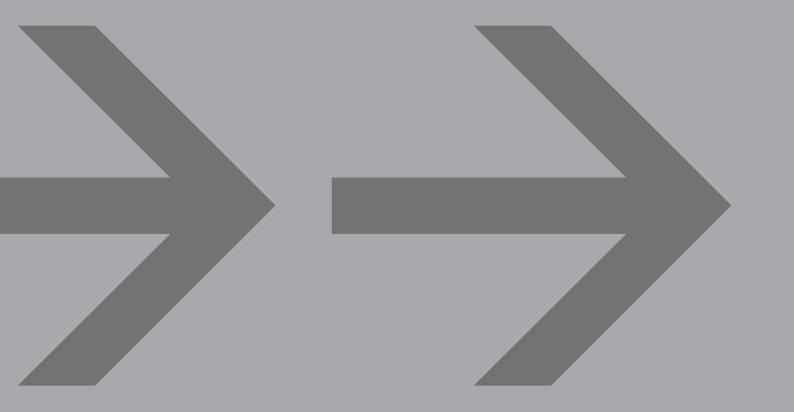
THE UNIVERSITY OF SYDNEY

External Signage Manual

Issue F 25.01.2012



Foreword

This manual describes the external signage system to be implemented throughout all existing and future University of Sydney buildings on and off campus.

The aim of the signage system is to ensure that external building signs meet quality standards of aesthetic appeal, uniformity and simplicity, while being highly functional in providing the information necessary and in accordance with BCA regulations.

This manual is the instrument of the "External Signs Policy". It is controlled by the Campus Infrastructure Services to ensure consistent use when implementing new signage throughout the University campus.

Due to the ongoing development and expansion of the University, this manual will be reviewed periodically to maintain accuracy and to capture changing signage needs.

Colin Rockliff
Director (Campus Infrastructure & Services)

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Acknowledgements

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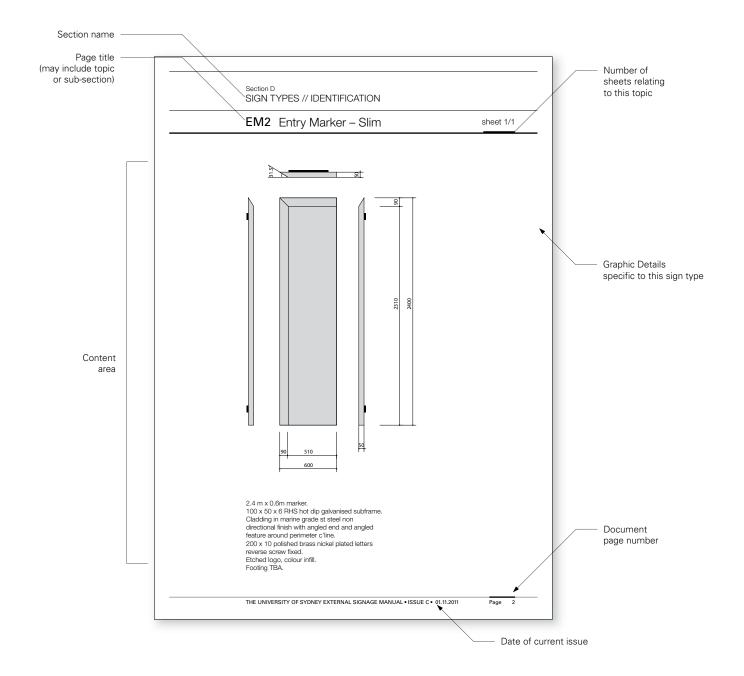
1

This Manual sheet 1/1

This signage manual provides information on how to design and specify the complete range of sign types required for effective wayfinding throughout the University.

It describes the principles of the wayfinding strategy, details of the various sign types required, followed by visual graphic standards and construction standards.

The manual provides guidelines on planning a comprehensive sign program to be issued for procurement and manufacture.



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Background

sheet 1/1

This manual is based on the following documentations:

- Internal Signage Manual for style of manual Issue G 09.05.2009
- Signage Masterstyle Guidelines for signtypes Issue J 06.09.2010

Policies sheet 1/3

Introduction

This document serves as a practical user manual and provides:

A single point of reference for the sign types most commonly used, including practical information on use, placement, colour, size and graphics;

General guidelines for the implementation and future design development of signage, so that a consistent and cost effective system is maintained.

To be effective, the principles and standards set out in this manual are to be strictly adhered to by staff, consultants and contractors. The use of this manual is commended to all those concerned with functional sign posting and effective communication within the University.

Where additional directional information is required, preference is for refurbishing existing signs. Where this is not possible and new signs are to be installed, allow for consistent and non-conflicting messages, sign selection and placement and clear sight lines for the paths of travel.

Signage must meet the requirements of the DDA report in Section F in this Manual.

Wayfinding signage is to be submitted to Campus Infrastructure and Services for approval. The submission must include the proposed sign types, specific locations and messages, other information may also be requested at the discretion of Campus Infrastructure and Services.

The Design Rationale

The important aspect for the signage for the University of Sydney is consistency across the entire family of signs in order to promote the services to world class standards.

The Design has built-in longevity and minimal maintenance.

The Design Process

This manual comprises the work of two separate and completed projects:

- Design of Entry Markers
- Audit, Recommendations and redesign of existing signs.

The Sign Systems

A sign system is a means of communicating messages to users in an organised and structured way by adopting and maintaining uniform design standards.

The Sign Types

A family of signs that identify, inform, direct, regulate or warn have been designed to provide a hierarchy of sign types to meet the needs of its users.

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Policies sheet 2/3

Locating of Signs

Physical surroundings are important factors in deciding on location of signs. Signs must be located so that they are easily noticed and so as not to interfere with, or be obscured by architectural, service or lighting elements. Signs must be located to suit the logical patterns of circulation and the need to be readily visible to all vehicular and pedestrian traffic.

Signs must be located as close as possible to the point where the message is to be conveyed.

The decision on locating signs has to be cognisant of sufficient distance/time between the sign and the decision point in order for the user to recognize and absorb information and make an informed decision.

Quantity of Signs

Proliferation of signage is to be avoided. Signs must be kept to a minimum to perform their function. Over-signing can be distracting and will defeat the purpose of providing clear and accessible information.

Sign Messages

Messages must be kept simple, short and unambiguous and will be written in the English language. Pictograms can enhance understanding but only those that have been researched, tested or approved.

Internationally accepted and tested pictograms are preferred. Use of positive rather than negative terminology is best practice.

Logos

The University of Sydney logo and logos/wordmarks of secondary organisations require careful consideration of placement within the graphic grid of signs. Monotone colour reproduction of logos is encouraged. Primary and secondary logos (brands) need to be structured on signs in accordance with the hierarchy of services. The placement of the university logo is defined in the drawings.

Sign Graphics

All graphics including typeface, logo and arrows must conform to the graphic standards set out in the standards.

Sign Colours

Only the colour references provided in this manual are to be used.

The Design Standards

No matter how well designed, a sign system will fail if not implemented consistently. The manual sets out graphic standards and guidelines for sign selection, location and construction which must be complied with.

Policies sheet 3/3

The method of construction, materials and finishes of the signs are as graffiti and vandal resistant as possible. To prevent vandalism, signs must be placed in highly visible positions and around the best possible ambient lighting.

Sign Materials and Construction

Signs must be constructed from corrosion resistant materials suitable for exposed public areas and a long life expectancy. Sign faces shall be flat, smooth and finished to an even colour. Construction must be of best quality consistent with good trade practice. Signs are to be properly squared off, posts vertical and sign panels horizontal. Most sign components (other than the gatemarker elements) are specified as aluminium or composite aluminium, with internal frames being galvanized mild steel.

Sizes of signs

The signs have been designed around modules of common size to maintain consistency in appearance and to achieve economy of scale. The size of signs must not vary from the dimensions shown. Regulatory or warning messages must meet relevant standards.

Advertising

Advertising in close proximity with wayfinding messages is to be avoided and it is prohibited to apply 'advertising' to wayfinding signs.

Anti-graffiti

The paint or material finish specified allows for ease of graffiti removal. Spare sign panels should be held in stock so that vandalised signs can be replaced quickly.

Engineering Certification

Engineering details and certificates are to be obtained for structural and footing design, and for other signs where considered necessary.

Lighting

Where lighting is specified, LED or similar should be considered.

Safety

The manufacture of signs and their installation is to comply with relevant Australian standards.

Maintenance

A maintenance program will be established allowing for regular cleaning, repair and replacement of signs.

Sign Register

A register of all signs, locations and messages will be kept by the University of Sydney and used to assist in planning for new signs or replacement of existing signs.

Braille and Tactile signage

Location of Braille and tactile signs

Signs including symbols, numbering and lettering must be designed and installed as follows:

- (a) Signs must be located not less than 1200 mm and not higher than 1600 mm above the floor or ground surface.
- (b) Signs with single lines of characters must have the line of tactile characters not less than 1250 mm and not higher than 1350 mm above the floor or ground surface.

Braille and tactile sign specification

The following applies to Braille and tactile sign orientation:

- (a) Tactile characters must be raised or embossed to a height of not less than 1 mm and not more than 1.5 mm.
- (b) Characters must have a height of not less than 17.5 mm for each metre of viewing distance.
- (c) Upper case tactile characters must have a height of not less than 20 mm and not more than 55 mm.
- (d) Lower case tactile characters must have a height of 50% of the related upper case characters.
- (e) Tactile characters, symbols, and the like, must have rounded edges.
- (f) The entire sign, including any frame, must have all edges rounded.
- (g) The surface of the sign must be continuous for hygiene purposes.
- (h) Signs must be constructed so as to resist the removal of letters and Braille dots by picking or adhesive failure.
- The background, negative space or fill of signs must be of matt or low sheen finish.
- (j) The characters, symbols, logos and other features of signs must be matt or low sheen finish.
- (k) The minimum letter spacing of tactile characters on signs must be 2 mm.
- (I) The minimum word spacing of tactile characters on signs must be 10 mm.
- (m) Fonts with letters of constant stroke thickness must be used.
- (n) The thickness of letter strokes must be not less than 2 mm and not more than 7 mm.
- (o) Tactile text must be left justified, except that single words may be centre justified.

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SECTION A

STRATEGY

- // Wayfinding Signage Principles
- // Planning Principles
- // Access
- // Sign Family Summary

sheet 1/5

Wayfinding - a definition

Wayfinding is the planned integration of visual information within an environment, be that a city, an airport, a hospital or a university campus.

In a self-navigating environment this requires visual holding points for orientation, cognitive mapping and point-to-point navigation.

The scale, frequency and visual make-up of wayfinding components vary depending on the project.

In complex environments, such as a university, users require information to an expected sequence and hierarchy in frequent and coordinated intervals.

This sequence starts with identification at arrival, followed by maps, site orientation and information, followed by direction and reassuring information in order to navigate the environment in an informed and assured frame of mind.

User expectations, the operational layer and the environment all have to be coordinated by a consistent program of wayfinding.

This fuses environment, operator and user.

Wayfinding – a theory

Wayfinding is the theory of creating visual elements to inform and guide while avoiding ambiguity.

Wayfinding is the strategy to interpret a given environment through the display of hierarchical and consistent information.

The process of decision making depends on the correct locality of relevant information which can be recognised and processed without strain, a key factor in a self navigating environment.

Wayfinding includes factors of the environment, human factors such as psychology and ergonomics and the study of semiotics.

Some users are more cognitive of a space, while others rely on directions alone.

Signage

Signage consists of the two fold application of visual brand and the theory of wayfinding.

It is the recognisable physical and visual interpretation of the objectives of the organisation it represents.

Signage is not primarily an "artistic" or "aesthetic" element but an essential service.

It has lateral and literal functions. The physical part of a sign is an optical holding point, a visual reference.

Messages are the literal component on signs.

Graphics other than messages can enhance the lateral and literal qualities of the sign.

sheet 2/5

Function

The functional aspects of signage are many fold:

- Integration with the built environment (interfacing with other structures.)
- Ergonomics relating to user interface.
- Measure of self reliance.
- Durability.
- Flexibility.
- Ease of maintenance.
- Value for money.

A successful wayfinding system will provide information for users to:

- Confirm they are at the correct start or finish point of an individual journey.
- Identify their location within a building or an external space.
- Reinforce they are travelling in the right direction.
- Orient themselves within a building or an external space.
- Understand the location and any potential hazards.
- Identify their destination on arrival.
- Escape safely in an emergency.

sheet 3/5

Ergonomic Considerations

Ergonomics is the study of designing equipment and devices that fit the human body, its movements, and its cognitive abilities.

Ergonomics (or human factors) is the scientific discipline concerned with the understanding of interactions among humans and other elements of a system, and the profession that applies theory, principles, data and methods to design in order to optimize human well-being and overall system performance.

Ergonomics is employed to fulfill the two goals of health and productivity.

When an environment is visually controlled by intuitive design and by applying a legible layer (signage), the viewers awareness is significantly improved. Apart from cultural and learned experience each viewers perception and response to wayfinding signs are conditioned by certain physical and psychological characteristics, referred to as human factors.

Physical Factors

Normal field of vision (also cone of vision)

A normal cone of vision covers an angle of about 60 degrees. This is 30 degrees from a vertical or a horizontal centre line (30 degrees either side). However this angle is reduced for viewers from within a moving vehicle.

Visual Acuity

Viewers differ considerably in their ability to see clearly.

Reading Rate

The reading rate is significantly improved when information is logically and clearly structured with a minimum of graphic elements.

Legibility (viewing distances)

AS 1428.2

- 20mm letter from 6 metres
- 40mm letter form 12 metres
- 80mm letter from 25 metres
- 150mm letter from 50 metres

Eye Level

For a person standing that is about 1.7 metres.

For a person sitting that is 1.3 metres.

For a person sitting in a car that is about 1.4 metres.

This data is important for defining the height above ground for text on signs and the placement of signs above ground.

sheet 4/5

Psychological Factors

Figure-Ground Relationship

How shapes or patterns are perceived against a background. Anything which affects a clear perception of the contours may affect recognition of the object.

In learning to read we mentally organise letters into words, learning to distinguish an entire word by its shape. Hence the use of sentence case. Sans serif type is used for all typical messages. First letter is upper case and the following letters are lower case. Luminance contrast between graphics and sign background are to be 30%.

Implications of colour

Individuals vary considerably in their ability to distinguish and remember colours. Probably the maximum of six colours -not including white and black- can be distinguished, identified and remembered by viewers, these are red, yellow, blue, green, orange and brown. However red and green are difficult to distinguish by viewers with colour blindness.

Factors Affecting Perception

Environmental factors affect the viewers perception of a sign.

These are the quality, intensity and colour of ambient light falling on the sign; the physical obstructions of sight lines between the viewer and the sign and the visual environment behind and around a sign.

While not all of these factors can be controlled, signs must be placed to enhance sight lines.

Symbols

The majority of people are verbally oriented, absorbing most information through words, while the minority respond to visual devices, such as symbols. This indicates that typical sign systems require verbal messages. Facilities such as airports often use symbols to reinforce the verbal message or act as a stand alone message. Symbols must be of the highest international recognised design.

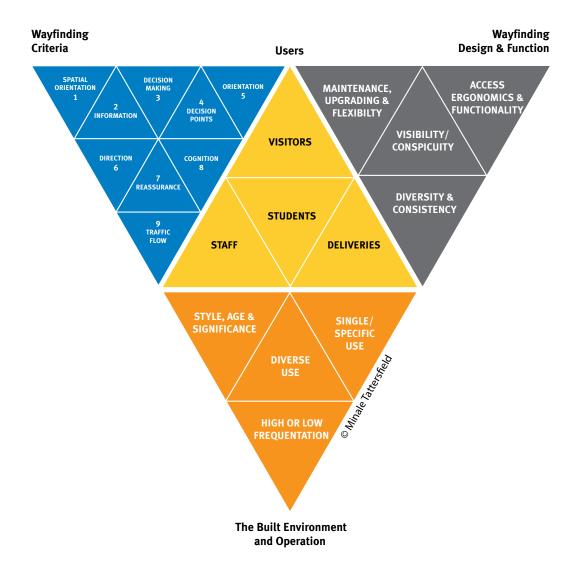
Nomenclature (naming and messages)

Certain phrases tend to be ambiguous or subject to personal interpretation, hence criteria must be established to reduce confusion and misinterpretation. Text is to be composed with the following criteria in mind:

- 1. Consistent.
- 2. Short as possible in order to read quickly.
- 3. Mean the same thing to all viewers.
- 4. Stated positively.
- 5. No acronyms/abbreviations where possible.

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sheet 5/5



13

sheet 1/4

Sign planning is determining the sign types, locations and sequences of their messages to guide a person to their required destination.

Planning of signs occurs at several levels aimed at different types of users.

Those familiar with a site require less guidance than a first time user.

There are different considerations for different groups such as staff, patients, visitors, service and deliveries and those with special access requirements.

This means deciding on general principles but adding layers where needed for specific circumstances.

Checklist for the planning process

- The subject area (site plan or building plan).
- Flow of traffic for all user groups (Define user groups)
- Destinations.
- Points for identification (information points, departments, services, toilets etc).
- Decision points (change of direction pertaining to flow of traffic).
- Wording to each point of identification and direction.
- Wording for identification in accordance with the nomenclature (short names relevant to the user, subject to naming convention).
- Wording for direction in accordance with consistency of terms up to the point of destination and in accordance with distance from sign to destination (the destination closest to the sign is listed first, the destination furthest away from the sign is listed last).
- Note that wayfinding works for both directions, from entry to destination and back.
- All external freestanding signs feature message on both faces. All
 internal perpendicular signs with both faces visible, feature messages
 on both faces.
- Selection of sign types for identification and direction.
- Input the graphics into selected signs in accordance with graphic grids.
- Prepare a first draft of the schedule.
- Review the draft and amend where necessary.
- · Consult with stakeholders.
- Finalise the schedule.
- Select the sign type specifications and method of fixing.
- Issue package to tender.
- Contractor to prepare artwork for all signs.

sheet 2/4

- Check artwork.
- · Contractor to amend the artwork.
- Approve artwork and specifications.
- Discuss each sign location with contractor prior to installation.

A Sign system is composed of a number of separate elements that combined contribute to a coordinated and consistent visual language. These elements include both hardware and graphics, including use of the identity, typefaces, letter sizes, graphic layouts, arrows, pictograms, and colours and the ways in which these are combined.

Graphic standards are important in providing the rules for control of a consistent look and to ensure easy recognition and acceptance as a comprehensive, service oriented system. Graphic standards also define the relationship between signage and the organisations corporate identity.

Only artwork in electronic form supplied by the organisation is to be used in the reproduction of the logo, typefaces, arrows and pictograms on signs.

Hierarchies

Planning is made easier by adhering to the hierarchy of sign types directly related to the university's hierarchy of the campus, precinct, building, faculty, division, school, building level, venue and then rooms. Not all destinations can be presented on every sign, so a descending order of importance is used.

Similarly signs have a hierarchy of importance and size from those directing or identifying from a distance to those at the last stage of a journey or which are viewed at close range such as door signs. Each sign type contains a selection from a hierarchy of information, ranging from the university's identity to directional information and individual room names.

Wayfinding Planning

The purpose of wayfinding planning is to deliver information in a consistent, legible and expected manner. To this end the following steps should be taken:

- Using an information hierarchy and site/building access analysis (analysis of paths of travel and entrance points), determine what messages are required and in what locations.
- Using the signage hierarchy, determine which signs are appropriate to deliver this information at each location.
- Revise the messages and locations and sign selection to ensure consistency of phrasing, location and information delivery.

The same method is applicable to planning both internal and external signs.

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sheet 3/4

Manufacture

Manufacture is to be of good quality using appropriate materials, fabrication, installation and finishes. Any attempt to reduce standards will only result in additional expense being incurred in the maintenance or inevitable replacement of the sign system.

Signs are to be constructed of materials and methods widely used by the signage industry and which have a warranted life expectancy and durability appropriate to the function.

All materials and methods of fabrication are to be void of inconsistencies, deformation and blemishes. All welds are to be made in accordance with Australian Standards. Visible welds are to be ground, sanded and finished smooth. Where connections or suspensions are made, fastening hardware such as plates, anchor bolts, angles, screws and the like are to be concealed, unless otherwise specified. Frames, angles and tubes are to be extruded or rolled sections and pre-finished.

Sign faces are to be smooth and flat of sufficient thickness to achieve this.

Fixings are to be concealed for appearance reasons and to resist vandalism.

All graphics are to be faithfully reproduced from artwork or electronic files.

Installation

Installation is to be of the highest quality and standards. Signs are to be supplied complete with all bolts, fastenings and fittings to adequately transmit the loads and stresses imposed and structures approved by an engineer where required.

All signs are to be installed in accordance with the manufacturer's specifications, securely mounted with theft resistant fixings, concealed where possible. Signs are to be installed true and plumb with posts vertical and sign faces horizontal and square.

Installers must be licensed and certified for the materials and processes used.

Footings are to be reinforced concrete to engineers specifications. Where bolting of metalworks to concrete is required fixings are to be approved plugs of the required size. Proper edge clearances are to be observed.

All signs are to be tested on completion of installation and approvals obtained.

Banners

Banners are considered temporary marketing material and are not included in the scope of these guidelines.





Example of an installed banner.

sheet 4/4

Sign Procurement

These sign standards form an integral and important part of the university's management of the planning, procuring and maintenance of signs.

Managing signage involves both planning and operational issues. The former is concerned with design and planning of signs across an office on a project-by project basis in new or refurbished buildings. Once installed the operational day-to-day issues of maintenance and replacement need to be dealt with. These sign standards can assist in this process, however Facilities Management in conjunction with consultants must be involved in all major works. Minor additions or changes to signs must not be made by individual units without reference to Facilities Management who are able to consider any changes requested in the context of the larger signage planning issues.

A sign register must be implemented to guide planning and as a maintenance record. This register must record the type, location, message and date of installation of all signs and inspection and maintenance details.

Procurement of site perimeter, external and internal wayfinding signs will be handled centrally by Facilities Management so that ad-hoc additions are avoided. Facilities Management are responsible for changes/updates to internal signage.

Signs are not only an important element in the efficient functioning of the offices but are assets and as such deserve to be accorded due attention in their care and planning.

Sign Maintenance

A maintenance policy and a program of regular maintenance will be established for all signs.

An in-house computer register of signs and inspection and maintenance records must be established and maintained.

Signs must be inspected periodically and conditions compared with the previous entry in the register. Signs are to be checked for:

- condition of sign panels and slat systems;
- condition of appearance;
- · condition of footings;
- condition of materials and welds;
- · condition and security of hardware;
- condition of vandalism;
- · condition of graffiti;
- appropriateness of message;
- · assessment and probability of suitable repairs.

Signs on which the condition has deteriorated must be listed for repair or replacement.

A maintenance manual containing technical specifications of signs and setting out recommendations on the care and maintenance must be prepared by the sign manufacturer and passed onto the university.

ACCESS sheet 1/1

Regulatory requirements

Various aspects of wayfinding and signage are subject to regulation in the following documents:

- The Building Code of Australia [BCA].
- The Disability Discrimination Act [DDA].
- AS 1428.1 CL 8, AS 1428.5.

The BCA deals with acceptable standards for the design and construction of buildings, the focus for the wayfinding requirements relate to egress, safety and access.

The Disability Discrimination Act (DDA) is concerned with citizen rights and wayfinding falls principally under section 23 Access to premises.

The Workplace Surveillance Act has the requirement that surveillance equipment be visible, and in addition that "signs notifying people that they may be under surveillance in that place are clearly visible at each entrance to that place."

Note: Australian Standards cover wayfinding over a wide range of issues some of which relate directly to healthcare facilities. Applicable Standards may be those adopted by the BCA, the DDA, or by other statutory bodies in their regulations and guidelines e.g. Roads and Traffic Authority (RTA). These usually relate to accessibility, OHS and safety issues, infection control, security, engineering services, indoor environment, roads, parking, etc.

In this manual braille and tactile requirements are specified to specific signs only.

Accessibility

The BCA and DDA regulate to ensure that the access and wayfinding needs of people with disabilities are adequately met. This is particularly relevant to healthcare facilities where a high proportion of users may have a temporary or permanent disability, be feeling unwell or stressed, or are affected by medication.

The Building Code of Australia (BCA) Part D covers some aspects of access for persons with disabilities, by referencing Australian Standard AS 1428: Design for access and mobility Parts 1 and 4.1.

The Disability Discrimination Act (DDA) unlike the BCA is a complaint based instrument. Section 23 covers discrimination in relation to means of access to (and within) premises. Wayfinding is included by inference and subject to the interpretation of this and other sections. Lighting, lettering and pictogram size, tactile, auditory and visual safety information are similarly included. Expert advice is required for the interpretation of access issues within the DDA (and the BCA).

Where the BCA or any other law and the DDA cover the same issue, the more demanding requirement or broader interpretation will apply in addition to the mandatory requirement.

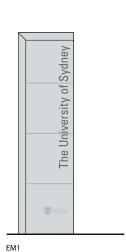
BCA 2011 does not cover all wayfinding/signage requirements which means DDA complaints and issues still remain.

SIGN FAMILY SUMMARY

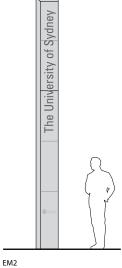
sheet 1/3



PG1 Perimeter Gate Sign



Entry Marker - Typical



Entry Marker - Slim



Entry Marker - Small



EM4

Entry Marker - Vertical - Wall Mounted



EM5

Entry Marker - Horizontal - Wall Mounted

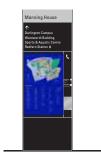


Vehicular Directional - Large



Vehicular Directional - Small

SIGN FAMILY SUMMARY



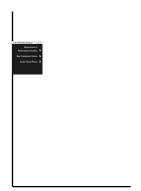
PD1 Pedestrian Directional & Information



PD2 Pedestrian Directional - Typical



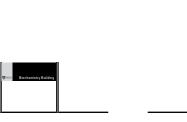
PD3 Pedestrian Directional - Small



PD4
Pedestrian Directional Pole Mounted



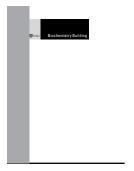
PD5 Pedestrian Directional-Wall Mounted



Building Identification Post & Panel



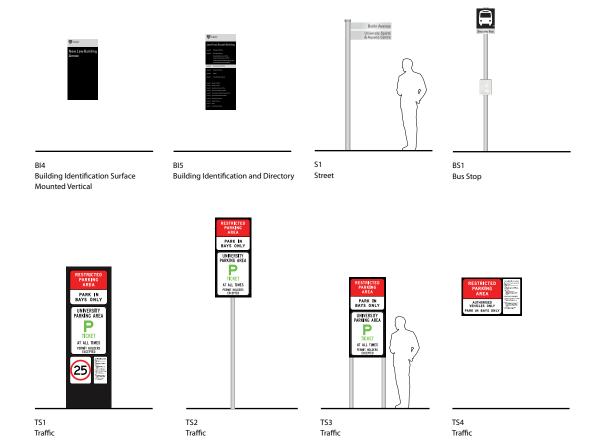
BI2 Building Identification Surface Mounted Horizontal



BI3 Building Identification Projecting Horizontal

SIGN FAMILY SUMMARY

sheet 3/3



SECTION B

SIGN SELECTION GUIDE

// Overview

OVERVIEW sheet 1/1

This section illustrates the typical process in selecting the correct type of sign for the required message.

Sign Type Code

Signs have been categorised based on the type of message they convey. This is indicated by the first two letters of the sign code.

EM = Entry Markers

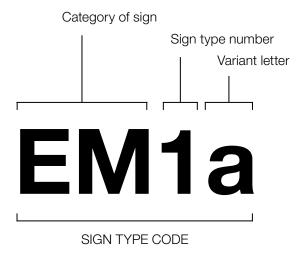
VD = Vehicular Directional signsPD = Pedestrian Directional signsBI = Building Identification signs

S = Street Signs

Detailed drawings of sign types in Sections C are categorised by sign type.

Different sign types are used in different situations based on factors such as purpose, physical context or significance. Each sign type is identified by a number following the sign category letters (e.g. ID1 is a different identification sign to ID2)

In some instances minor differences exist within a sign type and they are identified by an alphabetical suffix (e.g. ID1a, ID1b, etc).



ΕM

VD

PD

BI

S

Entry Markers Vehicular Directional Pedestrian Directional

Building Identification Street Signs

SECTION C

GRAPHIC STANDARDS

- // Messages
- // Font
- // Pictograms
- // Arrows
- // Colours
- // Map

MESSAGES sheet 1/2

Nomenclature

In naming different disciplines, avoid the use of discipline type (i.e. Faculty, School, Unit) and use only the name of the discipline as follow:

Mathematics and Statistics enquiries office

-instead of-

School of Mathematics and Statistics enquiries office

History and Philosophy of Science office

-instead of-

Unit of History and Philosophy of Science office

Behavioural & Community Health Sciences office

-instead of-

Discipline of Behavioural & Community Health Sciences office

Order of Destinations

The listing of destinations is in accordance with its distance from the sign:

- The destination closest to the sign is at the top;
- The destination furthest from the sign is listed last.

Destinations are not listed in alphabetical order.

Wayfinding Journey Sequence

Arrival → Orientation & information → Circulation and reaffirmation of information → Arriving at destination → Return.

Messages

In accordance with 'progressive disclosure', from the macro to the micro level.

Nomenclature

Each destination requires an identity (name) in order to be referenced in spoken language, signage and mapping.

MESSAGES sheet 2/2

Appearance of Signs

Typeface to be in sentence case for typical messages and identification of destination and places.

The sentence case Univers 57 Condensed allows for quicker scanning of words while allowing for a larger capheight to extend viewing distances.

Composition of Messages and Arrows

Avoid arrows for each destination. Destinations are to be grouped below an arrow for each direction.

Message Tone

All messages must be conveyed in a clear, concise and positive tone. Messages must be unambiguous and must not be overly authoritative.

Languages

All messages are to be in English only.

Although there are many international students at the university, we do not recommend including other languages, since it is difficult to determine which languages to include or which to exclude. The introduction of other languages will also significantly reduce legibility and significantly increase the size of the signs.

FONTS sheet 1/1

The font UNIVERS is to be used in all signage.

Univers 57 Condensed

This is the main type of the Univers family which must be used exclusively on all signs.

Text size

Text size on all signs has been determined based on ideal viewing distance and must be adhered to wherever possible.

Cap-height

For accuracy in layout of text on signs, the height of the capital letter must be used. This measurement is always shown in millimetres unless otherwise stated.



University Avenue

Univers 57 Condensed 0 Tracking External Gate Markers 2010 by Minale Tattersfield

Signage typeface and tracking to be used for all sign types at the University of Sydney

The depicted typefaces are never to be substituted with another or inferior typeface. The above 'opentype' typefaces are available from Linotype or Font Factory.







They can be purchased online at fontfactory.com

PICTOGRAMS

sheet 1/1

Pictograms apply to the commonly used facilities and services.

Pictograms for use on all directional, identification and information signs are as illustrated. These pictograms are in line with international standards and can generally be understood as stand-alone messages. When used, pictograms must be scaled proportionately.

For clarity, prohibitive pictograms are designed with the red line behind the symbol.

For safety pictograms refer to AS 1319 Safety Signs for the Occupational Environment.

All pictograms must be used with discretion, as over-use may lead to visual clutter, and confusion.



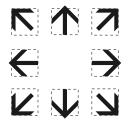


ARROWS sheet 1/2

Standard arrows

Arrows play a major role in wayfinding. To fulfil their purpose in the most effective manner, arrows must be used consistently.

A specific arrow type has been chosen to complement the font Univers. This arrow type must be used in all directional signs.



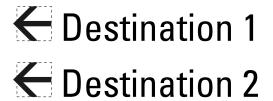
Arrow usage

Typically one arrow is used for each direction.

One arrow per destination is used only for small directional signs (PD3).

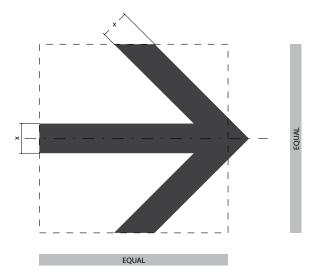


Destination 1 Destination 2



Arrow bounding box

A square bounding box has been included in these arrow drawings as guides for the correct alignment of arrows and text. Note that the tip of horizontal and vertical arrows extends beyond the box boundaries.



ARROWS sheet 2/2

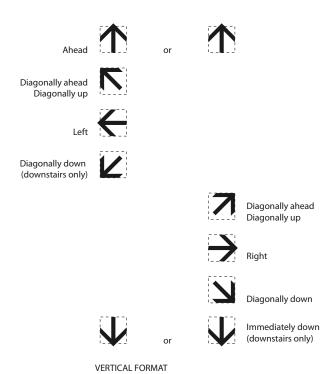
Arrow directions

Up pointing arrow is used to direct forward.

Right and Left pointing arrows direct to destinations that require pedestrians to turn right or left, either at the sign or immediately after the sign.

Diagonal arrows direct diagonally up or diagonally down when located next to stairs or escalators. In other locations they direct diagonally ahead. Diagonal arrows must never be used to direct diagonally backwards.

Down pointing arrow must only be used when the sign is above the destination.



COLOURS sheet 1/1

Colours are specified in each signtype.

The specifications are final. When choosing alternative finishes, hamples have to be provided for comparison with specifications in this manual.

Colours shown for pictograms and traffic signs must comply with Australian Standards.

MAP sheet 1/1

The map used on external signs is the site map and legend.



Design Minale Tattersfield

SECTION D

SIGN TYPES

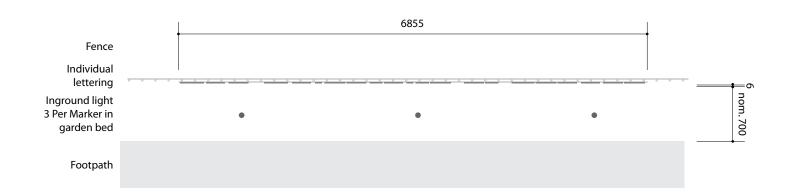
- // Identification Signs
- // Pedestrian Directional Signs
- // Building Identification Signs
- // Street Sign
- // Bus Stop Sign
- // Traffic Management Signs

IDENTIFICATION SIGNS

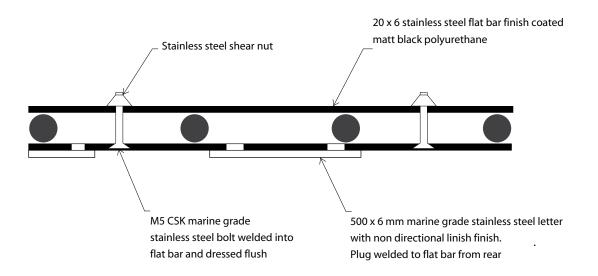
PG1 Perimeter Gate Sign	35
EM1 Entry Marker - Typical	36
EM2 Entry Marker – Slim	37
EM3 Entry Marker – Small	38
EM4 Entry Marker Vertical – Wall Mounted	39
EM5 Entry Marker Horizontal – Wall Mounted	40

PG1 Perimeter Gate Sign

sheet 1/1



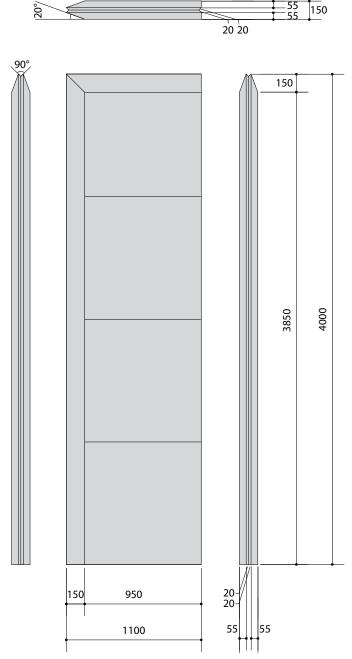




6mm marine grade stainless steel non directional linish finish and with logo etched and filled

EM1 Entry Marker – Typical

sheet 1/1



4.0m x 1.1m marker.

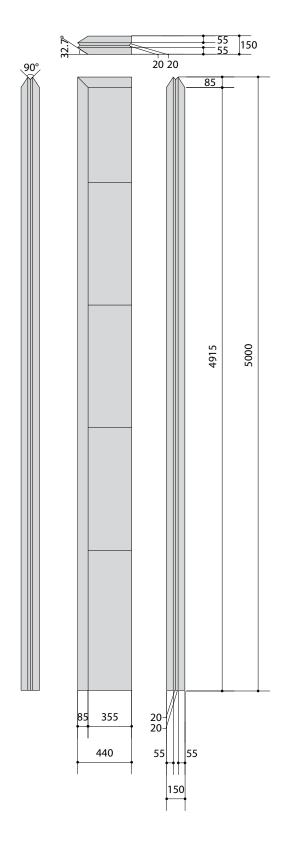
 $125\ x\ 75\ x\ 5$ RHS hot dip galvanised subframe.

Cladding in 2mm 445 marine grade 2B finish stainless steel panels with all folded, welded and dressed joins. Non directional orbital linish to all surfaces.

3mm No 4 finish 445 grade stainless steel letters with black chrome finish.

Etched logo, colour infill.

Reinforced concrete footing capped with 40mm thick abraded black granite slab (to specification by university).



5.0m x 0.44m marker.

 $125 \times 75 \times 5$ RHS hot dip galvanised subframe.

Cladding in 2mm 445 marine grade 2B finish stainless steel panels with all folded, welded and dressed joins. Non directional orbital linish to all surfaces.

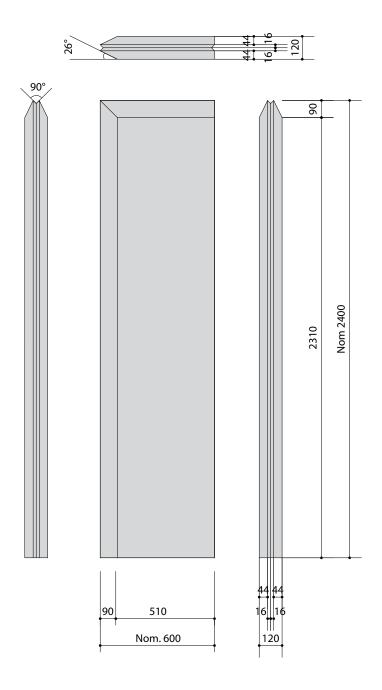
3mm No 4 finish 445 grade stainless steel letters with black chrome finish.

Etched logo, colour infill.

Reinforced concrete footing capped with 40mm thick abraded black granite slab (to specification by university).

EM3 Entry Marker – Small

sheet 1/1



2.4m x 0.6m marker.

Cladding in 2mm 445 marine grade 2B finish stainless steel panels with all folded, welded and dressed joins. Non directional orbital linish to all surfaces.

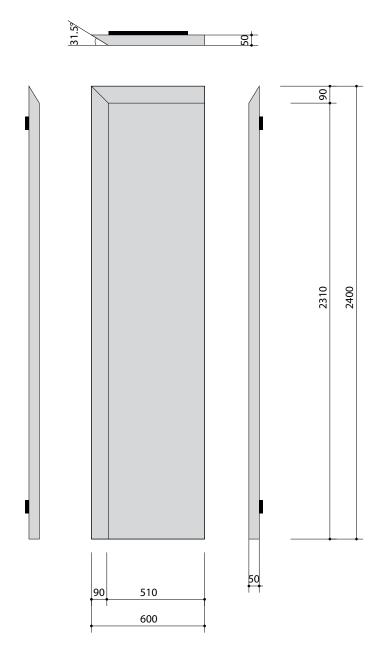
3mm No 4 finish 445 grade stainless steel letters with black chrome finish.

Etched logo, colour infill.

Footing TBA.

EM4 Entry Marker – Vertical Wall Mounted

sheet 1/1



2.4m x 0.6m marker

Cladding in 2mm 445 marine grade 2B finish stainless steel folded panel welded and dressed joins on corner and splay section.

Non directional orbital linish to all surfaces.

 $50 \times 50 \times 2$ mm 445 grade stainless steel formed angle fixing with fixed locating pins. Loctite bond to panel.

M6 stainless steel security screws.

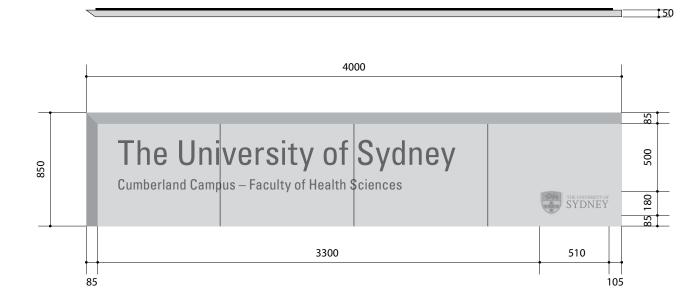
3mm No 4 finish 445 grade stainless steel letters with black chrome finish.

Pin and nut from rear to fix with 4 pins per letter. Loctite nuts to prevent removal.

Full cover VHB film to rear to prevent water coursing stain down face caused by holes and pins. Etched logo and colour filled to face of panel.

EM5 Entry Marker – Horizontal Wall Mounted

sheet 1/1



4.0m x 0.85m marker

Cladding in 2mm 445 marine grade 2B finish stainless steel folded panel welded and dressed joins on corner and splay section. Non directional orbital linish to all surfaces.

 $50 \times 50 \times 2$ mm 445 grade stainless steel formed angle fixing with fixed locating pins. Loctite bond to panel.

M6 stainless steel security screws.

3mm No 4 finish 445 grade stainless steel letters with black chrome finish.

Pin and nut from rear to fix with 4 pins per letter. Loctite nuts to prevent removal.

Full cover VHB film to rear to prevent water coursing stain down face caused by holes and pins. Etched logo and colour filled to face of panel.

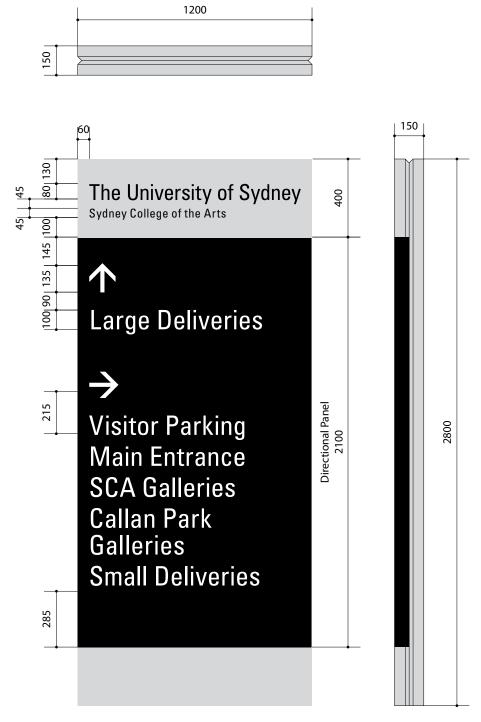
40

VEHICULAR DIRECTIONAL SIGNS

VD1 Vehicular Directional Sign - Large	42
VD2 Vehicular Directional Sign – Small	43

VD1 Vehicular Directional Sign – Large

sheet 1/1



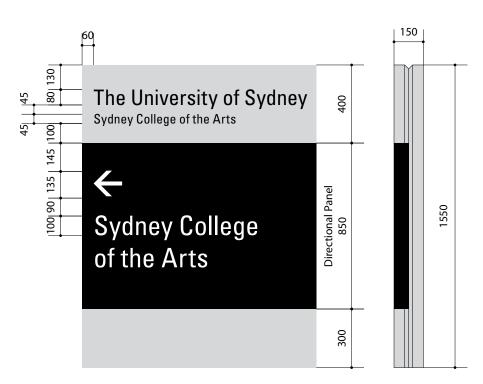
2.8m x 1.2m marker. 100 x 50 x 6 RHS hot dip galvanised subframe. Top and Base Panels:

3mm composite panel to match Alpolic M7796 Silver White Metallic. Graphics in Top panel mask and spray, PMS Black 6C.Directional Panel: 3mm composite panel to match Alpolic M7742-G30 Black. Graphic application - Vinyl lettering white (Subject to sample). Reinforced concrete footing capped with 1700 x 500 x 40mm thk abraded black granite slab (to specification by university).

VD2 Vehicular Directional Sign - Small

sheet 1/1





 $1.55m \times 1.2m$ marker. $100 \times 50 \times 6$ RHS hot dip galvanised subframe. Top and Base Panels:

3mm composite panel to match Alpolic M7796 Silver White Metallic. Graphics in Top panel mask and spray, PMS Black 6C. Directional Panel: 3mm composite panel to match Alpolic M7742-G30 Black. Graphic application - Vinyl lettering white (Subject to sample).Reinforced concrete footing capped with 1700 x 500 x 40mm thk abraded black granite slab (to specification by university).

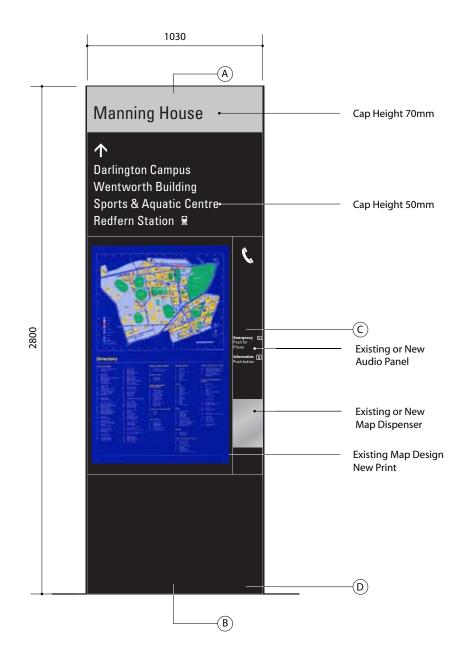
43

PEDESTRIAN DIRECTIONAL SIGNS

PD1 Pedestrian Directional & Information Sign	45	
PD2 Pedestrian Directional Sign – Typical	49	
PD3 Pedestrian Directional Sign – Small	52	
PD4 Pedestrian Directional Sign – Pole Mounted	55	
PD5 Pedestrian Directional Sign – Wall Mounted	57	

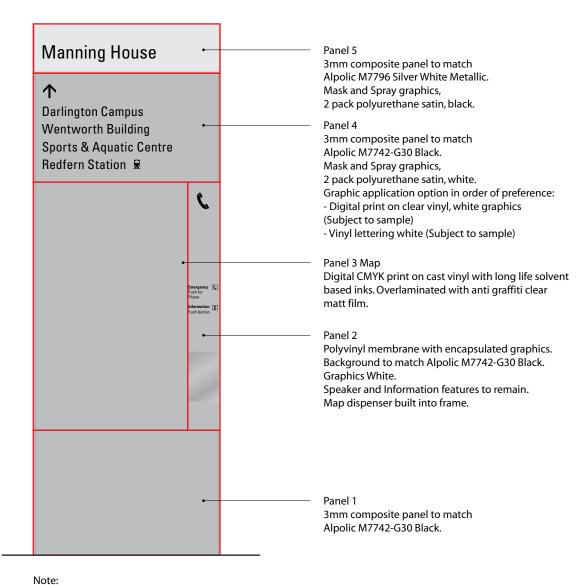
PD1 Pedestrian Directional & Information Sign

sheet 1/4



PD1 Pedestrian Directional & Information Sign

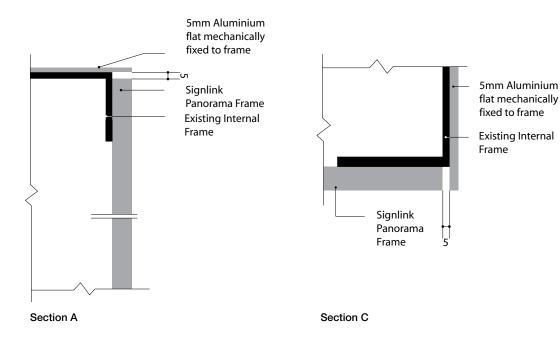
sheet 2/4

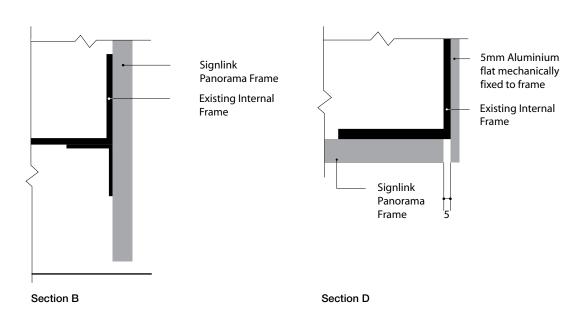


Panel layout to match existing signs.

PD1 Pedestrian Directional & Information Sign

sheet 3/4



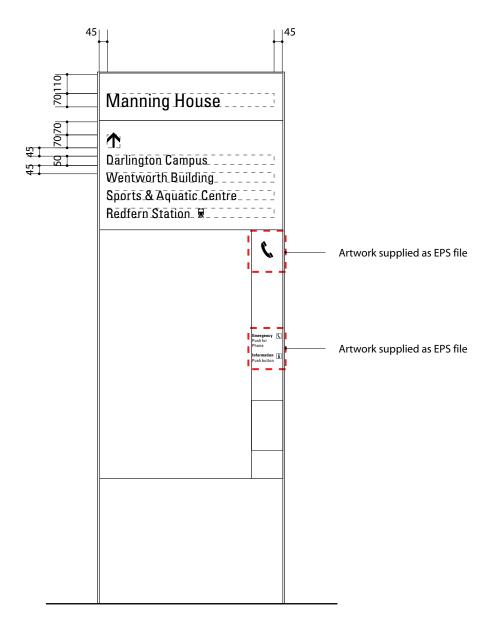


25mm Signlink Panorama frame SNA.
Panorama frame is mechanically fixed to existing internal frame.
All panels within Panorama frame are magnetically fixed.
These sections are also applicable to PD2 & PD3.

47

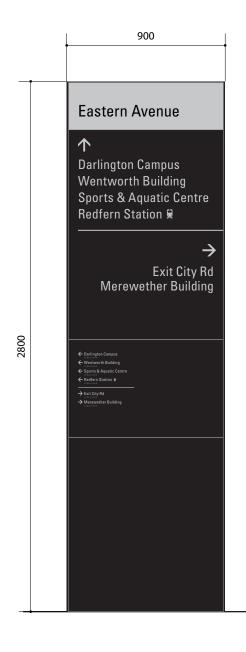
PD1 Pedestrian Directional & Information Sign

sheet 4/4



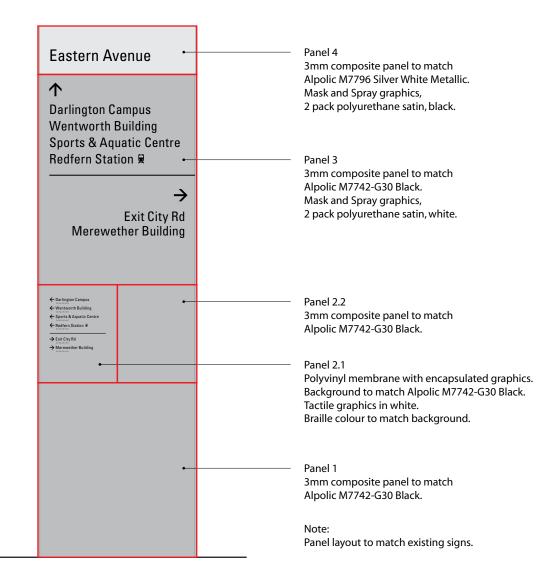
PD2 Pedestrian Directional Sign – Typical

sheet 1/3



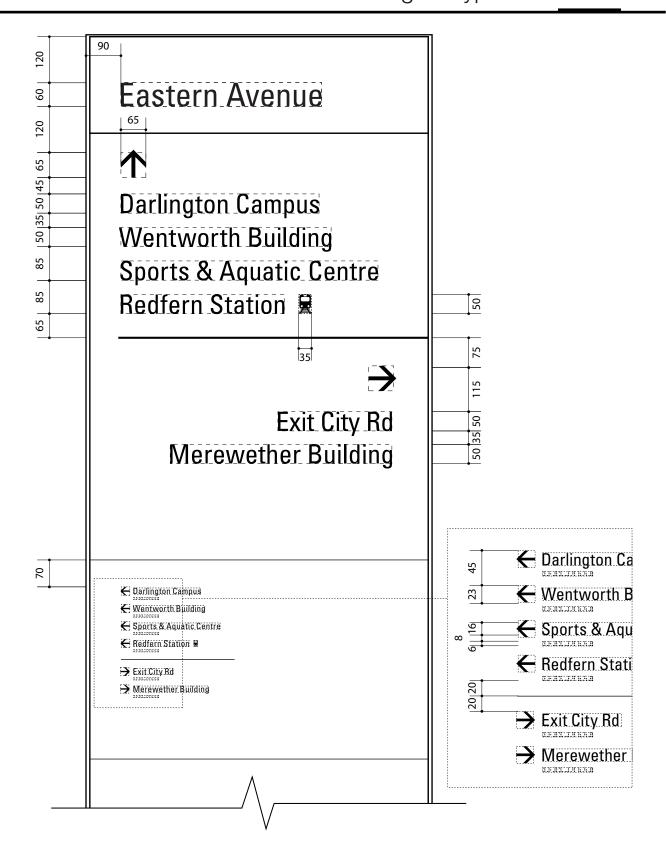
PD2 Pedestrian Directional Sign – Typical

sheet 2/3



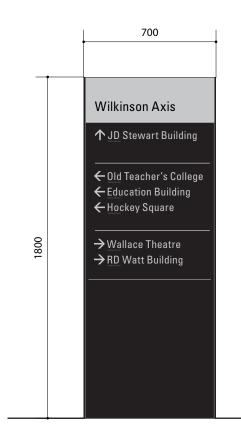
PD2 Pedestrian Directional Sign – Typical

sheet 3/3



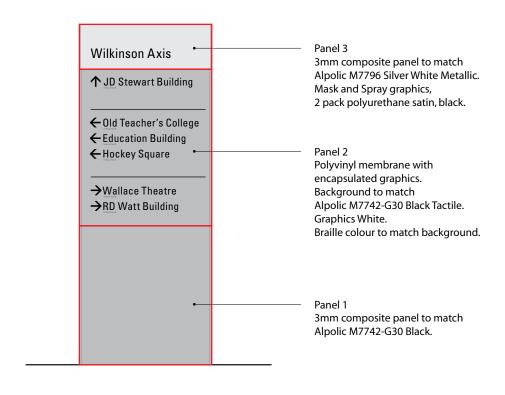
PD3 Pedestrian Directional Sign – Small

sheet 1/3



PD3 Pedestrian Directional Sign – Small

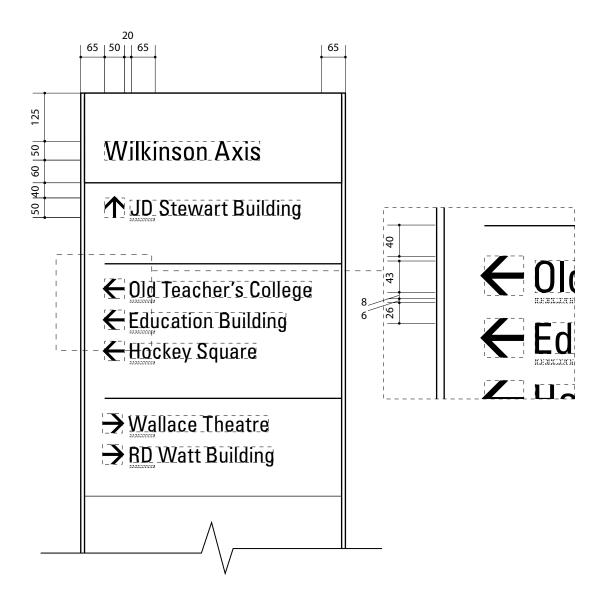
sheet 2/3



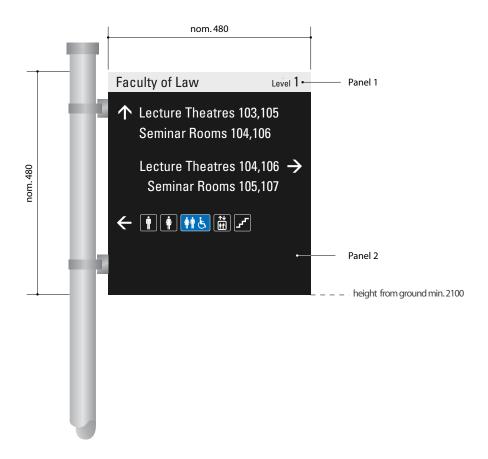
Panel layout to match existing signs.

PD3 Pedestrian Directional Sign – Small

sheet 3/3



PD4 Pedestrian Directional Sign - Pole Mounted sheet 1/2



Signlink Signsystems

Hallmark Post and Panel System

Panel 1

3mm composite panel to match Alpolic M7796 Silver White Metallic. Graphics mask and spray PMS Black 6C.

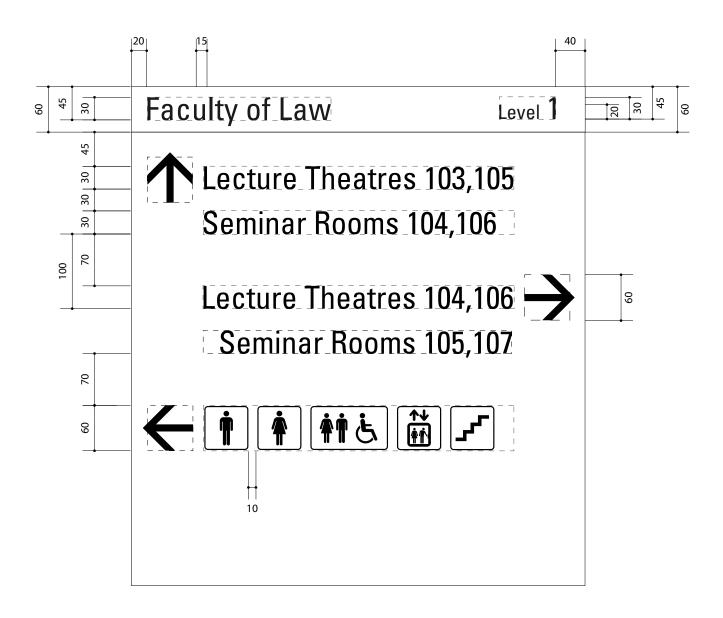
Panel:

3mm composite panel to match Alpolic M7742-G30 Black. Graphics mask and spray satin, white, blue etc.

Fixing of Hallmark panel to Post: Stainless steel clips similar/same to Signfix system.

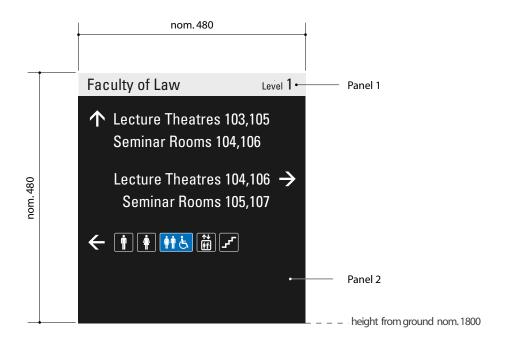
55

PD4 Pedestrian Directional Sign - Pole Mounted sheet 2/2



PD5 Pedestrian Directional Sign – Wall Mounted

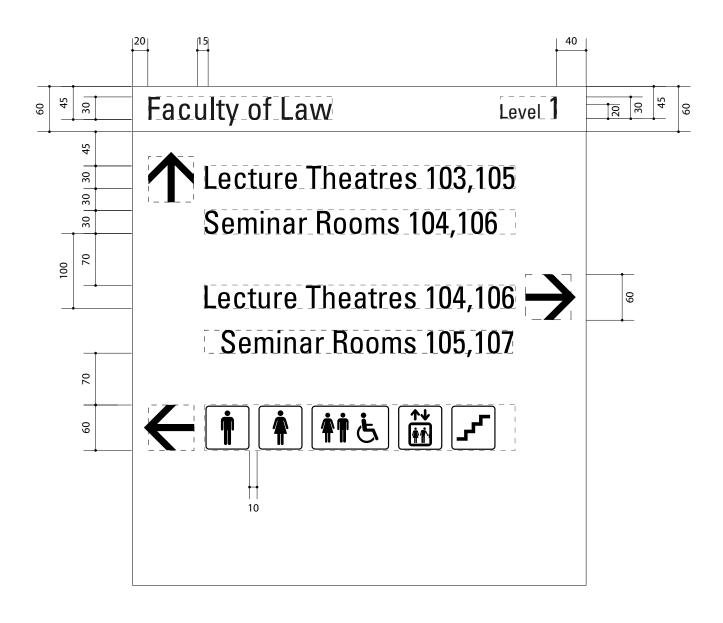
sheet 1/2



Signlink Grandeur frame SNA. Fixed to wall. Digital print graphics

PD5 Pedestrian Directional Sign – Wall Mounted

sheet 2/2

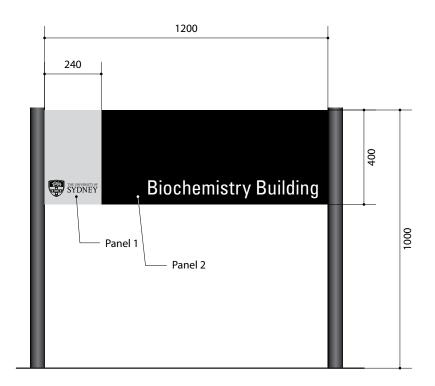


BUILDING IDENTIFICATION SIGNS

BI1 Building Identification Post & Panel Sign	60	
Bl2 Building Identification Surface Mounted – Horizontal Sign	62	
Bl3 Building Identification Projecting – Horizontal Sign	64	
Bl4 Building Identification Surface Mounted – Vertical Sign	66	
BI5 Building Identification and Directory	68	

BI1 Building Identification Post & Panel Sign

sheet 1/2



Signlink Signsystems

Hallmark Post and Panel System

Panel 1

3mm composite panel to match Alpolic M7796 Silver White Metallic. Screen print Logo PMS Black 6C. Subject to sample.

Panel 2

3mm composite panel to match Alpolic M7742-G30 Black. Graphics mask and spray satin, white.

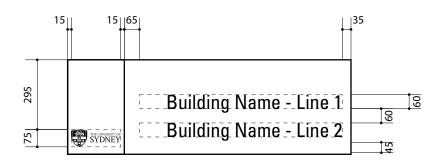
Note

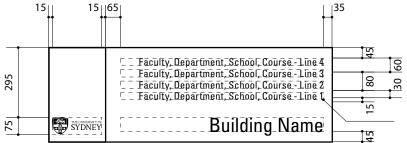
Logo is only applied if sign is located on the perimeter of the campus.

Page

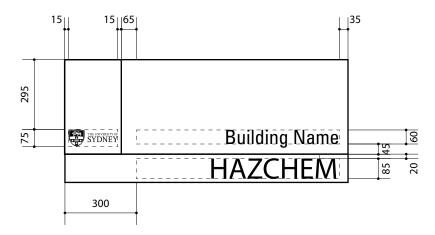
BI1 Building Identification Post & Panel Sign

sheet 2/2



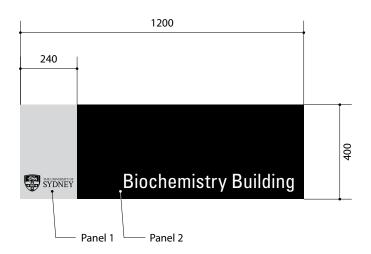


Information starts from this baseline. Additional information stacked above.



BI2 Building Identification Surface Mounted Horizontal Sign

sheet 1/2



Signlink Signsystems Grandeur Frame SNA with Signlink aluminium split batten, all parts mechanically fixed.

Panel 1:

3mm composite panel to match Alpolic M7796 Silver White Metallic. Screen print Logo PMS Black 6C. Subject to sample.

Panel 2:

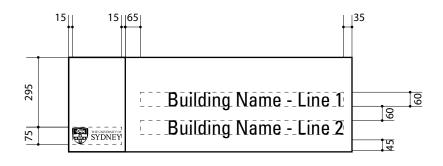
3mm composite panel to match Alpolic M7742-G30 Black Graphics mask and spray satin, white.

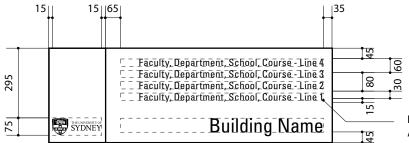
Note:

Logo is only applied if sign is located on the perimeter of the campus.

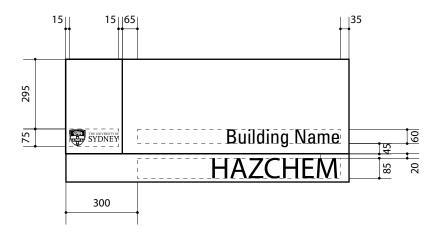
BI2 Building Identification Surface Mounted Horizontal Sign

sheet 2/2





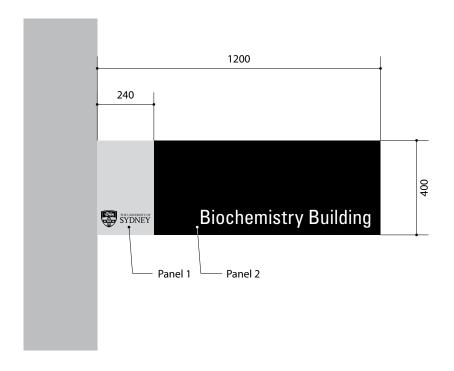
Information starts from this baseline. Additional information stacked above.



63

BI3 Building Identification Projecting Horizontal Sign

sheet 1/2



Signlink Signsystems Hallmark Frame SNA. Projecting and mechanically fixed (fixing is invisible).

Panel 1

3mm composite panel to match Alpolic M7796 Silver White Metallic. Screen print Logo PMS Black 6C. Subject to sample.

Panel 2:

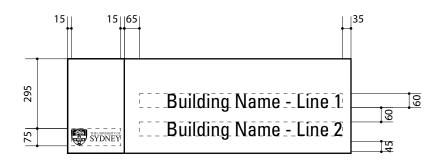
3mm composite panel to match Alpolic M7742-G30 Black Graphics mask and spray satio, white

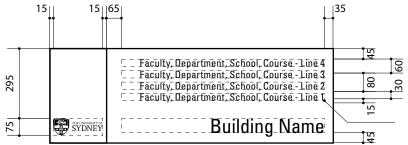
Note:

Logo is only applied if sign is located on the perimeter of the campus.

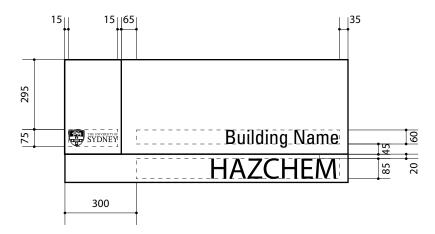
BI3 Building Identification Projecting Horizontal Sign

sheet 2/2

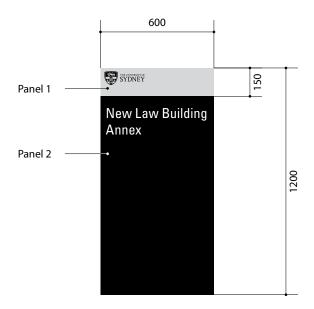




Information starts from this baseline. Additional information stacked above.



BI4a Building Identification Solid Surface Mounted to Opaque Surface



Signlink Signsystems Grandeur Frame SNA with Signlink aluminium split batten, all parts mechanically fixed

Panel 1:

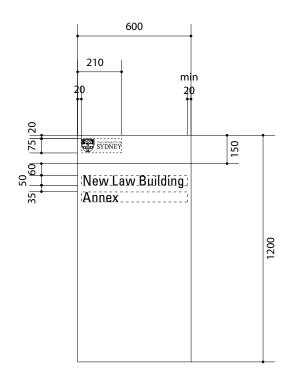
3mm composite panel to match Alpolic M7796 Silver White Metallic. Screen print Logo PMS Black 6C. Subject to sample.

Panel 2

3mm composite panel to match Alpolic M7742-G30 Black Graphics mask and spray, satin, white

Note:

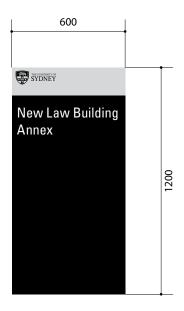
Logo is only applied if sign is located on the perimeter of the campus.



sheet 1/1

BI4b Building Identification Glass Mounted

sheet 1/1



210 min
20 20

SYDNEY

OS

New Law Building
Annex

Fixing: Adhesive fixed to front of glass

Signlink Signsystems Grandeur Frame SNA with Signlink. Adhesive fixed to glass.

Panel 1:

3mm composite panel to match Alpolic M7796 Silver White Metallic. Screen print Logo PMS Black 6C. Subject to sample.

Panel 2:

3mm composite panel to match Alpolic M7742-G30 Black, Graphics mask and spray, satin, white

Note:

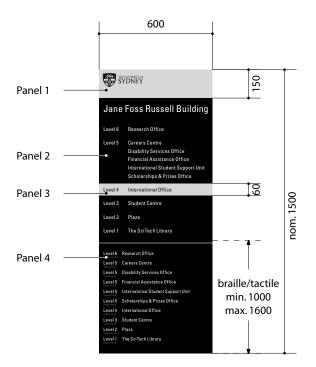
Logo is only applied if sign is located on the perimeter of the campus.

Backing Panel = Alpolic M7742-G30 Black

Adhesive fixed to inside of glass

BI5 Building Identification & Directory

sheet 1/2



Signlink Signsystems Grandeur Frame SNA with Signlink aluminium split batten, all parts mechanically fixed.

Panel 1:

3mm composite panel to match Alpolic M7796 Silver White Metallic. Screen print Logo PMS Black 6C. Subject to sample.

Panel 2:

3mm composite panel to match Alpolic M7742-G30 Black Graphics digital print white vinyl.

Panel 3:

3mm composite panel to match Alpolic M7796 Silver White Metallic.

Graphics digital print onclear vinyl, black graphics and satin overlay.

Panel 3 highlights the current level.

Panel 4:

Polyvinyl membrane with encapsulated graphics.

Background to match Alpolic M7742-G30 Black.

Tactile graphics in white. Braille colour to match background.

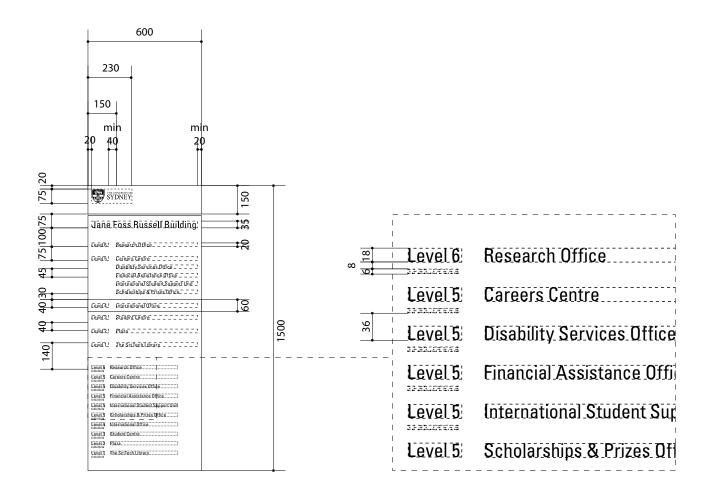
Note:

Logo is only applied if sign is located on the perimeter of the campus.

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BI5 Building Identification & Directory

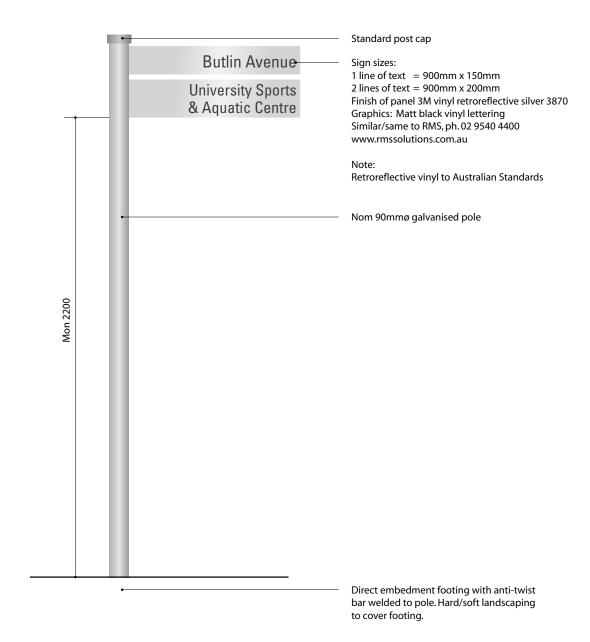
sheet 2/2



STREET SIGN

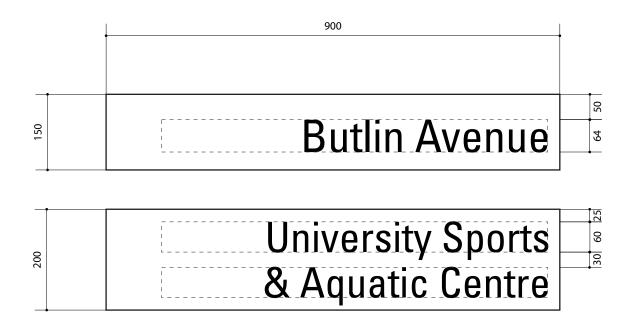
S1 Street Sign 71

S1 Street Sign



S1 Street Sign

sheet 2/2



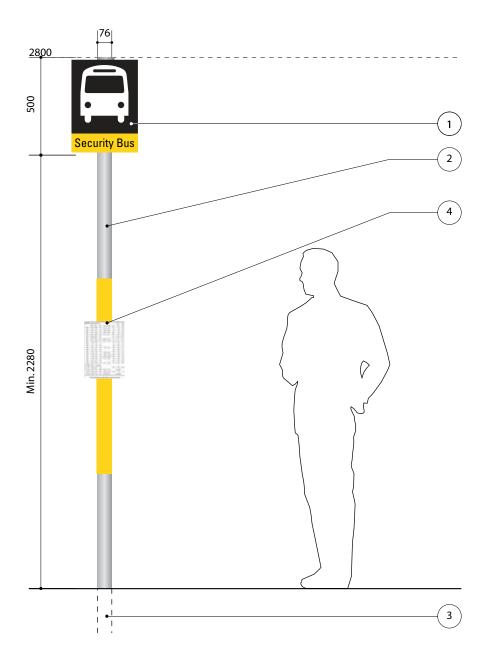
BUS STOP SIGN

BS1 Bus Stop Sign 74

Existing artwork attached to:

Straight Pole: 50nb x 2.3mm wall x 3.25m long Galvanised with Anti-twist Tie Pin, Endcap and DDA Reflective Banding.

Double-sided Timetable Route Display Case; A4 Standard 50nb, Yellow Gold Powder Coat with Polycarb Covers and Fasteners.



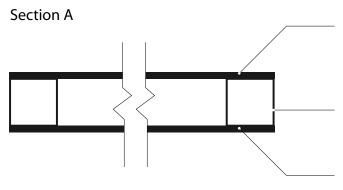
TRAFFIC MANAGEMENT SIGNS

TS1 Traffic Sign	83
TS2 Traffic Sign	84
TS3 Traffic Sign	85
TS4 Traffic Sign	86

TS1 Traffic Sign

sheet 1/1





3mm composite panel to match Alpolic M7742-G30 Black. Adhesive and pop rivet fixed (or similar) to galvanised SHS. Graphics composed as shown and screenprinted or digitally printed to composite panel.

80mm x 80mm galvanised SHS.

3mm composite panel to match Alpolic M7742-G30 Black. Adhesive and pop rivet fixed (or similar) to galvanised SHS.

76

TS2 Traffic Sign



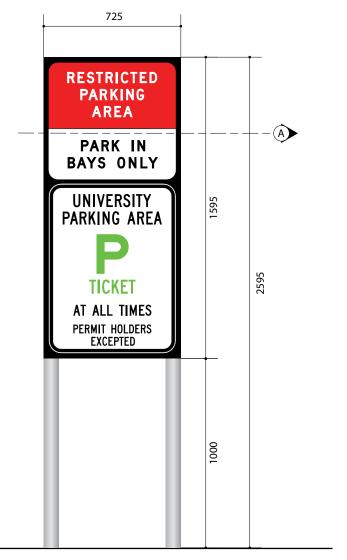
3mm composite panel to match Alpolic M7742-G30 Black.

Signfix-type fixing to galvanised RHS. Graphics composed as shown and digitally printed to composite panel.

77

TS3 Traffic Sign

sheet 1/1

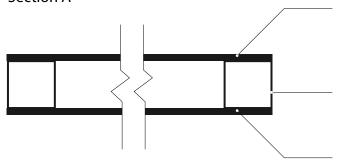


3mm composite panel to match Alpolic M7742-G30 Black.

Adhesive and pop rivet fixed (or similar) to galvanised SHS.

Graphics composed as shown and screenprinted or digitally printed to composite panel.





3mm composite panel to match Alpolic M7742-G30 Black. Adhesive and pop rivet fixed (or similar) to galvanised SHS. Graphics composed as shown and screenprinted or digitally printed to composite panel.

80mm x 80mm galvanised SHS.

3mm composite panel to match Alpolic M7742-G30 Black. Adhesive and pop rivet fixed (or similar) to galvanised SHS.

TS4 Traffic Sign

sheet 1/1



3mm composite panel to match Alpolic M7742-G30 Black. Adhesive and pop rivet fixed (or similar) to wall. Graphics composed as shown and digitally printed to composite panel.

SECTION E

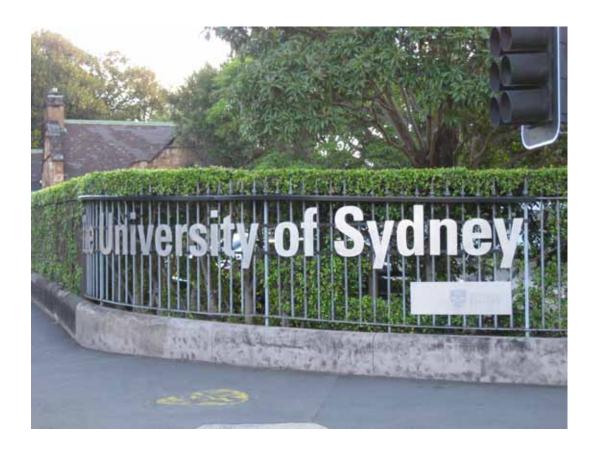
PHOTOS

- // Identification Signs
- // Pedestrian Directional Signs
- // Building Identification Signs
- // Street Sign
- // Bus Stop Sign

IDENTIFICATION SIGNS

PG1 Perimeter Gate Sign	82
EM1 Entry Marker – Typical	83
EM2 Entry Marker – Slim	84
EM3 Entry Marker – Small	85
EM4 Entry Marker Vertical – Wall Mounted	86
EM5 Entry Marker Horizontal – Wall Mounted	87

PG1 Perimeter Gate Sign

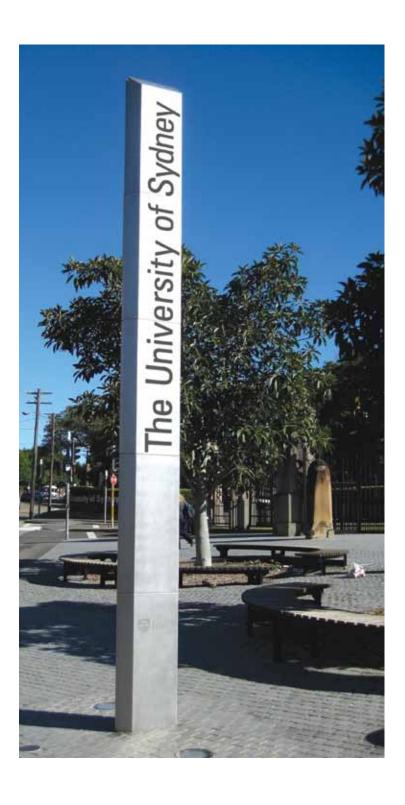


EM1 Entry Marker – Typical





EM2 Entry Marker - Slim





EM4 Entry Marker – Vertical Wall Mounted



EM5 Entry Marker – Horizontal Wall Mounted



VEHICULAR DIRECTIONAL SIGNS

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VD1 Vehicular Directional Sign – Large

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VD2 Vehicular Directional Sign - Small



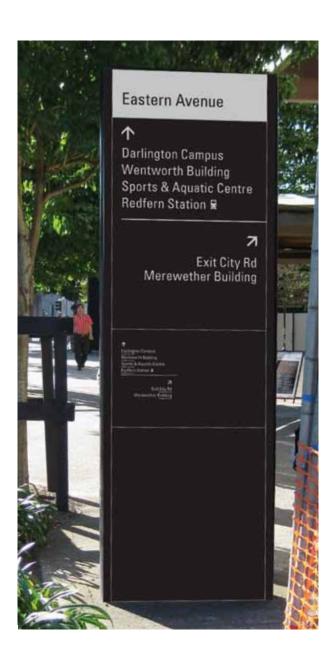
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PD1 Pedestrian Directional & Information Sign



PD2 Pedestrian Directional Sign – Typical



PD3 Pedestrian Directional Sign – Small

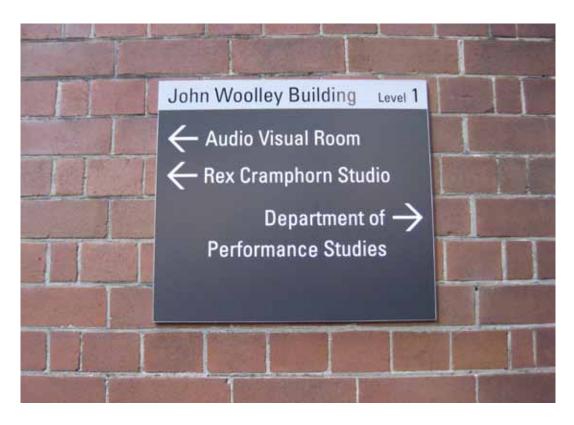


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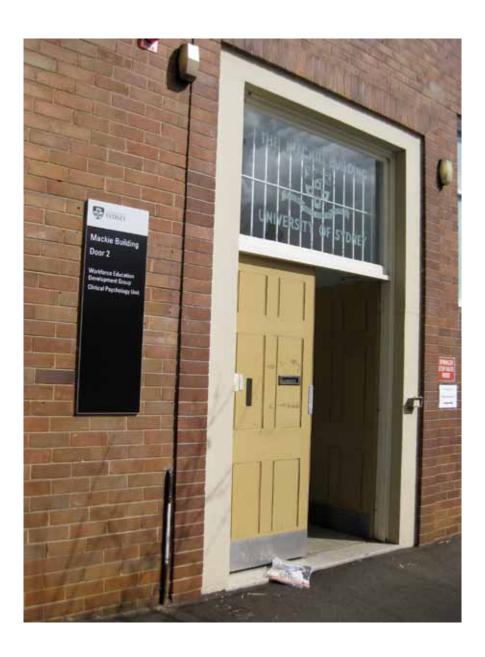
BI2 Building Identification Surface Mounted Horizontal Sign



BI3 Building Identification Projecting Horizontal Sign



BI4a Building Identification
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BI5 Building Identification & Directory



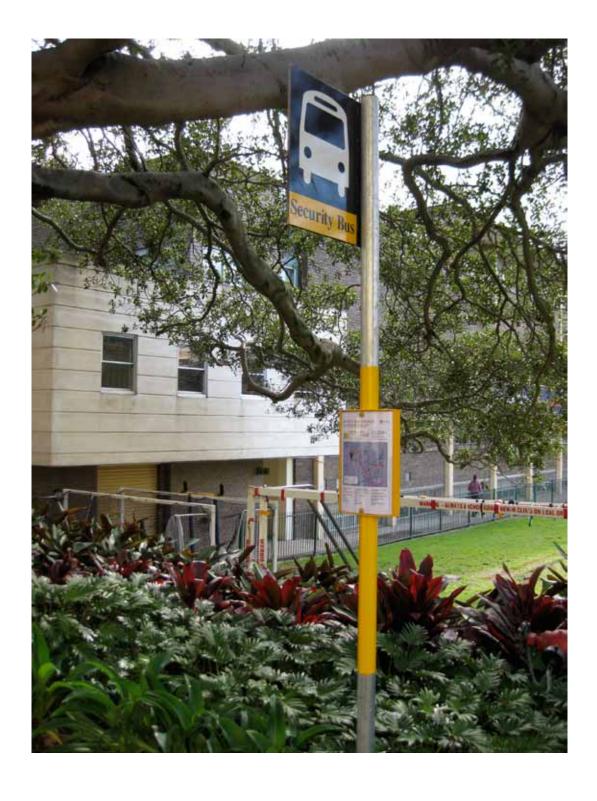
STREET SIGN

S1 Street Sign 105



BUS STOP SIGN

BS1 Bus Stop Sign 107



SECTION F

ACCESS REPORT

// Return Brief for Signage Master Style Guidelines



University of Sydney

Return Brief for Signage Master Style Guide

Morris-Goding Accessibility Consulting

19 May 2010

FINAL

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1. INTRODUCTION

1.1. General

University of Sydney has engaged Morris-Goding Accessibility Consulting, to provide a return brief on the draft Signage Master Style Guide prepared by Minale Tattersfield. The requirements of this return brief is to provide:

- a. Analysis of signage documents presented to the University of Sydney on the 12 March 2010, for consistency with statutory signage design requirements as set out in AS1428.1 (2009), AS1428.2 (1992) and the Building Code of Australia (BCA).
- b. Recommendations to ensure Signage Master Style Guide meets accessible design requirements.

1.2. Objectives

The return brief attempts to deliver equality, dignity, independence and functionality to people with disabilities inclusive of;

- People with sensory impairment
- People with mobility impairments
- People with dexterity impairments

1.3. Access References

The following standards have been used to guide the design recommendations for accessibility, contained in this return brief.

- Disability Discrimination Act (DDA) 1992
- Disability (Access to Premises Buildings) Standard 2009
- Building Code of Australia (BCA) 2010
- AS1428.1 (2009)
- AS1428.2 (1992)

1.4. Methodology

The signs listed below were assessed for accessibility:

	Type of Sign	Title	Description
1.	Information Sign	UM/I	University Map & Information
2.	External Directional	MD	Main Directional
3.	External Directional	SD	Secondary Directional
4.	Building Identification	1	Located externally to each building
5.	Building Identification	BIDS	Building Identification & Directory Small

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		BIDL	Building Identification & Directory Large
6.	Internal Directional	DR1	Wall mounted directional Sign
		DR2	Projecting Directional Sign
		DR3	Suspended Directional Sign
7.	Street Sign	-	Street Sign

The elements assessed for accessibility were:

Element		De	scription
a.	Sign legibility	_	Clarity of font style and spacing
			between letter and words.
b.	Luminance contrast	_	Adequate luminance contrast between
			sign and background and lettering /
			symbols.
		_	Surface finish
c.	Viewing distance to signage	_	Consistent physical placement,
			installation and illumination of signs
			legible when viewed from a distance.
d.	Height of sign placement	_	To be readable for people in both
			sitting and standing positions
e.	Braille and Tactile requirements	_	Raised lettering / number / symbols
	_	_	Braille components.
f.	Incorporation of International symbol of	_	Modular format indicating continuous
	wheelchair access		accessible path of travel

The content of this Return brief is also based upon on the following;

#	Date	Task	Description
1.	03.03.10	Meeting	Signage Guidelines (Draft for Review), G12 CIS
			Meeting Room 5, Sydney University
2.	18.03.10	Meeting	With Hans at Minale Tattersfield for Master Style
			Guideline Briefing
3.	23.04.10	Meeting	Review of Signage Guidelines meeting #3 (draft Master
			Style Guidelines), G12 CIS Meeting Room 5, Sydney
			University
4.	04.05.10	Meeting	Signage Master Style Guidelines – Disability Services
			Requirements, Mary Teague's Office, Level 5, G02 –
			Jane Foss Russell Building, Sydney University
5.	15.03.10	Subsequent	In relation to queries / further clarification arising from
	to	Email and	above meetings.
	10.05.10	Phone calls	

2. RETURN BRIEF

2.1. Access Assessment

1	University Map and Information UM/I	Comments
a	Sign legibility	From reviewing pages 17, 18, 22, 23 and 24 of the draft Master Signage Style Guide, the new font style is clear with sufficient spacing and lettering between letter and words.
В	Luminance contrast	There is adequate luminance contrast between the silver grey lettering and black background.
		Recommend enhancing luminance contrast by providing a wider border of minimum width 5mm around the perimeter edge.
С	Viewing distance to signage	From the information provided, there are 13 existing makers, which will be maintained in their current locations.
		The current signs are legible when viewed from a distance.
d	Height of sign placement	UM/I sign dimensions are 2800mm height by 1050mm width.
		The location of the information panel and LED map of the campus is at an appropriate height for people in both sitting or standing positions.
e	Braille and Tactile requirements	The UM/I sign does not contain any tactile or Braille components for way-finding. From the information provided, a paper pamphlet of the campus map will be available on the sign. However, under the Disability Discrimination Act (1992) the university has an obligation to provide alternative map formats for people with disabilities.
		It is acknowledged that Campus Infrastructure Services have an Online Access Map available at the web address below http://www.facilities.usyd.edu.au/oam/blaccess- r00.cfm
		However, from reviewing this Online Access Map, the information about accessible building features is not current and requires updating. The feedback from Disability Services about the

		Online Access Map is the interface is set up to be confusing and difficult to navigate for students with disabilities. Further Recommendation: It is recommended Campus Infrastructure Services and Disability Services review the validity of the current Online Access Map and to consider more appropriate map options. It would be prudent for the University to explore funding to develop different versions of the campus map, to improve the way finding experience for all students with disabilities. The following alternative maps must be considered; 1. Overall Mobility Map (includes main access paths, amenities, accessible parking and toilets) 2. More detailed sections of each campus map to include lifts, location of hearing loops. 3. Large Print Map 4. Braille and Raised Tactile Map
f	Incorporation of International symbol of wheelchair access	If the International symbol of wheelchair access were to be incorporated on the UM/I ensure; 1. Stylized figure in the wheelchair is pointing to the right on a plain square background. 2. The proportion of the layout of the symbol of access to be in accordance with Fig 10 AS1428.1 (2009). 3. The colour of the figure to be white on a blue background (Blue B21, ultramarine, of AS2700). 4. An arrow to be used in combination with the international symbol of access. 5. For viewing distance up to 7m – size of symbol 60 x 60mm. 6. For viewing distance up 7 – 18m – size of symbol 110 x 110mm.

2	Main Directional MD	Comments
a	Sign legibility	At the top of the sign, for a viewing distance from 15m, the Cap height of letters is 45mm. Recommend increasing Cap height of letters from 45mm to 50mm.
b	Luminance contrast	There is adequate luminance contrast of 30%
		between the silver grey lettering and black background.
		To enhance, luminance contrast, consider a wider border of minimum width 5mm around the perimeter edge.
С	Viewing distance to signage	There is a total of 33 Main Directional and Secondary Directional Signs, which will remain in situ.
d	Height of sign placement	The MD sign dimensions are 2800mm height by 900mm width. The top of the sign is readable by people who are standing.
		The lower section of the sign repeats what same text as top of sign for people with impaired vision. The Tactile lettering and Braille components are situated at a lower height between 1200mm – 1600mm from finished floor.

e Braille and Tactile requirements

There is a separate panel below the main directional message which consists of encapsulated text and Braille

The text is not left justified, which makes it difficult for people with impaired vision to read.

The directional arrows are only on the first line, which also does not provide information to the lines below, where there is no arrow. It does not provide clear direction for a person with impaired vision.

In addition the Braille is located only 6mm below the bottom line of text, which does not allow enough space for a reading with fingers.

Recommendation:

- 1. Ensure Tactile text and Braille are left justified.
- 2. Place an arrow direction on each line, before text starts
- 3. Place Braille at least 8mm below bottom line of text.

Further Recommendation:

The following applies to Tactile lettering:

- 1. Tactile characters must be raised or embossed to a height of not less than 1 mm and not more than 1.5 mm.
- 2. Characters must have a height of not less than 17.5 mm for each metre of viewing distance.
- 3. Upper case tactile characters must have a height of not less than 15 mm and not more than 55 mm.
- 4. Lower case tactile characters must have a height of 50% of the related upper case characters.
- 5. Tactile characters, symbols, and the like, must have rounded edges.
- 6. The entire sign, including any frame, must have all edges rounded.
- 7. The surface of the sign must be continuous for hygiene purposes.
- 8. Signs must be constructed so as to resist the removal of letters and Braille dots by picking or adhesive failure.
- 9. The minimum letter spacing of tactile characters on signs must be 2 mm.
- 10. The minimum word spacing of tactile characters on signs must be 10 mm.
- 11. Fonts with letters of constant stroke thickness must be used.
- 12. The thickness of letter strokes must be

		not less than 2 mm and not more than 7 mm. 13. Tactile text must be left justified, except that single words may be centre justified. The following applies to Braille components: 1. Braille must be grade 1 Braille (uncontracted) in accordance with the criteria set out by the Australian Braille Authority. 2. Braille must be raised and domed. 3. Braille must be located 8 mm below the bottom line of text (not including descenders). 4. Braille must be left justified. 5. Where an arrow is used in the tactile sign, a small arrow must be provided for Braille readers. 6. On signs with multiple lines of text and characters, a semi-circular Braille locator at the left margin must be horizontally aligned with the first line of Braille text.
F	Incorporation of International symbol of wheelchair access	Same as UM/I sign above, Point 1 (f)

3	Secondary Directional	Comments
a	Sign legibility	The lettering is raised tactile at a height of 35mm with Braille underneath.
		Recommend for a viewing distance from 12m, to increase Cap height of letters from 35mm to 40mm.
b	Luminance contrast	There is adequate luminance contrast of 30% between the silver grey lettering and black background.
		To enhance, luminance contrast, consider a wider border of minimum width 5mm around the perimeter edge.
С	Viewing distance to signage	There is a total of 33 Main Directional and Secondary Directional Signs, which will remain in situ.
D	Height of sign placement	The SD sign is 1800mm height by 700mm width.
Е	Braille and Tactile requirements	The text is not left justified, which makes it difficult for people with impaired vision to read.
		The directional arrows are only on the first line for each section. This does not provide information to the lines below and clear direction

		for a person with impaired vision. In addition the Braille is located only 6mm below the bottom line of text, which does not allow enough space for a reading with fingers. Recommendation: 1. Ensure Tactile text and Braille are left justified. 2. Place an arrow direction on each line, before
		text starts. 3. Place Braille at least 8mm below bottom line of text. Further Recommendation is the same as MD sign above, Point 2 (e)
		,
f	Incorporation of International symbol of wheelchair access	Same as UM/I sign above, Point 1 (f)

4	Building Identification	Comments
	Located Externally to Each Building	
a	Sign legibility	Clear and legible which identifies the name of the building only – no directional information is provided – no changes needed.
В	Luminance contrast	There is adequate luminance contrast of 30% between the silver grey lettering and black background.
С	Viewing distance to signage	No changes required.
D	Height of sign placement	To be installed a height of 1000mm – no change.
Е	Braille and Tactile requirements	Not applicable
F	Incorporation of International symbol of wheelchair access	Not applicable

5	Building Identification & Directory BIDS Small BIDL Large	Comments
a	Sign legibility	The purpose of this sign is to list the facilities within the building and the level it is situated on. This type of sign will be used mainly for Jane Foss Russell Building. The project team has indicated directional arrows will not be included on this sign.
В	Luminance contrast	There is adequate luminance contrast of 30% between the silver grey lettering and black background.

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С	Viewing distance to signage	To be installed on columns or obvious walls where decisions need to be made about entering the building.
D	Height of sign placement	To be placed at an accessible height between 1200 – 1600mm from floor level.
Е	Braille and Tactile requirements	Braille and Tactile is required on this sign for each facility and floor level.
f	Incorporation of International symbol of wheelchair access	Same as UM/I sign above, Point 1 (f)

6	Internal Directional Signs - Wall mounted DR1 - Projecting DR2 - Suspended DR3	Comments
a	Sign legibility	The typeface Univers 57 Condensed is clear and legible.
		The Cap Height of text is 30mm, which is sufficient.
		The Pictogram Height and Arrow Field Size are 50mm.
		Recommend increasing Pictorgram Height and Arrow Field Size to 60mm for a viewing distance of 7m.
b	Luminance contrast	There is adequate luminance contrast of 30% between the silver grey lettering and black background.
С	Viewing distance to signage	Installed at a height 2200mm from bottom of sign to floor.
D	Height of sign placement	Readable by people who are in standing and seated positions.
Е	Braille and Tactile requirements	Not applicable.
F	Incorporation of International symbol of wheelchair access	Same as UM/I sign above, Point 1 (f)

7	Street Sign	Comments
a	Sign legibility	An increased cap height of 64mm is suitable for a viewing distance of 15m.
b	Luminance contrast	The finish of panel 3M vinyl retroreflective silver 3870 with black vinyl lettering – provides sufficient luminance contrast.
С	Viewing distance to signage	Street sign to replace existing signs and utilize existing pole.
D	Height of sign placement	No Change.
Е	Braille and Tactile requirements	Not applicable
f	Incorporation of International symbol of wheelchair access	Not applicable

2.2. Recommendations

The table below summarises recommendations for consideration by Sydney University.

	Applies to the following signs:	Recommendations	Relevant Requirement
1	Luminance Contrast		requirement
	Information Sign UM/I External Directional SD External Directional MD	To enhance, luminance contrast, consider a wider border of minimum width 5mm around the perimeter edge	BCA Specification D3.6 Braille and Tactile Signage Cl. 2.3 (b) Luminance Contrast
2	International symbol of wheelchair access		
	Information Sign UM/I External Directional SD External Directional MD Internal Directionals DR1 DR2 DR3	If the International symbol of wheelchair access were to be incorporated ensure; 1. Stylized figure in the wheelchair is pointing to the right on a plain square background. 2. The proportion of the layout of the symbol of access to be in accordance with Fig 10 AS1428.1 (2009). 3. The colour of the figure to be white on a blue background (Blue B21, ultramarine, of AS2700). 4. An arrow to be used in combination with the international symbol of access. 5. For viewing distance up to 7m — size of symbol 60 x 60mm. 6. For viewing distance up 7 — 18m — size of symbol 110 x 110mm.	AS1428.1 Cl. 8.2.1 International Symbol of Access AS1428.2 Table 1 Size of international symbols for access and deafness for varying viewing distances.
3	Cap Height of Letters Pictogram Heights		
	Information Sign UM/I	For a viewing distance from 15m, increase Cap height of letters from 45mm to 50mm.	AS1428.2 Table 2 Height of letters for varying viewing distances.
	External Directional MD	For a viewing distance from 15m, increase Cap height of letters from 45mm to 50mm.	AS1428.2 Table 2 Height of letters for varying viewing

			distances.
	External Directional SD	For a viewing distance from 12m, increase Cap height of letters from 35mm to 40mm.	AS1428.2 Table 2 Height of letters for varying viewing distances.
	Internal Directionals DR1 DR2 DR3	For a viewing distance of less than 7m from the sign: - Increase Pictogram Height from 50mm to 60mm - Increase Arrow Field Size from 50 to 60mm	AS1428.2 Table 2 Height of letters for varying viewing distances.
4	Braille and Tactile Requirements		
	External Directional SD External Directional MD Building Identification & Directory Small BIDS Building Identification & Directory Large BIDL	The following applies to Tactile signs: 1. Tactile characters must be raised or embossed to a height of not less than 1 mm and not more than 1.5 mm. 2. Characters must have a height of not less than 17.5 mm for each metre of viewing distance. 3. Upper case tactile characters must have a height of not less than 15 mm and not more than 55 mm. 4. Lower case tactile characters must have a height of 50% of the related upper case characters. 5. Tactile characters, symbols, and the like, must have rounded edges. 6. The entire sign, including any frame, must have all edges rounded. 7. The surface of the sign must be continuous for hygiene purposes. 8. Signs must be constructed so as to resist the removal of letters and Braille dots by picking or adhesive failure. 9. The minimum letter spacing of tactile characters on signs must be 2 mm. 10. The minimum word spacing of tactile characters on signs must be 10 mm. 11. Fonts with letters of constant stroke thickness must be used.	BCA Specification D3.6 Braille and Tactile Signage

- 12. The thickness of letter strokes must be not less than 2 mm and not more than 7 mm.
- 13. Tactile text must be left justified, except that single words may be centre justified.

The following applies to Braille signs

- 1. Braille must be grade 1 Braille (uncontracted) in accordance with the criteria set out by the Australian Braille Authority.
- 2. Braille must be raised and domed.
- 3. Braille must be located 8 mm below the bottom line of text (not including descenders).
- 4. Braille must be left justified.
- 5. Where an arrow is used in the tactile sign, a small arrow must be provided for Braille readers.
- 6. On signs with multiple lines of text and characters, a semicircular Braille locator at the left margin must be horizontally aligned with the first line of Braille text.

Below is a summary of mandatory and best practice Braille and Tactile requirements based on the signage family within the Signage Master Guidelines and The University of Sydney Internal Signage Manual (issue G 09.05.09).

The sbove Braille and Tactile Requirements are **mandatory** for the following signs:

- 1. Accessible Sanitary facilities
- 2. Accessible space with hearing augmentation
- 3. Each accessible lift entrance The above signs are the Amenity Identification Sign ID6.

To further enhance way finding, it is **best practice** to provide Braille and Tactile components to the following;

- 1. External Directional SD
- 2. External Directional MD
- 3. Building Identification & Directory Small BIDS
- 4. Building Identification &

		Directory Large BIDL 5. Room Identification Sign ID7 6. Room Identification Sign with Pinboard ID8 7. Room Identification Sign with Pictograms and Pinboard ID9 8. Lab Identification Sign with Hazard Information ID10 9. Small Room Identification ID11 10. Building Directory with Map IF1	
5	Alternative Campus Map Formats	It is recommended Campus Infrastructure Services and Disability Services review the validity of the current Online Access Map and to consider more appropriate map options. It would be prudent for the University to explore funding to develop different versions of the campus map, to improve the way finding experience for all students with disabilities. The following alternative maps must be considered; 1. Overall Mobility Map (includes main access paths, amenities, accessible parking and toilets) 2. More detailed sections of each campus map to include lifts, location of hearing loops. 3. Large Print Map 4. Braille and Raised Tactile Map	Disability Discrimination Act (1992)

Report Prepared By:

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Accredited Access Consultant (ACAA)

Signed

Date 19 May 2010

Company Morris-Goding Accessibility Consulting