PUBLIC TRANSPORT SERVICES

TECHNICAL STANDARD

PART 129007

DESIGN - STATIONS - FURNITURE

AR-PW-PM-SPE-00129007

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1.0 INTRODUCTION

The Department of Planning, Transport and Infrastructure (DPTI) Public Transport Services Division (PTS) owns and operates the Adelaide Metropolitan Passenger Rail Network (AMPRN). There are approximately 85 stations serving the AMPRN. The significant number of stations means that the process of upgrading or renewal is continuous. In order to both economise on design and construction effort and costs and enhance the passengers’ experience a set of common design and construction technical standards for stations has been developed.

Because the set of station standards is primarily used within the contract administration process the technical standards documents must be aligned with both the DPTI wide Master Specification and the PTS engineering management system.

The document attached at Annex Technical Standard – Stations - Furniture, is one of the set of station standards.

1.1 PURPOSE

The purpose of this Technical Standard is to outline the design requirements, selection, sitting and fixing of platform furniture at the station precinct.

1.2 SCOPE

This Technical Standard applies to all PTS projects and contractor organisations designing, constructing or maintaining passenger stations on the AMPRN.
2.0 ANNEX A – TECHNICAL STANDARD – STATIONS - FURNITURE

CONTENTS

1. General
2. Standards and Drawings
3. Design Requirements
4. Furniture
5. Fixing

1. GENERAL

This Part specifies the requirements for the design, selection, locating and fixing of platform furniture at rail stations on the Adelaide Metropolitan Passenger Rail Network (AMPRN).

Furniture includes seats, lean rails, and litter bins to be located in the Station Precinct.

2. STANDARDS AND DRAWINGS

STANDARDS

| AS 1428   | Design for Access and Mobility |
| AS 2700   | Colour Standards for General Purpose |
| AS 2890   | Parking Facilities |

DRAWINGS

| S7071, sheet 12 | Station Precinct Concept – Furniture – Seat & Lean Rail Details |
| S7071, sheet 13 | Station Precinct Concept – Furniture, Litter Bin & Bollard Details |
| S7071, sheet 18 | Station Precinct Concept – Platform |
| S7071, sheet 19 | Station Precinct Concept – Basic Platform & Shelter (Butterfly) General Layout |
| S7071, sheet 20 | Station Precinct Concept – Basic Platform & Shelter (Curved) General Layout |
| S7071, sheet 21 | Station Precinct Concept – Platform TGSIs & Pavement Marking Layout |

3. DESIGN REQUIREMENTS

Furniture shall have a minimum design life of 30 years.

3.1 Minimum Furniture Requirements

Table 3.1 details the minimum furniture requirements at Basic Neighbourhood Stations, and Enhanced Amenity Stations.
TABLE 3.1 – MINIMUM FURNITURE REQUIREMENTS AT STATIONS

<table>
<thead>
<tr>
<th>Basic Neighbourhood Station</th>
<th>Enhanced Amenity Station</th>
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<tr>
<td>Seats</td>
<td>Lean Rails</td>
</tr>
<tr>
<td>Up-track</td>
<td>6</td>
</tr>
<tr>
<td>Down-track</td>
<td>3</td>
</tr>
<tr>
<td>Car Parks</td>
<td>0</td>
</tr>
<tr>
<td>Combined Bus/Rail Interchanges</td>
<td>1 per bus stop</td>
</tr>
<tr>
<td>Bus Shelter</td>
<td>1 per bus stop</td>
</tr>
<tr>
<td>Accessible paths</td>
<td>1 per 60 m (refer Project Design Brief)</td>
</tr>
</tbody>
</table>

3.2 Furniture Locations

Furniture shall be located:

1. so as not to present a hazard to people with impaired vision;

2. a minimum horizontal distance of 1 000 mm from the edge of the roof line of adjacent structures such as shelters and toilet facilities.

3. such that the front edge of any seats and lean rails shall preferably be set back at least 500 mm from the Primary Access Path.

Litter bins shall be located in such a way that they do not intrude onto accessible paths of travel or manoeuvring areas while permitting easy access for emptying.

For any additional furniture requirements refer to the Project Design Brief.

3.2.1 Platforms

Platform furniture shall be located in the Physical Structure Zone and as shown on Drawing No. S7071, sheets 18, 19, 20 and 21.

Seats may be provided as a ‘back to back’ or ‘double’ unit on island or integrated bus/rail platforms.

Station litter bins shall be provided on each platform as follows:

1. One at each platform access point; and

2. One adjacent to the shelter, or in the case of an Enhanced Amenity Station, central to the shelter.

3.2.2 Integrated Bus/Rail Platforms

Where there is an integrated bus/rail platform the minimum seat allocation per platform is shared with the interchange at a rate of one seat per bus stop. Refer to Part 129011 “Bus Interchanges” for seat locations.

One additional litter bin shall be provided per bus stop.
3.2.3 Car Parks

For stations with adjoining car parks an additional litter bin shall be provided at the main customer exit and/or entry point(s) of the car park, adjacent to the access path.

3.2.4 Access Paths

An additional seat shall be provided at resting points in accordance with Disability Standards for Accessible Public Transport (DSAPT). Refer to the Project Design Brief for additional litter bin requirements adjacent access paths.

3.2.5 Restricting Vehicle Movements

Impact absorbing bollards shall be provided where there is deemed a need to restrict vehicle movement within the Station Precinct including:

1. preventing vehicle access to platforms;
2. protecting rail infrastructure / equipment;
3. protecting utility services; and
4. protecting trees within parking areas.
5. the shared area between dedicated parking spaces for people with disabilities in accordance with AS/NZS 2890:6

Refer to Clause 4.5 and Clause 5.2 for bollard selection criteria and fixing details.

3.3 Furniture Design and Specification

3.3.1 General Requirements

Furniture shall meet the following criteria:

1. Suitable for people with disabilities; in accordance with DSAPT and AS 1428 Design for Access and Mobility;
2. Form part of a unique architectural suite of transport specific fittings, in order to assist with AMPRN wide corporate branding; and
3. Easily removed and replaced by way of supports and attachments being of consistent size, spacings and locations.

3.3.2 Material Selection

Furniture shall be fabricated of material that meets the following criteria:

1. Robust;
2. Easily maintained and durable;
3. Maximizes performance and longevity; and
4. Utilises base material finishes such as a galvanised steel or stainless steel matt (brush) finish.

3.3.3 Detailing

Furniture shall incorporate the following construction detailing:
(1) simple whilst facilitating rapid repair, removal and replacement as required;
(2) highly resistant to vandalism and damage through either impact damage, flame damage, scratching or engraving damage and graffiti;
(3) excludes small channels or crevices to minimise holding of water and stuffing of refuse or rubbish;
(4) simple planar surfaces, thus facilitating ease of cleaning and removal of stickers and graffiti rather than containing difficult crevices which hamper easy maintenance;
(5) limited “rail” lengths to discourage skateboarding and similar activities; and
(6) have no sharp edges or pinching points.

4. FURNITURE

4.1 Potential Supplier

A potential supplier known to the Principal is:

Street and Park Furniture,
30 Chapel Street,
Norwood SA 5067
www.streetandpark.com.au

This specification shall not be read to restrict competitive market quotations or supply.

4.2 Seats

All seats shall be Street and Park Furniture Transit Suite - ‘Mawson Seat’ or similar and approved by the Superintendent.

Back to back seat units may be used on island and integrated bus/rail platforms.

Seats shall comply with Drawing No. S7071, sheet 12 and the following:

(1) Be unpainted;
(2) Provided in modules of 1850 mm long between support post centres; and
(3) Recesses shall be provided along seat planks to discourage skateboarding and similar activities.

Refer to the Project Design Brief for seat selection at heritage stations.

4.3 Lean Rails

All lean rails shall be Street and Park Furniture Transit Suite - ‘Lean Rail’ or similar and approved by the Superintendent.

On island and interchange platform areas where seating is located centrally, lean rails can be provided as a ‘back to back’ unit.

Lean rails shall comply with Drawing No. S7071, sheet 12 and the following:

(1) Be unpainted; and
(2) Provided in modules of 1850 mm long between support post centres.
4.4 **Litter Bins**

All litter bins shall be the **Street and Park Furniture Transit Suite – 120 litre** or similar and approved by the Superintendent.

Litter bins shall comply with Drawing No. S7071, sheet 13 and the following:

1. Be unpainted;
2. Be locked with an “M” Padlock;
3. Have a removable insert; and.
4. The door opening shall not face the track.

4.5 **Bollards**

All bollards shall be **Street and Park Furniture - ‘Senate’ Suite, Cast In**, or similar and approved by the Superintendent. All bollards shall be locked with an “M” Padlock.

Bollards shall comply with Drawing No. S7071, sheet 13 and the following:

1. Be unpainted;
2. A minimum height of 1.2 m from the ground surface level to the top of the bollard. Where the bollard is used as a hazard warning marker the bollard shall be 1.5 m high so that it is visible from the rear view mirror of a vehicle;
3. Be provided with a cap;
4. A minimum 50% luminance contrasting iridescent reflector strip (such as 3M diamond grade red or white) shall be fitted to the top of the post and protected under the perforated cap; and
5. Lockable/ removable type shall be used where the Principal requires vehicle access but public access is not permitted.

5. **FIXING**

5.1 **Furniture**

5.1.1 **Concrete Surfaces**

Furniture support posts shall not be cast into concrete.

Furniture shall be fixed using chemical anchor fixings. Refer to Drawing No. S7071, sheets 12 and 13 for fixing details.

5.1.2 **Other Surfaces**

Furniture to be installed on other surfaces including asphalt surfaces and unsealed surfaces shall be mounted on a new concrete footing / plinth as shown on Drawing No. S7071, sheet 13.

The colour of the concrete for concrete footings / plinths for furniture shall be grey within the following colour range in accordance with AS 2700:

1. Lightest tone – Dark Grey (N64); and
5.2 **Bollards**

Bollards shall be installed in accordance with the manufacturer’s specifications and Drawing No. S7071, sheet 13.

Options for bollard installation include:

1. Removable;
2. Impact absorbing;
3. Casting into a concrete footing; and
4. Base plate with chemical anchor fixings.