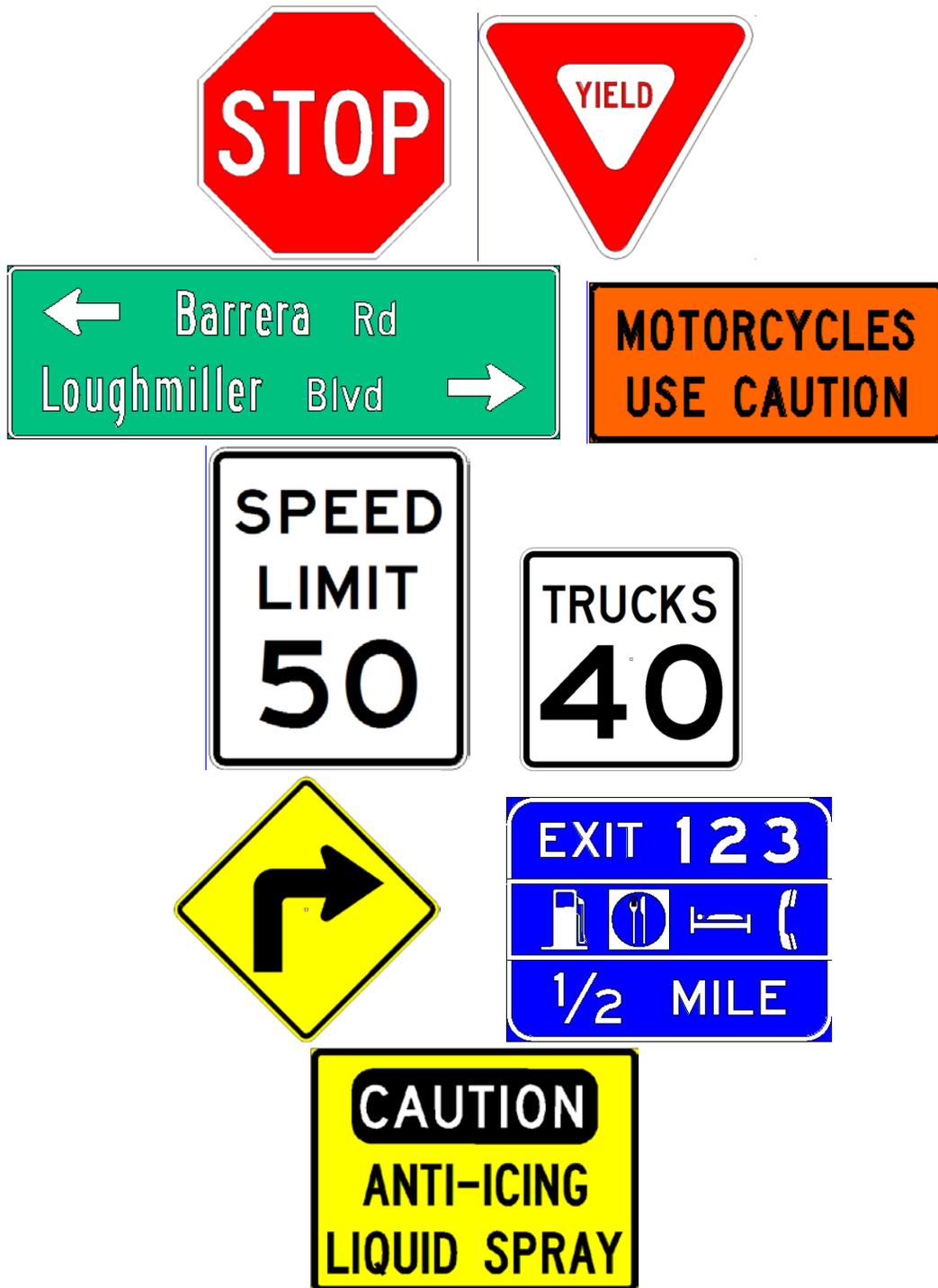


IDAHO TRANSPORTATION DEPARTMENT



2012 SIGN DESIGN MANUAL

INDEX

ITD Contact Information	4
I. ITD STANDARD SIGN DESIGN SOFTWARE	
1. SignCAD Settings	5
2. General Rules	5
A. Sign Categories	5
B. Standard Highway Font Series	5
C. Sign Sheeting	5
D. Spacing (Letters and Words)	6
E. Spacing (Between Lines)	6
F. Spacing (In Relation to Border)	6
G. Spacing (Arrows in Relation to Border)	6
H. Sign Size	7
I. Wind Load – Sign Structures (Overhead, Cantilever, T, Etc.)	7
J. Sign Lighter Placement	7
K. Arrow Type and Placement	7
L. Interstate Arrows	8
M. Non-Interstate Arrows	9
N. Arrow Examples and Layout	10
O. ITD Sign Arrow Fabrication Chart	11
II. INTERSTATE SIGN LAYOUT SPECIFICATIONS	
1. General Rules	12
2. Directional Arrow Placement	13
3. Interstate Shields	13
4. Interstate Cardinal Direction Legend and Placement	13
5. Interstate Upper and Lower Case Legend	14
6. Interstate – Border & Margin: (Positive Contrast)	14
7. Interstate – Border & Margin: (Negative Contrast)	14
8. Interstate – Border & Margin: (Comb. Pos. & Neg. Contrast)	14
9. Interstate – Border Radius	14
10. Interstate – Mastarm or Structure Mounted Signs	15
11. Interstate – Mastarm or Structure Mounted Sign Examples	16
12. Interstate – Minimum Letter and Numeral Chart	17
III. NON-INTERSTATE SIGN LAYOUT SPECIFICATIONS	
1. General Rules	18
2. Directional Arrow Placement	19
3. Non-Interstate Shields	19
4. Non-Interstate Cardinal Direction Legend and Placement	19
5. Non-Interstate – Border & Margin: (Positive Contrast)	20
6. Non-Interstate – Border & Margin: (Negative Contrast)	20
7. Non-Interstate – Border Radius	20
8. Non-Interstate – Post, Mastarm or Structure Mounted Signs	20
9. Non-Interstate – Post, Mastarm or Structure Mounted Sign Examples	22

IV. TOURIST ORIENTED DIRECTIONAL SIGN LAYOUT SPECIFICATIONS

1. Maximum Allowable Text Per Line.....	24
2. Trailblazers.....	25
4. Symbols.....	25
5. TODS Sign Examples	
A. TODS Trailblazer Signs	26
B. TODS Mainline Signs	26

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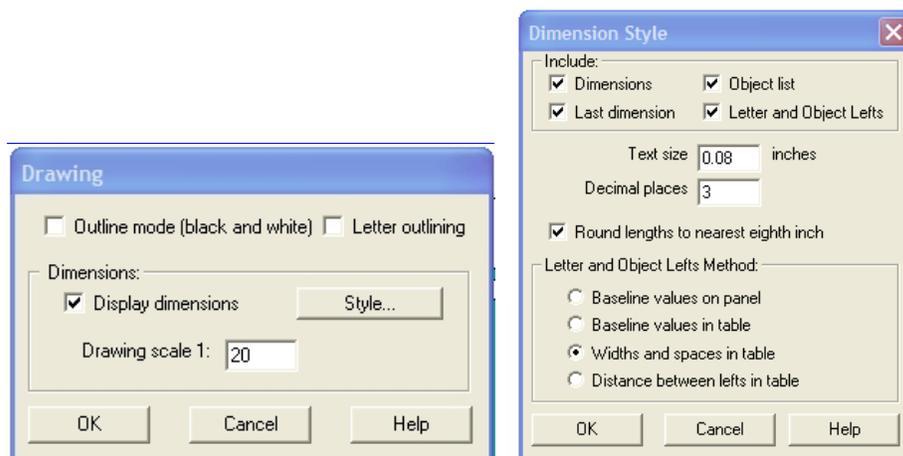
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SIGNCAD SETTINGS:

NOTE: SIGN DESIGN SOFTWARE STANDARD FOR ITD IS **SIGNCAD**. ALL SIGN DESIGN FILES MUST BE COMPATIBLE WITH SIGNCAD and MEET THE FOLLOWING SETTINGS.



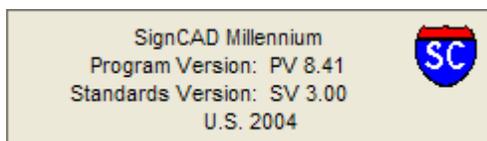
Note: Changes to drawing scale or rounding to the nearest 1/4 inch, and resetting the decimals to 2 above will change the displayed size or length of the dimensions text. This will allow for less clutter on the drawing dimensions. These steps should not be taken unless absolutely necessary to make the sign layout readable.

GENERAL RULES:

SIGN CATEGORIES:

- **Positive Contrast:** White letters on dark colored backgrounds.
- **Negative Contrast:** Black or Red letters on light colored backgrounds.

STANDARD HIGHWAY FONT SERIES – Millennium US Dept. of Transportation 2K:



- **Font Standard must be set before laying out signs for the first time.**
- Overhead and Ground Mount Interstate - Use E Modified (EM) series font with the exception of the allowance of D or E series font on Supplemental Guide signs that are mounted below the main sign and Mastarm street name signs which use C Series fonts.
- Non-Interstate signs should be designed using only B, C or D series fonts.

SIGN SHEETING:

- All background sheeting must be ASTM TYPE IV High Intensity Grade Prismatic Reflective, including when fabricating Digitally Printed signs.
- All Borders, Legend and Numbers are ASTM TYPE IV micro-prismatic sheeting on Non-Interstate Signs and ASTM TYPE IX micro-prismatic sheeting on Interstate Signs.

LEGEND SIZE (Letters and Words):

- **Interstate – Shown on “Interstate Guide Signs” Chart, page 17 of 27.**
- **Non-Interstate – No less than minimums shown in Design Guidelines of the Standard Highway Signs Book and Chapter 2A of the MUTCD.**
- **Legend on signs should match whenever possible if mounted on the same assembly.**

SPACING (Letters and Words): (Word Spacing no less than 70%, 100% is standard)

- Use Standard Highway Signs (SHS) Alphabets size, font and spacing.
- Interstate – Spacing may be no less than 70%.
- Non-Interstate – Spacing may be no less than 70%.

SPACING (Between Lines): (Line Spacing no less than ½ Font Size is standard)

- Use ½ Standard Highway Signs (SHS) Alphabets size as a minimum.
- Never exceed line spacing of more than the font size.
- Adjust for larger first letters or the tails of letters. i.e. P, K, g, q, p or y.
- Adjust spacing between shields or arrows to use up sign space without exceeding your line spacing.

SPACING (In relation to Border):

- Use the inside of the border to set your spacing of elements instead of panel edge.
- Non-Interstate -- Signs should have 6 inches of space between the inner part of the border and the first letter of legend or the nearest edge of a symbol or arrow.
- Interstate – Signs should have 10 inches of space between the inner part of the border and the first letter of legend or the nearest edge of a symbol or arrow.
- Established distance between Legend, Shield, Arrows, etc. should be maintained on all four sides of the sign.

SPACING (Arrows in Relation to Border):

- ONE arrow combined with a line(s) of legend the space from the inner edge of the border to the arrow should be 6” or 10” and then from the far side of the arrow to the nearest letter of the legend should be the same dimension.
- TWO Arrows on the same side of the sign for two or more lines of legend the same rule as above applies.
- TWO Arrows on opposite ends of a sign with two or more lines of legend the second line of legend should align with the left side of the arrow on the first line and the arrow for the second line on the right side of the sign should meet the criteria of condition one (1) above. Distance between the end of the second line of legend may increase above the 6” or 10” depending on the length of legend.

Interstate Signs - At no time should the above minimum spacing distances be compromised. The distance however can be exceeded for Legend, Shields, Arrows or Symbols when matching an existing sign size. The controlling factor in many cases will be the spacing between multiple posts, bracket placement and sign lighter placement on extruded aluminum signs.

Non-Interstate Signs – Spacing dimensions shown above should always be used for new signs. If needed to adjust the spacing on a replacement sign, the following minimum spacing can be used for the smaller sign panel:

- 1) 35 mph or less Posted speed --No less than 3" between inner edge of border and arrow, legend or symbol;
- 2) 35 mph to 50 mph Posted speed --No less than 4" between inner edge of border and arrow, legend or symbol;
- 3) Greater than 50 mph Posted speed --No less than 5" between inner edge of border and arrow, legend or symbol.

SIGN SIZE:

- Always round your sign size to even 6" increments.
- New Signs -- Whenever possible reduce sign size to save on wind load.
- Replacement Signs -- If you are replacing one or more signs on an existing assembly where there are two or more signs stacked together, the width of all major signs should match.

WIND LOAD -- SIGN STRUCTURES (OVERHEAD, CANTILEVER, T, ETC.)

- AASHTO Wind Load Standards have increased to 90mph. Support sign load charts are in the ITD Traffic Manual.
- Total square footage of replacement signage on Overhead Structures cannot increase by more than 5% without having the structure wind load recalculated for approval by the ITD HQ Bridge Section.
- Wind Load should be calculated when any replacement sign is larger than the sign being replaced.

SIGN LIGHTER PLACEMENT

- Use of sign lighters should be determined using guidance given in the AASHTO ROADWAY LIGHTING DESIGN GUIDE.
- Placement of sign lighters may require adjustment of legend, symbols, and arrows to make sure that the sign lighters do not block the driver's view of important portions of the sign face.
- Sign lighters are currently still required with each new overhead sign installation. It is up to the District Traffic Engineer to make the decision if the sign lighters can be turned off when using new prismatic sign sheeting.

ARROW TYPE AND PLACEMENT

Standard arrows are shown in the sign design manual. Arrow types should never be mixed on the same sign. Arrows are to be retroreflective, with the exception of opaque black. All Arrows and retroreflective sign backgrounds shall meet the current standards of the Idaho Transportation Department Standards Specifications Manual Section 712.02.

TYPE A: Interstate Only - Up Arrows for 30, 45 or 60 degrees RT or LT.

TYPE B: Interstate Only - **Smaller version of TYPE A, Optional for limited space conditions.**

TYPE C: Interstate Only - Down Arrows for 45, 60, or 90 degrees on Exit Panels and Pull-Through Lane Designation Signs.

TYPE D: Non-Interstate - Standard U-Turn arrow.

TYPE E: Non-Interstate - Arrow used on E Series Logo signs, D Series Interstate signs including mastarm mounted signs;

TYPE E: Non-Interstate arrow used on all non-interstate signs.

INTERSTATE ARROWS

On Interstate signage either Type A, B or C arrows shall be used as the ONLY arrow type.

A right hand EXIT ONLY lane should use a Type C arrow on the Advance Guide sign and a Type A arrow on the Exit Guide sign.

Multiple arrows are only used on Exit Panels and Pull-Through Lane Designation Signs as follows:

Type A and B: Referred to as "up" arrows, and as the name indicates should generally point up on guide signs, or be placed at an oblique angle to point left or right. Type A and B arrows are white arrows on green backgrounds ONLY.

Type A: Standard for E-6 Series Overhead Guide signs, regardless of the number of lines of copy and shall ONLY be used at the Exits or Route Splits. They are not to be used on Advance Guide Signs. The standard angle for Type A arrows is 45°, regardless of roadway geometrics. See the MUTCD for general appearance of single line signs with a 45° arrow. One Type A arrow for a single lane exit is placed on the left or right hand side of the sign, depending on a left or right hand exit, as shown in the MUTCD. The arrow is placed at the end (or beginning) of the last line of copy, or vertically centered to the left (or right) of the entire sign legend as shown in the MUTCD. Note that when signing for a left hand exit, at least one diagrammatic sign is used as an Advance Guide sign. This does not include one-way outer roads with left hand slip ramps leading to the mainline.

Multiple Type A arrows, if used, shall be placed in the bottom line of copy with no other legend and must be centered over the appropriate lanes.

Multiple Type A arrows, if used with but not placed within an E11-2 "EXIT ONLY" panel, shall be spaced horizontally over the center of the appropriate lanes.

Type B: OPTIONAL for E-6 Series Overhead Guide signs, regardless of the number of lines of copy and shall ONLY be used at the Exits or Route Splits where sign space is limited. This may be encountered when matching sign size and layout for a replacement sign. When use of a Type B arrow is justified, placement is the same as indicated for Type A arrows above.

Type C: Referred to as "down" arrows and are to be used on ADVANCE OVERHEAD GUIDE SIGNS ONLY. They are used for lane assignment on the E4 Series Overhead Guide signs and should always point down. Type C arrows are white when placed on green sheeting, and black when placed on yellow sheeting such as E11-1 "EXIT ONLY" panels.

The standard Type C-2 arrow size is 32 in. x 22 in.; a smaller Type C-1 arrow (24 in. x 16 1/2 in.) is to be used only on those signs with limited space.

Standard Type C arrows are used on all advance guide signs with an "EXIT ONLY" panel. Arrows are placed within the "EXIT ONLY" panel for one and two lane exits, as shown on the ITD Sign Chart. When these arrows are used on pull through signs, they should be the last line of copy with no other symbol or words.

Multiple arrows are used at multilane exits. Multiple arrows are always placed in the bottom line of copy with no other legend, and centered over the appropriate lane or lanes.

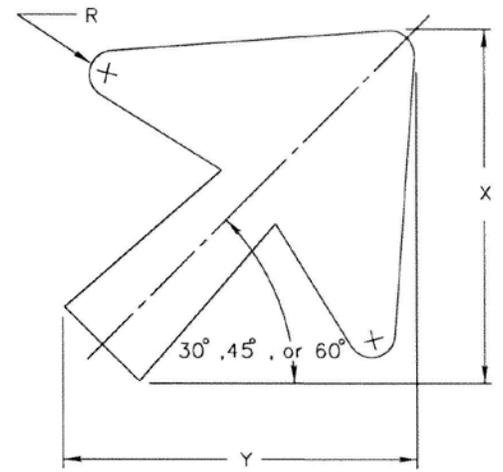
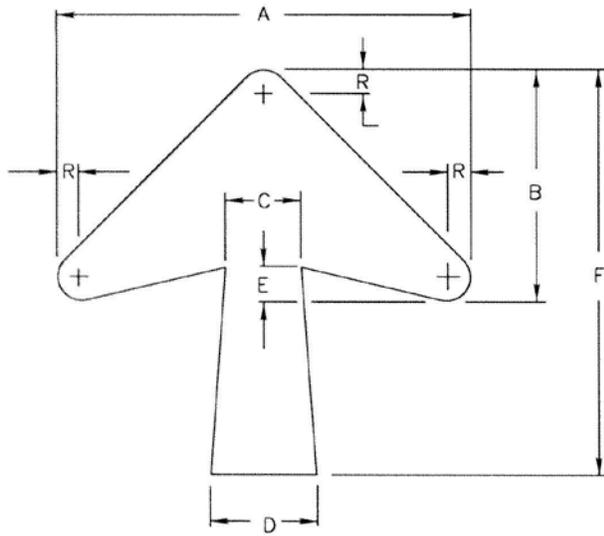
Standard Type C arrows may be combined with "EXIT" and "ONLY" panels when appropriate.

NON-INTERSTATE ARROWS

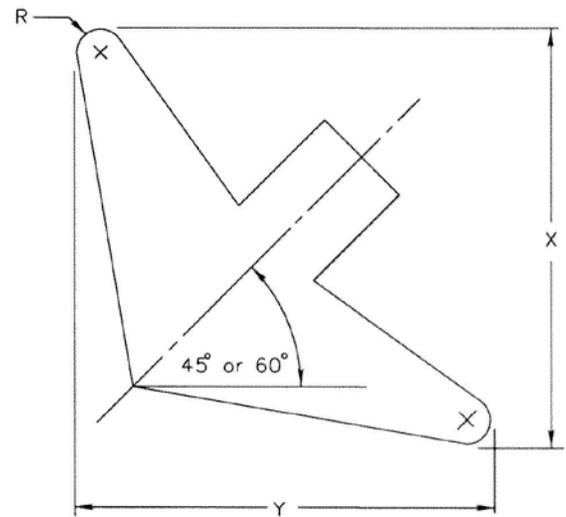
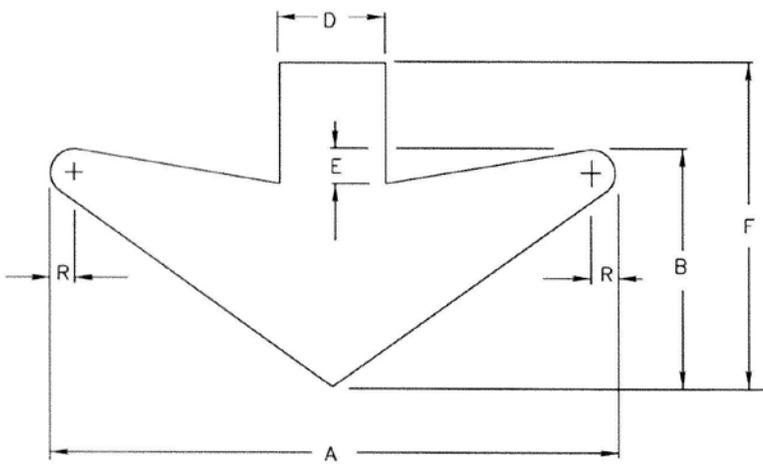
Type D and E arrows are the only arrows used on Non-Interstate Routes.

Type D: Designated as U-TURN ONLY arrow used on Non-Interstate Routes.

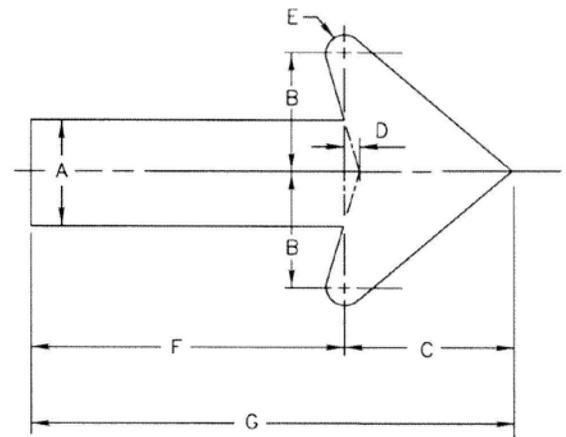
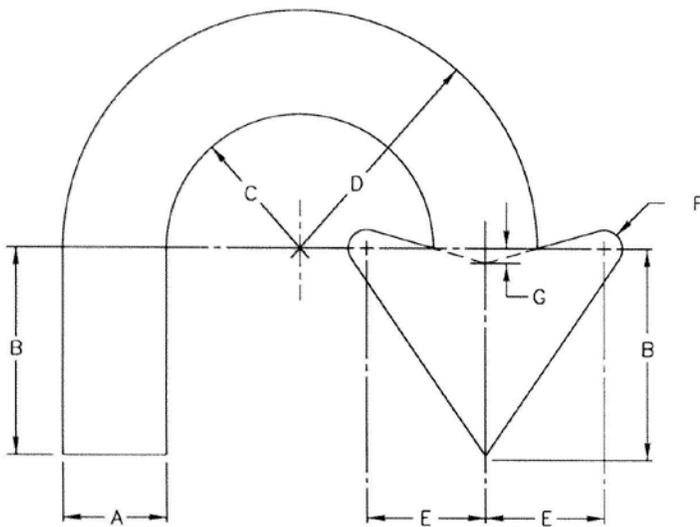
Type E: Designated as a multi-angle arrow. Arrows are white when placed on green, blue or brown sheeting, and black when placed on white, fluorescent yellow or fluorescent yellow green sheeting. Angles shall be restricted to 30, 45, 60 or 90 degrees up or down or placed horizontally right or left.



"A" AND "B" ARROWS



"C" ARROWS



"D" ARROWS

"E" ARROWS Δ

ITD SIGN ARROW FABRICATION CHART

ARROW NO.		A	B	C	D	E	F	G	R	30°		45°		60°	
										x	y	x	y	x	y
STANDARD INTERSTATE ONLY – UP ARROW (30, 45, 60 DEGREES) RT OR LT															
A-1	Custom	11 ³ / ₈	8 ³ / ₈	3 ³ / ₈	3 ³ / ₈	7 ³ / ₈	18 ³ / ₈	—	5 ³ / ₈	11 ³ / ₄	17	14 ¹ / ₂	14 ¹ / ₂	17	12
A-2	80	15 ³ / ₈	11 ³ / ₈	3 ³ / ₄	5	1 ³ / ₈	24 ¹ / ₄	—	7 ³ / ₈	15 ⁵ / ₈	22 ¹ / ₄	19 ³ / ₈	19 ³ / ₈	22 ³ / ₈	15 ⁵ / ₈
A-3	133	18 ¹ / ₄	14	4 ¹ / ₂	6	1 ¹ / ₂	29 ¹ / ₄	—	3 ¹ / ₄	18 ¹ / ₂	27	23	23	27	19
A-4	160	22 ¹ / ₄	17	5 ³ / ₈	7 ³ / ₈	1 ³ / ₄	35 ³ / ₈	—	1	22 ³ / ₈	32 ³ / ₄	28	28	32 ³ / ₄	22 ³ / ₄
OPTIONAL INTERSTATE ONLY – UP ARROW (30, 45, 60 DEGREES) RT OR LT – FOR SIZE RESTRICTED SIGNS ONLY															
B-1	Custom	8 ¹ / ₂	5 ¹ / ₂	2 ³ / ₈	3	5 ³ / ₈	10	—	1 ¹ / ₂	7 ¹ / ₂	9 ³ / ₈	8	8	9 ³ / ₈	7 ¹ / ₂
B-2	Custom	14 ¹ / ₄	9 ³ / ₈	3 ³ / ₈	4 ¹ / ₂	1 ³ / ₈	17 ¹ / ₄	—	3 ¹ / ₄	12 ¹ / ₂	16 ¹ / ₄	14	14	16 ³ / ₈	12 ¹ / ₄
B-3	Custom	17 ¹ / ₂	11 ³ / ₄	4 ³ / ₈	5 ³ / ₈	1 ¹ / ₂	20 ¹ / ₄	—	7 ³ / ₈	15 ¹ / ₂	19 ³ / ₈	16 ³ / ₈	16 ³ / ₈	19	15 ¹ / ₂
B-4	Custom	21 ³ / ₈	14 ¹ / ₄	5	6 ³ / ₄	1 ³ / ₄	25	—	1	19 ³ / ₈	23 ¹ / ₂	20 ³ / ₈	20 ³ / ₈	23 ¹ / ₂	19 ¹ / ₄
STANDARD INTERSTATE ONLY – DOWN ARROW (30, 45, 60 DEGREES) RT OR LT															
C-1	Custom	24	12	—	5	2 ¹ / ₄	16 ¹ / ₂	—	3 ¹ / ₄	—	—	17 ³ / ₈	17 ³ / ₈	16 ³ / ₈	21
C-2	22	32	16	—	6 ¹ / ₂	3	22	—	1	—	—	23 ¹ / ₄	23 ¹ / ₄	21 ¹ / ₂	21 ³ / ₈
STANDARD NON-INTERSTATE U-TURN ARROW															
D-14	Custom	7	14	9	16	8	1 ¹ / ₄	1	—	—	—	—	—	—	—
STANDARD INTERSTATE ARROW E AND D SERIES SIGNS & STANDARD NON-INTERSTATE MULTI-ANGLE ARROW															
E-1	2.25	2 ¹ / ₄	2 ³ / ₈	4 ¹ / ₂	3 ³ / ₈	1 ¹ / ₂	7 ³ / ₈	11 ³ / ₈	—	—	—	—	—	—	—
E-2	2.625	2 ³ / ₈	3	5 ¹ / ₄	3 ³ / ₈	1 ¹ / ₂	9 ³ / ₈	15 ³ / ₈	—	—	—	—	—	—	—
E-3	3	3	3 ¹ / ₂	6 ³ / ₈	1 ¹ / ₂	5 ³ / ₈	9 ³ / ₈	16	—	—	—	—	—	—	—
E-4	4.5	4 ¹ / ₂	5 ¹ / ₄	9 ³ / ₈	3 ¹ / ₄	7 ³ / ₈	21 ¹ / ₄	30 ³ / ₈	—	—	—	—	—	—	—
E-5	5	5	5 ¹ / ₄	10 ³ / ₈	3 ¹ / ₄	1	7 ¹ / ₂	17 ³ / ₈	—	—	—	—	—	—	—
E-6	5	5	5 ³ / ₄	10 ³ / ₈	3 ¹ / ₄	1	12 ¹ / ₂	22 ³ / ₈	—	—	—	—	—	—	—
E-7	5	5	5 ³ / ₄	10 ³ / ₈	3 ¹ / ₄	1	18 ¹ / ₂	28 ³ / ₈	—	—	—	—	—	—	—
E-8	5.25	5 ¹ / ₄	6	10 ³ / ₈	7 ³ / ₈	1 ³ / ₈	23 ¹ / ₂	34 ³ / ₈	—	—	—	—	—	—	—
E-9	5.25	5 ¹ / ₄	6	10 ³ / ₈	7 ³ / ₈	1 ³ / ₈	19 ¹ / ₂	30 ³ / ₈	—	—	—	—	—	—	—
E-10	6.5	6 ¹ / ₂	7 ¹ / ₂	13 ¹ / ₄	1	1 ³ / ₈	26 ¹ / ₂	39 ¹ / ₄	—	—	—	—	—	—	—
ITD	SIGNCAD	A	B	C	D	E	F	G	R	x	y	x	y	x	y
ARROW NO.										30°		45°		60°	

NOTE: All of the above dimensions are in inches.

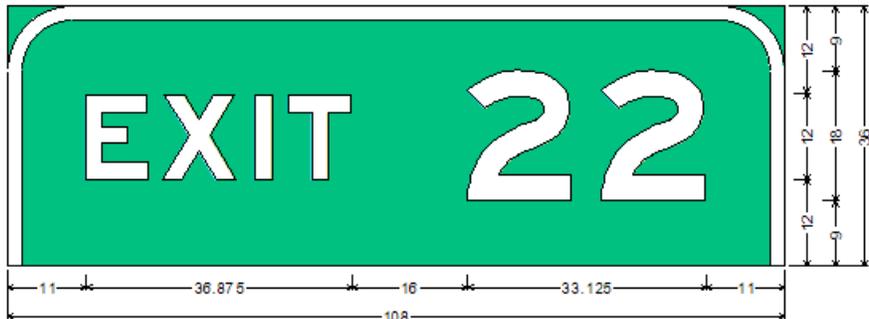
CHART TO DETERMINE ARROW TYPE FOR LEGEND SIZE ON INTERSTATE SIGNS

LETTER SIZE	LINES OF LEGEND	ARROW NO.	
		ITD	SIGNCAD
4" CAPITAL	1	B-1	CUSTOM
	2 OR MORE	A-1	CUSTOM
6" CAPITAL	1	B-2	CUSTOM
	2 OR MORE	A-2	80
6" OR 8" U/L	1	B-2	CUSTOM
	2 OR MORE	A-2	80
10" CAPITAL	1	B-2	CUSTOM
	2 OR MORE	A-3	133
12 CAPITAL	1	B-3	CUSTOM
	2 OR MORE	A-3	133
13 1/3 U/L	1	B-3	CUSTOM
	2 OR MORE	A-3	133
16" U/L	1	B-4	CUSTOM
	2 OR MORE	A-4	160
OVERHEAD	1	C-1	CUSTOM
	2 OR MORE		
13 1/3" U/L	1	C-1	CUSTOM
	2 OR MORE		
OVERHEAD	1	C-2	22
	2 OR MORE		
16" U/L	2 OR MORE	C-2	22

INTERSTATE SIGN LAYOUT SPECIFICATIONS

INTERSTATE -- GENERAL RULES:

- Sign width and height is to be rounded to nearest one foot (12") increment because extruded aluminum panels are only approved for use in 12" panel widths. Overhead mounted replacement sign sizes may increase by no more than 5% in square footage without approval from ITD.
- Spacing between lines of legend is minimum of ½ the letter height.
- Spacing between words is 1 ½ times the width of the letter "N" for the font used.
- General rule for borders and corners is to match the letter stroke width.
- Separation bars should match the border width when used.
- Sign Size – Major signs mounted together must match in width and/or height depending on whether placement is side by side or above and below.
- Exit ONLY Plaque – Plaque is yellow with black border. Do not match main sign border color.
- Multiple Panel Sign -- Must be dimensioned as one sign.
- Supplemental Guide – legend upper and lower 13-1/3" upper & lower (some suppliers (3M) call it 13-1/3" upper and a 10" lower i.e. 13 1/3" upper/lower for us and 13 1/3" upper and 10" lower for 3M) ITD uses only the two sizes of 13-1/3" (Mainline) and 8" (Ramp) for supplemental signs.
- Logo Panels – legend uppercase (mainline) 10" EM, legend uppercase (ramps) 6" EM.

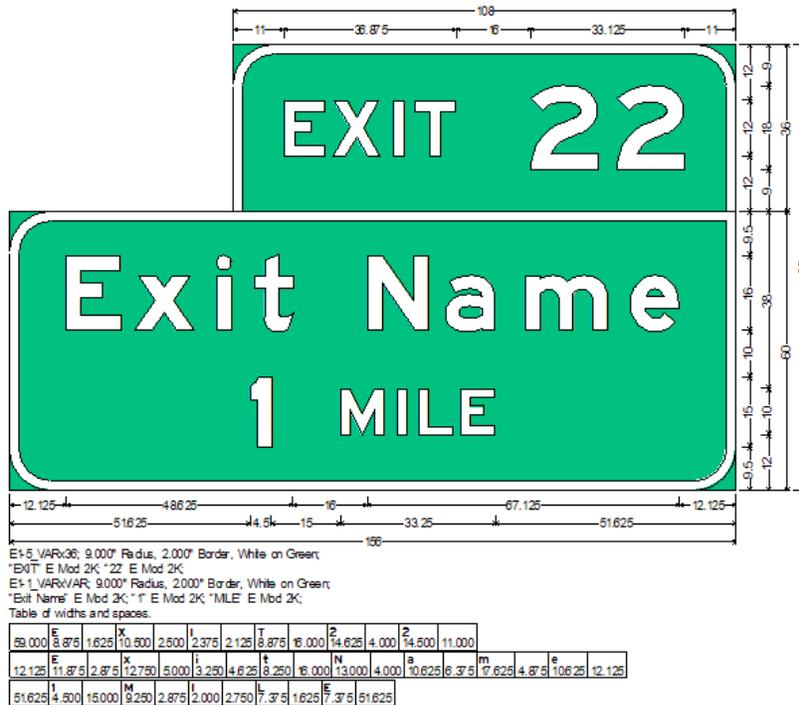


E1-5_VARx36; 9.000" Radius, 2.000" Border, White on Green;
 "EXIT" E Mod 2K; "22" E Mod 2K;

Table of widths and spaces.

11.000	E	8.875	1.625	X	10.500	2.500	I	2.375	2.125	T	8.875	16.000	2	14.625	4.000	2	14.500	11.000
--------	---	-------	-------	---	--------	-------	---	-------	-------	---	-------	--------	---	--------	-------	---	--------	--------





INTERSTATE -- DIRECTIONAL ARROW PLACEMENT

- Diagrammatic Arrows should be placed as stated in the Manual on Uniform Traffic Control Devices, as adopted by the State.
- Oblique Arrows should be bottom aligned with corresponding legend for either destination name or exit number on the side that the lanes depart. When using multiple Destinations the bottom of the arrow shaft should be centered on the lines of legend.
- Down Arrows should be centered over the lanes which are being designated.

INTERSTATE -- SHIELDS:

- Shield Spacing - 12" between multiple shields and centered in the sign horizontally. Single shields are centered.
- Shield Placement Priority – Interstate #1, US Route #2, State Route #3 (Includes Bus. Loops and Spurs.)

Note: Start on Left w/highest Priority Shield when Multiple Shields are used. The exception to this rule is that Individual shields should be placed on the sign on the same side as the lanes which are being designated regardless of shield priority.

INTERSTATE -- CARDINAL DIRECTION LEGEND and PLACEMENT:

- All uppercase, make the beginning capital letter two inch (2") larger than the rest of the word. i.e. N(12") ORTH(10") Bottom align the legend.
- Cardinal Direction is top aligned with shield, placed to right of shield normally.

- Mainline route splits will require the Cardinal Direction Legend to be aligned with the outside upper corner of the route shields for each of the continuing routes on the side that the lanes depart.
- The beginning of a route or continuation of a mainline route with departure lanes requires the cardinal direction legend to be aligned with the outer/top corner of the departing route shield, on the side that the lanes are departing to.
- If a cardinal direction is shown for a route that continues straight ahead when other lanes are departing, the cardinal direction legend should be centered above the route shield.

INTERSTATE -- UPPER AND LOWER CASE LEGEND:

- Type the upper and lower case letters as a single word with same Text Size and Font.

INTERSTATE -- BORDER & MARGIN: (Positive contrast – White on Black, Blue, Brown, Green or Red)

- NO MARGIN - Border goes to edge.
- 1" Border for 8" or smaller legend.
- 2" Border for 10" and larger legend.
- **EXCEPTION:** EXIT GORE SIGNS and Ramp Destination Panels use 1" Border.

INTERSTATE – BORDER & MARGIN: (Negative contrast – Black, Green or Red on White, Yellow, FYG or Orange)

- 1" Border with (3/4") indented margin for 8" or smaller legend.
- 2" Border with (1-1/2") indented margin for 10" and larger legend.

INTERSTATE -- BORDER & MARGIN: (Combination of Positive and Negative Contrast)

- No Margin on both colored panels.
- Use Positive Contrast Border size for both colored panels.

INTERSTATE -- BORDER RADIUS:

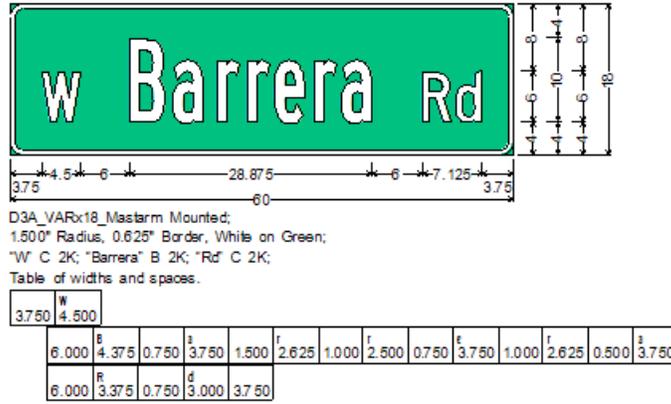
- 6" Radius for 1" Border.
- 9" Radius for 2" Border.
- **EXCEPTIONS:** Any sign with either dimension 24" or less uses 6" Radius, except **D3A**.
 - Border size will be matched to Legend no matter which radius is used.
 - Legend for two main guide signs should have matching legend size if on the same sign assembly or sign bridge.

INTERSTATE -- MASTARM or STRUCTURE MOUNTED (See examples)

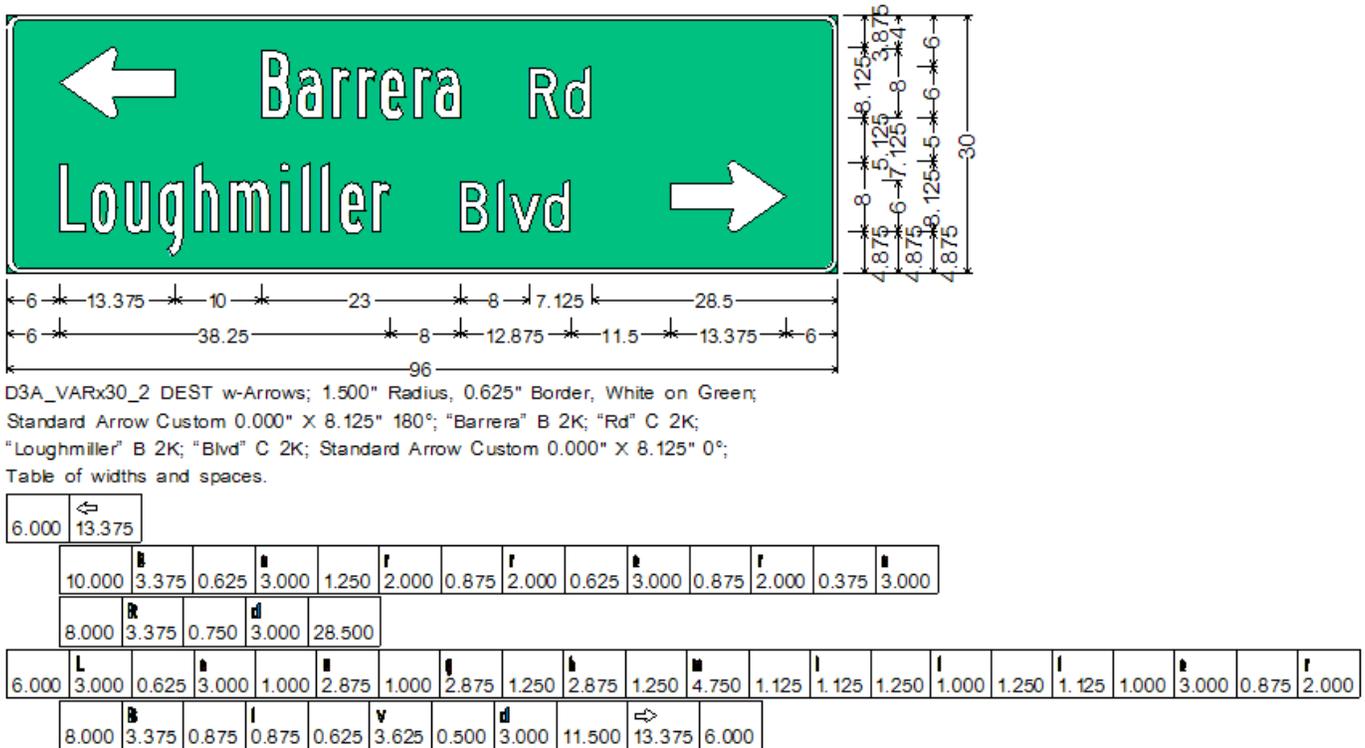
- **D-3A** Mastarm Mounted (**One Line**) Sign - Size 18"
 - 10" B Legend (Road Name), 6" C (Directional or Designation Text), Legend
- **D-3A** Mastarm Mounted (**Two Line**) Sign - Size 30"
 - 8" B Legend (Road Name), 6" C (Directional or Designation Text), Legend
- **D3B** Structure Mounted One Line Sign – 24", Upper and Lower Case Legend,
 - 10" EM Legend (Road Name)
- No periods, or apostrophes used.
- All use a border with no indent.
- Sign width is variable in full inch increments.
- All Legend or numerals are bottom aligned.
- Any Legend or numeral placement starts 6" in from panel edge.
- All numbered streets are numeric. i.e. Third Street should be shown as 3rd Street.
- Directional Legend should all be by first character only. i.e. N for North.

Note: SignCAD Users, Set Size Increment to "2" to design D3A or D3B signs. Use fonts as shown, but "B" Font may be changed to "C" font for name if it is composed of 9 or less characters.

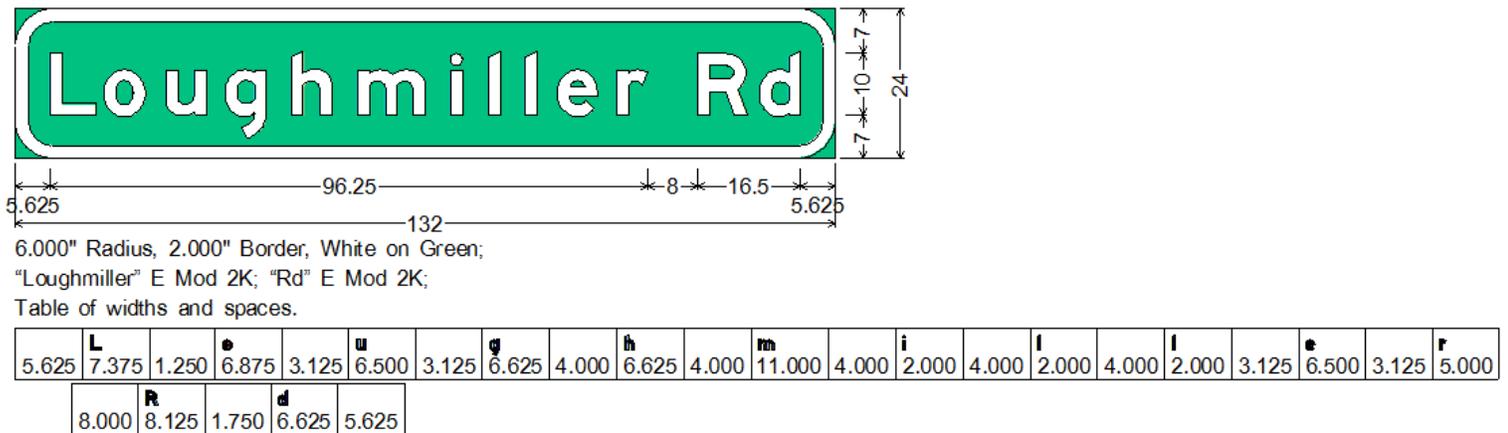
D-3A Mastarm Mounted (Interstate) – One Line Sign



D-3A Mastarm Mounted (Interstate) – Two Line Sign



D-3B Structure Mounted (Interstate ONLY) – One Line Sign



Interstate Guide Signs-- Minimum Letter and Numeral Sizes for (sizes shown in inches)
NOTE: Use ITD Sign Design Manual and ITD Sign Templates for radius, border and layout specifications.

Type of Sign	Ground Mount	Overhead			
		Structure	Mastarm		
Exit Plaque (E1-5) Use with E1, E4 and E6 Series Signs					
Word	—	12"			
Numeral & Letter	—	18"			
Interstate Route Sign – Ground Mount (M1-1,2) Overhead (M1-1A,2A)					
Numeral	18" D	18" D			
1- or 2-Digit Shield	36"	36" ONLY			
Numeral	18" C	18" C			
3-Digit Shield	36"	36" ONLY			
U.S. or State Route Sign -- Ground Mount (M1-4,5,7,8 SERIES) Overhead (M1-4A,5A,7A,8A)					
1- or 2 -Digit Shield	36"	36" ONLY			
Numeral	18" D	18" D			
3-Digit Shield	36"	36" ONLY			
Numeral	18" C	18" C			
Cardinal Direction (i.e. North, South, East, West) Top align with Shields					
First Letter	15" EM	15" EM			
Rest of Word	12" EM	12" EM			
Mainline Guide Signs – Overhead or Ground Mounted					
	E7	E8	E9		
Classification	Post Interchange Distance Panel	Community/ Interchange Sequence	Next Exit		
Name Upper-Case Letters	8" EM	13 1/3" EM	13 1/3" EM		
Name Lower-Case Letters	8" EM	10" EM	10" EM		
NEXT XX WORDS			10" EM		
Numeral	8" EM	13 1/3" EM	15 EM		
Distance Fraction		13 1/3" Overall		Composed of 10" EM Numerals	
Ramp Destination Panel –Ground Mount (D1-4, D1-5,D1-6)					
Word	8" U/6"L	8" U/6"L			
Exit Panel & Pull Thru-- Ground Mount (E1-1, E1-4, E4-1, E6-1, E6-2, E6-201, E6-202, E6-3)					
Upper-Case Letters	16" EM	16" EM			
Lower-Case Letters	12" EM	12" EM			
Distance Number	15" EM	15" EM			
Distance Fraction	15" Overall	15" Overall		Composed of 10" EM Numerals	
Distance Word	10" EM	10" EM			
Action Message Word	10" EM	10" EM			
Exit Gore Signs (E5-1, E5-101)					
Word	12" EM	—			
Numeral & Letter	18" EM	—			
Road Name Signs – (D3A) Mastarm or Ground Mounted (D3B) Ground or Structure Mounted					
Word (One line) D3A (16")	10"U/L 6"U/L		10"U/L 6" U/L	"C" Font 9 letters or less, "B" 10 or more	
Word (Two line) D3A (30")	8" U/L 6"U/L			"C" Font 9 letters or less, "B" 10 or more	
Word (One line) D3B (24")	10" U/L EM	10" U/L EM		EM	

NON-INTERSTATE SIGN LAYOUT SPECIFICATIONS

NON-INTERSTATE -- GENERAL RULES:

- Sign width and height is to be rounded to nearest six inch (6") increment, unless making a replacement sign which must match the sign being replaced.
- Sign Size – Major signs mounted together must match in width and/or height depending on whether placement is side by side or above and below.
- All dimensions measured from the panel edge.
- **All sign lettering shall be in upper-case letters as provided in the “Standard Highway Signs and Markings” book (see Section 1A.11), unless otherwise provided for a particular sign or type of message in the latest edition of the MUTCD as adopted by the State.**
- **All sign lettering for names of cities and towns, streets, and highways shall be composed of a combination of lower-case letters with initial upper-case letters.**
- Except for Cardinal Directions all legend should be of the same size and series on the same line.
- Word messages should be as brief as possible and the lettering should be large enough to provide the necessary legibility distance. A minimum specific ratio of 1 inch of letter height per 30 feet of legibility distance should be used.
- Only abbreviations approved in the MUTCD should be used (see Section 1A.15) and their use should be kept to a minimum.
- Word messages should not contain periods, apostrophes, question marks, ampersands, or other punctuation or characters that are not letters, numerals, or hyphens unless necessary to avoid confusion.
- The solidus (slanted line or forward slash) is intended to be used for fractions only and should not be used to separate words on the same line of legend. Instead, a hyphen should be used for this purpose, such as “TRUCKS - BUSES.”
- When initials are used to represent an abbreviation for separate words (such as “U S” for a United States route), the initials should be separated by a space of between 1/2 and 3/4 of the letter height of the initials.
- When an Interstate route is displayed in text form instead of using the route shield, a hyphen should be used for clarity, such as “I-50.”
- General rule for borders and corners is to match the letter stroke width.
- Spacing between words is 1-1/2 Times the width of the letter “N” for the series of Font and legend size.
- The spacing between lines of legend – should be approximately 60-75% of the legend size. i.e. 10 legend would have a 6-7” space between lines. 4” legend would be 2-1/2” to 3”. Divide out the space available for all lines of legend and equalize the spacing. This includes using the same spacing between border and the first or last line of legend. Use even spacing, even if you have two different fonts or legend sizes on the sign face.

NON-INTERSTATE -- DIRECTIONAL ARROW PLACEMENT

- Straight Ahead Arrows are first priority and should be placed on the top left corner aligned with the corresponding legend.
- Oblique Arrows will take second priority, placed right or left side aligned with corresponding legend.
- RT or LT arrows will take third priority, aligned with corresponding legend.
- Down Oblique Arrows take last priority and should be placed at the bottom of the sign.
- Two or more arrows on the same side to be aligned with each other.
- When two or more arrows are used, the top arrow shown on the sign shall be either the Straight Ahead Arrow or the Left Arrow, the Right Arrow always takes second priority.
- One arrow should be used to designate the direction when more than one destination is shown per direction. Center the arrow on the lines of legend.

NON- INTERSTATE -- SHIELDS:

- Shield Spacing - Multiple shields are centered horizontally, with equal spacing to the outside of and between all shields. Single shields are centered on the sign.
- Multiple Shield Placement – Individual shields to be placed on the upper corner of the sign on the same side as the lanes which are being designated.
- Shield Placement Priority – Interstate #1, US Route #2, State Route #3 (Includes Bus. Loops and Spurs.)

Note: Start on Left w/highest Priority Shield when Multiple Shields are used.

NON-INTERSTATE -- CARDINAL DIRECTION LEGEND AND PLACEMENT:

- Uppercase Legend, Beginning capital letter 10% larger than the rest of the word rounded up to the nearest inch.
i.e. 10% x 6" = 6.6" rounded up is a 7" First letter. N(7") ORTH(6") Bottom aligned legend.
- Cardinal Direction is top aligned with shield, placed to right of shield normally.
- Mainline route splits will require the Cardinal Direction Legend to be aligned with the outside upper corner of the route shields for each of the continuing routes on the side that the lanes depart.
- The beginning of a route or continuation of a mainline route with departure lanes requires the cardinal direction legend to be aligned with the outer/top corner of the departing route shield, on the side that the lanes are departing to.
- If a cardinal direction is shown for a route that continues straight ahead when other lanes are departing, the cardinal direction legend should be centered above the route shield.

NON-INTERSTATE -- BORDER and MARGIN (Positive Contrast – White on Black, Blue, Brown, Green or Red)

- 18” or smaller in either dimension (width or height) uses 3/8” Border, No Indent.
 - **EXCEPTION: D3 and D3A use 5/8” Border**
- 24” up to 30” in either dimension (width or height) uses 5/8” Border, No Indent.
- 36” up to 42” in either dimension (width or height) uses 3/4” Border, No Indent.
- 48” or larger (width or height) with the second dimension under 48” use – 3/4” border, No Indent.
- 48” or larger sign in both dimensions (width and height) - 1” border, No Indent.

NON-INTERSTATE -- BORDER and MARGIN (Negative contrast – Black, Green or Red on White, Yellow, FYG or Orange)

- 18” or smaller in either dimension (width or height) -- 3/8” border with 3/8” indent.
- 24” up to 30” in either dimension (width or height) -- 5/8” border with 3/8” indent.
- 36” up to 42” in either dimension (width or height) – 3/4” border with 1/2” indent.
- 48” or larger (width or height) with the second dimension under 48” use – 3/4” border with 1/2” indent.
- 48” or larger sign in both dimensions (width and height) - 1” border with 3/4” indent.

NON-INTERSTATE -- BORDER RADIUS:

- 1-1/2” Radius when using 3/4” or smaller border.
- 3” Radius when using 1” border.

NON-INTERSTATE – POST, MASTARM or STRUCTURE MOUNTED (See examples)

- D-3 Post Mounted One Line Sign - Size 12”
 - 6” B Legend (Road Name), 4” C (Directional or Designation Text), Legend
- D-3A Mastarm or Structure Mounted One Line Sign - Size 18”
 - 10” B Legend (Road Name), 6” C (Directional or Designation Text), Legend
- D-3A Mastarm or Structure Mounted Two Line Sign - Size 30”
 - 8” B Legend (Road Name), 6” C (Directional or Designation Text), Legend
- All Legend is UPPER/LOWER Case.
- No periods used.
- All must use a 5/8” border.
- Radius is 1-1/2”.
- Width is variable in full inch increments.
- All Legend or numerals are bottom aligned.

- Any Legend or numeral placement starts 5" in from panel edge.
- Alphabetic street names. i.e. Third Street should be shown as Third (6") St (4").
- Numeric street names. i.e. 3rd Street should be shown as 3rd (6")^(4") St (4"). See examples.
- Directional Legend should all be by first character only. i.e. N for North, W for West.
 - Directional Letter is to be placed in front of Street/Road Name ONLY. See example.

Note: SignCAD Users, Set Size Increment to "2" to design D3 or D3A signs.

Use fonts as shown, but "B" Font may be changed to "C" font for name if it is composed of 9 or less characters.

If street name sign is used with E-3 Arrow "B" Font may be changed to "C" Font if the name is composed of 5 or less characters.

D-3 Post Mounted - One Line Alphabetic Street/Road Name Sign

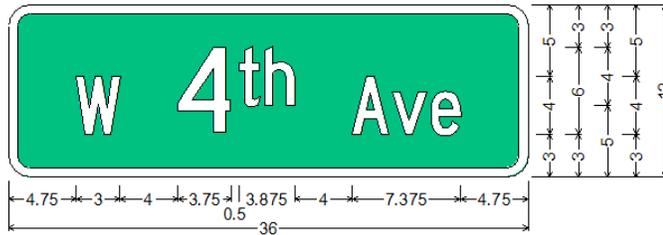


D3_VARx12;
 1.500" Radius, 0.625" Border, White on Green;
 "W" C 2K; "Barrera" C 2K; "Rd" C 2K;

Table of widths and spaces.

3.125	W	3.000																		
6.000	B	3.375	0.625	A	2.875	1.000	r	2.000	0.625	r	2.000	0.500	E	3.000	0.750	r	2.000	0.375	A	2.875
6.000	R	2.250	0.500	D	2.000	3.125														

D-3 Post Mounted - One Line Numeric Street/Road Name Sign

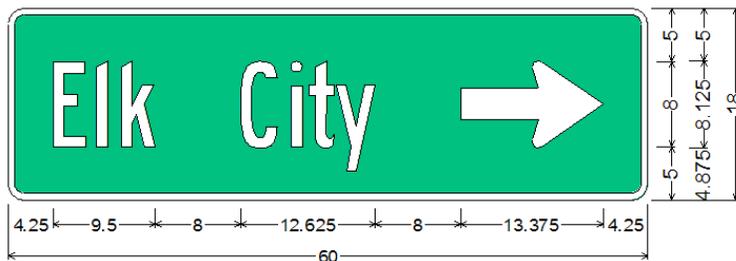


D3_VARx12; 1.500" Radius, 0.625" Border, White on Green;
 "W" C 2K; "4th" C 2K; "Ave" C 2K;

Table of widths and spaces.

4.750	W	3.000	4.000	A	3.750	0.500	t	1.375	0.375	h	2.125
4.000	A	2.500	0.250	V	2.375	0.250	B	2.000	4.750		

D-3A Mastarm Mounted w-Arrow - One Line Sign



D3A_VARX18_Mastarm Mounted w-Arrow;
 1.500" Radius, 0.625" Border, White on Green;
 "Elk City" B 2K; Standard Arrow Custom 13.375" X 8.125" 0°;

Table of widths and spaces.

4.250	E	3.000	1.000	l	1.000	1.375	k	3.125										
8.000	C	3.500	1.250	i	1.000	0.750	t	2.375	0.125	y	3.625	8.000	↳	13.375	4.250			

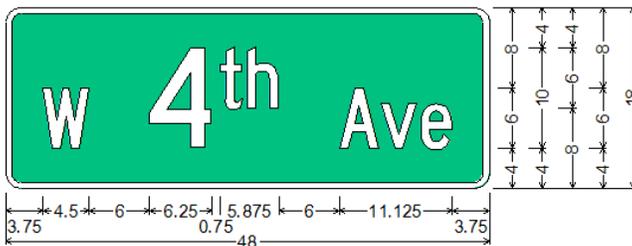
D-3A Mastarm or Structure Mounted - One Line Alphabetic Street/Road Name Sign



D3A_VARx18_Mastarm Mounted;
 1.500" Radius, 0.625" Border, White on Green;
 "W" C 2K; "Barrera" B 2K; "Rd" C 2K;
 Table of widths and spaces.

3.750	W	4.500												
6.000	B	4.375	0.750	3.750	1.500	2.625	1.000	2.500	0.750	3.750	1.000	2.625	0.500	3.750
6.000	R	3.375	0.750	d	3.000	3.750								

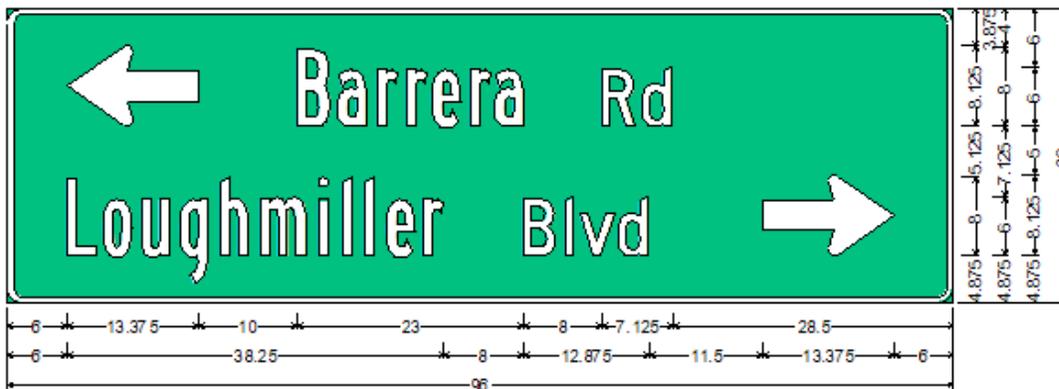
D-3A Mastarm or Structure Mounted - One Line Numeric Street/Road Name Sign



D3_VARx18_Mastarm Mounted Number Streets;
 1.500" Radius, 0.625" Border, White on Green;
 "W" C 2K; "4th" C 2K; "Ave" C 2K;
 Table of widths and spaces.

3.750	W	4.500	6.000	4	6.250	0.750	t	2.125	0.625	3.125				
6.000	A	3.750	0.375	v	3.500	0.500	b	3.000	3.750					

D-3A Mastarm Mounted - Two Line Sign



D3A_VARx30_2 DEST w-Arrows; 1.500" Radius, 0.625" Border, White on Green;
 Standard Arrow Custom 0.000" X 8.125" 180°; "Barrera" B 2K; "Rd" C 2K; "Loughmiller" B 2K; "Blvd" C 2K;
 Standard Arrow Custom 0.000" X 8.125" 0°;
 Table of widths and spaces.

6.000	↔	13.375	10.000	B	3.375	0.625	3.000	1.250	2.000	0.875	2.000	0.625	e	3.000	0.875	2.000	0.375	3.000												
8.000	R	3.375	0.750	d	3.000	28.500																								
6.000	L	3.000	0.625	s	3.000	1.000	2.875	1.000	e	2.875	1.250	2.875	1.250	n	4.750	1.125	i	1.125	1.250	l	1.000	1.250	l	1.125	1.000	e	3.000	0.875	r	2.000
8.000	B	3.375	0.875	l	0.875	0.625	v	3.625	0.500	d	3.000	11.500	↔	13.375	6.000															

TOURIST ORIENTED DIRECTIONAL SIGN (TODS) SIGN LAYOUT SPECIFICATIONS

- Maximum Allowable Text Per Line**

NO SYMBOLS = MAX 18 CHARACTERS PER LINE
 1-2 SYMBOLS = MAX 15 CHARACTERS PER LINE
 3-4 SYMBOLS = MAX 12 CHARACTERS PER LINE

- Text includes spaces between words and numbers.
- Mileage and arrows normally take place of a symbol or can be used on a line of their own with the mileage spelled out.

	A		R	I	V	E	R		R	U	N	S		B	Y		I	T	
							L	O	D	G	E								
		←			2		3	/	4			M	I	L	E	S			

Above sample has **NO SYMBOLS**

S	B	R	U	N	E	A	U		C	A	N	Y	O	N				
			R	V			R	E	S	O	R	T						
	←		1		1	/	2		M	I	L	E	S					

Above sample can have **1 OR 2 SYMBOLS** on the same side of sign

S	G	R	A	N	D		W	I	N	E	R	Y		S
				O	N		T	H	E					
	G	R	A	S	S		K	N	O	L	L			

Above sample can have **3 OR 4 SYMBOLS** on both sides of sign.

NOTE: Above “S” is representative of symbols either singular or dual.

- The maximum amount of 6" text copy on a 72"x12", 24" or 30" TODS sign without any symbols is 18 characters PER LINE which includes alphabetical text, numerals, spaces and mileage if listed with a combination of text and numerals. i.e. 4 Miles.
- When using a fractional mileage, i.e. 1 ½ miles, the fractional legend should be 2 inches smaller than the main mileage legend.
- When an E-3 directional arrow is used in the symbol position, the shaft length must be shortened to give an overall length not to exceed 9.5 inches. This will allow for ¾" indent from each border.
- If an E-3 directional arrow is added to the sign, the maximum allowable text is reduced to 15 characters. ←--- xxxxxxxxxxxxxxxx The arrow is not charged to the applicant as a symbol, but takes place of a symbol on the line of text.
- If only one symbol is used, the maximum number of text allowable would be the same as using the E-3 directional arrow (15 characters). **S xxxxxxxxxxxxxxxx**
- If two symbols are used, 15 characters will be the maximum allowable text per line. **S xxxxxxxxxxxxxxxx S** (Keep in mind this could be one symbol and an E-3 arrow)

TODS TRAILBLAZER SIGNS

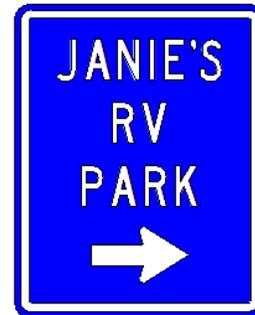
30" X 18"



30" X 18"



18" X 30"



TODS MAINLINE SIGNS

72" X 12"



72" X 12"



72" X 24"



72" X 24"



72" X 30"



72" X 30"



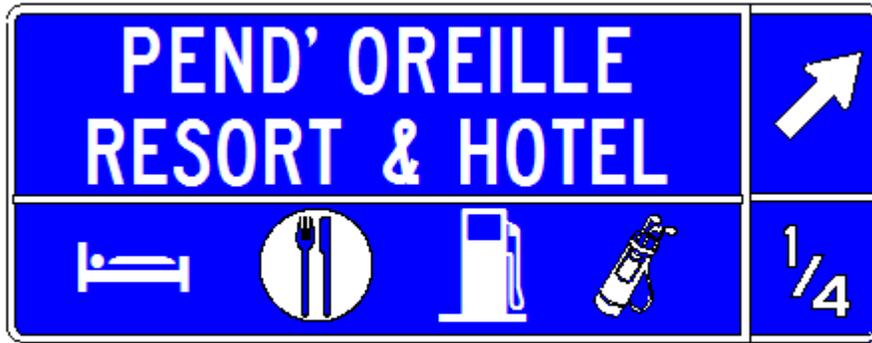
78" X 30"



78" X 30"



78" X 30"



D9-1101 D9-901 D9-701 D9-1401
545002051 545002041 545002021 545002081

