

MEMORANDUM

TO: Mayor and City Council

FROM: Wendy Rampson, Planning Manager

SUBJECT: **Proposed Amendments to Chapter 61 (Signs and Outdoor Advertising) regarding Billboards Changeable Content Signs**

DATE: June 13, 2013

At first reading of the Sign Ordinance amendments on March 18, 2013, staff was asked to provide additional background on the proposed changes. Subsequently, at second reading on April 1, 2013, Council postponed action on the amendments for additional input from the public on the proposed changes.

This memorandum provides the requested background information and a summary of a public meeting held on May 29, 2013. In addition, some minor changes to the draft ordinance are provided to clarify the illumination standards.

Background on Proposed Changes

Given the growing interest and litigation surrounding digital billboards, including several requests to install digital billboards in other Michigan communities, City Council enacted a moratorium on permits for digital billboards to allow Planning & Development staff time to study the issue and develop appropriate ordinance language. A 180-day moratorium was approved by Council on April 16, 2012 and extended for another 180 days on October 1, 2012. The moratorium was extended to June 30, 2013 at the April 1, 2013 Council meeting.

In the course of its evaluation, staff determined that there are four areas of community concern related to billboards and digital signage that should be addressed in the Sign Ordinance.

- Driver distraction – Billboards and digital “changeable message” signs are designed to capture the attention of auto traffic traveling along freeways or streets. As Ann Arbor implements its Complete Streets policy, more bicycle and pedestrians will be integrated into auto traffic in the downtown and commercial corridors, where the changeable message signs and billboards would compete for a driver’s attention. In addition, the freeways around Ann Arbor can become highly congested during rush hours, sporting events, and other events that draw

vehicles from other communities, therefore additional distraction to freeway users is also a concern.

Staff reviewed research studies and best practice literature, the most recent and relevant of which are listed below. While the studies done on digital billboards have not established a firm causal link between digital signs and increased crashes, there is a growing body of research that has found digital billboards (and all digital signs) to hold a driver's attention for longer periods than is considered safe by traffic safety experts. Further, there are no studies that assert digital billboards are safe.

- Light pollution – Planning staff recently received complaints about several new apartment complex signs that are being illuminated with LED (light-emitting diodes) lights. Residents have complained that this new sign lighting results in light pollution in their neighborhoods. Newer lighting technology such as LED appears brighter to the eye than other forms of illumination and will likely increase the number of complaints about light pollution.
- Visual clutter – Auto-oriented billboards and changeable copy signage can act as visual blight in the downtown and redeveloping commercial corridors. The large size of billboards, typically three times the size of the largest on-premise signs, and their placement in proximity to residential areas of City, are also a concern. Even billboards proposed in non-residential areas are a concern to the community, as evidenced by the public response to a variance request for a billboard on railroad right-of-way in the Eisenhower/South Industrial area.
- Increased energy use - New digital signage requires significantly more electricity to operate than traditional illuminated signs, a characteristic that runs counter to the City's climate and energy goals. A standard 14 x 48 foot digital billboard can contain between 900 to 10,000 LEDs. Electronic equipment is needed to change the images, and fans or air conditioners are needed to cool the diodes. In a recent study of digital signs in Philadelphia, a 36" X 60" full-color LED sign had an estimated annual consumption of 8760 kWh. Eight digital billboards in the area varied from 61,032 kWh to 323,773 kWh annual consumption. For comparison, the study measured a static billboard with halide lighting, which had an estimated 7,008 kWh annual consumption.

Numerous studies were reviewed by staff in developing the proposed ordinance amendments. The following studies are examples that address some of the community concerns; they may be accessed by clicking on the hyperlink.

- ["Digital LED Billboard Luminance Recommendations: How Bright is Bright Enough?" C. Luginbuhl, H. Israel, P. Scowen, J. Polakis and T Polakis, November 2010](#)
- ["Illuminating the Issues: Digital Signage and Philadelphia's Green Future." Gregory Young, December 2010](#)
- ["Safety Impacts of Emerging Digital Display Technology for Outdoor Advertising Signs, Final Report," National Cooperative Highway Research Program Project 2-7 \(256\), April 2009](#)
- ["The Effects of Commercial Electronic Variable Message Signs \(CEVMS\) on Driver Attention and Distraction: An Update," FHWA Publication No. FHWA-HRT-09-018, February 2009](#)

History of Ann Arbor Billboard Regulation

The current ordinance allows 30 billboard sign faces. A billboard is defined by the Sign Ordinance as an off-premise sign of greater than 200 square feet in size. Currently, 28 billboard faces exist throughout the city (see attached map). An additional two faces exist on a township island on Plymouth Road, within the City's boundaries.

When the Sign Ordinance was originally adopted in 1966, there were approximately 60 billboards in the City. The 1966 ordinance required removal of these billboards by a certain date. This change prompted multiple sign owners to file lawsuits by against the City. A judge consolidated the cases and subsequently found the entire sign ordinance invalid. After pursuing appeals with both the Court of Appeals and Michigan Supreme Court, the City ultimately repealed the ordinance and replaced it with a new ordinance in 1975 that contained the 30 billboard limit.

Many of the billboards located in the City are non-conforming due to height (maximum 25 feet from grade), spacing (not closer than 300 feet to any other off-premise sign; 50 feet to an on-premise sign; or 500 feet to a school, residential dwelling, church or park), or setback (2 feet for every 1 foot of height).

Overview of Proposed Changes

Section 5:508 Prohibited Signs: Off-premises signs greater than 200 square feet, which the code defines as "billboards," will no longer be permitted. Existing signs of that size

will be allowed to be repaired and continue in their current use but may not be altered to add mechanical or electronic features.

Section 5:510.1 Changeable Copy Signs: A new definition has been added to recognize signs that contain a portion that can be readily changed, and requirements have been drafted to apply to changeable copy. The changeable copy portion of a sign, which includes manual, mechanical and digital/electronic changeable signs, will be no more than 50% of the area of any sign and no more than 30 square feet per sign and 15 square feet per sign face.

Section 5:510 Illumination: The maximum brightness of any illuminated sign, including digital/electronic, will be 5000 nits during the day and 100 nits at night, and in no case greater than 0.1 foot candles above ambient at a residential property line. This is consistent with surveys of existing illuminated signs and consistent with the lighting requirements of Chapter 59 Off-Street Parking and Chapter 62 Landscape and Screening.

Section 5:518 Penalties and Enforcement: Violations have been changed from misdemeanors between \$100 and \$500 to civil infractions between \$100-\$5000.

In addition to these primary changes, several changes are proposed to improve the clarity and enforceability of the ordinance:

Section 5:502(1) Exterior Business Signs. Exterior business signs were previously allowed a 20 percent area bonus if all the signs were under 15 feet high. Staff reports that this option is rarely if ever used and recommends eliminating it. In 5:502(2), exterior business signs are now subject to a 5-foot setback with a maximum height of 2.5 feet, increasing by 1 foot in height for each 2 feet of setback. Previously, signs were permitted to be 3 feet high at the right-of-way line, increasing by 1 foot in height for each 2 feet of setback. This clarifies and simplifies this section.

Section 5:509 Off-Premise Signs. The size limits for off-premises signs have been revised to match those for on-premises signs and a provision was added to require that the addition of any off-premises sign to a parcel will reduce the area of permitted on-premises signage.

Section 5:515 Inspections. This section has been revised to permit City inspections of any sign, as needed.

The remaining changes were made for clarity, consistency with the above changes, and to correct cross-references.

Public Comment

A public meeting on the proposed amendments was held on May 29, 2013 at City Hall. Approximately 40 people attended the meeting. A summary of the comments is attached.

Proposed Changes

Staff is recommending some minor amendments to the ordinance that was passed at first reading, which are attached to this memo and highlighted in yellow. These changes are non-substantive and provide additional clarity regarding illumination. They are as follows:

- Section 5:501(10) A definition for 'illuminated' and 'illumination' to clarify that both emitted and reflected light are included.
- Section 5:510(1) Illumination. Strike some existing language for consistency with the definition of 'illuminated' and 'illumination' above.
- Section 5:510(1) Add the word 'illuminated' to clarify that illuminated electronic signs need to have auto-dimming equipment.
- Section 5:511(1)(i) Add the word 'illuminated' to clarify that illuminated electronic sign permit applications must include the manufacturer's specifications for luminance.
- Section 5:510.1 - Changeable Copy. Delete the word "Signs" from the heading. This is a clerical error.

Attachments: Existing Billboard Map (by Ward)
May 29, 2013 Public Meeting Summary
Recommended Amendments at Second Reading

c: Sumedh Bahl, Community Services Area Administrator
Chris Frost, Assistant City Attorney