

**From:** Terra Fisher [mailto:Terra.Fisher@daktronics.com]  
**Sent:** Friday, January 13, 2012 2:22 PM  
**To:** Landeen Joel  
**Subject:** Comments Regarding Sign Code

Hello Joel,

I hope all is well.

As promised please see my attached suggested changes to Rapid City's proposed ordinance. Additionally attached is a list of codes that we like throughout the nation. I can provide more upon request. However, these are a nice survey.

Thanks,

*Terra Fisher*

Signage Legislation

Daktronics

Work: 605-275-1040 ext 51145

Cell: 605-691-1285

Fax: 605-692-0381

# Daktronics comments on current Rapid City ordinance proposal

We have ordered this document by sections/issues needing addressed. The sections/issues are ordered by importance, rather than by order in which they appear in the proposed ordinance. If you need clarification on any provisions, or if you have any questions, please feel free to contact Terra Fisher at 605-275-1040 ext 51145.

Additionally, we are more than happy to provide a line-item amendment option for your reference, based on either the existing ordinance or the existing proposed ordinance.

## Section 1 On-premise Electronic Message Signs Amendments Thereof

### Overview

The current proposed sign code contains regulations for electronic message center signs (EMCs) are strewn throughout the code. Some regulations are within definitions (please see the definitions section for our rationale as to why regulations shouldn't be inserted into definitions), some are in their own section, some are within the prohibitions, and so on. In order to provide a user-friendly code it is, more often than not, best to have a single section dedicated to regulation of EMCs. This section can be located within a "General Provisions" section, or in its own section solely dedicated to EMCs. We would suggest either option, and simply emphasize that all regulations should be within the same section (aside for non-prescriptive definitions).

### Proposed New Section

A new section should be inserted, either within the general regulations or by itself lining out specific regulations for on-premise electronic message center signs to read as follows:

- A. Electronic message center signs shall be permitted subject to the following limitations:
  1. In **INSERT HEAVY COMMERCIAL AND INDUSTRIAL ZONES** such signs may display animation so long as flashing is prohibited.
  2. In **INSERT LIGHT COMMERCIAL AND MIXED USE ZONES** such signs shall display static images for a period of at least one (1) second before transitioning to another static image. Frame effects are permitted so long as flashing and animation are prohibited.

3. In **INSERT RESIDENTIAL AND PROTECTED ZONES** such signs shall display static images for a period of at least three (3) seconds before instantaneously transitioning to another static image. Animation, flashing and frame effects are prohibited.
4. All electronic message centers shall come equipped with automatic dimming technology that automatically adjusts the sign's brightness in direct correlation with ambient light conditions.
5. No electronic message center shall exceed a brightness level of 0.3 foot candles above ambient light as measured using a foot candle (Lux) meter at a preset distance depending on sign area, measured as follows:

| Area of Sign<br>sq. ft. | Measurement<br>Distance (ft.) |
|-------------------------|-------------------------------|
| 10                      | 32                            |
| 15                      | 39                            |
| 20                      | 45                            |
| 25                      | 50                            |
| 30                      | 55                            |
| 35                      | 59                            |
| 40                      | 63                            |
| 45                      | 67                            |
| 50                      | 71                            |
| 55                      | 74                            |
| 60                      | 77                            |
| 65                      | 81                            |
| 70                      | 84                            |
| 75                      | 87                            |
| 80                      | 89                            |
| 85                      | 92                            |
| 90                      | 95                            |
| 95                      | 97                            |
| 100                     | 100                           |

- a. For signs with an area in square feet other than those specifically listed in the table (i.e., 12 sq. ft, 400 sq. ft, etc.), the measurement distance may be calculated with the following formula: The square root of the product of the sign area and one-hundred.

Example using a 12-square-foot sign:

$$\text{Measurement Distance} = \sqrt{(12 \text{ Sq. Ft.} \times 100)} = 34.6$$

- b. Brightness measurement shall be performed as follows:

- i. At least 30 minutes after sunset or 30 minutes before sunrise, the Building Official shall measure and determine the sign's brightness by aiming a foot-candle meter directly at the sign. The measurement will be taken as close as possible to the prescribed distance from the sign face being measured.
  - ii. After the sign brightness has been determined, the Building Official shall contact the sign owner or the owner's agent to schedule a time to measure and determine the ambient light conditions with the electronic messaging center off or while displaying all black copy. The ambient light reading shall be taken with the same foot-candle meter at the same location used to establish the sign's brightness.
  - iii. Once the two light readings have been determined, the second measurement reading shall be subtracted from the first measurement reading. To be in compliance with this standard, the difference of the two readings shall be 0.3 foot-candles or less.
6. The technology currently being deployed for electronic message center signs is from light emitting diodes (LEDs), but there may be alternate, preferred and superior technology available in the future. Any other technology that operates under the requirements stated above shall not require an ordinance change for approval. Any other technology that is not capable of operating under the requirements stated above shall be prohibited and requires an ordinance change prior to approval.

**Explanation of new electronic message center section:**

- The regulations suggested are based on the understanding that the majority of the Council is in favor of the allowance of animation on on-premise electronic signs. We did note that animation may not be appropriate in all areas, and suggest that the city insert the appropriate districts under the appropriate usage provisions.
- Additionally, the regulations add in specific language for brightness that ensures appropriate brightness levels for all on-premise sign sizes, versus a set measurement distance that would permit smaller on-premise EMCs to be very bright.
- Finally, rather than the provision that was originally written into Section 15.28.050.Q. (see comments in our prohibited signs section), which unintentionally prohibited all internally illuminated signs excepting EMCs, we suggested a provision stating the current technology as LED, and clarifying that so long as any new technology that arises complies with the above provisions that it shall be permitted. This alleviates any need to line out various types of other technology that may or may not be implemented into electronic sign technology, as was attempted to do in Section 15.28.050.Q.

## **Current Proposed Brightness Language**

### **Current Proposed Language:**

#### **15.28.155 Sign brightness.**

Any electronic messaging center sign that is internally illuminated, or sign which displays electronic variable messages through light emitting diodes, liquid crystal display, plasma image display, or any other light-emitting mechanism must be equipped with automatic dimming technology that automatically adjusts the display's brightness based upon ambient light conditions. The brightness level for signs shall not increase by more than 0.3 foot-candles over ambient levels. The brightness measurement process to determine compliance shall be as follows:

1. At least 30 minutes after sunset or 30 minutes before sunrise, the Building Official shall measure and determine the sign's brightness by aiming a foot-candle meter directly at the sign. The measurement will be taken as close as possible to 150 feet from the sign face being measured.
2. After the sign brightness has been determined, the Building Official shall contact the sign owner or the owner's agent to schedule a time to measure and determine the ambient light conditions with the electronic messaging center off or while displaying all black copy. The ambient light reading shall be taken with the same foot-candle meter at the same location used to establish the sign's brightness.
3. Once the two light readings have been determined, the second measurement reading shall be subtracted from the first measurement reading. To be in compliance with this standard, the difference of the two readings shall be 0.3 foot-candles or less.

### **Daktronics Proposed Language:**

- Move to a section containing all regulations for electronic message center signs.

### **Explanation**

- See above rationale for grouping similar regulations with each other.

## **Section 2**

### **Nonconforming Signs**

#### **Overview**

We are aware that the 10-year amortization provision is something that came from the sign code taskforce. However, we would like to remind the city that amortization without payment of just compensation is something that is explicitly prohibited by state statute in South Dakota.

#### **Current Proposal**

##### **15.28.230 Non-conforming signs.**

Any non-conforming sign, including signs which were authorized for a public purpose, must be removed or brought into compliance with this code within 10 years from the date it became non-conforming. Any sign which is deemed to be historically significant, as determined by the Historic Sign Review Committee, is exempt from this provision. Unless otherwise allowed, any non-conforming sign which is moved, relocated, structurally altered, or damaged by more than 50% of the signs value at the time the damage occurs, must be brought in to full compliance with this code. Any non-conforming sign which has not been removed within 10 years or any

existing sign that is structurally altered, and which does not comply with all requirements of this code, shall be deemed unlawful by the Building Official and removed in accordance with § 15.28.040 of the Rapid City Municipal Code.

**15.28.230 Non-conforming signs.**

Any sign existing upon the date of adoption of this code which does not conform to the provisions of this code may remain except for the following:

- A. Any abandoned sign;
- B. Any sign declared unlawful by the Building Official;
- C. Any sign which has been moved, removed, relocated or damaged by more than 50% of the value of the sign at the time of the damage; and
- D. Any sign located on a premises when the use of that premises changes from 1 Standard Industrial Classification (SIC) 2-digit code to another.

**Explanation:**

- We simply suggested that the existing code language be retained and the proposed language be disregarded. If you would like better nonconforming language, we are happy to provide it, but the existing language appears to be sufficient.

## Section 3

### Other Provisions Pertaining to Digital Signs

#### Overview

A section is included in the current draft of the sign code that, we are assuming, is intended to regulate existing nonconforming electronic signs other than any signs conforming to electronic message center provisions (i.e. digital billboards and public purpose signs). We feel that such a provision should be inserted. However, we would suggest it be amended slightly. Additionally, we feel it should follow any section pertaining to on-premise electronic message center signs to assist with user-friendliness.

**Current Proposed Language**

**15.28.156 Existing Digital, LED or video type signage.**

Existing signs, other than electronic messaging centers, displaying variable messages through the use of internal illumination technology or through light emitting diodes, liquid crystal displays, plasma image displays, or any other similar light emitting mechanisms, may only display static messages. Full-motion images, graphics, or video is prohibited. This prohibition includes signs that were previously approved under the public purpose exception of §15.28.080(B)(10) of this code. Static copy may be changed at a minimum interval of 10 seconds.

**Daktronics Proposed Language**

**15.28.156 Existing, nonconforming, digital, automatically changing type signage.**

Signs displaying variable messages by remote or automatic means that were legally permitted at the time of their installation and that are now non-conforming to the provisions of this ordinance shall be permitted to continue subject to Section 15.28.230,

Nonconforming signs, as well as subject to the rules for usage that were in place at the time such signs were permitted.

**Explanation:**

- The only real change we offered is keeping the hold time suggestions in line with regulations existing at the time of permitting that require six seconds (also per state statute). There is no reason for a 10-second hold time when existing billboards are currently operating at a six-second hold time.

## Section 4

### Prohibited Signs Section

The following subsections in Section 15.28.050, Prohibited signs, should be amended to read as follows (please see explanation):

**Current Proposed Language:**

- A. Signs incorporating animated motion, including graphics or pictures or video which are in motion, flashing, blinking, or traveling lights or any other such lighting not providing constant illumination, except electronic message centers as defined in this subject to the regulations herein;

**Daktronics Proposed Language:**

- A. Signs incorporating physical animation, full-motion video, flashing, blinking, or traveling lights or any other such lighting not providing constant illumination, except as specifically permitted within this ordinance;

**Explanation:**

- Since it is our understanding that the Council will vote to permit animation on on-premise EMCs, but also since physical animation (i.e. wind-activated, or mechanically-activated) is currently prohibited, we clarified the prohibition to include physical animation as opposed to the appearance of animation on an EMC.
- Additionally, we suggested taking out the exemption for EMCs and simply stated that such signs shall be prohibited unless explicitly permitted. The words "specifically permitted," ensure someone doesn't try to find a loophole in the EMC language to permit something that is actually prohibited.

**Current Proposed Language:**

- Q. On-premises signs, other than electronic message centers, with internal illumination or displaying electronic variable messages through light emitting diodes, liquid crystal displays, plasma image displays, or any other similar light emitting mechanisms;

**Daktronics Proposed Language:**

Delete subsection Q in its entirety.

**Explanation:**

- First, this provision, if taken literally, prohibits all internally illuminated signs while permitting EMCs. While we would love the chance to have every sign in Rapid become an EMC, that is not realistic, nor is it the intention of the ordinance.
- We suggested taking this out altogether, as we inserted a provision that will take care of this issue into the proposed section pertaining to EMCs. As we understand this provision, you want to ensure that any electronic sign not explicitly permitted is prohibited. In the EMC section, we have inserted a provision stating that future technology is permitted, so long as it can comply with all applicable standards of the ordinance. If it cannot, it would be prohibited, or an ordinance change would need to be made.

## Section 5

### Exemptions Pertaining to Public Purpose Signs

#### Overview

While it is nice to see the city open to the allowance of publically-owned and/or public purpose signs, such signs should by no means be exempt. Such signs need to follow the same rules as all other signs. Simply because a government entity owns a sign, does not mean that it is above obeying its own laws.

**Current Proposed Language:**

- B. *Exemptions.* The following types of signs and activities are exempt from the provisions of § 15.28.080A.:
10. Signs for a public purpose, as declared by the City Council that may be of any type, number, area, height above grade, or location. The City Council may authorize an electronic message center sign, but not any other internally illuminated digital or video sign which incorporates light emitting diodes, liquid crystal displays, plasma image displays, or any other similar light emitting mechanism. Any request for such a declaration can only be made by a public body exercising governmental authority.

**Daktronics' Proposal**

- Delete the above section in its entirety.

**Explanation:**

- Public purpose signs should be subject to the same regulations as either on or off-premise electronic signs.
- There should be no exceptions for city-owned or operated signs.

## Section 6

### Definitions



The following terms in the definitions section of the proposed ordinance should be amended as follows:

**Current Proposed Definition**

**ANIMATED SIGN.** Any sign which includes action, motion, noise, dust, blast, or vibration, including graphics, symbols, designs, pictures or animated creations produced by digital displays, plasma displays, light emitting diodes, or other similar technology. For purposes of this code, this item does not refer to flashing, electronic messaging centers signs, or indexing signs, all of which are separately defined.

**Daktronics Proposed Definition**

**ANIMATED SIGN.** Any sign which includes action, motion, noise, dust, blast, or vibration, including graphics, symbols, designs, pictures, or animated creations. For purposes of this code, this item does not refer to flashing, which is separately defined.

**Explanation:**

- A good rule of thumb with definitions is to make them as general and broad as possible. Once you decide to include all kinds of possible technology you create room for loopholes with any new technology that may or may not be envisioned yet. Making definitions broad and not naming types of technology, but rather, describing usage of any technology that may or may not have been envisioned yet, ensures all-encompassing regulations, and ensures future technology must adhere to existing rules.

**Current Proposed Definition**

**ELECTRONIC MESSAGE CENTER.** A sign, other than an off-premises sign, which displays an advertising message via an electronic or digital face, such as a digital display, plasma display, or light emitting diode that is capable of being changed by remote or automatic means. An electronic message center shall be allowed to have scrolling messages. Any copy on an electronic messaging center that is not scrolling shall remain static. Static copy on an electronic message center may be changed at a minimum interval of 6 seconds.

**Daktronics Proposed Definition**

**ELECTRONIC MESSAGE CENTER.** An on-premise sign capable of displaying words, symbols, figures or images that can be electronically or mechanically changed by remote or automatic means.

**Explanation:**

- As stated above, it is important to keep terms general and broad in order to encompass all future technology. Lining out possible inclusions (i.e. plasma, digital, LED, etc.) is inviting someone to find a loophole. However, if you keep a definition broad and discuss usage versus type of technology, you avoid possible loopholes and eliminate the need to revise an ordinance down the road should a new technology arise.
- Furthermore, prescribing regulations (i.e. limiting such signs to 6-second hold times) within definitions is never a good idea. The purpose of definitions is to provide clarification for regulations, not to regulate within themselves. As stated in the section pertaining to EMC regulations, such regulations need to be grouped together for user-friendliness.

**Current Proposed Definition**

**FLASHING SIGN.** Any sign which contains an intermittent or flashing light source, or which includes the illusion of intermittent or flashing light by means of varying the intensity or color of the light source. These regulations also apply to externally mounted, intermittent light sources.

**Daktronics Proposed Definition**

**FLASHING SIGN.** Any sign displaying a pattern of changing light illumination where the sign illumination alternates suddenly between fully illuminated and fully non-illuminated for the purpose of drawing attention to the sign. These regulations also apply to externally mounted, intermittent light sources.

**Explanation:**

- This change is simply to clean up the definition and ensure that permitted uses (it is our understanding that animation may be permitted) is not included within the definition of flashing.

**Current Proposed Definition**

**SCROLLING.** The horizontal and/or vertical movement of an advertising message across the face of an electric messaging center sign. Scrolling of advertising messages solely containing text is allowed on an electric messaging center. Scrolling of images, patterns and/or designs, even if the image pattern or design consists of text, is not allowed.

**Daktronics Proposed Definition**

**SCROLLING.** The horizontal and/or vertical movement of an advertising message across the face of an electric messaging center sign.

**Explanation:**

- There is no need to require text only for scrolling. This is especially true if animation is permitted. Additionally, while a weak argument (I think you could easily defend against this), someone may make content claims against a text only requirement.
- Furthermore, enforcement of this would be almost impossible. Is the city going to hire someone to watch every EMC in town and make sure they are only scrolling text? Again, it's easier just to take out the text-only requirement.

## Positive Code Language

### Spokane, WA (Passed Aug 2009)

#### 17C.240.240. Pertaining to All Signs

J. Electronic Message Center signs

Electronic message center signs are permitted subject to the limitations in Table 4:

**Table 4 Electronic Message Center Sign Features**

| Zoning category          | Maximum allowed sign size by zoning designation: freestanding/wall                             | Electronic Message Center sign size  | Hours of operation   | Brightness | Timing  | Content                      | Signs using video display methods permitted? | Flashing |
|--------------------------|--|--|--|------------|---|------------------------------|--|----------|
| CC4                      | wall: 15 sq. ft<br>freestanding: 15 sq. ft.  | Not allowed  |  |            |   |                              |  |          |
| RA, RSF, RTF, RMF, & RHD | residential use: 15 sq. ft.<br>institutional use: wall: 50 sq. ft<br>freestanding: 50 sq. ft.. | not allowed for residential use<br>Not greater than 50% of the allowed sign size for institutional uses. | shall be turned off<br>between the hours of 10 pm and 6 am | [1]        | Shall display static images for not less than 1 second before transitioning to another static image. Transitions may utilize frame effects but flashing signs are prohibited. | on premises advertising only | No   | No       |
| CC1                      | wall: 50 sq. ft<br>freestanding: 50 sq. ft.  | no greater than 50% max total allowed sign area  | not limited  | "          | "   | "                            | "  | "        |
| O,OR,NR, NMU             | wall: 50 sq. ft<br>freestanding: 50 sq. ft.  | no greater than 50% max total allowed sign area  | not limited  | "          | "   | "                            | "  | "        |
| CC2, CB                  | wall: 100 sq. ft<br>freestanding: 75 sq. ft.   | no greater than 50% max total allowed sign area or 48 sq. feet. (the lesser of the two)                  | not limited  | "          | "   | "                            | "  | "        |
| CBD, GC, LI, HI          | wall: 200 sq. ft<br>freestanding: 250 sq. ft.  | "  | not limited  | "          | "   | "                            | 10 sq. ft.                                   | "        |

Notes:

[1] Brightness:

- Electronic message centers in all zones shall come equipped with an automatic dimming, photocell, which automatically adjusts the display's brightness based on ambient light conditions.
- The brightness level in all zones shall not increase by more than 0.3 foot candles (over ambient levels) as measured using a foot candle meter at a pre-set distance.
- Brightness measurement process for electronic message centers shall be as follows:
  - a. At least 30 minutes past sunset, use a foot candle meter to record the ambient light reading for the area. This is done while the electronic message center is off or displaying all black copy.
  - b. The reading should be taken with the meter aimed directly at the electronic message center at the appropriate pre-set distance.
    - i. Measurement distance criteria follows:
      - 0-100 square foot signs to be measured 100 feet from source,
      - 101-350 square foot sign to be measured 150 feet from source,
      - 351-650 square foot sign to be measured 200 feet from source,
      - 651-1000 square foot sign to be measured 250 feet from source.
  - c. Turn on the electronic message center to full white copy and take another reading.
  - d. If the difference between the readings is 0.3 foot candles or less, the brightness is properly adjusted.
- The owners of such signs shall include a signed letter accompanying their permit application, certifying that they will comply with the prescribed brightness limitations set by this ordinance.

<http://www.spokanecity.org/services/documents/smc/>

**Clay County, FL**  
(Passed October 2009)

**Sec. 20.7-3. Definitions.**

*Digital sign* means a sign capable of displaying words, symbols, figures or images that can be electronically or mechanically changed by remote or automatic means; provided, a *digital sign* shall not be construed to be an *animated sign* or an *illuminated sign*

Flashing means a pattern of changing light illumination within or projected onto a sign where the illumination alternates suddenly between fully or partially illuminated to fully or partially non-illuminated.

*Frame effect* means a visual effect on a digital sign applied to a single frame to transition from one message to the next, including but not limited to fading, flying, scrolling, wiping and zooming.

**Sec. 20.7-5. Prohibited signs.**

- (c) Signs that utilize flashing

**Sec. 20.7-29. Neighborhood Commercial, Private Services, Public Ownership, and Multi-family Zoning Districts: BA, BA-1, BA-2, PS-1, PS-2, PS-3, PS-4, PS-5, PO-1, PO-2, PO-3, PO-4, RD, and PUD (Neighborhood Commercial, Private Services and Multi-family).**



- (i) **Digital signs.** Subject to the limitations set forth in this section for permanent freestanding signs, digital signs shall be allowed under the following conditions:
- (1) Digital signs shall display static messages for a period of at least one second.
  - (2) Digital signs may utilize frame effects for the purpose of transitioning from one message to the next.
  - (3) Digital signs shall not utilize flashing.
  - (4) Digital signs shall utilize dimming technology which automatically adjusts the brightness of the sign based on ambient light conditions. Each application for a digital sign permit must include a certificate signed by the contractor that the digital sign will be so equipped. The standard for the brightness adjustment as ambient light intensity declines shall be a maximum increase in light intensity from the digital sign of 0.3 foot candles over ambient levels as measured using a foot candle meter at a pre-set distance in accordance with the following procedure:
    - a. At least 30 minutes past sunset, record the ambient light using a foot candle meter for the area while the sign is off or displaying all black copy, with the meter located directly in front of and aimed directly at the sign at the appropriate distance as follows:
      1. If the sign is 100 square feet in size or less, measure 100 feet from the source;
      2. If the sign is greater than 100 square feet in size, measure 150 feet from the source;
    - b. Turn on the sign to display all white and take another measurement in accordance with the same procedure.
    - c. If the difference between the measurements is 0.3 foot candles or less, the brightness is properly adjusted, otherwise the sign must be adjusted to comply with the brightness adjustment standard set forth above.

**Sec. 20.7-30. Intensive Commercial and Industrial Zoning Districts: BB, BB-1, BB-2, BB-3, BB-4, BB-5, BSC, IA, IB, IS, BP, PCD, PID, and PUD (Intensive Commercial and Industrial).**

- (i) **Digital signs.** Subject to the limitations set forth in this section for permanent freestanding signs, digital signs shall be allowed under the following conditions:
- (1) Digital signs may utilize animations and frame effects to display messages.
  - (2) Digital signs shall not utilize flashing.
  - (3) Digital signs shall utilize dimming technology which automatically adjusts the brightness of the sign based on ambient light conditions. Each application for a digital sign permit must include a certificate signed by the contractor that the digital sign will be so equipped. The standard for the brightness adjustment as ambient light intensity declines shall be a maximum increase in light intensity from the

digital sign of 0.3 foot candles over ambient levels as measured using a foot candle meter at a pre-set distance in accordance with the following procedure:

- a. At least 30 minutes past sunset, record the ambient light using a foot candle meter for the area while the sign is off or displaying all black copy, with the meter located directly in front of and aimed directly at the sign at the appropriate distance as follows:
  1. If the sign is 100 square feet in size or less, measure 100 feet from the source;
  2. If the sign is between 100 and 350 square feet in size, measure 150 feet from the source;
  3. If the sign is 350 square feet in size or greater, measure 200 feet from the source.
- b. Turn on the sign to display all white and take another measurement in accordance with the same procedure.
- c. If the difference between the measurements is 0.3 foot candles or less, the brightness is properly adjusted, otherwise the sign must be adjusted to comply with the brightness adjustment standard set forth above.

<http://library.municode.com/index.aspx?clientID=10559&stateID=9&statename=Florida>

## Oklahoma City, OK (Passed Dec 2009)

### §3-82. Definitions

- (16.1) **Electronic Message Display** means a sign capable of displaying words, symbols, figures or images that can be electronically or mechanically changed by remote or automatic means. These signs are further defined into the following categories:

**Level 1: (Static and /or Static with Fade and/or Dissolve Transitions) Electronic Message Display** - an electronic message display complying with the following standards:

Operational Limitations. Such displays shall contain static messages, changed through dissolve or fade transitions, or with the use of other subtle transitions and frame effects that do not have the appearance of moving text or images, but which shall otherwise not have movement, or the appearance or optical illusion of movement, of any part of the sign structure, design, or pictorial segment of the sign, including the movement of any illumination or the flashing or varying of light intensity. Minimum Display Time: Each message on the sign must be displayed for a minimum of eight seconds.

**Level 2: (Travel/Scroll Transitions and without Animations) Electronic Message Display** - an electronic message display complying with the following standards:

Operational Limitations. Such displays shall be limited to static displays, messages that appear or disappear from the display through dissolve, fade, travel or scroll modes, or similar transitions and frame effects that have text, graphics or images that appear to move or change in size, or be revealed sequentially rather than all at once.

**Level 3: (Video/Animation) Electronic Message Display** - A sign capable of displaying words, symbols, figures or images that can be electronically or mechanically changed by remote or automatic means, including animated graphics and video.

- a. Operational Limitations. Such displays may include any level 1-2 type displays, as well as animated graphics and full motion video.
- b. Display time. There shall be no minimum or maximum message duration.

**§ 3-102. Accessory signs regulated by zoning districts**

**(c) Standards for commercial and industrial zoning districts (other than O-1, O-2, and C-1).**

- (7) Electronic Message Displays. Electronic Message Displays (EMD) shall be allowed subject to the limitations as follows:
  - a. Level 1 EMD shall be permitted subject to the same regulations as static display signs listed in this section.
  - b. Level 2 EMD shall be permitted up to 350 square feet of the total allowable sign area.
  - c. Level 3 EMD shall be permitted up to 350 square feet of the total allowable sign area.

**Sioux Falls, SD (Passed in 2007)**

Sioux Falls allows almost any usage other than flashing. However, in residential areas EMCs require a conditional use permit.

**On-Premise 15.57.070 Illumination.**

Regulations regarding the illumination of signs shall be as follows:

- (a) *Shading:* The light from any illuminated sign shall be so shielded, shaded or directed so that the light intensity shall not adversely affect surrounding or facing premises or safe vision of operators of vehicles on public or private roads.
- (b) *Electronic message sign:*
  - (1) Electronic message sign displays shall be limited to displays, which are gradual movements, including, but not limited to, dissolve, fade, scrolling, or traveling. However, sudden movement is prohibited, including, but not limited to, blinking and flashing.
  - (2) All electronic message signs in a residential zoning district shall require a conditional use permit.
  - (3) Any permitted signs may be, or may include as an individual component of the total sign area, electronic message signs.  
Electronic messages or graphic displays may be changed at periodic intervals by gradual entry and exit display modes provided that messages and animation shall be displayed at periodic intervals by various modes, such as fade, dissolve, scrolling, or traveling.

**Off-Premise 15.58.020 General regulations.**

- (j) Blinking or flashing lights are prohibited. Electronic message signs are permitted.

<http://library.municode.com/index.aspx?clientID=17000&stateID=36&statename=Oklahoma>

**Abilene, TX (Passed November 2008)**

23-128 Definitions

- (7) Electronic Message Sign. A sign whose informational content can be changed or altered on a fixed display screen composed of electrically illuminated segments, including LED (light emitting diode) signs, television screens, plasma screens, video boards, or other digital signs.

23-172 Special Regulations for Electronic Message Signs

In addition to any other requirements of this Chapter, Electronic Message Signs shall adhere to the following requirements:

- (A) Operational limitations for on-premise signs over 75 square feet in area or any off-premise sign.



1. Such signs shall contain static messages only and shall not have movement, or the appearance or optical illusion of movement, of any part of the sign or sign structure, including the movement or appearance of movement of any illumination or the flashing, scintillating, or varying of light intensity.
  2. Minimum display time. Each message on the sign must be displayed for a minimum of eight seconds.
  3. Transition. The transition from one sign message to another must occur within two seconds and may not include flashing or appearance of motion, with the exception of a fade out or in, dissolve, or scroll that must be accomplished within the transition period.
- (B) Operational Limitations for all signs.
1. Limitations. All such signs shall have no flashing or full motion video.
  2. Unless permitted as an off-premise sign, such signs shall not include off-premise advertising messages.
- (C) Sign face limitations.
1. Each sign structure is limited to not more than two sides with one sign face per side.
  2. The entire sign face must comply with the operation limitations defined above and a sign face may not be apportioned into separate areas each acting as a separate sign face under these restrictions.
- (D) Brightness.
1. All such signs shall be equipped with light sensing devices or a scheduled dimming timer that will automatically dim the intensity of the light emitted by the sign during ambient low-light conditions and at night so that the sign does not exceed the maximum brightness levels allowed in this section.
  2. Maximum brightness shall not exceed 7,000 nits when measured from the sign's face at its maximum brightness during daylight hours and shall not exceed 1,000 nits when measured from the sign's face at its maximum brightness at night.
  3. If such sign is located within 100 feet of a property with residential zoning, the sign must be oriented such that no portion of the electronic sign face is visible from a residentially-zoned property or the brightness is reduced to no more than 250 nits at night.
  4. Prior to the issuance of a permit for such sign, the applicant shall provide written certification from the sign manufacturer that the light intensity has been factory pre-set not to exceed the levels specified above.
- (E) The City may order a sign's brightness reduced, its minimum display time increased, or other operational characteristics altered if the Director of Public Works, or designee, finds that it interferes with or poses a traffic safety hazard to the operation of vehicles.
- (F) All such signs shall be turned off or display a blank screen when malfunctioning.

<http://z2.franklinlegal.net/abilene-flp/>

## Bemidji MN (Passed Oct 2008)

**B. Regulations.** Dynamic displays on signs, where specifically allowed by permit in various zoning districts, shall comply with the following regulations:

1. **Brightness.** LED dynamic displays shall have a maximum of twenty (20%) percent night time brightness setting and may operate at up to a one hundred (100%) percent day time brightness setting. Incan-descent dynamic displays shall have a maximum of sixty (60%) night time



brightness and may operate at up to a one hundred (100%) day time brightness setting. Constant night time displays of bright or “hot colors” such as complete red or white display background shall be prohibited. All dynamic displays shall be equipped with a night time manufacturer auto dim feature and operated according to manufacturer night time intensity specifications.

2. **Time/duration.** Full dynamic display animation electronic programming without any minimum frame hold display time duration may be allowed for all display changes during day time dynamic sign programming. All dynamic displays, including both new and legal non-conforming displays, shall comply with the minimum night time electronic frame hold display time duration for all display changes. The night time minimum frame hold display time duration **shall not be less than three (3) seconds.**
3. **Method of dynamic displays.** During the night time electronic dynamic sign programming there will be no restriction on the method or type of display frame hold time transitions, except that there shall be no animation, motion, blinking, scrolling, rotating, oscillating, etc during the dynamic display minimum frame hold display time duration.
4. **Night time programming.** Dynamic display owners and operators shall be required to maintain the minimum electronic frame hold display time duration during the night time display mode for both brightness and dynamic displays for all electronic dynamic signs. Legal non-conforming signs without a manufacturer auto dim feature shall comply with this requirement to the extent feasible within the limits of the dynamic display programming.
5. **Percentage of sign area.** Dynamic displays may be permitted on freestanding pylon and monument signs or as a wall sign. Dynamic displays may occupy no more than 45% of the allowable sign area of the total freestanding pylon, monument or wall sign area for a building or single tenant in a multi-tenant center.
6. **Maximum number.** There shall be no more than one dynamic sign permitted per property for freestanding signs, except as may be permitted for additional signage along one-way pairs. Where a dynamic display is requested to be mounted as part of the building wall signage, there shall be no more than one dynamic display permitted per wall elevation and the maximum number of wall elevations per building shall be two (2), including multi-tenant centers. Dynamic displays which are mounted in a back-to-back configuration shall count as one (1) dynamic display, provided the total angle for mounting does not exceed sixty (60) degrees.
7. **Spacing from residential uses.** No electronic dynamic display shall be located within one hundred (100') feet of a residential district. The distance shall be measured based upon a horizontal line beginning at the nearest residential property line and the leading edge of the dynamic display, or a viewing radius of forty five (45) degrees, whichever is closer.
8. **Spacing from traffic control signals.** No dynamic display shall be located within fifty (50') feet of an official traffic control signal. The distance shall be measured based upon a horizontal line beginning at the leading edge of the dynamic display and any portion of the traffic control device.

<http://library.municode.com/index.aspx?clientID=13726&stateID=23&statename=Minnesota>

## Bismarck, ND (Passed February 2009)

4-04-11. Special Provisions for Electronic Message Center Signs. In addition to other applicable provisions contained in this Chapter, the following provisions shall apply to the placement and operation of electronic message center signs:

1. Electronic message center signs may only be used as permanent on premise signs. Electronic message center signs shall not be used as temporary signs or as off premise signs. Electronic message center signs may be used for demonstration purposes provided the sign is used on the site for 24 hours or less, the sign is used as an on-premise advertising sign without any off-premise advertising and the sign is located outside of any sight triangle.
2. Electronic message center signs may only be located on pole (pylon) signs and wall signs. Electronic message center signs shall not be located on fin signs, ground signs (billboards), projecting signs, or roof signs, or used as portable signs.
3. Electronic message center signs are permitted only in the MA-Industrial, CG-Commercial, CA-Commercial, DC-Downtown Core, DF-Downtown Fringe, RT-Residential, HM-Health Medical and P-Public zoning districts.
4. No electronic message center sign installed after (the effective date of this ordinance) shall be permitted to operate unless it is equipped with:
  - a. A default mechanism that shall freeze the sign in one position as a static message if a malfunction occurs; and
  - b. A mechanism able to automatically adjust the illuminative brightness of the display according to ambient light conditions by means of a light detector/photocell. An electronic message center sign installed prior to (the effective date of this ordinance) shall be allowed to continue operation provided the brightness of the sign does not exceed a maximum illumination of five thousand (5,000) NITS during daylight hours or a maximum illumination of seven hundred and fifty (750) NITS between one-half hour before sunset to one-half hour after sunrise as measured at the sign's face at maximum brightness.
5. Only one (1) electronic message center sign shall be allowed per property. An electronic message center sign with two (2) faces back-to-back shall be treated as one (1) sign, provided said faces are parallel or have an angle of separation of no more than thirty (30) degrees. Two (2) or more electronic message center signs mounted side-by-side shall not be treated as one sign and shall not be allowed.
6. The electronic message center sign portion of any sign shall not exceed the area specified in the table below, (which is based on the zoning district in which the sign is located and the functional classification of the roadway adjacent to the sign), or fifty (50) percent of the total sign area, whichever is greater.
7. The electronic message center sign portion of a pole (pylon) sign shall not exceed forty (40) feet in height in a MA-Industrial or CG-Commercial zoning district or exceed twenty-five (25) feet in height in a CA-Commercial, DC-Downtown Core, DF-Downtown Fringe, HM-Health Medical, RT-Residential or P-Public zoning district, measured from the top of the nearest curbline to the top of the sign or structure. The electronic message center sign portion of a pylon sign shall be located no less than ten (10) feet above the adjacent street grade.
8. No portion of any sign containing an electronic message center shall project over the public right-of-way or any property line or be located within the sight triangle of intersecting streets.
9. Electronic message center signs shall be subject to the following operational requirements:
  - a. The sign shall have a frame hold time of no less than one (1) second. The use of animation and background animation is allowed and is not subject to the one (1) second frame hold time requirement.

- b. Entrance and exit effects may be used to transition from one frame to another, provided said entrance effects result in all of the text within the frame appearing at once or in the order that the text is normally read (including, but not limited to, scrolling from right to left or scrolling from bottom to top entrance effects). Entrance effects where all of the text within the frame does not appear at once or in the order that the text is normally read are prohibited (including, but not limited to, scrolling from left to right, scrolling from top to bottom, and entrance effects referred to as slot machine, slots, splice, mesh, radar, kaleidoscope and spin). There are no limitations on the types of exit effects used. Except for such transitions, each frame shall remain static with no additional frame or hold effects applied to text within the frame (including, but not limited to, the fading or flashing on any part of the message and hold effects referred to as flash, spin, twinkle, wavy and rumble). The use of bijou lights as a frame effect is allowed.
  - c. The use of streaming video, or fullmotion video on any electronic message center sign is prohibited.
  - d. The use of the words “stop”, “danger” or “caution” as the only text within a frame is prohibited.
10. Electronic message center signs located within one hundred fifty (150) feet of any RRResidential, RR5-Residential, R5-Residential, R10-Residential, RM-Residential or RMH-Residential zoning district, as measured from any part of the sign to the nearest property line within any residential zoning district, are subject to the following additional requirements:
- a. The sign shall not exceed thirty-two (32) square feet in area, or fifty (50) percent of the total sign area, whichever is greater.
  - b. Between 8:00 7:00 a.m. and 10:00 p.m., the sign shall be allowed to operate in accordance with the provisions of Section 4-04-11(9) of this Chapter. Between 10:00 p.m. and 8:00 7:00 a.m., the sign shall only display static images with a frame hold time of no less than three (3) second and shall be limited to instantaneous transitions from one static frame to another static frame without the use of any frame entrance, exit or hold effects or the use of any animation or background animation.
11. An electronic message center sign cannot be installed on an existing sign that is nonconforming unless the entire sign is brought into compliance with all applicable provisions of this Chapter.
12. No portion of any existing sign shall be replaced with an electronic message center sign unless a sign permit is obtained for the new electronic message center sign.

<http://www.bismarck.org/DocumentView.aspx?DID=151>

## **Brownwood, TX (Passed Sept 2008)**

Sec. 90-176. Electronic Message Sign.

- (1) Electronic message signs shall be allowed subject to all the regulatory provisions contained herein governing signs and billboards in general, in addition to the specific provisions contained in this section. An electronic message sign, depending on what type of sign it is, i.e, freestanding, hanging, wall, portable or other type of sign, must meet all requirements applicable for that sign. Should any provisions be in conflict, the more stringent provision shall control.
- (2) Electronic message signs shall have the following operational limitations:
  - (a) The display of a static message or image and the use of scroll/travel to display a message or image shall be permitted on all electronic message signs.
  - (b) The use of flashing and moving video shall be prohibited on all electronic message signs.
  - (c) The use of animation shall be prohibited on electronic message signs/large.

- (d) The use of any other type of transition, such as dissolve/fade and frame effects, shall be prohibited on electronic message signs/large except in accordance with the following:
  - (i) Each message or image must be displayed for a minimum of three seconds; and
  - (ii) The change of message or image must be accomplished within two seconds or less and must occur simultaneously on the entire sign face.
- (e) The use of animation and other types of transition, such as dissolve/fade and frame effects shall be permitted on electronic message signs/small.
- (f) An electronic message sign must be equipped with both a dimmer control or other such electronic control and a photocell or other such automatic control, which will produce the required illumination change according to natural ambient conditions as provided in Section 90-136(c)(iii).

<http://library.municode.com/index.aspx?clientID=10488&stateID=43&statename=Texas>

## Missoula, MT (Passed Oct 2009)

### 20.75.070 Regulations of Specific Types of Signs

#### F. Dynamic Displays

Dynamic displays on signs are allowed subject to the following regulations:

##### 1. Where Allowed

###### a. Prohibited Locations

Dynamic displays are prohibited in R, OP and CBD zoning districts. They are also prohibited in historic districts.

###### b. Allowed Locations

Dynamic displays are permitted for all allowed uses in C1, C2, M1 and M2 zoning districts on parcels with frontage on principal arterials, subject to the dynamic display regulations of this subsection.

##### 2. Maximum Dynamic Display Area

The dynamic display portion of the sign may not exceed 40 square feet or 50% of the total area of the sign, whichever is less, and must be computed as part of the sign's total area. The remainder of the sign may not have the capability to have dynamic displays even if not used. Only one, contiguous dynamic display area is allowed on a sign face.

##### 3. Orientation

The sign face must be oriented away from adjacent residential uses and zoning districts.

##### 4. Hold Time

Dynamic displays may not change or move more often than once every second.

##### 5. Transitions

The transition from one image or display to the next must be accomplished in one second or less. Fading, scaling, scrolling, and dissolving effects may be used as part of the transition.

##### 6. Display Malfunctions

The sign owner must stop the dynamic display within 24 hours of receiving notice from the city that it is malfunctioning or otherwise not complying with the standards of this zoning ordinance.

##### 7. Brightness

Dynamic displays may not exceed a maximum illumination of 5,000 nits (candelas per square meter) during daylight hours or more than 500 nits during nighttime hours (between dusk and dawn), as measured from the sign's face at maximum brightness. Dynamic displays must be equipped with automatic dimming technology that automatically adjusts the display's brightness based on ambient light conditions.

**8. Prohibited Display Types**

Dynamic displays may not use blinking, bursting, distorting, flashing, oscillating, rotating, shimmering, sparkling, streaming, tracing, traveling text or twinkling effects. Audio or pyrotechnic elements are also prohibited.

**9. Nonconformities**

Dynamic displays existing on November 4, 2009 must comply with all the operational standards of this subsection. An existing dynamic display that does not meet the structural requirements of [20.75.070F.2](#) may continue as a nonconforming sign subject to the nonconforming sign regulations of [20.75.120](#).

[http://missoula.duncanichicago.com/documents/Title20\\_Zoning.pdf](http://missoula.duncanichicago.com/documents/Title20_Zoning.pdf)