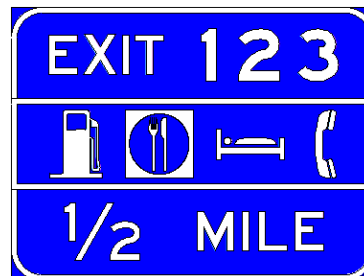


IDAHO TRANSPORTATION DEPARTMENT



2009 SIGN DESIGN MANUAL

INDEX

ITD Contact Information	3
I. ITD STANDARD SIGN DESIGN SOFTWARE	
1. SignCAD Settings	4
2. General Rules	4
A. Sign Categories	4
B. Standard Highway Font Series	4
C. Spacing (Letters and Words)	4
D. Sign Sheetings	4
II. INTERSTATE SIGN LAYOUT SPECIFICATIONS	
1. General Rules	5
2. Directional Arrow Placement	5
3. Interstate Shields	5
4. Interstate Cardinal Direction Legend and Placement	5
5. Interstate Upper and Lower Case Legend	6
6. Interstate – Border & Margin: (Positive Contrast)	6
7. Interstate – Border & Margin: (Negative Contrast)	6
8. Interstate – Border & Margin: (Comb. Pos. & Neg. Contrast)	6
9. Interstate – Border Radius	6
10. Interstate – Mastarm or Structure Mounted Signs	6
11. Interstate – Mastarm or Structure Mounted Signs (Cont'd)	7
III. NON-INTERSTATE SIGN LAYOUT SPECIFICATIONS	
1. General Rules	8
2. Directional Arrow Placement	8
3. Non-Interstate Shields	8
4. Non-Interstate Cardinal Direction Legend and Placement	8
5. Non-Interstate – Border & Margin: (Positive Contrast)	8
6. Non-Interstate – Border & Margin: (Negative Contrast)	8
7. Non-Interstate – Border Radius	9
10. Non-Interstate – Mastarm or Structure Mounted Signs	9
11. Non-Interstate – Mastarm or Structure Mounted Signs (Cont'd)	10
IV. TOURIST ORIENTED DIRECTIONAL SIGN LAYOUT SPECIFICATIONS	
1. Maximum Allowable Text Per Line	11
2. Maximum Allowable Text Per Line (Cont'd)	12
3. Trailblazers	12
4. Symbols	12

CONTACT INFORMATION
for
SIGN DESIGN

Headquarters: Idaho Transportation Department
P O Box 7129 (3311 W State St)
Boise, ID 83707-1129

Steve C. Holland, Sign Coordinator
(208) 334-8565
steve.holland@itd.idaho.gov

Central Sign Shop: Idaho Transportation Department
Central Sign Shop
P O Box 8028
Boise, ID 83707-2028

Sign Shop Physical Address:
8150 Chinden Blvd, then to 2nd Gate North on Coffee St. from Chinden
Blvd.

Brett Purvis, Sign Shop Supervisor
(208) 334-8372 Office (208) 863-2679 Cell
brett.purvis@itd.idaho.gov

Ron Loughmiller, Interstate Signs
(208) 334-8904 Office
ron.loughmiller@itd.idaho.gov

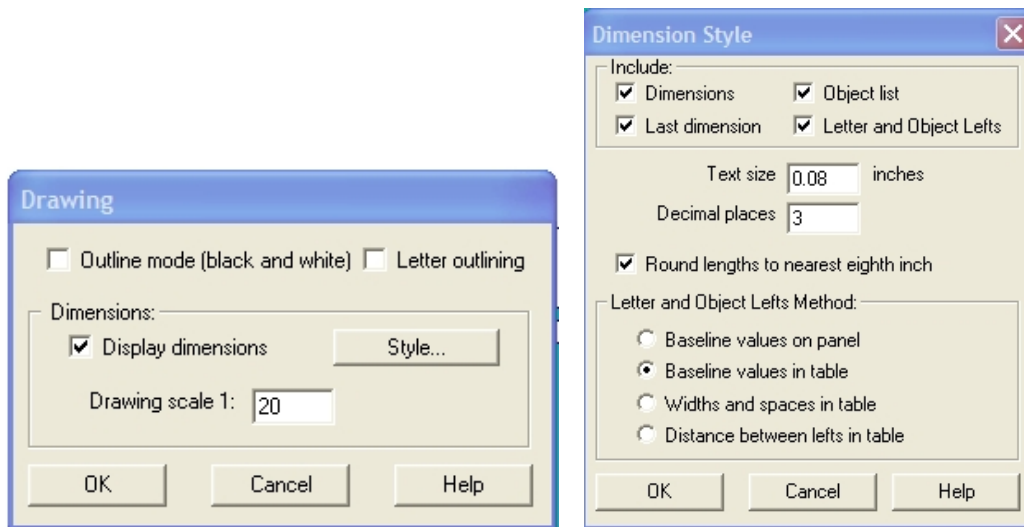
Dan Barrera, Non-Interstate Signs
(208) 334-8904 Office
dan.barrera@itd.idaho.gov

Mike McGuire, Historical Markers
(208) 334-8373 Office
mike.mcquire@itd.idaho.gov

Paul Hart, Digital Printing
(208) 334-8905 Office
paul.hart@itd.idaho.gov

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 $\frac{1}{4}$ 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:

- 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.

SPACING (Letters and Words):

- Interstate -- Retain 100% default spacing on all new sign designs. Should not be adjusted below 80% when designing a replacement sign to fit an existing installation.
- Non-Interstate – Retain 100% default spacing, should not be adjusted below 70% spacing.

SIGN SHEETINGS:

- All background sheeting uses TYPE IV High Intensity Grade Prismatic Reflective, except on Digitally Printed signs which require TYPE II, Super Engineer Grade or TYPE III, Hi-Intensity.
- All Borders, Legend and Numbers are TYPE IV micro-prismatic sheeting on Non-Interstate Signs and TYPE IX micro-prismatic sheeting on Interstate Signs.

INTERSTATE SIGN LAYOUT SPECIFICATIONS

INTERSTATE -- GENERAL RULES:

- Sign width and height is to be rounded to nearest one foot (1') increment, unless making a replacement sign which must match the sign being replaced.
- Spacing between lines of legend is minimum of ½ the letter height.
- General rule for borders and corners is to match the letter stroke width.
- Separation bars should match the border width when used.
- Gore Signs – legend uppercase 12" EM – numbers are 18" EM.
- Exit Panels – legend uppercase 12" EM – numbers are 18" EM.
- Mainline Guide Signs – main legend upper & lower case 16" EM – distance number 15" EM, mile legend 10" EM.
- Exit Panels must use the same border as the Mainline Guide Panel.
- Destination Panel – legend & numbers upper and lower case - 8" EM.
- Ramp Guide Signs – legend upper & lower case 8" EM.
- 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. 8" upper lower for us and 8" upper and 6" lower for 3M) ITD uses only the two sizes of 13-1/3" and 8" for supplemental signs.
- Logo Panels – legend uppercase (mainline) 10" EM, legend uppercase (ramps) 6" EM.

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.
- 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 Green, Blue or Brown)

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

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

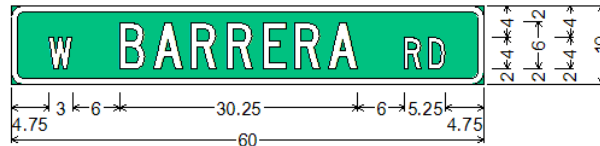
- 6" Radius for 1" Border.
- 9" Radius for 2" Border.

INTERSTATE -- MASTARM or STRUCTURE MOUNTED (See examples)

- D3 Mastarm One Line Sign – 10" Blade
- D3A Mastarm Two Line Sign - 24" Blade
- D3 and D3A both with Uppercase Legend, 6" Legend (Road Name), 4" (Directional or Designation Text).
- D3B Structure Mounted One Line Sign – 24", Upper and Lower Case Legend, 10" Legend (Road Name), 6" (Directional or Designation Text).
- All "C" Series Font, If needed can use B Series.
- No periods used.
- All use a border with no indent.
- 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.
- 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 "0" to design Mastarm or Structure sign.

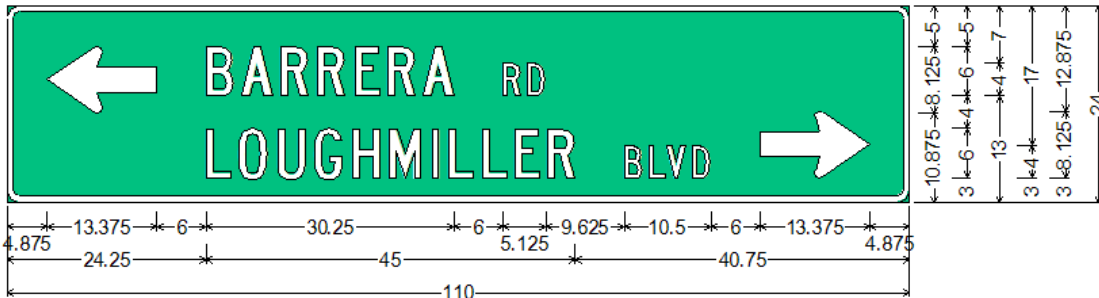
D-3A Mastarm Mounted (Interstate) – One Line Sign



1.500" Radius, 0.750" Border, White on Green;
 "W" C; "BARRERA" C; "RD" C;
 Table of letter and object lefts.

W							
4.750							
B	A	R	R	E	R	A	
13.750	18.125	22.875	27.375	31.875	36.000	40.250	
R	D						
50.000	53.000						

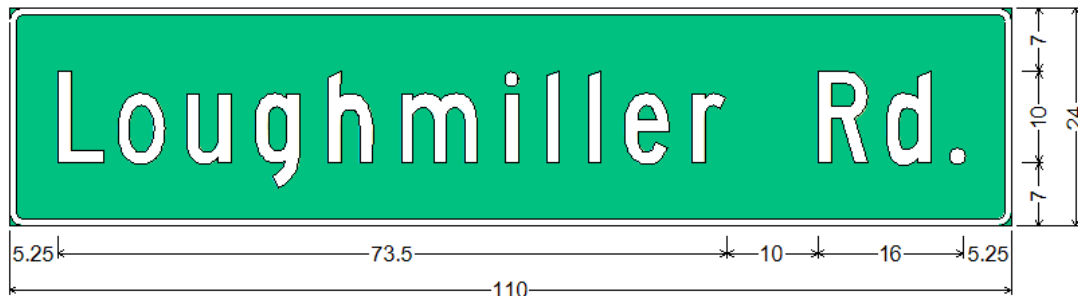
D-3A Mastarm Mounted (Interstate) – Two Line Sign



1.500" Radius, 0.750" Border, White on Green;
 Standard Arrow Custom 13.375" X 8.125" 180°; "BARRERA" C; "RD" C; "LOUGHMILLER" C;
 "BLVD" C; Standard Arrow Custom 13.375" X 8.125" 0°;
 Table of letter and object lefts.

←	B	A	R	R	E	R	A	R	D
4.875	24.250	28.500	33.250	37.875	42.375	46.375	50.750	60.500	63.500
	B	L	V	D	⇒				
	75.250	78.250	80.500	83.625	91.750				
L	o	u	g	h	m	i	l	e	r
24.250	28.250	33.000	37.500	42.125	46.625	51.750	53.875	57.875	61.875

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



1.500" Radius, 0.750" Border, White on Green;
 "Loughmiller" C; "Rd." C;
 Table of letter and object lefts.

L	o	u	g	h	m	i	l	e	r
5.250	12.000	19.625	27.000	35.000	43.125	54.500	59.000	63.625	67.500
R	d	.							
88.750	96.250	103.250							

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.
- All dimensions measured from the panel edge.
- All signs are UPPERCASE LEGEND, with the exception of Cardinal Directions all legend should be of the same size and series on the same line.
- 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.
- 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.

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.
- 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 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:

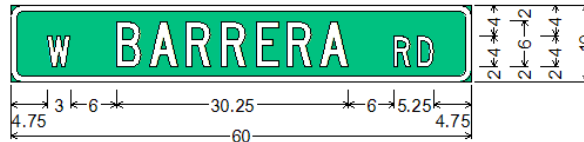
- 1-1/2” Radius when using 3/4” or smaller border.
- 3” Radius when using 1” border.

NON-INTERSTATE -- MASTARM or STRUCTURE MOUNTED (See examples)

- D-3 Mastarm One Line Sign - Size 10”
- D-3A Mastarm Two Line Sign - Size 16”
- D-3 Structure Mounted One Line Sign - Size 10”
- 6” Legend (Road Name), 4” (Directional or Designation Text), Legend C Series Font, If needed can use B Series.
- All Legend is UPPERCASE.
- No periods used.
- All must use a 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”) ST (4”).
- Directional Legend should all be by first character only. i.e. N for North, W for West.

Note: SignCAD Users, Set Size Increment to “0” to design Mastarm or Structure sign.

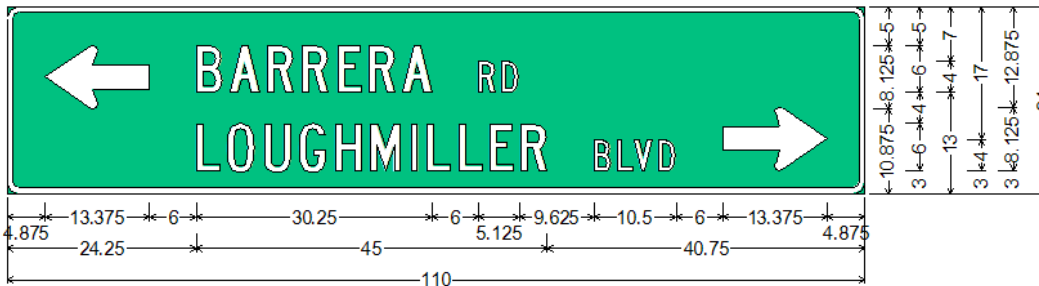
D-3 Mastarm Mounted (Non-Interstate) - One Line Sign



1.500" Radius, 0.750" Border, White on Green;
 "W" C; "BARRERA" C; "RD" C;
 Table of letter and object lefts.

W						
4.750						
B	A	R	R	E	R	A
13.750	18.125	22.875	27.375	31.875	36.000	40.250
R	D					
50.000	53.000					

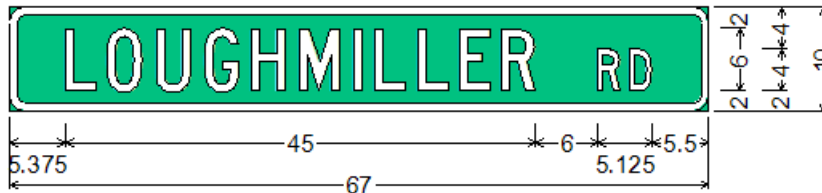
D-3A Mastarm Mounted (Non-Interstate) - Two Line Sign



1.500" Radius, 0.750" Border, White on Green;
 Standard Arrow Custom 13.375" X 8.125" 180°; "BARRERA" C; "RD" C; "LOUGHMILLER" C;
 "BLVD" C; Standard Arrow Custom 13.375" X 8.125" 0°;
 Table of letter and object lefts.

←	B	A	R	R	E	R	A	R	D		
4.875	24.250	28.500	33.250	37.875	42.375	46.375	50.750	60.500	63.500		
	L	V	D	⇒							
	75.250	78.250	80.500	83.625	91.750						
L	O	U	G	H	M	I	L	L	E	R	
24.250	28.250	33.000	37.500	42.125	46.625	51.750	53.875	57.875	61.875	65.875	

D-3 Structure Mounted (Non-Interstate) - One Line Sign



1.500" Radius, 0.750" Border, White on Green;
 "LOUGHMILLER" C; "RD" C;
 Table of letter and object lefts.

L	O	U	G	H	M	I	L	L	E	R
5.375	9.375	14.125	18.625	23.250	27.750	32.875	35.000	39.000	43.000	47.000
R	D									
56.375	59.375									

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 ¼" 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 xxxxxxxxxxxxxx S (Keep in mind this could be one symbol and an E-3 arrow)
- Arrow and/or mileage, or additional legend can be added on a third line making the sign 72"x30". This is usually done when a facility offers too many services represented by a symbol or when 3 lines of text are required to make the facility name understandable.

S xxxxxxxxxxxxxx S
xxxxxxxxxxxxx
S <--- 2 miles S

- When stacked symbols are used on a 24 inch height sign the dividing border line should be at 12" O.C. When used on a 30 inch height sign the dividing border line should be placed at 15" O.C. Symbols should be centered in the box created by the border. (See examples below)
- As can be seen in the following example, a way to shorten text may be to use a symbol to represent part of the text that the business has requested.

i.e. Challis Hot Springs and Campground can be shortened to Challis Hot Springs and a symbol can be used for Campground. This will save the applicant money and make a smaller sign.

CHALLIS HOT SPRINGS

Note: The length of text per line now allows for the campground symbol to be added to either upper corner and only requires a 2 line sign instead of a 3 line. This would also free up a 3rd line of text to show mileage with an arrow.

As can be seen by the above TODS sign examples, many variations are available within the guidelines of the TODS signing program. TODS signs will all be built by the ITD Central Sign Shop, but replacement signs may be required for certain highway projects. Please use these guidelines to fabricate any replacement signs. All changes to an existing sign must be approved by ITD prior to their fabrication. The ITD TODS representative will discuss appropriate abbreviations or changes in the sign with the business owner prior to fabrication of any replacement sign. If you wish additional help or information when laying out a sign you may call the fabricator of Non-Interstate signs at the ITD Sign Shop.

TRAILBLAZER SIGNS

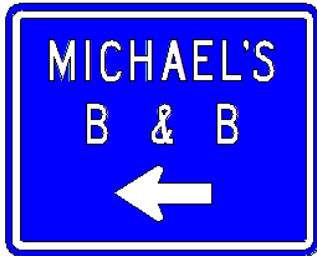
Trailblazer signs may resemble the example shown below or be signs provided by the owner of a facility. Many variations may be used to make the text fit the sign size. All trailblazer signs must be approved by ITD prior to approval of any TODS signs on the Idaho State Highway System to make sure that adequate direction is given to the motorist.

SYMBOLS

Symbols on TODS signs are required to be approved MUTCD symbols, White on Blue and are ONLY allowed for the services that the facility owns and provides. Public services such as a Boat Ramp are required to be White on Brown symbols and are to be placed on their own separate sign post or sign assembly.

TODS TRAILBLAZER SIGNS

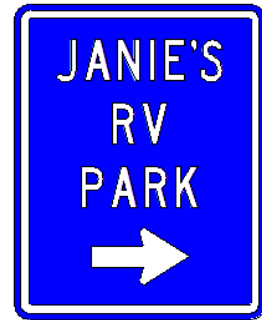
30" X 18"



30" X 18"



18" X 30"



TODS MAINLINE SIGNS

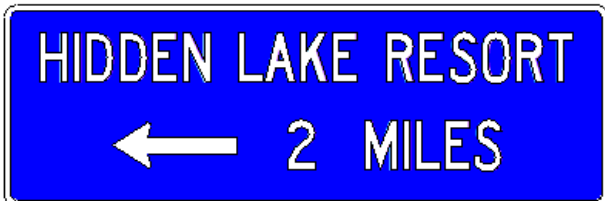
72" X 12"



72" X 12"



72" X 24"



72" X 24"



72" X 30"



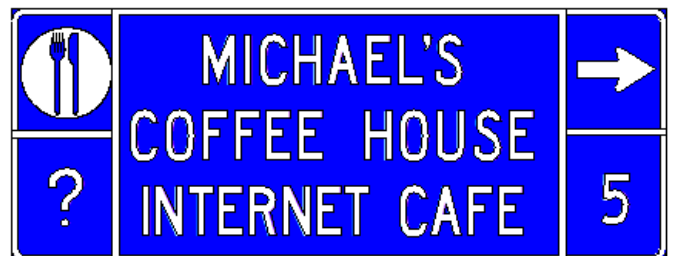
72" X 30"



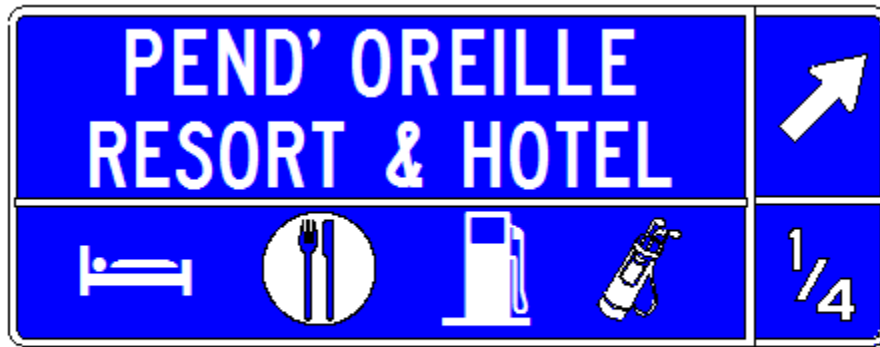
78" X 30"



78" X 30"



78" X 30"



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

