University of Minnesota Duluth

SIGNING AND GRAPHICS **STANDARDS**

Appendix F1 University of Minnesota Building Standards

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Introduction

This manual consists of the 2024 revision of the University of Minnesota Duluth Signing and Graphics Standards.

An effective sign system succeeds in directing people to and identifying their destinations.

To be effective, signs should be:

- Noticeable –Signs should be easily recognizable from their backgrounds.
- Readable Sign text should be easy to read with high color contrast and sized in relation to its intended viewing distance.
- Provide clear, concise, "easy-to-understand" information minimal text with the use of graphic symbols helps to convey the message efficiently.

Signs can inform, direct, identify and/or regulate. Once the purpose of the sign has been determined, refer to the table of contents to find the appropriate sign type. The specifics accompanying each sign type will help to define the proper sign type for each need.

An important concept in sign system planning is that the quantity of displayed text should not exclusively dictate the size of the sign. Signs with like messages should be grouped, a common size module selected, and the resulting sign type used consistently, regardless of the variation in individual text quantity.

The University of Minnesota Duluth sign system is organized by type and usage. In each group, a consistent size, graphic format, and configuration is applied. This familiar format assists the viewer in obtaining information quickly and in an orderly progression. The consistent use of common design elements help to identify the facility as being a part of the University of Minnesota system.

These signing standards address only those items that are consistent campus-wide. The need for non-standard and specialized signing applications will always exist. For these situations, any non-compliant sign would require approval by UMD Facilities Management Engineering Services. The signing standards can provide a guideline for the development of adjunct signing components.

The signing standards are therefore planned to be continually monitored and updated, allowing them to change with new developments in manufacturing techniques, building codes, and design trends.

UMD Facilities Management Engineering Services is responsible for overseeing signing for new construction and remodeling projects. ADA clear space requirements for signs may affect door layout (alcoves, door swings and sidelights) as well as locations for switches, valves and other building features. In order to avoid conflicts with these requirements, the architect (via the Project Manager) shall contact UMD Facilities Management Engineering Services when projects are in design development phases to arrange the review and approval.

ADA & CODE GUIDELINES

The Americans with Disabilities Act went into effect on January 26, 1992. A landmark civil rights law that entitles disabled individuals to the same rights and access as other Americans. Sign guidelines are a portion of this law and an outline of these guidelines is provided within this manual. In general, signs that identify permanent rooms and spaces, as well as signs that provide direction or information about functional spaces of the building, are affected by the ADA guidelines.

The State of Minnesota has also passed the 2020 Minnesota Accessibility Code, 2020 Minnesota Fire Code as well as 2020 Minnesota Building Code. Signs on Campus must also comply with these codes where applicable.

IDENTIFICATION SIGNS

Permanent, temporary as well as primary and secondary campus destination spaces require signs that identify them. These spaces must have a tactile message as well as accompanying Grade 2 Braille on their signs. They must also meet all visual requirements detailed in the ADA and Minnesota Code. Due to the interconnected buildings on the University of Minnesota Duluth campus, identification signs on campus also carry the building name in addition to room number. Common building spaces that require identification signs include the following:

- Individual offices and office suites.
- Classrooms.
- Laboratories.
- Lecture halls.
- Restrooms whether the entrance is from the exterior of the building or the interior.
- Auditoriums.
- Gymnasiums.
- Arenas.
- Cafeterias & dining areas.
- Storage rooms.
- Building utility rooms such as mechanical, custodial and electrical rooms.
- Ballrooms.
- Conference rooms.
- Stairwells.

• INFORMATIONAL – WAYFINDING / DIRECTIONAL SIGNS

Signs that provide direction throughout Campus or provide information about interior facility spaces, but do not identify them, are informational signs. These signs are not required to contain a tactile message or Grade 2 braille. They must meet all visual requirements detailed in the ADA and Minnesota Code. Common examples of informational signs include the following:

- Overhead & wall mounted campus directional signs.
- Departmental marketing signs.
- Signs containing hours of operation or similar content.
- Notice or cautionary signs.

Some interior and exterior informational signs are exempt from ADA compliance. Those signs include the following:

- Building addresses, directories, menus, and other signs that provide temporary information about rooms and spaces, such as the current occupant's name.
- Temporary signs posted for maximum of 7 days.
- Occupant names, company names and logos.

- Seat or row designations within assembly areas.
- Parking facility informational signs.

REGULATORY, LIFE SAFETY & ACCESSIBILITY INTERIOR SIGNS

Some interior signs are regulated by other agencies in addition to the ADA. They must meet all visual requirements detailed in the ADA and Minnesota Codes. Tactile characters as well as pictograms may be required in some instances. The International Symbol of Accessibility shall appear on all accessible facilities (restrooms, auditoriums, etc.). Common examples of building spaces that require regulatory and/or accessibility signs include the following:

- Elevators.
- Restrooms, locker rooms, changing rooms & bathing rooms.
- Elevator machine rooms.
- Fire safety signs within stairwells.
- Means of egress signs.
- Areas of refuge.
- Directional signage to nearest accessible facilities & elevators.

ACCESSIBILITY/ EXTERIOR SIGNS

The requirements for exterior and interior signs are generally the same.

Exterior signs are not required to have tactile characters or braille. Exceptions to this rule include the following:

• Where a permanent room, such as a restroom, is accessed from the outside.

GENERAL SPECIFICATIONS

1. COMMUNICATION FEATURES

- 1.1. Raised/Tactile Characters
 - 1.1.1. Letters and numbers shall be raised a minimum of 1/32 inch, uppercase, sans serif typestyles.
 - 1.1.2. Characters shall not be italic, oblique, script, highly decorative or of other unusual forms.
 - 1.1.3. Raised characters must be 5/8 inch minimum in height and 2 inches maximum in height.
 - 1.1.3.1. Where separate raised and visual characters with the same information are provided, raised character height shall be permitted to be 1/2 inch (13 mm) minimum.
 - 1.1.4. An eggshell or matte finish is required.
 - 1.1.5. Compliant tactile character proportions:
 - 1.1.5.1. The character width of the upper case "O" shall be 55% 110% of the character height of the upper case "I".
 - 1.1.5.2. The character stroke thickness of the upper case "I" shall be 15% minimum, measured at the top surface of the character and 30% maximum of the character height measured at the base of the character.
 - 1.1.5.3. Where characters are both visual and raised, the stroke width shall be 10% minimum of the height of the uppercase letter "I".
 - 1.1.6. Contrast between characters and background must be at least 70%.
 - 1.1.7. Character spacing shall be measured between the two closest points of adjacent raised characters within a message, excluding word spaces. Where characters have rectangular cross sections, spacing between individual raised characters shall be 10% minimum and 35% maximum of the character stroke width. Where characters have other cross sections, spacing between individual raised characters shall be 1/16 inch (1.6 mm)

- minimum and 4 times the raised character stroke width maximum at the base of the cross sections, and 1/8 inch (3.2 mm) minimum and 4 times the raised character stroke width maximum at the top of the cross sections.
- 1.1.8. Spacing between the baselines of separate lines of characters within a message shall be 135 % minimum and 170 % maximum of the character height.
- 1.1.9. Characters shall be separated from raised borders and decorative elements 3/8 inch (9.5 mm) minimum.
- 1.1.10. Raised characters shall be installed 48 inches minimum above the floor, measured to the baseline of the lowest raised character and 60 inches maximum above the floor, measured to the baseline of the highest raised character.
- 1.1.11. Raised/tactile characters must be accompanied by Grade 2 Braille characters.

1.2. Braille Characters

- 1.2.1. Braille shall have a domed or rounded shape.
- 1.2.2. Braille shall be Grade 2.
- 1.2.3. Braille shall be located below corresponding text. If text is multi-lined, braille shall be placed below the entire text.
- 1.2.4. Braille shall be separated by 3/8 inch minimum from tactile characters, raised borders or decorative elements.
- 1.2.5. Braille is required to be lowercase. The indication of uppercase letter(s) shall only be used for proper nouns and names, individual letters of the alphabet, initials, acronyms, or before the first word of sentences.
- 1.2.6. Dot height: 0.025-0.037 inch (0.6-0.9 mm).
- 1.2.7. Dot base diameter: 0.059-0.063 inch (1.5-1.6 mm).
- 1.2.8. Distance between any two dots in same cell, center to center: 0.090-0.100 inch (2.3-2.5 mm).
- 1.2.9. Distance between corresponding dots in adjacent cells, center to center: 0.241-0.300 inch (6.1-7.6 mm).
- 1.2.10. Distance between corresponding dots from one cell to the cell directly below, center to center: 0.395-0.400 inch (10.0-10.2 mm).

1.3. Visual Characters

1.3.1. Helvetica regular is the designated as the standard font type for signs. The Helvetica Regular alphabet is as follows:

1.3.2. ABCDEFGHIJKLMNOPQRSTUVWXYZ abcdefghijklmnopqrstuvwxyz 1234567890.,?!&\$%#/ ()

1.3.3. Visual character cases.

- 1.3.3.1. Uppercase lettering is required on identification signs. This includes any permanent suite or room.
- 1.3.3.2. Informational signs are to use a mix of upper and lower case characters. All upper case may be used for titles and/or where a word or phrase must be emphasized.
- 1.3.3.3. The initial word of a sentence or title shall be capitalized.
- 1.3.4. Visual character proportions.
 - 1.3.4.1. Character width shall comply with sections 1.1.5.1.
 - 1.3.4.2. The character stroke thickness of the upper case "I" shall be 10% minimum and 30% maximum of the character height.
- 1.3.5. Character spacing shall be measured between the two closest points of adjacent raised characters within a message, excluding word spaces. Spacing between individual raised characters shall be 10% minimum and 35% maximum of the character stroke width.
- 1.3.6. Character line spacing shall comply with 1.1.8.

- 1.3.7. Visual character height is dependent upon vertical distance measured from the baseline of the character to the floor as well as horizontal viewing distance. Character height shall comply with table 1.3.7.
- 1.3.8. Visual characters shall be 40 inches minimum, measured from the baseline of the character to the floor.

	Horizontal Viewing Distance (feet)																								
Height																									
Above Floor	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25
(inches)																									
40	0.625	0.625	0.625	0.625	0.625	0.625	0.750	1	1.000	1.125	1.25	1.375	1.5	1.625	1.75	1.875	2	2.125	2.25	2.375	2.5	2.625	2.75	2.875	3.00
50	0.625	0.625	0.625	0.625	0.625	0.625	0.750	1	1.000	1.125	1.25	1.375	1.5	1.625	1.75	1.875	2	2.125	2.25	2.375	2.5	2.625	2.75	2.875	3.00
60	0.625	0.625	0.625	0.625	0.625	0.625	0.750	1	1.000	1.125	1.25	1.375	1.5	1.625	1.75	1.875	2	2.125	2.25	2.375	2.5	2.625	2.75	2.875	3.00
70	0.625	0.625	0.625	0.625	0.625	0.625	0.750	1	1.000	1.125	1.25	1.375	1.5	1.625	1.75	1.875	2	2.125	2.25	2.375	2.5	2.625	2.75	2.875	3.00
80	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2.125	2.25	2.375	2.5	2.625	2.75	2.875	3	3.125	3.25
90	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2.125	2.25	2.375	2.5	2.625	2.75	2.875	3	3.125	3.25
100	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2.125	2.25	2.375	2.5	2.625	2.75	2.875	3	3.125	3.25
110	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2.125	2.25	2.375	2.5	2.625	2.75	2.875	3	3.125	3.25
120	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2.125	2.25	2.375	2.5	2.625	2.75	2.875	3	3.125	3.25
130	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3.125	3.25	3.375	3.5
140	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3.125	3.25	3.375	3.5

Table 1.3.7

- 1.3.9. The official University Wordmark is a copyrighted trademark for the University controlled by a separate group of guidelines monitored by University Relations. A modified Times-Roman letter-style is available for use in both one and two line formats. Use shall be limited to original art in order to maintain accuracy in its reproduction. The use of the wordmark in campus signing is reserved for:
 - Instances where it is appropriate to provide a broad-based reference to the University of Minnesota.
 - Use in conjunction with other titles, but may not be merged within bodies of text, or modified from its standard form.
 - Campus Identification, vehicular identification and in interior signing where the University of Minnesota is used as a stand-alone title.
 - 1.3.9.1. University Wordmark Single line delineation:

University of Minnesota Duluth

1.3.9.2. University Wordmark - Double line delineation, left justification:

University of Minnesota Duluth

1.3.9.3. University Wordmark - Double line delineation, center justification:

UNIVERSITY OF MINNESOTA DULUTH

- 1.3.9.4. University Wordmark Colors shall conform to the following color scheme: 1.3.9.4.1. Field.
 - Paint: Mathews MP1126.
 - CMYK: cyan-0.0, magenta-97, yellow-100, black-50.
 - Vinyl: 3M ScotchcalTM Translucent Burgundy 3630-49.
 - Pantone 188C.

1.3.9.4.2. Wordmark:

• White reflective vinyl 3M ScotchliteTM - White 510-10 or approved equivalent.

1.4. Pictograms

- 1.4.1. Pictograms shall lay within a field 6 inches (150 mm) minimum in height. This applies to the pictogram field only, not the pictogram itself.
- 1.4.2. Characters or braille shall not be located within the pictogram field.
- 1.4.3. All pictograms and fields must have a non-glare finish and a light on dark or dark-on-light contrast.
- 1.4.4. Where pictograms other than the international symbol of accessibility are included on a sign to identify a permanent room or space, text descriptors in raised and braille characters are required directly below the pictogram field.
- 1.4.5. Informational only pictograms used on directional signs, including accessibility symbols, are not required to provide tactile text descriptors or to be located on a field at least 6 inches high.

2. MATERIALS

- 2.1. Sheet materials and sampling shapes shall be of thickness recommended by sign fabricator to produce straight or evenly curved surfaces, free from waviness, wrinkles or other deformation except as otherwise herein specified or indicated on the drawings.
- 2.2. Materials listed shall be new, unless otherwise specified, and approved by the designer. They shall also be free from defects impairing strength, durability or appearance.
- 2.3. Furnish the UMD or designee samples of the finish materials.
- 2.4. Alternative materials or those deemed equivalent to standard specifications must be reviewed and approved by the University of Minnesota Duluth Engineering Services.

2.5. Metals

- 2.5.1. Thickness, size, type and seam placement as specified on the drawing.
- 2.5.2. Steel sheet must be paint-lock or galvanized.
- 2.5.3. All edges of metal or aluminum shall be cut to a continuous sharp even line and finish sanded smooth.
- 2.5.4. Aluminum sheet to be #5052 alloy.
- 2.5.5. All metal seams to be straight and symmetrical.
- 2.5.6. Aluminum that is in contact with ferrous metals shall be separated with a heavy coating of bitumastic paint or sheet neoprene.

2.6. Plastics

- 2.6.1. Thickness, color, size, seam placement and brand name as specified on the drawings.
- 2.6.2. Embossed or flat sheet plastic shall be free of wrinkles or imperfections from forming or fabrication.
- 2.6.3. All surfaces shall be free of scratches, marring and be clean and polished per the manufacturer's instruction.
- 2.6.4. Depth of pillowed faces, seam construction and seam placement as required per the attached drawings.
- 2.6.5. Approved acrylic materials include the following:
 - White Plexiglas 7420 (matte) or approved equivalent.
 - Black Plexiglas 2025 (gloss) or approved equivalent.
 - Clear 1/16" Plexiglas non-glare or approved equivalent.
 - 1/8" Plexiglas P-95 or approved equivalent.

2.7. Flexible Materials

- 2.7.1. Thickness, color, size, seam placement and brand name as specified on the drawings.
- 2.7.2. All fastening devices to meet the dealer recommendations.
- 2.7.3. Seam placement to be straight and symmetrical.

2.8. Miscellaneous Materials

- 2.8.1. Hardware Any metal devices used for contraction not previously covered shall be of a stainless steel, aluminum, or steel with a galvanized coating.
- 2.8.2. Wood, Alucobond, fiberglass, brick, stainless steel or any other material must be of top grade quality as required on the drawings.

3. FASTENERS & HARDWARE

- 3.1. All screws, nuts, bolts and fastening devices shall be of aluminum, stainless steel or cadmium plated non-corrosive material.
- 3.2. All anchorage and fastenings of miscellaneous metal items shall be structurally adequate and finished to match surface.

4. COATINGS & FINISHES

- 4.1. All aluminum and fasteners shall be finish coated with an appropriate primer and color coat with corrosion inhibitors guaranteed for four (4) years against fading, chipping, cracking, peeling and discoloration. Color as required per the specification drawings.
- 4.2. All flexible face coatings shall be guaranteed for (8) years against fading, discoloration and mildew.
- 4.3. All holes, penetrations and cut edges of prefinished metals and aluminum must be free of burrs, primed and painted to maintain a corrosion proof finish.
- 4.4. All steel items exposed to the weather and all other steel items as indicated or specified shall be galvanized or ground and painted with zinc-chromate primer and finish coat.
- 4.5. Colors to match color samples or standard color system code furnished by UMD or designee. All colors shall be as directed by the UMD or designee. Colors shall comply with section 4.5.

4.5.1. Dark Bronze:

- Paint: Benjamin Moore 2116-10 or approved equivalent.
- CMYK: cyan-0, magenta-12, yellow-19, black-73.
- Vinyl: 3M ScotchcalTM Translucent Duronodic 3630-69.
- Anodized Aluminum: Duronodic Met. 313 Dark Bronze.

4.5.2. Maroon:

- Paint: Mathews MP11531 or approved equivalent.
- CMYK: cyan-0, magenta-100, yellow-78, black-55.
- Interior use vinyl: 3M ScotchcalTM Opaque Burgundy 7725-58.
- Exterior use vinyl: 3M ScotchcalTM Translucent Burgundy 3630-49.
- Pantone: 195C.

4.5.3. Gold

- Paint: Behr 310B-6 or approved equivalent.
- Vinyl: 3M ScotchcalTM / Gerber Chrome Yellow 220/225-145.
- CMYK: cyan-0, magenta-27, yellow-76, black-0.
- Pantone: 136C.

4.5.4. White

- Paint: Benjamin Moore 2123-70 or approved equivalent.
- Vinyl: 3M ScotchcalTM Opaque White 7725-10.
- Reflective Vinyl: 3M Scotchlite™ White 510-10.
- CMYK: cyan-1, magenta-0, yellow-0, black-5.
- Pantone 7541C.

4.5.5. Blue

- Paint: Mathews MP42219SP or approved equivalent.
- Vinyl: 3M Scotchcal[™] Translucent Blue 80-2557.
- CMYK: cyan-100, magenta-65, yellow-0, black-64.
- Pantone 281C.

4.5.6. Red

- Paint Mathews MP15026 or approved equivalent.
- 3M ScotchcalTM Translucent Red 3630-33.
- CMYK: cyan-0, magenta-93, yellow-95, black-0.
- Pantone 1795.

5. FABRICATION

5.1. Any work required under this section that is not described in detail shall be constructed in accordance with the approved shop drawings.

5.2. Quality of Work

- 5.2.1. All work shall be fabricated and erected square, plumb, straight and true. Cut-out letters, numbers and images shall be cut to continuous, sharp even line of profile as indicated on the drawings.
- 5.2.2. The inside of exterior signs shall be rainproof.
- 5.2.3. Signs shall be provided with weep-holes in bottom edging, of sufficient size to allow full drainage of any condensation moisture collected in sign.
- 5.2.4. Sign shall be free of all holes except those required for sign installation, to install letters or those to serve as drainage/weep-holes.
- 5.2.5. Provide all supporting and anchoring means as required for compliant installation.
- 5.2.6. All curved areas are to be true, free of kinks, creases, oil canning and/or dimpling.
- 5.2.7. Exposed metal surfaces shall be reinforced, braced and securely fastened to provide rigid assembly.
- 5.2.8. Service access doors shall be concealed wherever possible.
- 5.2.9. Flush-butt locked seams and fillers shall be metal screwed and bolted on filler edges to provide smooth faces free of unsightly rivets.
- 5.2.10. Exposed joints shall be continuously welded, ground and polished smooth and shall not be visible.
- 5.2.11. Mitered corners shall be snug, neat and tight fitting in an even, smooth plane.
- 5.2.12. For all signs.
 - 5.2.12.1. All edges to be smooth and corners sanded to remove sharpness.
 - 5.2.12.2. Following assembly, all edges are to be smooth and all corners lightly sanded to remove sharpness.
 - 5.2.12.3. All printed or screened colors to be opaque with even color and coverage.

6. Installation

- 6.1. All signs shall be in place as indicated on the drawings or where directed by UMD Facilities Management Engineering Services.
- 6.2. Exterior signs shall be secured with studs, toggle bolts, expansion bolts, or methods as approved on the shop drawings specified herein after and of sizes required to assure rigid attachment and with fasteners that comply with section 2.
- 6.3. Survey of ground conditions related to soil content, density and compaction are the responsibility of the installer prior to submitting a bid.
- 6.4. Removal and/or replacement of asphalt, concrete, existing footings and poles are the responsibility of the installer unless otherwise specified in the drawings.
- 6.5. Exterior cabinets and shall be fastened with stainless steel screws, Phillips type flat-head countersink, or nuts and bolts as indicated otherwise on the shop drawings and with fasteners that are in compliance with section 2.
- 6.6. Accessories, anchorage, mounting devices and spacers shall be guaranteed non-staining to adjacent walls and sign finished for a period of five years from final acceptance.
- 6.7. Ferrous mountings may be sleeved with non-ferrous metal covers matching adjacent finishes, cemented on with non-hydroscopic glue.
- 6.8. All exposed surfaces shall be protected until final acceptance of the work in a manner sufficient to prevent damage or discoloration. Any work damaged or discolored in any way before final acceptance of the work shall be replaced without additional cost to the owner.
- 6.9. Approved mounting methods for interior signs shall comply with section 6.9.
 - 6.9.1. Double-sided foam tape mounting is used where the mounting surface is smooth. Surfaces such as glass, metal, and drywall are common examples. Foam tape shall be 1/16" black 3M #4016 or approved equivalent.
 - 6.9.2. Mechanical mounting using tamper proof screws may be used where other mounting methods proof ineffective or where an additional degree of permanence is required. Mechanical fasteners shall only be used on repairable wall materials. UMD Facilities Management Engineering Services approval is required for installation upon non-repairable surfaces. Reparable wall materials include, but are not limited to:
 - Drywall.
 - Plaster.
 - Concrete block.
 - Mortar joints on tiled or brick walls.
 - 6.9.3. Silicone adhesive provides a more permanent bond between sign and wall surfaces. Sign removal will damage wall surfaces and shall only be used in instances where security is a concern or the texture of the wall surface hinders effective foam tape mounting.
- 6.10. During the process of installation, the premises shall be kept reasonably free of all debris and waste materials resulting from the work under this section.
- 6.11. Upon completion and before final acceptance of work, all debris, rubbish, leftover materials, tools and equipment shall be removed from the site.
- 6.12. Final cleaning of all surfaces shall be carefully done in strict accordance with the manufacturer instructions.
- 6.13. Sign installation must comply with all with current ADAAG Guidelines and MN State Building Codes.

7. SHOP DRAWINGS FOR CHANGES OR ALTERNATES

7.1. A digital copy of shop drawings, indicating changes or detailed deviations from design, shall be submitted to UMD Facilities Management Engineering Services. Approval of shop drawings shall be required before any work under this section has begun.

8. GUARANTEE & SERVICE

8.1. Contractor shall furnish a written guarantee to the effect that all material and work furnished under this section is guaranteed for one (1) year to be free from defects and faulty workmanship, and that any defective material or work shall be promptly repaired or replaced without additional cost to UMD Facilities Management Engineering Services.

9. REGULATORY COMPLIANCE

9.1. Materials, design and installation shall comply with all Federal and State laws, codes, and regulations in effect at the time of installation.

10. University of Minnesota Duluth A1 Sign Specifications

- 10.1. A1 identification sign types are commonly used for the following:
 - Offices.
 - Secondary entrances to primary destinations.
 - Building utility rooms (excluding elevator machine rooms).
 - Storage rooms.
 - Rooms where usage and/or occupant may change on regular basis.
- 10.2. Raised/tactile characters shall comply with section 1.
- 10.3. Braille characters shall comply with section 1.2.
 - 10.3.1. Braille format shall be room number followed by building name.
- 10.4. Visual characters shall comply with section 1.3.
- 10.5. Sign materials shall comply with section 2.6.
- 10.6. Sign colors shall comply with section 4.5
- 10.7. Sign fabrication shall comply with section 5.1, 5.2.1 and 5.2.12.
- 10.8. Front faces of the sign shall contain the following:
 - Tactile room number.
 - Tactile building name.
 - Name or area description window measuring 3.125 inches by 8.5 inches.
- 10.9. UMD A1 sign elevation shall comply with figure 10.9.

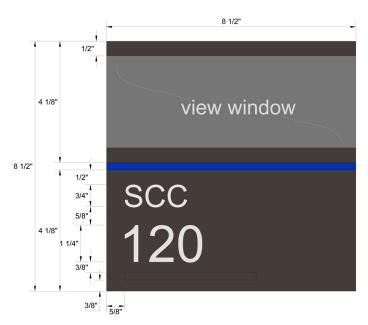


Figure 10.9

10.10. UMD A1 sign cross section shall comply with figure 10.10.

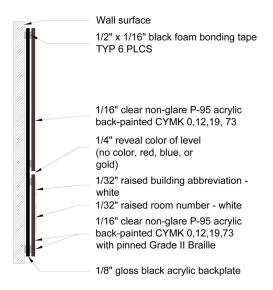


Figure 10.10

11. University of Minnesota Duluth A4 Sign Specifications

- 11.1. A4 identification sign types are commonly used for the following:
 - Permanent identification of elevator machine rooms.
- 11.2. Raised/tactile characters shall comply with section 1.1.
- 11.3. Braille characters shall comply with section 1.2.

- 11.3.1. Braille format shall be room number followed by building name.
- 11.4. Visual characters shall comply with section 1.3.
- 11.5. Sign materials shall comply with section 2.6.
- 11.6. Sign colors shall comply with section 4.5.
- 11.7. Sign fabrication shall comply with section 5.1, 5.2.1 and 5.2.12.
- 11.8. Front faces of the sign shall contain the following:
 - Tactile room number.
 - Tactile building name.
 - Tactile elevator machine room area description.
 - Grade 2 braille.
- 11.9. UMD A4 sign elevation shall comply with figure 11.9.

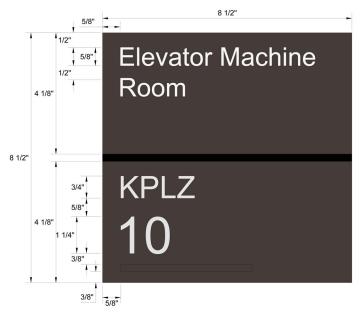


Figure 11.9

11.10. UMD A4 sign cross section shall comply with figure 11.10.

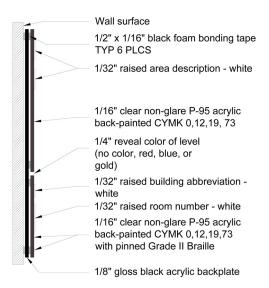


Figure 11.10

12. University of Minnesota Duluth B1 Sign Specifications

- 12.1. B1 identification sign types are commonly used for the following:
 - Office suites.
 - Semi-permanent identification at main entrances to primary destinations.
 - Special use areas.
 - Large classrooms where usage may change.
 - Rooms where usage and/or occupant may change on regular basis.
- 12.2. Raised/tactile characters shall comply with section 1.1.
- 12.3. Braille characters shall comply with section 1.2.
 - 12.3.1. Braille format shall be room description room number building abbreviation.
- 12.4. Visual characters shall comply with section 1.3.
- 12.5. Sign materials shall comply with section 2.6.
- 12.6. Sign colors shall comply with section 4.5.
- 12.7. Sign fabrication shall comply with section 5.1, 5.2.1 and 5.2.12.
- 12.8. Front faces of the sign shall contain the following:
 - Tactile room number.
 - Tactile building name.
 - Name or area description window measuring 3.813 inches by 10.5 inches.
 - Grade 2 braille.
- 12.9. UMD B1 sign elevation shall comply with figure 12.9.

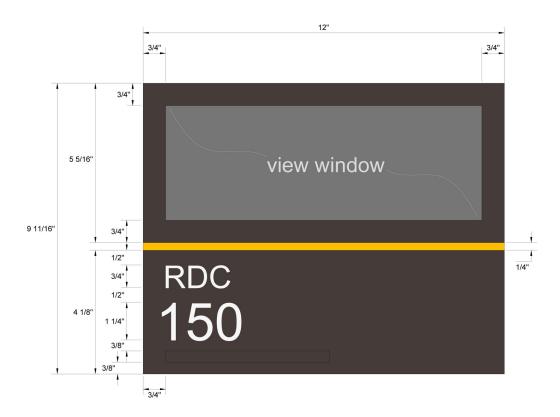


Figure 12.9

12.10. UMD B1 sign cross section shall comply with figure 10.10.

13. University of Minnesota Duluth B1.2 Sign Specifications

- 13.1. B1.2 Non-accessible interior entrance directional sign is commonly used for the following:
 - Providing direction to the nearest accessible interior room entrance at entrances to non-accessible spaces where a B1 or B3 sign is required.
- 13.2. Visual characters shall comply with section 1.3.
- 13.3. Pictograms& symbols shall comply with section 1.4.
- 13.4. Sign materials shall comply with section 2.6.
- 13.5. Sign colors shall comply with section 4.5.
- 13.6. Sign fabrication shall comply with section 5.1, 5.2.1 and 5.2.12.
- 13.7. UMD B1.2 sign elevation shall comply with figure 13.7.



Figure 13.7

13.8. UMD B.2 sign cross section shall comply with figure 13.8

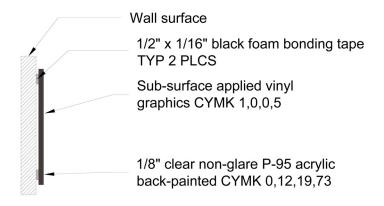


Figure 13.8

14. University of Minnesota Duluth B3 Sign Specifications

- 14.1. B3 identification sign types are commonly used for the following:
 - 14.1.1. Permanent identification at main entrances to primary destinations including but not limited to:
 - Lecture Halls.
 - Ballrooms.
 - Gymnasiums.
 - Pools
 - Large classrooms where usage is unlikely to change.
 - Rooms where usage is unlikely to change.
- 14.2. Raised/tactile characters shall comply with section 1.1.
- 14.3. Braille characters shall comply with section 1.2.
 - 14.3.1. Braille format shall be room description room number building abbreviation.

- 14.4. Visual characters shall comply with section 1.3.
- 14.5. Sign materials shall comply with section 2.6.
- 14.6. Sign colors shall comply with section 4.5.
- 14.7. Sign fabrication shall comply with section 5.1, 5.2.1 and 5.2.12.
- 14.8. Front faces of the sign shall contain the following.
 - Tactile room number.
 - Tactile building name.
 - Tactile room description.
 - Grade 2 braille.
- 14.9. UMD B3 sign elevation shall comply with figure 14.9.

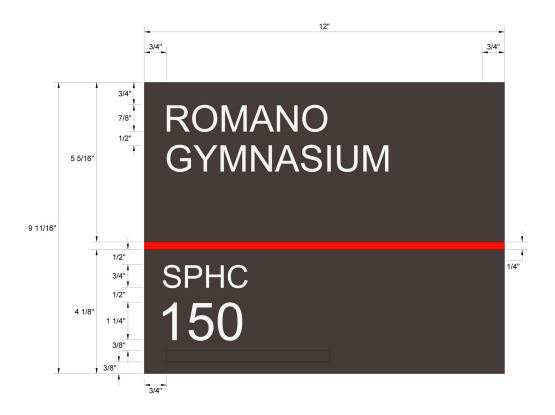


Figure 14.9

14.10. UMD B3 sign cross section shall comply with figure 11.10.

15. University of Minnesota Duluth D1 Sign Specifications

- 15.1. D1 restroom identification sign types are commonly used for the following:
 - Permanent identification at entrances to restrooms.
 - Women's accessible and non-accessible restrooms.
 - Men's accessible and non-accessible restrooms.
- 15.2. Raised/tactile characters shall comply with section 1.1.
- 15.3. Braille characters shall comply with section 1.2.
 - 15.3.1. Braille format shall contain room description only.
- 15.4. Visual characters shall comply with section 1.3.
- 15.5. Pictograms shall comply with section 1.4.

- 15.6. Sign materials shall comply with section 2.6.
- 15.7. Sign colors shall comply with section 4.5.
- 15.8. Sign fabrication shall comply with section 5.1, 5.2.1 and 5.2.12.
- 15.9. Front faces of the sign shall contain the following.
 - Visual room number.
 - Universal pictograms as applicable.
 - Tactile room description.
 - Grade 2 braille.

15.10. UMD D1 sign elevation shall comply with figure 15.10.

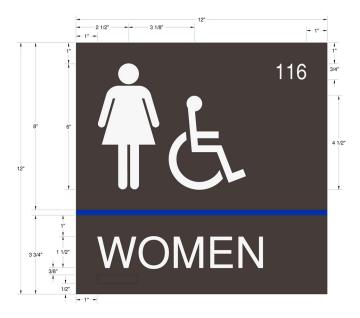


Figure 15.10

15.11. UMD D1 sign cross section shall comply with figure 15.11.

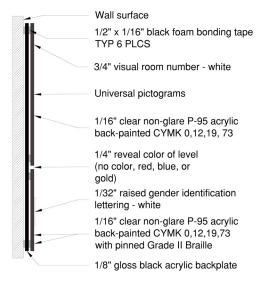


Figure 15.11

16. University of Minnesota Duluth D1.1 Sign Specifications

- 16.1. D1.1 restroom identification sign types are commonly used for the following:
 - Permanent identification at entrances to gender inclusive, single occupancy accessible and non-accessible restrooms.
- 16.2. Raised/tactile characters shall comply with section 1.1.
- 16.3. Braille characters shall comply with section 1.2.
 - 16.3.1. Braille format shall be room description door-locking instructions.
- 16.4. Visual characters shall comply with section 1.3.
- 16.5. Pictograms shall comply with section 1.4.
- 16.6. Sign materials shall comply with section 2.6.
- 16.7. Sign colors shall comply with section 4.5.
- 16.8. Sign fabrication shall comply with section 5.1, 5.2.1 and 5.2.12.
- 16.9. Front faces of the sign shall contain the following.
 - Visual room number.
 - Universal pictograms as applicable.
 - Tactile room description.
 - Door locking instructions.
 - Grade 2 braille.

16.10. UMD D1.1 sign elevation shall comply with figure 16.10.



Figure 16.10

16.11. UMD D1.1 sign cross section shall comply with figure 16.11.

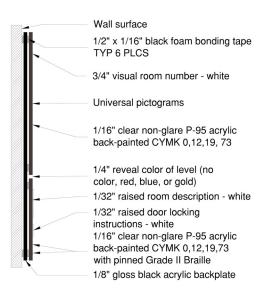


Figure 16.11

17. University of Minnesota Duluth D1.2 Sign Specifications

- 17.1. D1.2 Non-accessible restroom directional sign is commonly used for the following:
 - Providing direction to nearest accessible restroom at entrances to all non-accessible restrooms.
- 17.2. Raised/tactile characters shall comply with section 1.1.
- 17.3. Braille characters shall comply with section 1.2.
 - 17.3.1. Braille format shall contain directions to nearest accessible restroom only.
- 17.4. Visual characters shall comply with section 1.3.
- 17.5. Pictograms shall comply with section 1.4.
- 17.6. Sign materials shall comply with section 2.6.
- 17.7. Sign colors shall comply with section 4.5.
- 17.8. Sign fabrication shall comply with section 5.1, 5.2.1 and 5.2.12.
- 17.9. Front faces of the sign shall contain the following.
 - Tactile directions to nearest accessible restroom.
 - Grade 2 braille.
 - International Symbol of Accessibility.
- 17.10. UMD D1.1 sign elevation shall comply with figure 17.10.



Figure 17.10

17.11. UMD D1.2 sign cross section shall comply with figure 17.11.

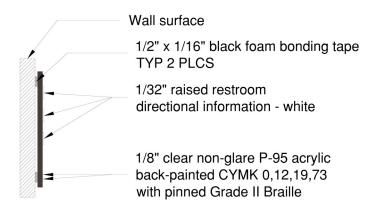


Figure 17.11

18. University of Minnesota Duluth D3 Sign Specifications

- 18.1. D3 Restroom small area sign is commonly used for:
 - Providing direction to nearby restrooms with concealed entrances that are adjacent to small areas such as small lobbies, hallways and other similar areas.
- 18.2. Raised/tactile characters shall comply with section 1.1.
- 18.3. Braille characters shall comply with section 1.2. 18.3.1. Braille format shall contain room description only.
- 18.4. Visual characters shall comply with section 1.3.
- 18.5. Pictograms shall comply with section 1.4.
- 18.6. Sign materials shall comply with section 2.6.
- 18.7. Sign colors shall comply with section 4.5.
- 18.8. Sign fabrication shall comply with section 5.1, 5.2.1 and 5.2.12.
- 18.9. Front faces of the sign shall contain the following.

- Visual room number.
- Universal pictograms as applicable.
- Tactile room description.
- Grade 2 braille.

18.10. UMD D3 sign elevation shall comply with figure 18.10.



Figure 18.10

18.11. UMD D3 sign cross section shall comply with figure 18.11.

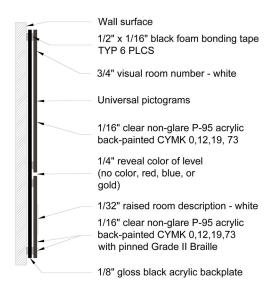


Figure 18.11

19. University of Minnesota Duluth D4 Sign Specifications

- 19.1. D4 Restroom large area sign is commonly used for:
 - Providing direction to nearby restrooms with concealed entrances that are adjacent to large areas such as lobbies, ballrooms or other similar areas.
- 19.2. Raised/tactile characters shall comply with section 1.1.
- 19.3. Braille characters shall comply with section 1.2.19.3.1. Braille format shall contain room description only.
- 19.4. Visual characters shall comply with section 1.3.
- 19.5. Pictograms shall comply with section 1.4.
- 19.6. Sign materials shall comply with section 2.6.
- 19.7. Sign colors shall comply with section 4.5.
- 19.8. Sign fabrication shall comply with section 5.1, 5.2.1 and 5.2.12.
- 19.9. Front faces of the sign shall contain the following.
 - Visual room number.
 - Universal pictograms as applicable.
 - Tactile room description.
 - Grade 2 braille.
- 19.10. UMD D4 sign elevation shall comply with figure 19.10.



Figure 19.10

19.11. UMD D4 sign cross section shall comply with figure 18.11.

20. University of Minnesota Duluth E2 Stairwell Floor Level Sign Specifications

- 20.1. E2 stairwell identification sign is commonly used for:
 - Identification of interior building stairwells.
- 20.2. Raised/tactile characters shall comply with section 1.1.
- 20.3. Braille characters shall comply with section 1.2.
- 20.4. Visual characters shall comply with section 1.3.
- 20.5. Pictograms shall comply with section 1.4.

- 20.6. Sign materials shall comply with section 2.6.
- 20.7. Sign colors shall comply with section 4.5.
- 20.8. Sign fabrication shall comply with section 5.1, 5.2.1 and 5.2.12.
- 20.9. Front faces of the sign shall contain the following.
 - Tactile stairwell description.
 - Tactile building abbreviation.
 - Tactile floor description.
 - Tactile exit level text.
 - Grade 2 braille.

20.10. UMD E2 sign elevation shall comply with figure 20.10.

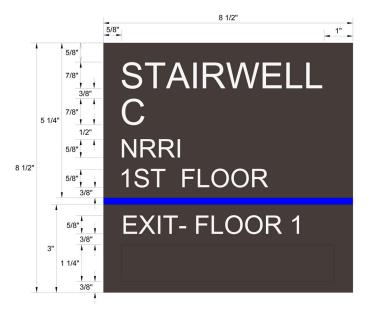


Figure 20.10

20.11. UMD E2 sign cross section shall comply with figure 20.11.

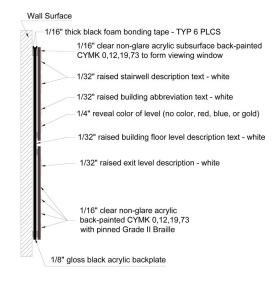


Figure 20.11

21. University of Minnesota Duluth E3 Stairwell Fire Code Informational Sign Specifications

- 21.1. E3 stairwell identification sign is commonly used for:
 - Stairwell information within all buildings with more than three floors.
 - Provides life safety information for firefighters, emergency personnel, and building occupants.
- 21.2. Sign materials shall comply with section 2.6.
- 21.3. Sign colors shall comply with section 4.5.
- 21.4. Sign fabrication shall comply with section 5.1, 5.2.1 and 5.2.12.
- 21.5. Front faces of the sign shall contain the following.
 - Interior stairwell description.
 - Roof access description.
 - Floor level numeral.
 - Floor level description.
 - Stairwell floors description.
 - Exit floor description.
 - Exit egress description.
- 21.6. UMD E3 sign elevation shall comply with figure 21.6.



Figure 21.6

21.7. UMD E3 sign cross section shall comply with figure 21.7

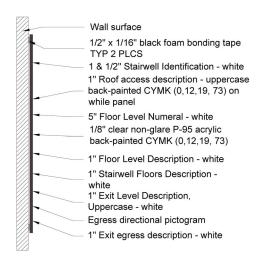


Figure 21.7

22. University of Minnesota Duluth EX2 Exterior Building Identification Sign Specifications

- 22.1. EX2 exterior building identification signs are commonly used for:
 - Exterior building address display and building identification.
- 22.2. Visual characters shall comply with section 1.
- 22.3. Sign materials shall comply with section 2.
- 22.4. Hardware and fasteners shall comply with section 3.
- 22.5. Coatings and finishes shall comply with section 4.
- 22.6. Sign fabrication shall comply with section 5.
- 22.7. Shop drawings and alterations shall comply with section 7.
- 22.8. Sign guarantee and services shall comply with section 8.
- 22.9. Sign regulatory compliance shall comply with section 9.
- 22.10. Front faces of the sign shall contain the following:
 - Campus building name.
 - Official University of Minnesota Duluth wordmark.
 - Building numerical address.
 - Building street name address.
- 22.11. Panel to consist of .090" thick aluminum face with 90-degree returns, 2 inches in depth on all sides. Corner joints shall be welded, ground true and clean.
- 22.12. Building name/identification font size may be minimally reduced in order for longer building names to fit within the field apportioned. Contact UMD Facilities Management Engineering Services for approval and/or clarification.
- 22.13. Building numerical address shall be 6" height, white, Helvetica regular font.
- 22.14. All characters on the sign panel shall be reflective.
- 22.15. UMD EX2 sign elevation shall comply with figure 22.15.



Figure 22.15

23. University of Minnesota Duluth F1 Directional/Informational Sign Specifications

- 23.1. F1-type identification signs are commonly used for:
 - Intra-campus concourse direction to primary or secondary destinations that are not apparent from within the primary concourses.
 - Offices, classrooms or other occupied areas with concealed entrances.
 - Miscellaneous information.
- 23.2. Visual characters shall comply with section 1.3.
- 23.3. Pictograms shall comply with section 1.4.
- 23.4. Sign materials shall comply with section 2.6.
- 23.5. Sign colors shall comply with section 4.5.
- 23.6. Sign fabrication shall comply with section 5.1, 5.2.1 and 5.2.12.
- 23.7. Front faces of the sign shall contain the following:
 - Directional arrows as required.
 - Destination description.
 - Miscellaneous information and/or instructions.
- 23.8. Sign size many vary as required by content.
- 23.9. Directional pictogram orientation shall comply with figure 22.17.
- 23.10. Proposed F1 sign installations must be reviewed and approved by the UMD Facilities Management Engineering Services prior to installation.
- 23.11. UMD F-1 sign elevation shall comply with figure 23.11.



Figure 23.11

23.12. UMD F1 sign cross section shall comply with figure 23.12.

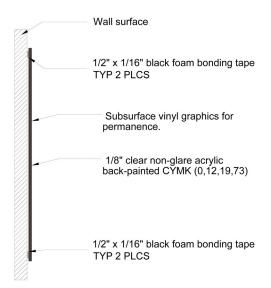


Figure 23.12

24. University of Minnesota Duluth F1.1 Informational Poster Specifications

- 24.1. F1.1 type informational poster signs are commonly used for:
 - Miscellaneous information.
 - Departmental marketing.
 - Posters/Artwork.

- 24.2. Sign materials shall comply with section 2.
- 24.3. Hardware and fasteners shall comply with section 3.
- 24.4. Coatings and finishes shall comply with section 4.
- 24.5. Sign fabrication shall comply with section 5.
- 24.6. Sign installation shall comply with section 6.
- 24.7. Shop drawings and alterations shall comply with section 7.
- 24.8. Sign guarantee and services shall comply with section 8.
- 24.9. Sign regulatory compliance shall comply with section 9.
- 24.10. Proposed F1.1 sign installations must be reviewed and approved by the UMD Facilities Management Engineering Services prior to installation.
- 24.11. Poster display signage shall be of the following sizes:
 - 24" wide by 36" tall overall dimensions (poster/art size 20" x 32" maximum).
 - 36" wide by 48" tall overall dimensions (posters/art size 32" x 44" maximum).
- 24.12. UMD F1.1 sign assembly shall comply with figure 24.12.

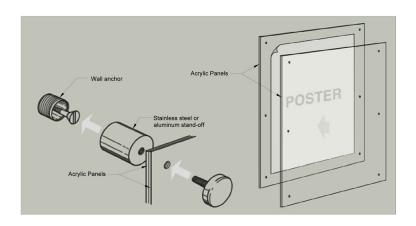


Figure 24.12

24.13. UMD F1.1 sign installation shall comply with figure 33.4.2.

25. University of Minnesota Duluth G-Type Directional/Informational Sign Specifications

- 25.1. G-type informational/directional signs are commonly used for:
 - Intra-campus concourse direction for buildings that are part of the internally connected campus.
- 25.2. Visual characters shall comply with section 1.3.
- 25.3. Pictograms shall comply with section 1.4.
- 25.4. Sign materials shall comply with section 2.6.
- 25.5. Sign colors shall comply with section 4.5.
- 25.6. Sign fabrication shall comply with section 5.1, 5.2.1 and 5.2.12.
- 25.7. Front faces of the sign shall contain the following:
 - Campus building name or official building abbreviation.
 - Directional pictograms.
 - Location pictograms.
- 25.8. Building names shall be organized from nearest to farthest starting at the top.
- 25.9. Buildings to the left are on the left-hand side of the sign (if two or more columns are required).
- 25.10. Buildings to the right are on the right-hand side of the sign (if two or more columns are required).
- 25.11. Buildings ahead are in the center column of the sign (if three columns are required).

- 25.12. Signs panel colors shall match the corresponding concourse level on which they are used.
- 25.13. Pictogram colors shall be a white, circular field with colored arrow or star within.
- 25.14. Sign sizing is highly variable and shall be installed wall-to-wall on door headers where possible.
- 25.15. Should insufficient wall space exist for compliant sign installation, contact UMD Facilities Management Engineering Services for installation instructions and/or clarification.
- 25.16. Directional pictograms orientation shall comply with figure 25.17.

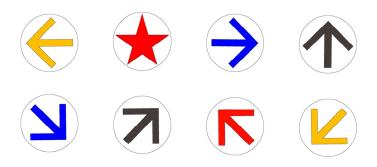


Figure 25.17

26. University of Minnesota Duluth H4 Informational Sign Specifications

- 26.1. H4-type informational signs are commonly used for:
 - Building emergency exit route and emergency equipment location information.
- 26.2. Visual characters shall comply with section 1.3.
- 26.3. Sign materials shall comply with section 2.6.
- 26.4. Sign colors shall comply with section 4.5.
- 26.5. Sign fabrication shall comply with section 5.1, 5.2.1 and 5.2.12.
- 26.6. Proposed H4 sign installations must be reviewed and approved by the UMD Facilities Management Engineering Services prior to installation.
- 26.7. Front face of the sign shall contain the following:
 - Instruction for occupants should fire alarms sound.
 - Viewing window for building map that contains primary building egress routes, fire alarm pull station locations, fire extinguisher locations, AED locations and sign location.
- 26.8. UMD H4 sign elevation shall comply with figure 26.8.

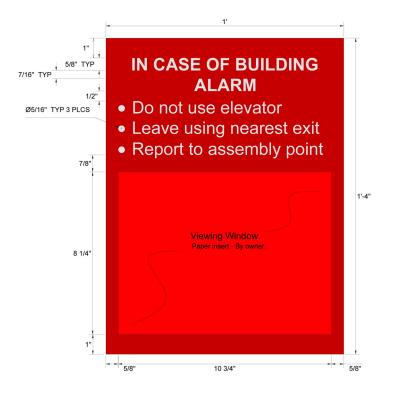


Figure 26.8

26.9. UMD H4 sign cross section shall comply with figure 26.9.

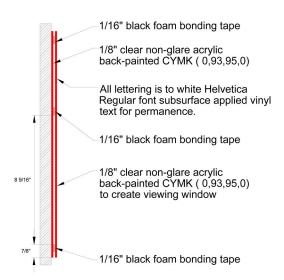


Figure 26.9

27. University of Minnesota Duluth H5 Sign Specifications

- 27.1. H5 informational signs are commonly used for:
 - Informational posting areas on campus.
- 27.2. Visual characters shall comply with section 1.3.
- 27.3. Sign materials shall comply with section 2.6.
- 27.4. Sign colors shall comply with section 4.5.
- 27.5. Sign fabrication shall comply with section 5.1, 5.2.1 and 5.2.12.
- 27.6. Proposed H5 sign installations must be reviewed and approved by the UMD Facilities Management Engineering Services prior to installation.
- 27.7. UMD H5 sign elevation shall comply with figure 27.7.



Figure 27.7

- 27.8. UMD H5 sign cross section shall comply with figure 13.8.
- 27.9. UMD H5 sign installation shall comply with figure 33.4.2.

28. University of Minnesota Duluth H6 Sign Specifications

- 28.1. H6-type informational signs are commonly used for room occupant load information within interior spaces classified as assembly occupancies including but not limited to:
 - Auditoriums.
 - Ballrooms.
 - Gymnasiums.
 - Large Classrooms.
 - Lecture Halls.
 - Pools.
- 28.2. Visual characters shall comply with section 1.3.
- 28.3. Sign materials shall comply with section 2.6.
- 28.4. Sign colors shall comply with section 4.5.
- 28.5. Sign fabrication shall comply with section 5.1, 5.2.1 and 5.2.12.
- 28.6. Proposed H6 sign installations must be reviewed and approved by the UMD Facilities Management Engineering Services prior to installation.
- 28.7. UMD H6 sign elevation shall comply with figure 28.7.



Figure 28.7

28.8. UMD H6 sign cross section shall comply with figure 23.12.

INSTALLATION INSTRUCTIONS

29. University of Minnesota Duluth A & B - Type Sign Installation Instructions - Doors without sidelights

- 29.1. Room identification sign installation shall comply with section 6.
- 29.2. Room identification signs shall be installed on the latch side of door.
- 29.3. B1.2 sign (4 inch x 12 inch) shall be installed at non-accessible entrances to primary destination spaces where a B1 or B3 sign is needed.
- 29.4. Tactile characters on identification signs shall be 48 inches minimum and 60 inches maximum above the floor, measured from the baseline of the tactile characters.
- 29.5. Minimum 18 inch x 18 inch clear space on the floor, centered on the tactile characters, beyond the arc of any door swing between the closed position and 45° open position, is required.
- 29.6. Room identification sign installation shall comply with figure 29.6.1 and 29.6.2.

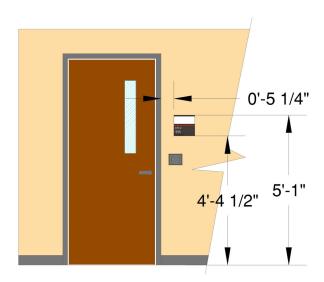


Figure 29.6.1

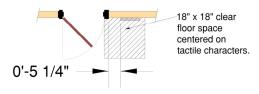


Figure 29.6.2

29.7. B2 or B3 type room identification sign installations, shall comply with figure 29.7.

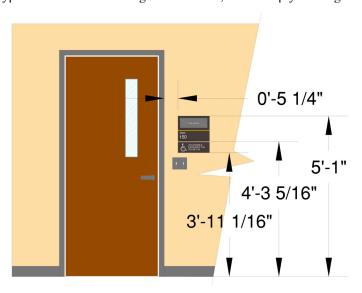


Figure 29.7

29.8. Should insufficient wall space exist for compliant sign installation, contact UMD Facilities Management Engineering Services for installation instructions and/or clarification.

30. University of Minnesota Duluth A & B - Type Sign Installation Instructions - Doors With Sidelights

- 30.1. Room identification sign installation shall comply with section 6.
- 30.2. Room identification signs shall be installed on the latch side of door.30.2.1. B1.2 sign (4 inch x 12 inch) shall be installed at non-accessible entrances to primary destination spaces where a B1 or B3 sign is needed.
- 30.3. Tactile characters on identification signs shall be 48 inches minimum and 60 inches maximum above the floor, measured from the baseline of the tactile characters.
- 30.4. Minimum 18 inch x 18 inch clear space on the floor, centered on the tactile characters, beyond the arc of any door swing between the closed position and 45° open position, is required.
- 30.5. Room identification sign installations, for sidelights that are 18 inches or wider, shall comply with figure 30.5.

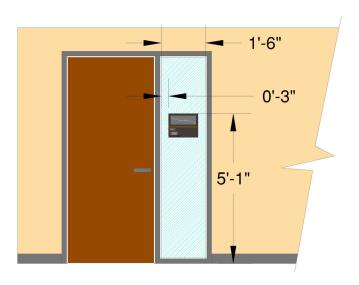


Figure 30.5

30.6. Room identification sign installation, for sidelights that are less than 18 inches wide, shall comply with figure 30.6

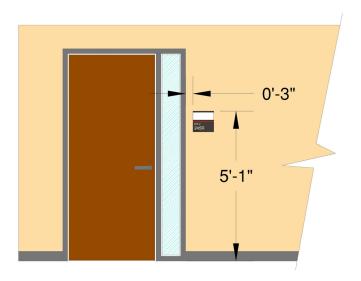


Figure 30.6

30.7. Identification signs installation, for double doors with glass, shall comply with figure 30.7.

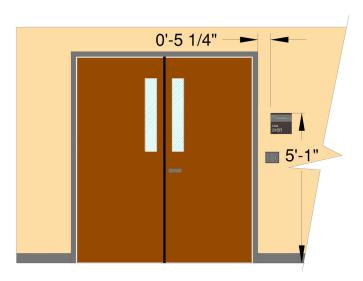


Figure 30.7

30.8. Identification sign installation, for double doors without glass and only one active leaf, shall comply with figure 30.8.

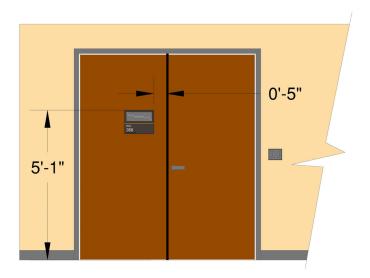


Figure 30.8

30.9. Identification sign installation, for double doors with two active leaves, shall comply with figure 30.9.

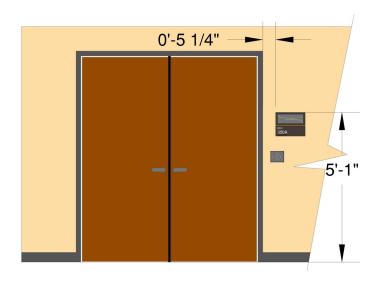


Figure 30.9

30.10. Should insufficient wall space exist for compliant sign installation, contact UMD Facilities Management Engineering Services for installation instructions and/or clarification.

31. University of Minnesota Duluth D-Type Sign Installation Instructions

- 31.1. Sign installation shall comply with section 6..
- 31.2. Restroom signs may identify both single occupancy and multiple occupancy restrooms. Please see sign specifications for further details.
 - 31.2.1. D1.2 signs (4 inch x 12 inch) are required at all non-ADAAG compliant restrooms.
- 31.3. Restroom identification signs shall be installed on the latch side of door.

- 31.4. Tactile characters on restroom identification signs shall be 48 inches minimum and 60 inches maximum above the floor, measured from the baseline of the tactile characters.
- 31.5. Minimum 18 inch x 18 inch clear space on the floor, centered on the tactile characters, beyond the arc of any door swing between the closed position and 45° open position, is required.
- 31.6. Mount the restroom area signs (D3 & D4 styles only) on a wall at the most visible location nearest to the concealed restroom entrance doors.
- 31.7. Non-accessible restroom sign installation shall comply with figure 31.8.

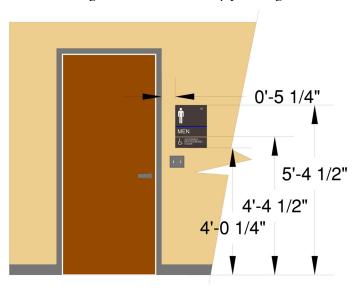


Figure 31.8

31.8. Accessible restroom identification signs shall comply with figure 31.9.

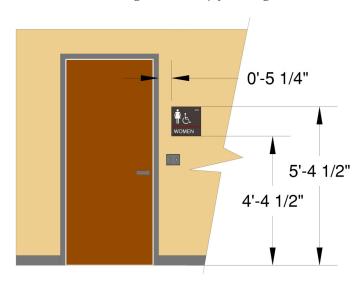


Figure 31.9

31.9. Should insufficient wall space exist for compliant sign installation, contact UMD Facilities Management Engineering Services for installation instructions and/or clarification.

32. University of Minnesota Duluth E2 Sign Installation Instructions

- 32.1. Stairwell identification sign installation shall comply with section 6.
- 32.2. Stairwell identification signs shall be installed on the latch side of door.
- 32.3. Tactile characters on identification signs shall be 48 inches minimum and 60 inches maximum above the floor, measured from the baseline of the tactile characters.
- 32.4. Minimum 18 inch x 18 inch clear space on the floor, centered on the tactile characters, beyond the arc of any door swing between the closed position and 45° open position, is required.
- 32.5. E2 stairwell identification signs are required on both sides of the entrance door to the stairwell landing.
- 32.6. E2 stairwell identification sign installations at stairwell landing entrance doors shall comply with figures 32.6.1 and 32.6.2

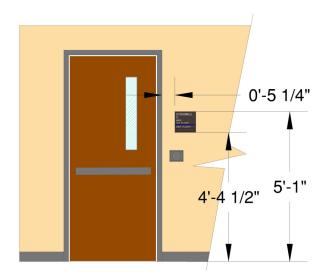


Figure 32.6.1

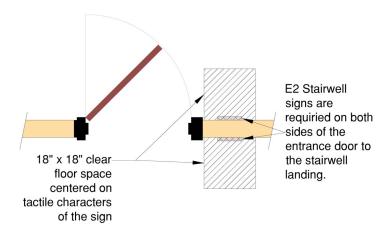


Figure 32.6.2

32.7. Should insufficient wall space exist for compliant sign installation, contact UMD Facilities Management Engineering Services for installation instructions and/or clarification.

33. University of Minnesota Duluth E3 Sign Installation Instructions

- 33.1. Stairwell fire code informational signs installation shall comply with section 6.
- 33.2. Stairwell fire code informational shall be installed centered on the floor level stairwell landing wall adjacent to the entrance door beyond the reach of any door swing within the stairwell landing.
- 33.3. E3 fire code informational signs are required on each floor level stairwell landing.
- 33.4. E3 fire code informational signs sign installations at stairwell landing entrance doors shall comply with figures 33.4.1 and 33.4.2.

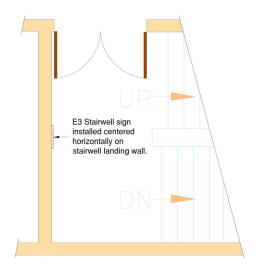


Figure 33.4.1

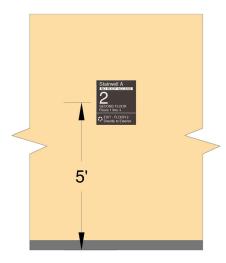


Figure 33.4.2

33.5. Should insufficient wall space exist for compliant sign installation, contact UMD Facilities Management Engineering Services for installation instructions and/or clarification.

34. University of Minnesota Duluth EX2 Sign Installation Instructions

34.1. EX2 exterior building identification signs installation shall comply with section 6.

- 34.2. EX2 exterior building identification signs shall be installed such that they are visible from the street or road fronting the property and to which the building is addressed.
- 34.3. Panel to be attached to wall surface utilizing 2" x 2" x 40" galvanized steel "L" brackets fabricated from right angle stock, 1/8" thick.
- 34.4. Two L-brackets shall be utilized for each sign panel and attached to the top and bottom edges of the sign such that the brackets are concealed by the sign panel.
- 34.5. L-brackets shall be drilled to accept three, 3/8" x 1" hex head mounting bolts. Non-corrosive hardware shall be utilized for mechanical fastening of L-brackets to the building exterior surfaces. A physical, neutral barrier shall be utilized to separate dissimilar materials when they are used for mechanical fasteners.
- 34.6. Sign panel shall be affixed to L-brackets by three, 1/4" x 7/8" hex head, self-tapping screws. Screw heads shall be coated dark bronze to match sign panel. See figure 34.6.

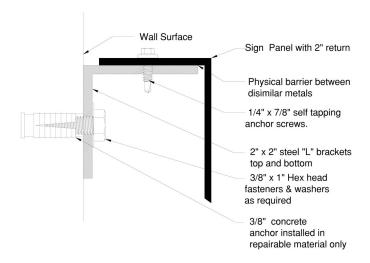


Figure 34.6

35. University of Minnesota Duluth H6 Sign Installation Instructions

- 35.1. H6-type informational sign installation shall comply with section 6.
- 35.2. H6-type informational signs shall be installed 60" from the floor to the center of the sign adjacent to a primary exit from within the room.
- 35.3. H6-type informational sign installations at primary exit doors from within rooms shall comply with figure 35.3.



Figure 35.3

35.4. Should insufficient wall space exist for conforming sign installation, contact UMD Facilities Management Engineering Services for installation instructions and/or clarification.

SUMMARY

A well-managed signing program is an essential component on campus facilities. Whether identifying a building, controlling pedestrian or vehicular traffic, or informing students, staff and visitors, a unified program of signs and graphics is vital to the function of the campus.

Signs must comply with ADA clear space requirements and must be considered at the start of design as they may impact door layout (alcoves, door swings and sidelights) as well as locations for switches, valves and other building features.

As a design resource, the components illustrated in this document are intended to provide the necessary direction for both in-house staff and consultant designers in the planning of signing programs. It should be recognized, however, that these standards cannot provide an immediate solution for every informational need. In these instances, the standards become a frame of reference that designers or facility planners may draw upon in the development of specific projects.

Beyond the immediate value as a design resource, the presence of a well-designed signing system fosters a positive image for the identity of the University. The presence and application of these standards will help to insure the continued unified direction in this area of facility planning.

The signing standards are therefore planned to be continually monitored and updated, allowing them to change with new developments in manufacturing techniques, building codes, and design trends. Changes and modifications to these standards are reviewed and recommended by UMD Facilities Management Engineering Services.