plates |
| toughened glass | | silk screen printed enamel | vertical glass |
| toughened laminated glass | | anti-heat treatment | roof glass |
| synthetic rubber | | mass pigmented | seals |
| B25 concrete | | | foundations |

## Electrics

Connected to public lighting or mains supply

Factory tested for electrical insulation and earth continuity

Supply 220/240V- 50 Hz

Protected by residual current circuit protection device (RCCD) 25A-30mA

Mains isolator 6A

**POWER RATING**

shelter 45 VA

advertising case 216 VA

**CONSUMPTION**

Shelter 0.36 kWh/day

advertising case 2,5 kWh/day

based on 4200 hours per year lighting

## Lighting

Provided by two halogen spotlights located in the roof beam

Secured with tamper-proof fixings to prevent vandalism

Blends elegantly with the design

Illuminates the timetable case

Fed from the advertising case

# Standards

Design and manufacture processes to ISO 9001 (version 2000)

| MECHANICAL |
| --- |
| - mechanical construction rules |
| - aluminium construction rules DTU 13.12 |
| - foundation calculations |
| mechanical CM66 |
| eurocode 2 and 3 |
| BAEL 91 for reinforced concrete |
| DTU 39 glass parts |
| NFE 25/27 for fixings |

| ÉLECTRICAL |
| --- |
| NFC 15-100 |
| NFC 17-200 |
| CE |

# Safety

Unobstructed view

Hidden frame fixings preventing vandalism

Glass changed from outside to avoid inconvenience to users

Visible warning during all maintenance and repair operations

Modular glass concept eases individual handling of glazing panels

# Resistance to vandalism

Impact resistance index : IK 07

Locking of doors via a special security key

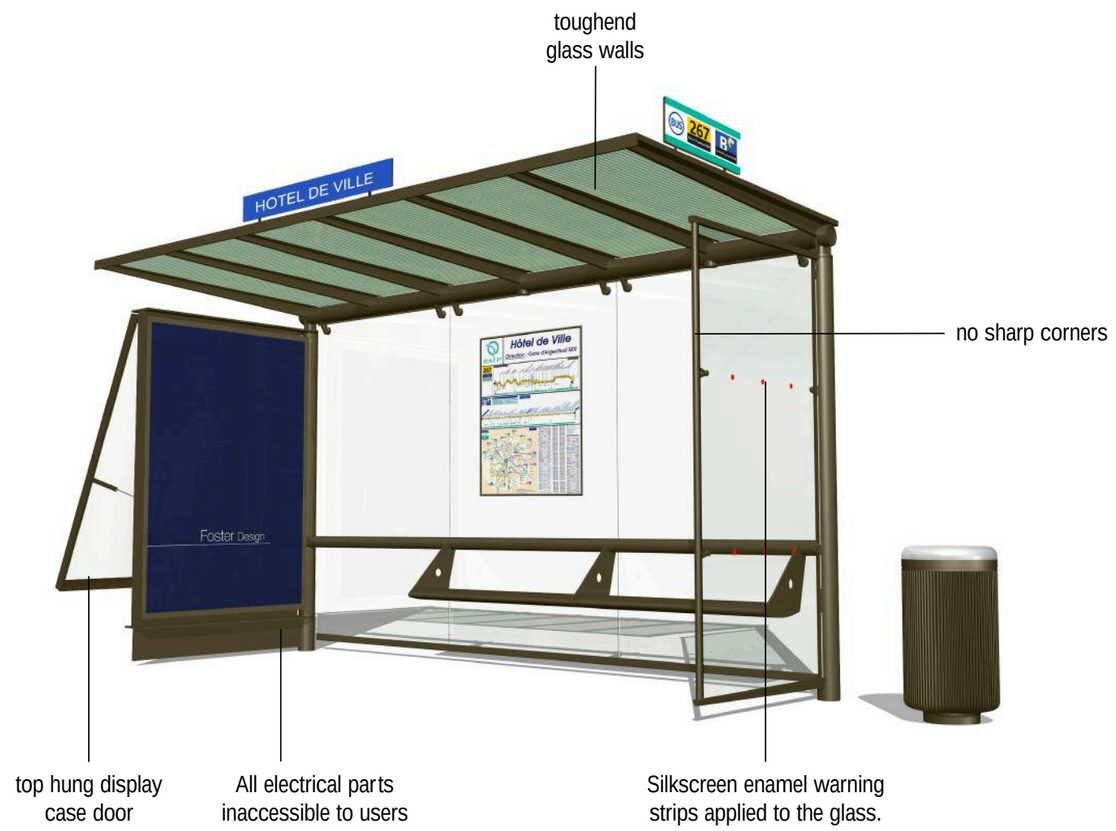
No visible fixings

No visible wires

Toughened glass walls

Toughened laminated glassroof

Made from materials unaffected by outdoor exposure




***A protected space to all relevant standards***

***Treatments applied to ensure longevity of the shelter***

***A roof that withstands the weight of 21 persons***

***Glazed roof***

***A shelter that will resist wind speeds up to 180 km/h***

***Rainwater effectively channelled away***

***Perfect integration into the walkway surface***

***Designed for ease of maintenance***

***Any risk of injury avoided through use of toughened glass throughout***



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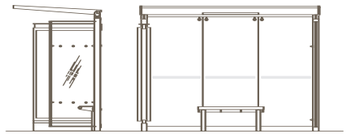
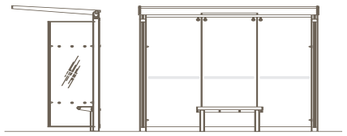
# Modularity

Different configurations in accordance with passenger volumes, urban planning and local installation constraints.

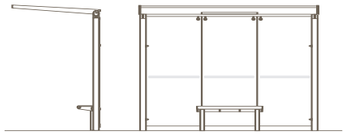
The shelter is available with either 3 or 6 rear glasses



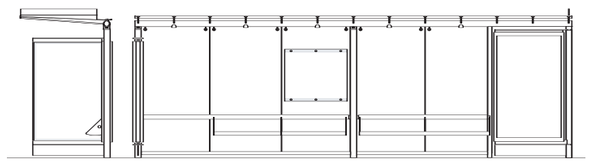
Passenger shelter



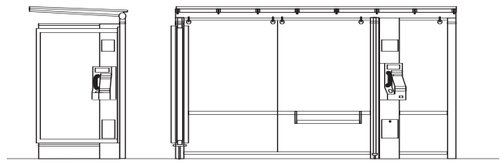
Non–advertising passenger shelter



Non–advertising passenger shelter
without return glasses



Double shelter



Bus shelter with phone booth




Bus shelter with automatic public toilet

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