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WESTERN AUSTRALIA

SPECIFICATION 602

GUIDE POSTS

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REVISION REGISTER			
Clause Number	Description of Revision	Authorised By	Issue Date
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602.35.1 Guidance Notes	Figure 3 updated Figure 4 Warranty Form added	RE	02/05/2017
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602.13.6	Requirements for Vehicle impact test modified	RE	
602.13.12	Requirements of Clause amended	RE	
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602.31.2	Clause added	RE	
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Annexure 602B	List of Approved Guide Posts amended	RE	
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Annexure 602B	Delinex-Pro Guidepost added to Approved Guide Post List	RE	18/11/2010
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Annexure 602B	Park Flexible Steel Guide Post added to Approved Guide Post List	RE	25/06/2008

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SPECIFICATION 602

GUIDE POSTS

GENERAL

602.01 SCOPE

1. The work under this specification consists of the supply, installation and maintenance of Guide Posts and Delineators.

602.02 REFERENCES

1. Australian Standards, MAIN ROADS Western Australia Standards and MAIN ROADS Western Australia Test Methods are referred to in abbreviated form (e.g. AS 1234, MRS 67-08-43 or WA 123). For convenience, the full titles are given below:

Australian Standards

AS 1580	Paints and Related Materials - Methods of Test.
AS 1742.2	Manual of Uniform Traffic Control Devices –Traffic Control Devices for General Use
AS 1906.1	Retroreflective Materials and Devices for Road Traffic Control Purposes – Retroreflective Sheeting
AS 1906.2	Retroreflective Materials and Devices for Road Traffic Control Purposes – Retroreflective Devices (Non-pavement Application).
AS 2082	Timber – Hardwood – Visually Stress-Graded for Structural Purposes
AS 2858	Timber – Softwood – Visually Graded for Structural Purposes
AS 3730.13	Guide to the Properties of Paints for Buildings – Primer – Wood - Solvent-borne - Interior/exterior
AS 3730.14	Guide to the Properties of Paints for Buildings – Undercoat - Solvent-borne - Interior/exterior
AS 2311	Guide to the Painting of Buildings
SAA TR1 Part 6	Specification for Full Gloss Paint, Solvent, Borne, Exterior
AS 3730.6	Guide to the Properties of Paints for Buildings – Solvent-borne – Interior/exterior – Full gloss enamel

602.03 DEFINITIONS

- | | | |
|----------------------------|---|------------------------|
| Flexible guide post | A guide post which deflects when impacted by a vehicle and then returns to a vertical position, without maintenance intervention. | <i>Flexible</i> |
| Rigid guide post | A guide post which either fractures or remains intact and straight, but not vertical, when Impacted by a vehicle. | <i>Rigid</i> |

602.04 – 602.05 NOT USED

PRODUCTS AND MATERIALS

602.06 GENERAL

1. The Contractor shall supply new guide posts, delineators and fixings in accordance with this section of the specification. An approved list of guidepost manufacturers for use in Western Australia is supplied in Annexure 602B.

602.07 GUIDE POST COLOUR

1. All faces of the guide post shall be white in colour for at least a length of 600mm from the top of the guide post.

602.08 GUIDE POST SURFACE FINISH

1. The guide post shall be free of sharp edges, burrs, discolouration or other defects, which may affect its appearance and/or serviceability. The portion of the guide post that is white in colour shall have a surface finish that permits repeated easy cleaning.

602.09 GUIDE POST DIMENSION AND SHAPE

1. The cross sections of the guide post are to be such that it permits the guide post to meet the requirements of this specification.
2. The following dimensional requirements, as shown in Figure 1, must be satisfied:

- | | |
|--|----------------------|
| a. Width - guide post shall have a projected width of 100mm ± 5mm | <i>Width</i> |
| b. Length - guide posts shall be manufactured to a length that permits in-situ above ground height and below ground depth in accordance with Figure 1. | <i>Length</i> |
| c. Shape - the shape of the guide post shall be such that approved delineators can be permanently and securely attached to the guide post. | <i>Shape</i> |
| d. Tops - the tops of timber guide posts shall be cut to an angle to promote water run off in accordance with Figure 1. The tops of other types of guide posts may be cut square to the sides or may be angled. The shape of the bottom face of the guide post can be made to suit the method of installation. | <i>Tops</i> |

602.10 GUIDE POST WARRANTY

1. The period of the warranty for guide posts shall be a minimum of 5 years. During the period of the warranty, the Supplier shall, without delay and at no cost to the Principal, correct all defects and omissions covered by the warranty by way of repair, replacement or modification or other means. The Warranty must be in writing naming Main Roads Western Australia (Principal) as the product owner. When a product fails this specification under the warranty period the supplier is required to replace the product at no cost to the Main Roads Western Australia.

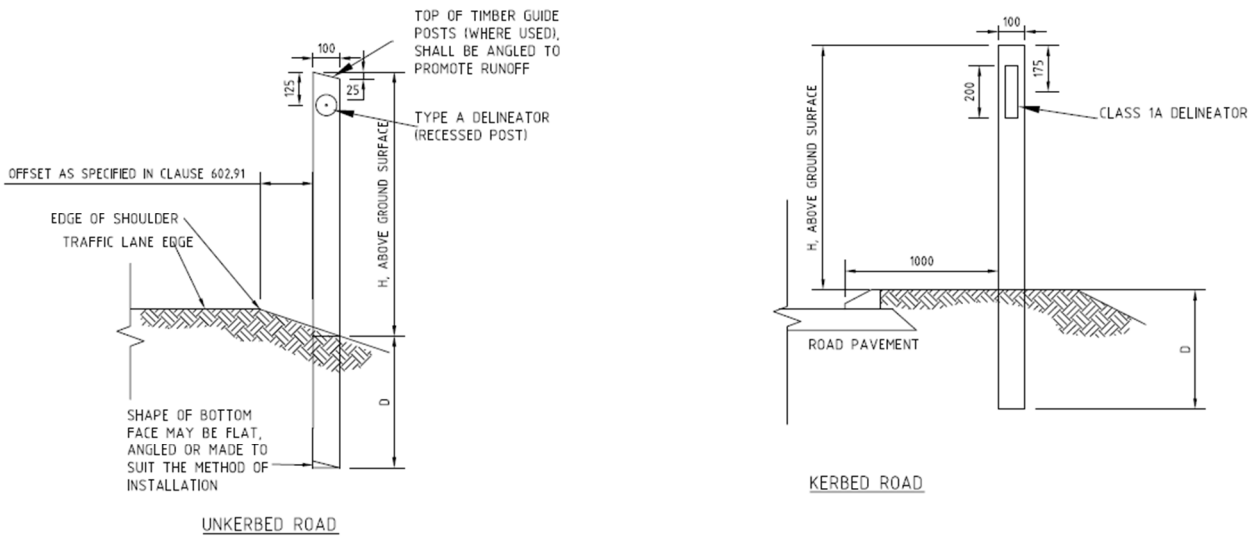
Warranty

Refer to Main Roads Special Conditions of Contract “Warranties from Third Parties”.

602.11 GUIDE POST MARKINGS

1. To enable traceability of the guide post, each post shall have legible markings, for the duration of the warranty period, containing the following information:
 - a. name of the supplier
 - b. date of manufacture
 - c. batch number
 - d. end of warranty date
 - e. model identification number / name
2. The markings shall be placed on at least one side of the guide post and shall be between 900mm and 1000mm from the top of the guide post. The lettering size shall be between 5mm and 10mm high.
3. A horizontal depth indicator shall be marked across the rear face of the guide post 1000mm from the top. The indicator shall remain clear for the full life expectancy of the guide post.

**Traceability
Marking**



	DEPTH (D) mm		HEIGHT (H) mm
	BURIED	DRIVEN	
RIGID POST	300 (+20)	300 (+20)	1000 (+30, -0)
FLEXIBLE POST	450 (+20)	350 (+20)	1000 (+30, -0)

FIGURE 1: GUIDE POST AND DELINEATOR

602.12 RIGID GUIDE POSTS

602.12.01 GENERAL

1. Rigid guide posts shall not shatter into multiple parts on impact. After being struck, guide posts shall not project a dangerous impaling section.
2. Rigid guide posts shall have a minimum bending strength of 0.3kNm and a maximum bending strength of 3.0kNm at yield.

602.12.02 TIMBER

1. Timber guide posts shall be manufactured from 100mm x 50mm Structural Grade 1 Timber being either Jarrah or treated Pine conforming to AS 2082 and AS 2858 respectively.
2. Both 100mm faces shall be lightly dressed to remove all saw marks over 80% of the face area. Thicknessing is not required on any dimension.
3. Timber may be unseasoned. The guide post shall be free from compression failures and other fractures, termite galleries, end splits and bark.

Timber Guide Posts

4. The entire exposed (above ground) surface area of the guide post shall be coated in paint either by brushing, spraying or immersion in accordance with the paint manufacturer's published requirements.

***Painting Timber
Guide Posts***

The exposed surface area shall be painted as follows:

- a. One coat of Primer to AS 3730.13
 - b. One coat of white Undercoat to AS 3730.14
 - c. One coat of white Gloss to SAA TRI Part 6 and AS 2311
5. Paint for rigid guide posts shall conform to the requirements of AS 1580. The perimeter of the guide post shall be finished in a durable gloss or semi gloss opaque white colour.
 6. The surfaces of the guide post to be painted shall be dry and free from all foreign matter including saw-dust, sand, dust, dirt, or other material or substance that could prevent the paint adhering.

602.12.03 STEEL GUIDE POSTS

1. All faces of steel guide posts shall conform to a smooth gloss white powder coat finish to a minimum coat thickness of 0.100mm.
2. Steel guide posts shall be free of rust or other defects for the duration of the warranty period.
3. Steel guide posts shall not have blunt edges exposed to passing motorists.

***Rigid Steel
Guide Posts***

602.13 FLEXIBLE GUIDE POSTS

1. Flexible guide posts shall be manufactured from material that does not shatter into multiple parts on impact. After being struck, guide posts shall not project a dangerous impaling section.
2. Details of the materials used in the manufacture of the guide post shall be supplied. These may include but are not limited to plastic and rubber. Details of the material properties including information relating to the use of recycled materials shall also be provided.
3. The material shall not vary beyond commercially accepted limits from the composition stated by the manufacturer at the time of offering.

Materials

4. The guide post shall be made to a design and from material, which provide the properties of strength, flexibility, impact resistance and durability required. The guide post shall be capable of retaining 85% of its colour, appearance and physical properties for at least 5 years when exposed to weather conditions existing in Western Australia. The material shall be resistant to mould growth and shall not be affected by hydrocarbon solvents (such as mineral turpentine, kerosene or diesel) which may be used for cleaning purposes. The material shall be resistant to termites and resistant to combustion if subjected to fire of intensity typical of roadside bush and grass fires. Any metal component shall be free of rust or other defects for at least 5 years of the operational life of the guidepost.

5. The guide post shall be installed in the ground such that it resists overturning or displacement by wind forces and does not work out of the ground due to oscillations.

Guide Post Anchorage

6. All testing specified in this Clause shall be undertaken by a NATA accredited laboratory. The vehicle impact test (602.13.12) can be undertaken by a non NATA accredited laboratory. A single submission of all the test results listed within this Clause shall be provided. These results shall be less than 3 years old, unless approved otherwise by the Principal, and shall be for the exact type of guide post offered.

Test Results

7. If a warranty is not available for the guidepost then a sample of the guide post shall be subject to artificial weathering for a period of 1000 hours in either:

- a. Atlas Twin Sunshine Carbon Arc Weatherometer , or
- b. Xeon Arc Weatherometer at 0.55 watts/m2 irradiance level with Boro/ Boro filters.

Weathering Resistance

During the weathering of the sample it shall be subject to :

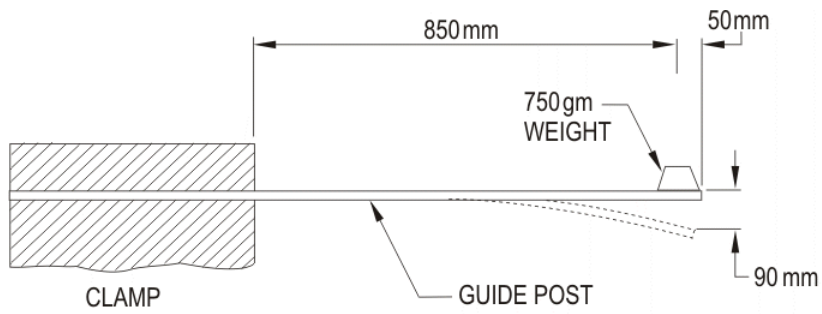
- c. Light and dark alternating cycles 20% of the testing time.
- d. Temperature during light cycles shall be a minimum of 32° degrees.
- e. Humidity temperatures shall be cyclic and be 20% of the testing time.

8. After exposure the surface shall be free from crazing or blistering. The degree of chalking and colour change shall not fall below a rating of 5 and the loss of gloss shall not exceed 20 gloss units (egg shell gloss) when evaluated in accordance with AS 1580 Methods 481.1 and 602.2 (Specular Gloss).

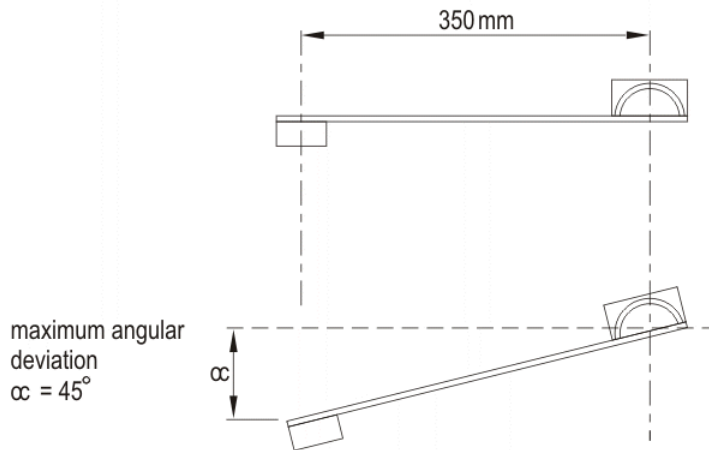
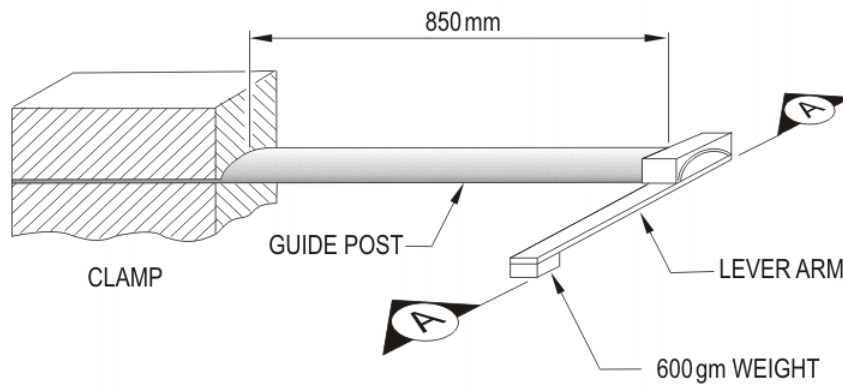
9. The guide post shall demonstrate shape retention under the specified thermal tests within this Clause. For each shape retention test the guide post shall be held in a clamp. The jaws of the clamp shall be shaped to match the profile of the guide post.

Shape Retention

10. The guide post shall be conditioned at $60^{\circ}\text{C} \pm 2^{\circ}\text{C}$ for 2 hours in an oven prior to being clamped. The conditioned guide post shall be capable of straightening itself to within 5° of vertical within 30 seconds of being bent 90° at the midpoint. This test is to be performed four times for both directions and each test shall be completed within 2 minutes of removal from oven. **Heat Resistance**
11. The guide post shall be conditioned at $0^{\circ}\text{C} \pm 2^{\circ}\text{C}$ (ice bath) for 2 hours prior to being clamped. The following tests shall then be performed: **Cold Resistance**
- a. The conditioned post shall be capable of straightening itself to within 5° of vertical within 60 seconds of being bent 90° at the midpoint. This test is to be performed four times for both directions. The post shall be reconditioned for 60 seconds between bend tests..
 - b. The conditioned post shall show no signs of fracturing, cracking or splitting when a steel ball weighing 1 kilogram is dropped a distance of 1500mm through a vertical frictionless guide to impact the surface of the post. The surface of the post being struck by the ball shall be in a horizontal position, with the post supported and clamped in position at both ends. The length between supports shall be 1000mm. This impact test shall be carried out five times and concentrated near the middle of the post. The post shall be reconditioned for 60 seconds between impact tests. **Impact Testing**
12. The guide post shall be capable of self erecting and remaining serviceable after being subjected to a series of direct impacts by a typical passenger vehicle at temperatures between 15°C and 30°C . A minimum sample of three guide posts shall be tested. The testing of the guide posts shall be conducted in a single run. The guide posts to be tested shall be installed in accordance with the recommendations of the manufacturer and shall be furnished complete with delineators. The guide posts shall be capable of withstanding a series of 10 bumper bar impacts at a speed of 60km/h followed by 5 bumper bar impacts at a speed of 100km/h directed at 90° degrees to the front face of the guide post. The impacting vehicle shall suffer little or no damage during the impact tests. The guide post shall return to within 5 degrees of vertical within $\frac{1}{2}$ hour of impact. Test results which show the guide posts are capable of withstanding the above vehicle impacts are to be provided. This shall include video footage evidence. The video footage shall be uninterrupted and show the guide posts returning to within 5 degrees of vertical within $\frac{1}{2}$ hour of impact. Ending the video footage before the guide posts return to vertical is not acceptable. The video footage requires a time and date stamp. **Vehicle Impact**
13. The design and composition of flexible guide posts shall be such that they conform to the requirements of Test A and Test B of the Guide Post Rigidity Tests drawing as shown in Figure 2. The rigidity tests are to be performed at a temperature of 28°C . **Rigidity**



TEST A - BENDING TEST



SECTION A-A

TEST B - TORSIONAL TEST

FIGURE 2: GUIDE POST RIGIDITY TESTS

602.14 DELINEATORS

1. Delineators supplied for attachment to guide posts shall meet the following requirements:

A) Corner cubed delineator (Type A)

***Type A
Delineators***

Comply with AS 1906.2

Red and white delineators shall be nominally 80mm in diameter

B) Retroreflective sheeting delineator (Class 1A)

***Class 1 A
Delineators***

Comply with requirements of Class 1A material, as defined in AS 1906.1

Red and white delineators shall be 200mm × 50mm for height and width respectively.

602.15 FIXINGS FOR DELINEATORS

1. The following fixings shall be provided for installing delineators to guide posts.

- a. Screws or nails shall be supplied to affix Class 1A delineators to guide posts. Self-Adhesive delineators may be used on guide posts that have a surface finish that permits adequate bonding of the delineator to the guide post.
- b. Vandal proof screws shall be supplied to affix Type A delineators to RIGID guide posts.

602.16 – 602.25 NOT USED

INSTALLATION

602.26 REMOVAL OF EXISTING GUIDE POSTS

1. Any existing guide posts that need to be removed prior to or during works are to be removed by the Contractor. The guide posts shall be disposed of by the Contractor and a new guide post shall be installed. If the guide posts are suitable for reuse or refurbishment the Contractor may either reuse or refurbish the guide posts in accordance with this specification.

***Existing Posts
Removed***

2. Redundant treated pine guide posts shall be removed to a hazardous materials disposal area.

***Hazardous
Materials***

602.27 TIMING

1. Guide posts shall be installed on new works after completion of bituminous surfacing and final trimming of batters or as soon as practicable.

602.28 LOCATION OF GUIDE POSTS

1. New guide posts with appropriate delineators shall be located in accordance with the Guide Post Schedule at Annexure 602A.
2. Guide posts shall be installed in conjunction with road safety barriers in accordance with AS 1742.2, clause 4.2.5.4 (b). **Road Safety Barriers**

602.29 POSITIONING

1. On unkerbed roads guide posts shall be positioned so that the inside face of the posts line up with the outside edge of the road shoulder (Refer to Figure 1). **Position from Shoulder**
2. On kerbed roads the setback from the kerb face to the roadside face of guide posts shall be 1m (Refer to Figure 1). **Position from Kerb**

602.30 BURIED GUIDE POSTS

1. Guide post holes shall be drilled or dug with vertical sides and having depth as per Figure 1. The material excavated shall be used for backfilling around the guide post.
2. Once the guide post has been put in place, the hole shall be backfilled and compacted, with the guide post vertical when measured with a spirit level, such that the top of the guide post is within $\pm 10\text{mm}$ of the guide post at ground. The density of the compacted backfill shall be not less than that of the material in the adjacent shoulder. **Backfill and Compaction**
3. Surplus material shall be disposed of by the Contractor.

602.31 DRIVEN GUIDE POSTS

1. Driven guide posts shall be installed in accordance with the manufacturer's published requirements to a depth as per Figure 1. **Installed Depth**
2. Manual guide post rammers shall not be used for driven guide post installations.

602.32 GUIDE POST SLOTS

1. Guide posts installed in floodways shall be installed in guide posts slots. If the slot is to be located in the concrete floodway edge wall, care shall be taken when installing the slot so as not to damage the edge wall. A wedge shall be used to secure the guide post in the slot. **Floodways**

602.33 INSTALLATION HEIGHT

1. On unkerbed roads guide posts shall be installed so that the top of the guide post is 1000mm above the level of the adjacent outside edge of the road shoulder, with a tolerance of +30mm or -0mm, as shown in Figure 1. **Unkerbed Roads**
2. On kerbed roads guide posts shall be installed so that the top of the guide post is 1000mm above the adjacent seal edge level, with a tolerance of +30mm or -0mm, as shown in Figure 1. **Kerbed Roads**

602.34 ORIENTATION

- 1. All guide posts shall be installed with the 100mm face at right angles to the carriageway such that the face is directed at the approaching vehicles.
- 2. Guide posts with a curved cross section shall be installed with the convex face (front) towards approaching traffic in the lane nearest the guide post. ***Curved Cross Sections***
- 3. Guide posts with angled tops shall be installed such that the highest point at the top of the guide post is nearest to the carriageway as shown in Figure 1. ***Angled Tops***

602.35 DELINEATORS

- 1. Delineators shall be fitted to guide posts as follows (Refer also to Figure 3):
 - a. when viewed in the direction of travel along the carriageway, RED delineators shall be on the left side and WHITE delineators shall be on the right side of the carriageway. ***Delineator Colour***
 - b. On undivided roads, delineators shall be provided on both sides of each guide post. ***Undivided Roads***
 - c. On divided roads where guide posts are used, delineators shall be provided only on the side of the guide post seen by a driver on that carriageway. ***Divided Roads***
- 2. Rigid guide posts shall be fitted with delineators meeting either Type A or Class 1A requirements. Where guide posts are installed on both sides of the carriageway the same delineator type shall be used. ***Delineator Type – Rigid Posts***
- 3. Flexible guide posts shall be fitted with delineators meeting Class 1A requirements. Type A delineators shall not be fitted to flexible guide posts. ***Delineator Type – Flexible Posts***
- 4. Delineators shall not be fitted to road safety barriers. Delineation of road safety barriers shall be by way of guide posts in accordance with Clause 602.28. ***Road Safety Barriers***
- 5. Mounting Location:
 - a. If corner cubed delineators (Type A) are to be attached to the guide post, a flat area at least 90mm in diameter shall be provided in the centre of both 100mm faces of the guide post. For timber posts this flat area shall be recessed to the depth of the delineator. The centre of these flat areas shall be 125mm from the top of the guide post as per Figure 1. ***Delineator Mounting Location***
 - b. If retro-reflective sheeting (Class 1A) delineators are to be fitted to the guide post, an essentially flat area 200mm long by 50mm wide shall be provided in the centre of both 100mm faces of the guide post. The centre of the flat areas shall be 175mm from the top of the guide post as per Figure 1. If the surface of the guide post has a curvature the radius of the curvature is to be no less than 300mm.

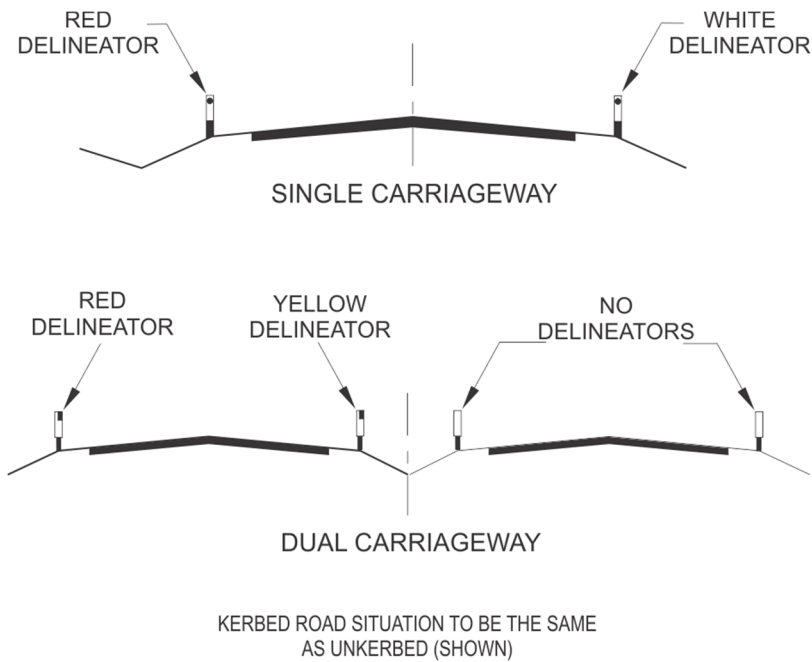


FIGURE 3: DELINEATOR LOCATIONS

602.36 INSTALLATION TOLERANCES

- The following tolerances shall apply to the installation and maintenance of guide posts:

Post Height (above ground level)	-0, +30mm
Offset (from outside of shoulder mark)	± 50mm
Longitudinal Position (from chainage mark)	± 200mm
Deviation from vertical (measured at top of post)	<= 10mm
Painted Length of Guide Post	± 20mm
Delineator position	± 5mm

602.37 – 602.40 NOT USED

MAINTENANCE

602.41 REFURBISHMENT OF GUIDE POSTS

- Refurbishment of guide posts with faded or peeling paint shall be carried out in accordance with this Specification.

Painting

602.42 REALIGNING GUIDE POSTS

1. Guide posts not vertical shall be realigned to the vertical. The material around the base of the post shall be compacted so that the density of the material retaining the guide post is not less than that of the material in the adjacent shoulder.

602.43 REPLACING MISSING OR DAMAGED GUIDE POSTS

1. Missing or damaged guide posts shall be replaced at their previous location in accordance with this Specification.
2. Damaged guide posts shall be removed and disposed of by the Contractor. Treated pine guide posts shall be disposed of in accordance with Clause 602.26.

602.44 TEMPORARY REMOVAL OF GUIDE POSTS

1. Where guide posts are temporarily removed to facilitate roadworks they shall be reinstated in their previous locations in accordance with this Specification.

602.45 DELINEATOR REPLACEMENT

1. Damaged or non-reflecting delineators shall be removed and disposed of by the Contractor.
2. Damaged or missing delineators shall be replaced with delineators of the same type and colour as used by adjacent guide posts for consistency.
3. Guide posts shall not be left without delineators overnight.

602.46 WASHING DELINEATORS IN-SITU

1. Existing delineators that still have adequate retro reflectivity shall be washed clean so that they are free of all road grime, dust and dirt.

602.47 – 602.80 NOT USED

AS BUILT AND HANDOVER REQUIREMENTS

602.81 – 602.90 NOT USED

CONTRACT SPECIFIC REQUIREMENTS

602.91 – 602.99 NOT USED

ANNEXURE 602B**APPROVED GUIDE POST LIST**

RIGID PRODUCT	TYPE OF GUIDEPOST	MANUFACTURER	DATE APPROVED
Treated Pine Guideposts	Timber	Timber Treaters WA	23 May 2001
Dura-Post Steel Guide Post	Steel	Dura-Post (Aust) Pty Ltd	2003
Delnorth Rolled Edge Guide Post	Steel	Delnorth International Roadside Products	5 December 2012
Delnorth Straight Edge Guide Post	Steel	Delnorth International Roadside Products	5 December 2012
SPARX Guide Post	Unplasticized Polyvinyl Chloride (uPVC)	All Round Safety	12 June 2014
FLEXIBLE PRODUCT	TYPE OF GUIDEPOST	MANUFACTURER	DATE APPROVED
RoadKing Guideposts (previously Superflex guideposts)	PVC	Australian Safety Products	31 May 2000
Dig In Rubber guideposts	Rubber	Saferoads (formally Rubbertough)	11 July 2002
Supa Drive rubber guideposts	Rubber	Saferoads (formally Rubbertough)	11 July 2002
Flexi 360 Guide Post (FGP1137, FGP1179, FGP1087, FGP1210)	Plastic	Dura-Post (Aust) Pty Ltd	17 October 2002
Delnorth Steel-Flex Guideposts	Steel	Delnorth International Roadside Products	5 December 2012
Omni- Flex Guide Post	High Density Polyethylene (HDPE)	Traffic Systems West	17 October 2014
Flexloc Guide Post	Plastic with Urethane Hinge	Safe Roads	22 October 2014
Spring Return Guide Post (GP170201)	Plastic	JMB Manufacturing	6 May 2015
Duraflex Guide Post (FPV6100, FPV6510)	PVC	Dura-Post (Aust) Pty Ltd	21 May 2015
Park Reboundable Plastic Guide Post	Plastic	Park Roadside Guide Posts	12 January 2016

ANNEXURE 602C

CHECKLIST FOR FLEXIBLE GUIDE POST APPROVAL SUBMISSION

A single submission meeting all the requirements of this Specification shall be submitted for approval of a Guide Post product.

The checklist below details the requirements for flexible guide posts. A submission that does not address all the requirements will not be assessed by Main Roads Western Australia.

- Details of materials used in the manufacture of the guide post shall be supplied (602.13.2).

- Weathering Resistance (602.13.7)
Only required when a Warranty (602.10) is not available.

- Heat Resistance (602.13.10).

- Cold Resistance (602.13.11a).

- Impact Testing (602.13.11b).

- Vehicle Impact (602.13.12).

- Rigidity (602.13.13)

GUIDANCE NOTES

FOR REFERENCE ONLY – DELETE GUIDANCE NOTES FROM FINAL DOCUMENT

1. All edits to downloaded Specifications shall be made using *Track Changes*, to clearly show added/deleted text.
 2. If **all** information relating to a clause is deleted, the clause number should be retained and the words “**NOT USED**” should be inserted.
 3. The proposed documents with tracked changes shall be submitted to the Project Manager for review, prior to printing the final batch of documents. When this final printing is carried out, the tracked changes option is to be turned off.
 4. Before printing accept all changes in the document, turn off *Track Changes* and refresh the Table of Contents.
 5. The Custodian of this specification is Road Engineer.
-

1. **WARRANTY**

- 1.1 Warranty (602.10) for guide post approval submission shall be in the format as shown in Figure 4.

Supplier's Letter Head
Supplier's Name
Supplier's ABN
Supplier's Contact Detail

WARRANTY

To: Main Roads Western Australia
Date: **Day/Month/Year**
Period of Warranty: Minimum of 5 Years
Guide Post Product Name: **Guide Post Product Name**
Guide Post Product Number: **Guide Post Product Number**

Product Owner: Main Roads Western Australia (Principal)

Supplier/Manufacturer guarantees that all **Guide Post Product Name** Guide Posts delivered:

- meet Main Roads Western Australia (Main Roads WA) Specification 602;
- shall be free from defects in material and workmanship;
- and when installed in accordance with Main Roads WA Specification 602 and **Supplier/Manufacturer** technical literature will meet the performance requirements specified in Main Roads WA Specification 602.

During the period of the warranty, the **Supplier/Manufacturer** shall, without delay and at no cost to the Principal correct all defects and omissions covered by the warranty by way of repair, replacement, modification or other means.

This guarantee may be invalidated by **Supplier/Manufacturer** where:

- **Guide Post Product Name** is not installed in accordance with Main Roads WA Specification 602 and **Supplier/Manufacturer** technical literature provided Main Roads WA is kept informed in writing by **Supplier/Manufacturer** of any changes to the technical literature.

Authorised by:	Name
	Title

FIGURE 4: WARRANTY FORM

CONTRACT SPECIFIC REQUIREMENTS

The following clauses are to be placed under the CONTRACT SPECIFIC REQUIREMENTS, as required. After inserting the clause, change the clause number and heading to style “H2 SP” so it appears in the Table of Contents.

602.91 INSTALLATION WITH OFFSET FROM EDGE OF SHOULDER

1. On unkerbed roads guide posts shall be installed at 0mm /'100mm /150mm/ 200mm offset from the edge of shoulder, as indicated in Figure 1.

AMENDMENT CHECKLIST

Specification No. **602** Title: **GUIDE POSTS** Revision No: _____

Project Manager: _____ Signature: _____ Date: _____

Checked by: _____ Signature: _____ Date: _____

Contract No: _____ Contract Description: _____

ITEM	DESCRIPTION	SIGN OFF
<i>Note: All changes/amendments must be shown in Tracked Changes mode until approved.</i>		
1.	Project Manager has reviewed Specification and identified Additions and Amendments.	
2.	CONTRACT SPECIFIC REQUIREMENTS addressed? Contract specific materials, products, clauses added? (Refer Specification Guidance Notes for guidance).	
3.	Any unlisted materials/products proposed and approved by the Project Manager? If "Yes" provide details at 16.	
4.	Standard clauses amended? MUST SEEK approval from Manager Contracts	
5.	Clause deletes shows as " NOT USED ".	
6.	Appropriate INSPECTION AND TESTING parameters included in Spec 201 (Text Methods, Minimum Testing Frequencies verified).	
7.	ANNEXURES completed (refer Specification Guidance Notes).	
8.	HANDOVER and AS BUILT requirements addressed.	
9.	Main Roads QS has approved changes to SMM .	
10.	Project Manager certifies completed Specification reflects intent of the design.	
11.	Completed Specification – independent verification arranged by Project Manager.	
12.	Project Manager's review completed.	
13.	SPECIFICATION GUIDANCE NOTES deleted.	
14.	TABLE OF CONTENTS updated.	
15.	FOOTER updated with Document No., Contract No. and Contract Name.	
16.	Supporting information prepared and submitted to Project Manager.	
Further action necessary:		

Signed: _____ (*Project Manager*) Date: _____