OPERATION & MAINTENANCE MANUAL

SPEEDY STREET SOLUTIONS LTD.

SHELTERS, CANOPIES & CYCLE PARKING

Contents

Introduction

Speedy Street Solutions shelters, bus shelters, trolley shelters , bikes and covered walkways are manufactured using designs that have been refined through many years of development and installation. These proven designs provide **durable, reliable shelter solutions** suitable for a wide range of public, commercial, and transport environments.

Our structures are typically manufactured from **mild steel or aluminium**, with carefully selected sections and material grades to ensure they are **structurally sound, fit for purpose, and capable of delivering long-term performance**.

To help maximise the lifespan of these structures and reduce the need for major refurbishment, this manual has been produced to provide **guidance on inspection, maintenance, and key operational considerations**. Following these recommendations will help ensure that the structure remains safe, functional, and visually appealing throughout its service life.

Speedy Street Solutions is committed to delivering high-quality products while considering **environmental responsibility, structural integrity, and user safety** during both manufacture and long-term use.

The following standards have been considered during the **design, manufacture, processing, and delivery** of our shelter and canopy systems:

- **BS EN 1993-1-1** – Eurocode 3: Design of steel structures
- **BS EN 1090-1** – Execution of steel structures and aluminium structures
- **BS EN ISO 3834-3** – Quality requirements for fusion welding of metallic materials
- **BS EN ISO 1461** – Hot dip galvanised coatings on fabricated iron and steel articles
- **BS EN ISO 12944-2** – Paints and varnishes: Corrosion protection of steel structures by protective paint systems
- **BS EN 13022-1** – Glass in buildings: Structural sealant glazing

By adhering to recognised standards and implementing appropriate maintenance procedures, Speedy Street Solutions shelter and canopy structures are designed to provide **long service life, structural reliability, and safe operation** in a wide range of environments.

Health & Safety Information

Speedy Street Solutions shelters, canopies, cycle parking structures, and covered walkways do not require specific operating procedures once they have been correctly installed. However, certain **health and safety considerations** must always be observed during the use, inspection, and maintenance of these structures.

Roof Safety

The roof of the structure should be treated as a **fragile surface**. It has **not been designed to support the weight of personnel or stored materials**. For this reason:

- Climbing onto the roof is **strictly prohibited**
- Materials or equipment must **not be placed on the roof surface**

Attempting to stand or walk on the roof may result in **damage to the structure and risk of serious injury**.

PETg Roofing or Cladding Panels

Some structures incorporate **PETg panels**, which are designed to form to the required installed shape. While suitable for their intended use, PETg has **relatively low impact resistance**.

Repeated or heavy impacts—such as **footballs being kicked against the panels, individuals being pushed against them, or deliberate impacts**—may cause cracking or puncturing. If damage occurs, the exposed edges may become **sharp, similar to broken glass**, and could present a safety hazard.

If damage is observed:

- The affected area should be **isolated from use immediately**
- The damaged PETg panel should be **removed and replaced**
- A replacement panel should be obtained by contacting **Speedy Street Solutions**

Damage caused by **impact or misuse is not typically covered under product warranty**.

Working at Height

Routine inspection and maintenance may require access to elevated areas of the structure. Where this is necessary and **ladders or other access equipment** are used, it is the responsibility of the customer, site operator, or maintenance contractor to ensure that:

- All **working-at-height procedures** are followed
- Appropriate **training, supervision, and safety precautions** are in place
- Equipment is used **correctly and safely**

General Safety Responsibility

Speedy Street Solutions cannot accept responsibility for **damage to property or injury to individuals** resulting from unsafe working practices or misuse of the structure.

If there are any **concerns regarding structural integrity, product performance, product quality, or maintenance requirements**, Speedy Street Solutions should be **contacted in the first instance** so that appropriate technical advice and support can be provided.

Materials & Processes

Speedy Street Solutions shelters, canopies, cycle parking structures, and covered walkways are designed to meet a wide range of **site requirements and customer specifications**. As a result, different materials and manufacturing processes may be used depending on the specific structure and installation environment.

Materials

The following materials may be used in the manufacture of these structures:

- **Mild steel** – Grades S235, S275, or S355
- **Stainless steel** – Grade 304 or Grade 316
- **Extruded aluminium**
- **Toughened or laminated glass** panels
- **PETg or multiwall polycarbonate sheeting** used for roof or cladding panels
- **Plastic or aluminium guttering and downpipes** for water management
- **Timber cladding** where specified
- **Fixings** – Grade 8.8 or 10.9 high-strength steel, or stainless steel where appropriate
- **Rivets and Tek screws** for panel and component fixing
- **Ground anchors** – sleeve anchors or resin anchors depending on installation requirements
- **Proprietary locking mechanisms** on security gates where fitted

Material selection will vary depending on the **design requirements, structural performance, environmental exposure, and aesthetic preferences** of the project.

Processes Used

A variety of fabrication and finishing processes may be used during the manufacture of Speedy Street Solutions shelter and canopy structures, including:

- **Bending, forming, fabrication, and welding** of structural components
- **Hot dip galvanising** for corrosion protection of steel elements
- **Polyester powder coating** to provide a durable, weather-resistant finish
- **Wet painting** where specified for certain finishes or environments
- **Staining or treatment of timber cladding** to protect the wood and enhance appearance
- **Installation of proprietary locking mechanisms** on security gates where included in the design

These materials and processes are selected to ensure that Speedy Street Solutions structures provide **long service life, structural strength, and reliable performance** in outdoor environments.

Cleaning, Maintenance & Repair

This section provides a general overview of the **inspection and cleaning procedures** recommended to maintain the appearance and longevity of Speedy Street Solutions shelters, canopies, cycle parking structures, and covered walkways.

Inspection & Cleaning: To maximise the service life of the structure, it should be **visually inspected on a regular basis**. Inspections should check for:

- Signs of damage or vandalism
- Deterioration or breakdown of surface finishes
- Build-up of salt, dirt, or atmospheric residue
- Loose fixings or components

If any issues are identified during these inspections, appropriate **maintenance or repair procedures** should be followed for the materials involved.

If **serious damage occurs to any main or structural component**, Speedy Street Solutions should be contacted immediately for technical advice before any repair work is undertaken.

In addition to routine inspections, a **regular cleaning programme** should also be implemented to maintain the appearance and condition of the structure.

Recommended Inspection & Cleaning Frequency

The frequency of inspection and cleaning will depend on the **environment in which the structure is installed**.

Rural and Urban Environments (C1 – C3)

- Visual inspection: **Monthly**
- Cleaning: **Every 3 months**

Harsh Industrial or Coastal Environments (C4, C5-I, C5-M)
Where structures may be exposed to **higher concentrations of atmospheric pollutants such as chemicals, industrial emissions, or marine salt**:

- Visual inspection: **Weekly**
- Cleaning: **Monthly**, or more frequently if required

This guidance is intended to provide **general maintenance recommendations** and may not cover every specific situation. If your maintenance or cleaning requirements fall outside the scope of this document, please contact **Speedy Street Solutions** for further advice.

Maintenance Records: All **inspection, cleaning, and maintenance activities** should be recorded. These records should include:

- The **method of cleaning** used
- Any **cleaning products or treatments applied**
- Details of any **repairs or maintenance work carried out**

Maintaining accurate records is recommended for effective asset management and may also be required in the event of a **warranty claim**.

Galvanized Coating

The galvanised coating applied to Speedy Street Solutions shelters, canopies, cycle parking structures, and covered walkways is processed in accordance with the requirements of **BS EN ISO 1461:2022 – Hot Dip Galvanised Coatings on Fabricated Iron and Steel Articles**.

Galvanising is a **hot dip process** in which molten zinc reacts with the steel substrate to form a protective coating. Immediately after galvanising, the finish typically appears **bright and silver in colour**. Over time, this will naturally weather to a **dull grey patina**, which is the normal appearance of galvanised steel.

Due to the nature of the galvanising process, **minor surface irregularities may occur** on finished products. Where possible, these may be lightly finished; however, this will not be undertaken where it may compromise the zinc coating. As a result, some **visual irregularities may remain**, including on products that are subsequently powder coated. These variations **do not affect the durability or performance** of either the product or the coating.

Cleaning Galvanised Surfaces

Exposed galvanised surfaces should be cleaned using one of the following methods:

- **Low-pressure water wash**, such as a standard hosepipe
- **Warm soapy water applied with a soft brush** to remove surface dirt and deposits

After cleaning, the surface should be **thoroughly rinsed with clean water**.

The following should **not be used** during cleaning:

- Abrasive scourers
- Wire brushes
- Abrasive cleaning products

These materials may damage the protective zinc coating and lead to **premature corrosion**.

Repairing Damaged Galvanised Coatings

Galvanised coatings have the ability to **self-heal minor scratches and abrasions** due to the sacrificial nature of the zinc layer. However, where damage exposes the **base steel**, repair work may be required.

Zinc-rich repair coatings specifically designed for galvanised steel can be used to restore protection. Suitable repair systems include **zinc-rich repair paints applied by brush or aerosol spray**.

Recommended repair procedure:

1. Inspect the damaged area to determine whether **rusting has occurred**.
2. If rust is present, **clean the area using wire brushing or light sanding** until bright steel is exposed.
3. Apply a **zinc-rich repair coating** according to the manufacturer's instructions.
4. Ensure the applied coating builds up to a sufficient thickness to provide ongoing protection.

The **recommended coating thickness for repaired areas is typically at least 100 microns** to ensure adequate long-term corrosion protection.

Powder Coating

Powder coating is a finishing process where **polyester powder is applied to a galvanised steel substrate using an electrostatic spray gun**. The coated component is then **oven cured**, forming a durable and protective outer layer that provides both corrosion resistance and an attractive finish.

Due to the nature of the galvanising process, **minor surface irregularities may occasionally be visible** on finished products. Where possible, these may be lightly finished; however, this will not be undertaken where it may compromise the protective zinc coating. As a result, some **visual variations may remain**, including on products that are subsequently powder coated. These irregularities **do not affect the durability or performance** of the product or its protective coating.

Powder coated finishes are designed to provide **long-term durability**, although their lifespan will depend on factors such as **site location, environmental exposure, atmospheric pollutants, and the regularity of cleaning and maintenance**. The recommended cleaning frequency is outlined earlier in this guide.

Cleaning Methods: Powder coated surfaces should be cleaned using one of the following methods:

- **Warm, mild soapy water** applied with a soft cloth, sponge, or natural bristle brush, followed by rinsing with clean water
- A **proprietary car wash and wax system**, followed by rinsing with clean water

During the cleaning process, **abrasive cleaners, solvents, or harsh chemicals must not be used**, as they can damage the powder coated finish.

To enhance and maintain the appearance of the coating, an **annual treatment with automotive wax** may be applied if desired. While optional, this can help maintain the aesthetic quality of the finish.

Graffiti Removal: If graffiti appears on a powder coated surface, **solvent-based cleaners should not be used**, as they may damage the coating.

Instead, removal should be attempted using:

- A **car body polishing compound (such as a T-cut type product)**, or
- A **specialist graffiti removal cleaner**

Any cleaning product should first be **tested on a small, inconspicuous area** to ensure it does not damage the surface.

Minor Repairs

For **small scratches or chips**, the following repair procedure is recommended:

- Where the **base metal is exposed**, carefully apply a **zinc-rich primer** to the affected area.
- Once the primer has cured, apply a **matching acrylic-based topcoat or touch-up paint** recommended or supplied by Speedy Street Solutions.

Where the **galvanised layer is exposed but the base metal is not**, the same repair method should be followed **without applying the zinc-rich primer**.

Major Damage

Where there are **larger areas of coating damage, vandalism, or coating breakdown**, customers should contact **Speedy Street Solutions** for technical advice on appropriate repair or refurbishment solutions.

Stainless Steel

Stainless steel is often selected for structural and architectural applications due to its **corrosion resistance, strength, and clean aesthetic appearance**. However, although stainless steel is highly resistant to corrosion, it is important to note that it is **"stain less", not "stain never."**

Surface contamination and the formation of deposits should be prevented wherever possible. These deposits may consist of **minute particles of iron, rust from nearby materials, or environmental contaminants** that settle on the surface after installation. Industrial environments and naturally occurring atmospheric conditions can introduce particles that may be corrosive if left untreated.

More aggressive environments—such as **hot and humid areas, including swimming pool environments**—can accelerate surface discolouration and therefore require **more frequent inspection and cleaning**.

All grades and finishes of stainless steel may **stain, discolour, or develop a layer of grime during normal service**. To maintain maximum corrosion resistance and preserve the appearance of the surface, stainless steel should be **kept clean through regular maintenance**. When the correct grade is specified and contamination from handling, manufacturing, and installation is removed, regular cleaning will ensure **excellent long-term performance and durability**.

Stainless Steel Grades

Speedy Street Solutions products may incorporate two common stainless-steel grades:

Grade 316 (1.4401)
This grade contains higher levels of chromium and nickel than Grade 304 and also includes molybdenum. These elements increase corrosion resistance and make Grade 316 **less susceptible to surface pitting and staining**. It is particularly suited to **external installations and marine environments**, where the air contains higher levels of sodium chloride.

Grade 304 (1.4301)
Grade 304 is generally suitable for **rural and urban environments** where there is a lower risk of salt contamination or aggressive atmospheric exposure.

Cleaning Frequency

A common recommendation for maintaining stainless steel is simple: **clean the metal whenever it becomes dirty in order to restore its original appearance**. For most external installations, this may typically range between **one and four cleaning cycles per year**, depending on the environmental conditions.

The recommended maintenance frequency may vary depending on the **specific grade of stainless steel used and the environmental exposure**, as differences in chemical composition influence corrosion resistance and cleaning requirements.

The recommended cleaning frequency for stainless steel will vary depending on the **grade of stainless steel used and the environmental conditions** in which the product is installed.

Location	Grade 304 (1.4301)	Grade 316 (1.4401)
Internal	As required to maintain appearance	As required to maintain appearance
Suburban or Rural	Every 6–12 months (depending on location and design)	Every 6–12 months
Industrial or Urban	Every 3–6 months	Every 6–12 months
Coastal or Marine	Not recommended	Every 3–6 months

General Cleaning Methods

Stainless steel surfaces are generally **easy to clean and maintain**. In most cases, routine cleaning can be carried out using:

- **Warm water with mild soap or detergent**
- Rinse with **clean water**
- **Dry the surface** to enhance the appearance and prevent water marks

For **brushed (satin) stainless steel finishes**, nylon abrasive cleaning pads may be used to remove minor surface imperfections, embedded dirt, or light scratches. These pads are flexible and contain fine abrasive grit.

Important:
Nylon abrasive pads must always be used **in the same direction as the original polishing marks** to maintain the appearance of the finish.

Cleaning Heavily Soiled Stainless Steel

Where stainless steel surfaces become **heavily contaminated, neglected, or discoloured**, more intensive cleaning methods may be required.

Problem	Cleaning Agent	Comments
Routine cleaning	Mild soap or detergent and water	Apply with sponge, rinse with clean water, wipe dry if necessary
Fingerprints	Soap, warm water, or organic solvent (e.g. acetone or alcohol)	Rinse with clean water and wipe dry
Stubborn stains or discolouration	Mild non-abrasive cleaning creams	Rinse thoroughly with clean water and wipe dry
Oil or grease marks	Organic solvents (e.g. acetone or alcohol)	Clean afterwards with soap and water and wipe dry
Localised rust	Proprietary rust-removal gels, 10% phosphoric acid or oxalic acid solution	Apply with swab and leave ~15 minutes before rinsing. For phosphoric acid, rinse first with ammonia solution. Appropriate safety precautions should be followed
Mortar or cement splashes	10% phosphoric acid solution (warm)	Rinse first with ammonia solution, then clean water and wipe dry
Heavily neglected surfaces with accumulated deposits	Fine abrasive polishing paste (e.g. automotive polishing compound)	May restore dull finishes. Entire surface may need treatment to avoid patchiness
Paint or graffiti	Alkaline or solvent paint remover appropriate to the paint type	Apply with a soft nylon or bristle brush and follow manufacturer's instructions

The cleaning products referenced above are commonly understood to be suitable for stainless steel surfaces. However, **no endorsement of specific brands or manufacturers is implied**, and equivalent products from other manufacturers may also be appropriate.

If the cleaning methods described above do not achieve satisfactory results, stainless steel surfaces can also be **professionally passivated or mechanically polished by specialist contractors** to restore their finish and corrosion resistance.

More detailed information regarding life expectancy of Stainless Steel or how the surface will perform along with suitable cleaning regimes can be obtained by visiting:

http://www.bssa.org.uk/technical_information.php

PETG sheeting is commonly used within shelter and canopy structures as a **cost-effective alternative to glass**. The material offers a degree of flexibility, which allows it to be used effectively in **slightly curved roofing applications**.

PETG is considered a **dimensionally stable material**, meaning it experiences minimal movement due to temperature fluctuations. To accommodate any small movement and prevent stress on the material, **fixing holes are typically drilled slightly larger than the fixing itself**, and spacers are used to prevent the sheet from being gripped too tightly when the fixings are secured.

Cleaning PETG Panels

PETG surfaces should be cleaned using:

- **A soft cloth and warm soapy water**

After cleaning, the surface should be rinsed with clean water if required.

To avoid damage to the surface, the following precautions should be observed:

- **Do not use brooms or hard brushes**, as these may scratch the PETg surface
- **Do not use abrasive cleaners or scouring products**
- **Do not use solvents or harsh chemicals**

Examples of products that should **not be used** include:

- Abrasive cleaning creams or scourers
- Nylon scouring pads
- Paint thinners
- White spirits
- Methylated spirits or similar solvents

These substances can damage or permanently mark the PETg surface.

Damage and Panel Replacement

If **cracks, fractures, or holes** appear in the PETG panels due to vandalism, impact, or misuse, the following actions should be taken:

1. **Isolate the affected area immediately** to prevent use of the damaged section.
2. **Remove the damaged sheet** by either drilling out the rivets or removing the Tek screws.
3. **Replace the damaged panel** with a new PETG sheet.

Replacement panels can be supplied by **Speedy Street Solutions**, and installation services may also be available if required.

Prompt removal and replacement are important because **fractured PETG edges may become sharp**, creating a potential safety risk for users.

Environmental Considerations

Where shelters are installed in locations where **football or ball games are frequently played**, repeated impacts with PETG panels may eventually cause damage. In such cases, repairs can only be completed by **replacing the affected panel** with a new sheet supplied by Speedy Street Solutions.

In area's and times when snow fall is heavy and a skin forms over the shelter roof, then it is a mandatory requirement for the snow build up to be removed. This activity will need to be completed in a proper and safe manner so as to reduce the risk to the operative carrying out the task or causing damage to the PETg affected.

Multiwall Sheeting

Multiwall sheeting used in Speedy Street Solutions shelters and canopy structures is typically installed **within the roof area only**. The cut edges of the sheeting are protected with **anti-dust tape**, which may be either impermeable or vented depending on the design.

This tape is applied to prevent **dust, moisture, and debris entering the internal channels of the sheet**.

Important: The edge tape must **not be removed** without prior consultation with Speedy Street Solutions or the sheet manufacturer, as this may compromise the performance and longevity of the roofing system.

Glass Panels

Some structures may include **glazing within the roof or side panels**. The glazing used will typically be either **toughened glass or laminated glass**, depending on the structural and safety requirements of the design.

Both of these glass types are considered **safer than standard glass** and generally require only minimal maintenance.

Key Maintenance Points

- Glass panels should be **cleaned regularly** to maintain appearance.
- Cleaning can be carried out using **a proprietary glass cleaner and a soft cloth**.
- For roof glazing, the external surface may be cleaned using a **low-pressure hose** or by a **professional window cleaning contractor**.

Safety note:
Under no circumstances should the **glass roof area be walked on**, as it has not been designed to support pedestrian loads.

If **cracks or damage** are observed in the glazing:

1. The affected area should be **isolated immediately** to prevent access.
2. The damaged panel should be **repaired or replaced** by a qualified glazing contractor or through Speedy Street Solutions.

All **glazing clamps and fixings** should also be checked periodically to ensure they remain secure. If any clamps have loosened or appear to have been tampered with, they should be **tightened to provide appropriate clamping force and support**.

Guttering Systems

Shelters and canopy structures may incorporate **plastic or aluminium guttering systems** to manage rainwater runoff. Regular maintenance is essential to ensure the system continues to function correctly and to avoid unnecessary repair costs.

Maintenance work may require **working at height**, using ladders, scaffolding, or access platforms such as cherry pickers or scissor lifts. It is the responsibility of the customer or maintenance contractor to ensure **appropriate safety procedures, training, and supervision** are in place.

Speedy Street Solutions cannot accept responsibility for injuries resulting from unsafe working practices or incorrect use of access equipment.

Gutter Maintenance Procedure

1. **Remove debris from the roof**
    - Clear leaves, twigs, and other debris from the roof area.
    - During winter, remove excessive **snow build-up**, as the weight or falling snow can damage gutter systems.
    - Plastic guttering systems are particularly fragile, so care should be taken when clearing debris.
2. **Inspect the gutter channels**
    - Remove any debris that may have accumulated in the gutters.
    - Ensure water can flow freely along the gutter system.
3. **Check downpipes and outlets**
    - Inspect the gutter outlet and downspout connections.
    - Remove any obstructions to prevent clogging and water accumulation.
4. **Install leaf protection where required**
    - If the structure is located in an area with significant leaf fall, a **proprietary leaf guard** may be installed at the top of the downpipe.
5. **Flush the system with water**
    - Use a hose to flush the roof and gutters, confirming that water flows freely from the roof to the gutter and through the downspout.

Further technical information about the guttering systems may be obtained from the manufacturers:

- Plastic gutter systems – Wavin / Osma
- Aluminium gutter systems – Storm guard Rainwater Systems

Timber Cladding

Where timber cladding is installed on the structure, basic maintenance will be required to ensure **long-term durability and appearance**.

Recommended Maintenance

1. **Annual visual inspection**
    - Inspect the timber cladding annually.
    - Lightly sand any **splinters or sharp edges** to maintain a safe surface for users.
2. **Annual protective treatment**
    - Apply a **proprietary wood stain or protective treatment** each year to preserve the appearance and extend the lifespan of the timber.
    - A suitable system is **Johnstone's Woodworks Quick Dry Satin Woodstain**.
3. **Replacement of deteriorated timber**
    - If timber cladding deteriorates to a point where its appearance or structural integrity cannot be maintained, it should be **replaced with a like-for-like component**.

The timber used for cladding is typically **Western Red Cedar**. If replacement boards are installed, a **colour difference may initially be visible**, as existing timber will have weathered naturally over time.

Wet Painted Components

If any part of the structure has been finished using **wet paint**, it should be **maintained in accordance with the same cleaning and maintenance guidance provided earlier for powder coated finishes**.

Information regarding the **original primer and paint systems used** can be obtained by contacting **Speedy Street Solutions** for technical support.

Spares & Accessories

Many components are shared across multiple Speedy Street Solutions product ranges in order to improve **manufacturing efficiency, stock availability, and faster replacement times**.

As a result, a number of items used in standard product ranges—such as **cycle shelters, smoking shelters, cycle racks, and cycle stands**—are commonly **held in stock in a galvanised finish**. This allows damaged or irreparable components to be replaced quickly without requiring full re-manufacture.

Where replacement parts are required:

- Stock components can typically be **picked and dispatched quickly**.
- If a **colour finish is required**, the item may be powder coated prior to dispatch.
- In many cases, replacement components can be **delivered within a few days**, depending on stock levels and delivery arrangements.

Roofing and cladding materials such as **polycarbonate multiwall sheets and PETg panels** are also generally available with a **short lead time**, often within approximately **one week**, subject to quantity and logistics.

Speedy Street Solutions can provide **installation operatives** to carry out replacement work where required. However, depending on the component being replaced, the work may also be completed by **qualified local contractors or maintenance personnel**.

Mechanical Coded Locks

Some cycle shelters or secure compounds may be fitted with a **surface-mounted mechanical code lock** to restrict access.

Installation guidance and operational instructions for these locks are available through the manufacturer's documentation, including guidance on **installation procedures and combination changes**.

Double Leaf Gates

Where mechanical coded locks are fitted to **double leaf swing gates**, the secondary (slave) gate leaf should be fitted with a **drop-bar mechanism** to ensure the locking system operates correctly.

For proper operation:

- The drop-bar must be **installed in the correct orientation**.
- The handle should project **towards the gap between the two gate leaves**.

Correct positioning allows the **guide pins to engage properly**, ensuring the drop-bar locks securely and prevents unauthorised operation.

Incorrect installation or orientation may **compromise the security and performance** of the locking system.