

Electric signs in the commercial shop

In this new series, Merv McIntyre takes a “hands-on” look at selling, designing and producing illuminated signs

By Merv McIntyre

Knowing the codes and becoming licensed will put you a quantum leap in front of other shops.

The changing nature of the sign industry has many established sign shop operators looking for new markets. One market that can be a profitable supplement to the normal flow of commercial sign work, if approached properly, is making and installing illuminated signs. In most cases, this can be accomplished with the equipment the full-service commercial shop now uses every day, provided the operator takes the time to learn the basics of electric sign construction and safe installation methods, and develops a knowledge of sign codes and land zoning. This will

not be difficult if you have a source of up-to-date, easy-to-understand information with simple graphics—in other words, a basic course in modern illuminated sign principles.

This series of five articles is intended to provide the basics of illuminated signs as

used today. The most recent book dealing with electric signs in the commercial shop that I am aware of was published in the late 1950s. The last handbook covering illuminated plastic signs was copyrighted in 1961 and updated in 1969. Both are out of print. Today, the only way the beginner can learn about electric sign construction is through serving an apprenticeship or by studying trade journals, manufacturers’ literature and suppliers’ catalogs.

The following four articles will cover designing/specifying the electric sign; constructing the electric sign cabinet/faces; illuminating electric signs; and installing the electric sign.

Before we proceed further, a word of caution: don’t even think of selling an illuminated sign before becoming familiar with the sign code and the zoning code that govern the location where the sign is to be installed. Check first with the building department to be sure what type of sign will be allowed at the location in question. Newcomers to electric signs often make their first mistake by selling a sign for which a permit will not be granted.

A permit of some kind is almost always required for the erection of an illuminated sign. Also, most governing bodies, whether a town, city or county, will require that the sign installer be licensed and bonded (that is, have liability insurance) before being allowed to install signs within their jurisdiction. In addition to the installation permit, an electric permit may also be required. Some municipalities and counties may require that all freestanding and roof signs of over a certain size be designed by a registered professional engineer; some also require that all electric signs be approved by a recognized testing laboratory, such as Underwriters Laboratory (UL). This word of caution is not intended to discourage beginners, but to encourage them to become professional electric sign builders and erectors. Knowing the codes and becoming



Figure 1

licensed will put you a quantum leap in front of the others. (For more information about sign codes and permits, see *Understand your local sign codes and permit process* in the Jan/Feb 1991 issue of *SignCraft*.)

The next step on the road to becoming a competent electric sign builder and installer is to establish a relationship with a reliable sign supply distributor who handles a full line of electric and plastic sign materials and equipment. Select the one you can work with best, who is nearby and gives prompt service at a fair price. This will save you a great deal of time. It will also save money on shipping charges, which is becoming a factor worthy of consideration in today's market. Get to know at least one salesperson at the supply house very well, one whom you can call upon for help as needed. Most have toll-free phone numbers. Ask for copies of all the catalogs and manufacturers' literature they can supply you with. This can be your most valuable source of information about illuminated signs. Before quoting prices for major items, always call your supplier for their latest prices and check on availability. Use the Reader Service card in the trade magazines to stay up to date on products and suppliers. Learn electric sign terminology. This will be a great help when talking with suppliers and will be a mark of your professionalism when dealing with prospective customers.

In the beginning, I would advise the newcomer to confine his electric sign building efforts to the use of pre-cut aluminum extrusion kits along with pan-formed plastic or flat-sheet plastic faces. Remember to use the proper width of cabinet for the type of face or faces being used in order to achieve even illumination without shadows.

Types of cabinets and their construction, types of plastics and where to use them, plus proper sign illumination practices will be covered in detail in the third and fourth articles. Methods of installing signs on steel and aluminum supports set in concrete was covered

in the Jul/Aug 1991 issue of *SignCraft*.

Now for our first electric sign. A florist who is a long-time customer calls and asks who we would recommend for an electric sign. They are opening a second store in a highly visible shopping area and want to use the storefront as a means of presenting their name to a greater market than they are able to do at their present location. We explain that we are now making electric signs and set up an appointment to discuss it with them.

The new location for the store is in a small, but very busy, shopping center in the downtown area that caters to the nearby office workers and the many above-average-income apartment dwellers nearby. The storefront sign space, which faces the entrance to the parking area, measures 6 by 24 ft. and is over an 8-ft.-deep canopy covering the walking area between stores. The local sign code allows two square feet of sign area for each linear foot of store frontage. The shopping center criteria specify that all wall signs are to be limited to three feet in height and centered vertically within the space extending from 18 in. above the canopy to the top of the wall and horizontally with the storefront, and that the sign's length cannot exceed 80 percent of the storefront width. This sets a parameter of 48 square feet maximum for the sign area as per sign code and 19 ft. in length maximum to stay within the shopping center criteria. To stay within these limits we propose a 3-by-16-ft. single-faced, illuminated wall sign.

In addition to the requested sign, we will also make a proposal for two neon window signs (one reading *Florist* and one reading *Open*) plus an under-canopy sign for foot traffic. This also must meet the shopping center's guidelines.

Figure 1 shows a full-color sales sketch which includes all our proposed signs for this location. Figure 2 is a construction drawing of the wall sign with complete specifications, including the method of attaching the sign to

A checklist of do's and don'ts

- Survey (check) the location.
- Know your sign code.
- Secure a permit.
- Start with pre-cut kits.
- Make a drawing of the sign, no matter how rough.
- List all materials required before estimating.
- Make friends with a supplier. Use their toll-free number when asking for assistance.
- Make use of the manufacturer's literature.
- Write a proposal, and spell out exactly what you will do.
- Never make a quote before surveying the location.
- Do not promise an unrealistic delivery date.
- Never start a job without something in writing signed by both parties.
- Do not tackle a job you are completely unfamiliar with and have not researched carefully.

—M. McIntyre

the building wall. A secondary drawing of the under-canopy sign shows how to attach the sign to the canopy ceiling. This drawing, along with the sales sketch, serves as the permit drawing. For estimating purposes, always make some type of a construction drawing, no matter how rough, with a list of the required materials. This will lessen the possibility of overlooking something.

Now to estimate the selling price and the

sales contract, begin by listing at cost all the materials shown on the construction drawing (See Figure 3). Mark this up 1.67 percent. This is equal to getting a 40-percent discount on your materials. Now analyze all your labor procedures and determine man hours required for each step to complete the job. Multiply your total man-hour rates by three and add the total to the markedup cost of materials. Now add 10 percent for "what ifs."

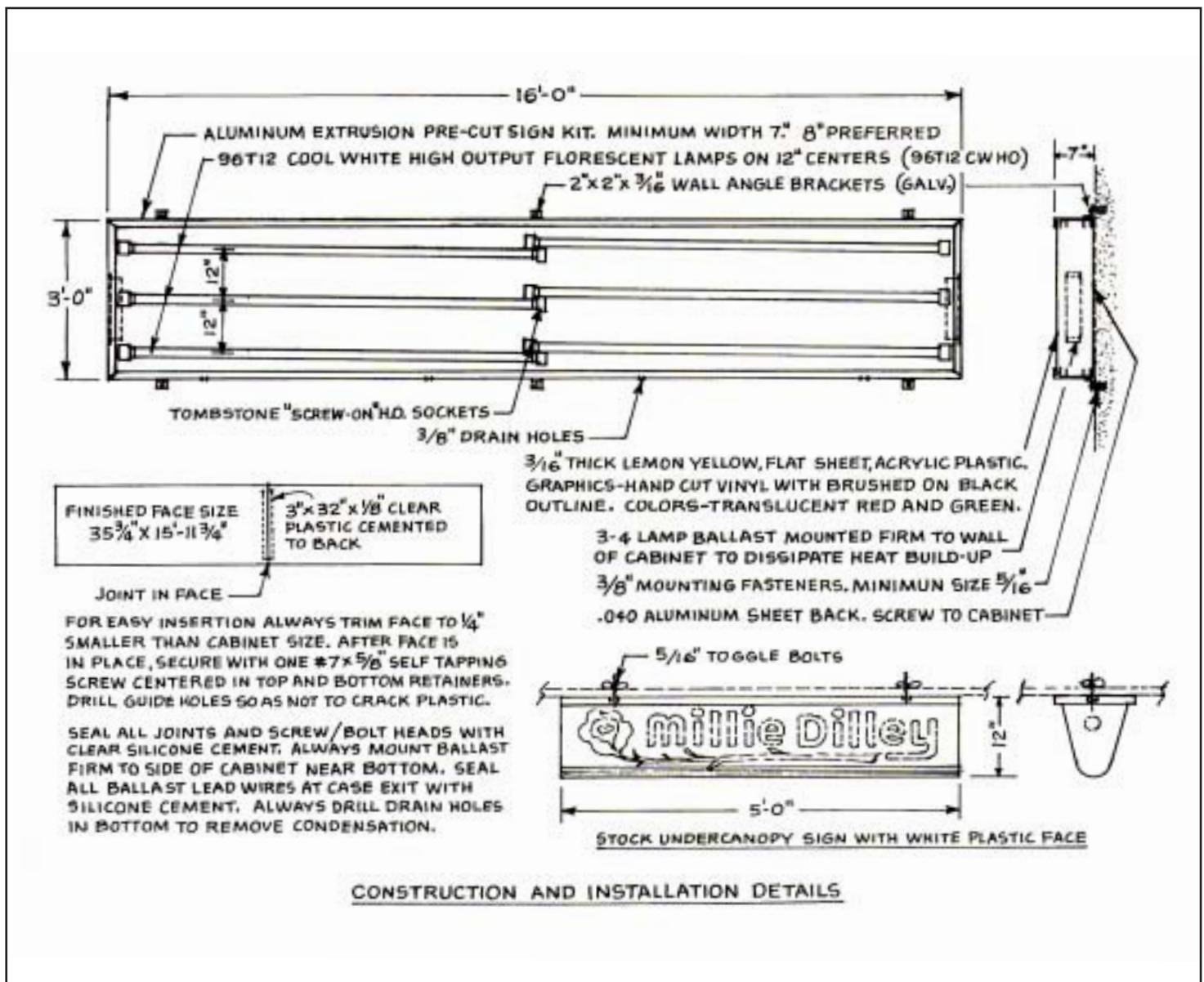


Figure 2

“What if” we forgot something, “what if” it rains the day we are putting the sign up, or whatever. Determine if shipping costs should be absorbed by the markup or added on at extra cost. Include the cost of making permit drawings, but not for making the sales sketch, as this is part of your cost of doing business. Write a firm proposal that will serve as a sales contract. Spell out exactly what you propose to furnish and do. State what will be “extra charges at cost,” such as permit fees, required engineering, if any, and conditions not visible that may add to the cost of installing the sign. That means that any cost to you for these items would be passed along to the customer at actual cost. These should be prepared as standard phrases to be added to all proposals and contracts. Always state that all primary electrical connections are to be made to adequate electrical circuits furnished by others to the sign location. Ask for 50 percent of the known selling price with the contract, with the balance due upon completion of the job. Remember, hard cash will be needed for buying the materials as suppliers today require their money up front or at the time of delivery.

The signs, if built from kits, will require only hand tools to assemble and wire. The faces can be decorated with custom-cut translucent vinyl graphics with brushed opaque outlines, provided that translucent colored plastic is used for the background. At this location, installation can be accomplished with the use of ladders, as most of the work can be done by working from the roof of the canopy. (Always take care to not damage the roof when working on them. Using walk boards on the roof is always a good idea.)

A project such as this is well within reach of the competent commercial sign shop. In the issues that follow, we’ll cover each aspect of producing such a sign. •\$C



Mervin McIntyre’s career in the sign industry spans 49 years as an electric sign designer/engineer, electric sign company manager and commercial sign shop owner-operator.

Estimate Worksheet:

Job name: Milley Dilley

Job description: Single-faced illuminated wall sign 3 by 16 ft. (3-ft.-1-in. by 15-ft.-11-in.) with flat sheet acrylic plastic face decorated with hand-cut vinyl and brushed enamel graphics.

Construct from precut aluminum extrusion sign casing kit. 8½ in. deep single-faced satin anodized aluminum extrusion casing kit with 1½- or 2-in. removable retainer, corner connector angles and wiring raceway covers with prepunched holes for end sockets. Net price \$8.70 per perimeter foot plus one time mitering and hardware charge of \$21.50. Extra kit components required: 1 center socket raceway, 3 vertical reinforcing brackets (yokes). Price includes compact cardboard crating. Shipping extra.

Sign Kit Cost:

Casing, 38 ft. @ 8.70	.....	\$ 330.60
Mitering & hardware	.....	.21.50
Socket raceway	.....	.10.00
3-36 yokes @ 13.25	.....	.39 75
Shipping	.....	.50.00
Total	.....	\$ 451.85

x 1.67 (material markup) = \$ 755

Face and Back Cost:

Back, 48 sq. ft. .040 aluminum @ 1.00	.....	\$ 48.00
Face, 48 sq. ft. ¼-in. acrylic. @ 5.16	.....	.247.68
Cutting	.....	.2.88
Crating	.....	.26.40
Shipping	.....	.50.00
Total	.....	\$374.96

x 1.67 (material markup) = \$ 626

Electrical Cost:

2-3 lamp sign ballast @ 52.00	.....	\$104.00
6-tombstone sockets @ 1.76 pr.	.....	.5.28
6-snap-in sockets @ 1.64 pr.	.....	.4.92
6-96T12/HO/CW lamps @ 8.65	.....	.51.90
Total	.....	\$166.10

x 1.67 (material markup) = \$ 277

Assemble, Wire, Install Back and Face:

8 hrs. @ 13.50	\$108.00
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x 3 (labor markup) = \$ 324

Decorate face:

Selling price using

Vinyl Graphics Pricing Guide for hand-cut custom graphics and vinyl letter installation

\$ 328

Brush outlining: 1½ hours @ \$15	\$22.50
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x 3 (labor markup) = 68

Install:

2 men, 6 hours: Journeyman @ \$15/hour, Helper @ \$ 8/hour

Total	\$ 23.00
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x 1.67 (material markup) = \$ 277

6 wall angle brackets @ 1.05 = 6.30 x 1.6510.39
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Miscellaneous bolts, screws, anchors10.00
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Material and labor to install waterproof

disconnect switch in sign casing30.00
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Total	\$464.39
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\$ 464

Sub Total \$2842

Add 10 percent for “what ifs”

284

Total Selling Price: \$3126

Figure 3. Sample worksheet for estimating