



**Agenda**  
**Special Workshop of the**  
**Parkville Planning & Zoning Commission\***  
Tuesday, September 13, 2016,  
Immediately following the Regular Planning & Zoning Commission Meeting  
City Hall Board Room

1. Call to Order
2. Discussion
  - A. Park University proposed (replacement) entrance monument sign and review of the City's current Zoning Code regulations of Electronic Message Center (EMC) signs
3. Presentations
  - A. Parkville Zoning Code and Subdivision Regulations Update project
4. Adjourn

Notes:

- \* This workshop is open to the public and all interested parties are welcome to attend. This workshop is not a public hearing; all agenda items are for discussion only. The Planning and Zoning Commission will not take any action on any workshop agenda item.







PARK  
UNIVERSITY

Welcome to Park University

HOME OF THE PARK UNIVERSITY PIRATES

(816) 741-2000





**SIGN DESIGN**

**Option 3**

**LED DISPLAY**

**6' x 12'  
16mm**

BILL NO. 2558

ORDINANCE NO. 2530

AN ORDINANCE TO AMEND PARKVILLE MUNICIPAL CODE, TITLE IV, CHAPTER 463, TO REGULATE ANIMATED SIGNS AND ELECTRONIC MESSAGE CENTERS.

NOW THEREFORE, BE IT ORDAINED BY THE BOARD OF ALDERMEN OF THE CITY OF PARKVILLE, MISSOURI, AS FOLLOWS:

Section 1. Title IV, Chapter 463, Article I, Section 463.030, of the Parkville Municipal Code is hereby amended to add the following definitions:

*Animated Signs.* Signs that include animation or effects simulating animation, including those that employ: flashing or blinking; intermittent or changing illumination creating a fading, dissolving, traveling, scrolling, dropping, pixilation or other similar transitional effect; video; sound emission; flapping, blowing, spinning, rotation or other movement; pyrotechnics; visible moving parts; or any device or illumination or other effect creating the illusion of motion.

*Changeable copy sign:* A manually, mechanically or electronically activated sign, or portion thereof, on which copy is designed to be changed periodically without altering the face of the sign. Changeable copy signs shall include, but not be limited to electronic message centers, reader boards, gas price signs, and theater marquees. Poster panels and painted boards shall not be considered changeable message signs.

*Electronic Message Center:* Any electronically activated changeable copy sign. Included are signs that use changing lights to form a message and holographic displays.

Section 2. Title IV, Chapter 463, Article IV, Section 463.160, of the Parkville Municipal Code is hereby amended to add a new subsection E as follows:

- E. *Electronic Message Centers.* Electronic message centers shall be allowed subject to the following standards:
1. Electronic message centers shall be restricted to use by gas stations or fuel stations that are within 1,000 feet of interstate highway right-of-way.
  2. Electronic message centers shall be restricted to use in monument signs and shall not be permitted as wall or pole signs.
  3. Duration. Any portion of the message must be displayed for a minimum duration of 10 minutes.
  4. Brightness. The sign must not exceed a maximum illumination of 5,000 nits (candelas per square meter) during daylight hours and a maximum of 400 nits (candelas per square meters) between dusk and dawn.

5. Dimmer control. The sign must have a dimmer control to automatically adjust illumination from daylight to night time maximums.
6. The change from one message to the next shall not take more than one second and shall not include any animation or movement.

Section 3. Title IV, Chapter 463, Article IV, Section 463.170, of the Parkville Municipal Code is hereby repealed and replaced as follows:

*Animated signs.* Animated signs shall not be permitted in any district or portion of the City. This shall not include electronic message centers as permitted in Section 463.160, E.

Section 4. Title IV, Chapter 463, Article IV, Section 463.160, of the Parkville Municipal Code is hereby amended to add a new subsection F and G as follows:

- F. *Corner lots.* Where monument signs are permitted, lots with two or more public street frontages shall be allowed one monument sign for each public street frontage.
- G. *Sign area.* Where monument signs are permitted within 1,000 feet of interstate highway right-of-way, lots with a lineal street frontage greater than 250 feet, shall be allowed a 25% increase in sign area on that street frontage so long as all other applicable standards are met.

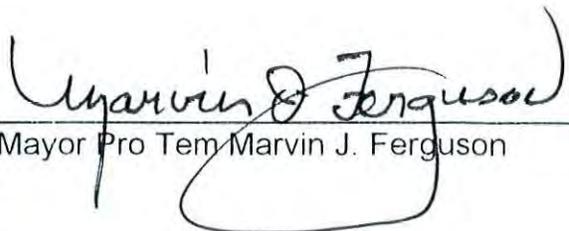
Section 5. All required notifications have been published and posted, and all required public hearings on this matter have been held.

Section 6. The Planning & Zoning Commission has reviewed and considered the above-referenced amendments. At its March 9, 2010 meeting, the Planning & Zoning Commission recommended approval of the same unanimously.

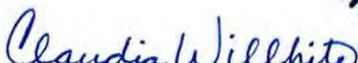
Section 7. This ordinance shall be effective immediately upon its passage and approval.

PASSED and APPROVED this 16<sup>th</sup> day of March 2010.



  
\_\_\_\_\_  
Mayor Pro Tem Marvin J. Ferguson

ATTESTED:

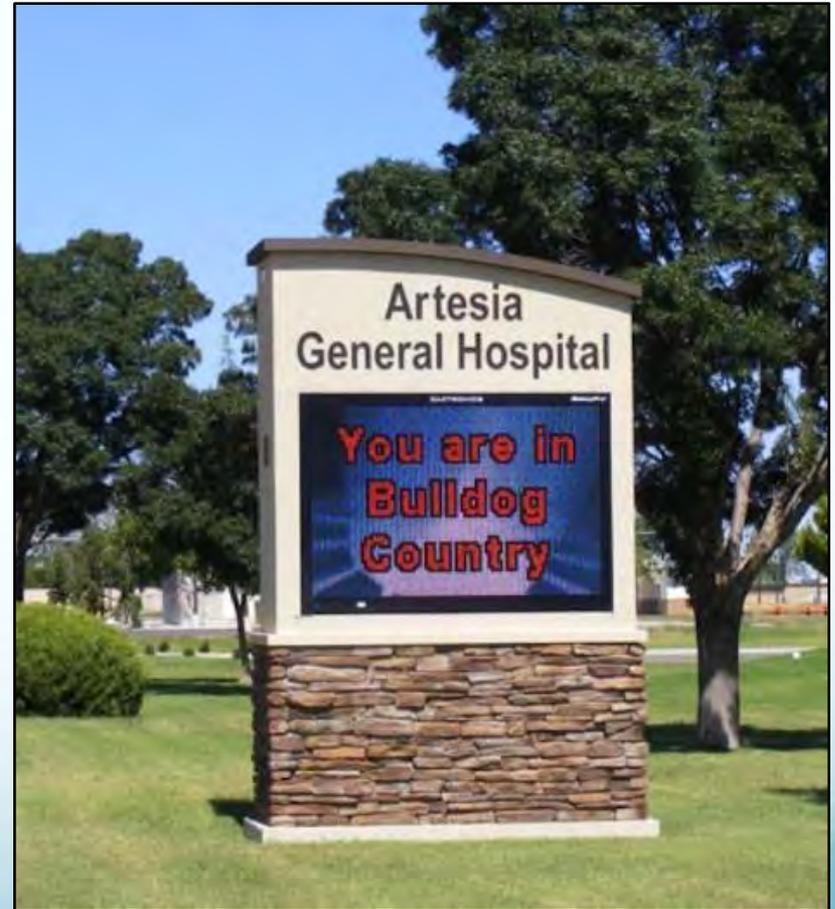
  
\_\_\_\_\_  
City Clerk Claudia Willhite

# Electronic Message Center Signs

September 13, 2016 Special Workshop  
Planning and Zoning Commission

# Electronic Message Center

- An EMC is a sign that is capable of displaying words, symbols, figures or images that electronically change by remote or automatic means.
  - Composed of LEDs
  - Pixels combine to form lights/graphics
  - Capable of displaying wide range of colors/images



# Example



# Example



# Common Concerns

- “If we allow EMCs, our community will look like Las Vegas.”
- “How do we strike a balance between EMC use and community aesthetics?”
- “How do we regulate EMCs in ways that are understandable and enforceable.”
- “How do we permit EMCs without impacting community safety?”

# Texas A&M

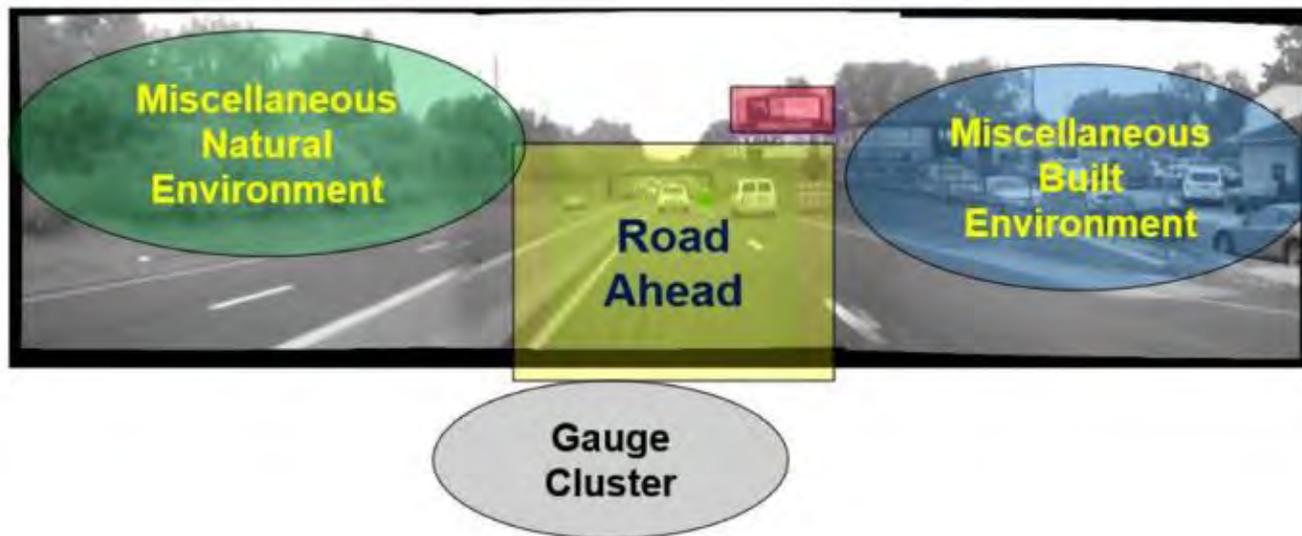
## Traffic Safety Study



- “*Statistical Analysis of the Relationship between on-site premise digital signage and traffic safety*”
- Monitored two years before and two years after digital sign installation
- Key Finding: Did **NOT** find a statistically-significant relationship

# Federal Highway Administration (FHWA) Research

- Measured possible effects of digital billboards on driver attention, distraction and safety.
- Human factors perspective
- Evaluated billboard that changed static images every 6-8 seconds.



# FHWA Research Key Findings

- Drivers devote 75-85% of visual attention to roadway.
- Average fixation of duration to digital billboards was less than one second.
- Longest fixation to digital billboard was 1.2 seconds.
- For perspective, texting while driving averages 4.6-6 seconds of fixation.

# Key Regulatory Issues

1. Message Hold Time
2. Brightness (#1 regulatory issue)
3. Transition Method
4. Area/Sq. Footage Limitations
5. Reed v. Town of Gilbert (2015 U.S. Supreme Court case)

# 1. Message Hold Time

- Time interval a static message or frame must remain on the display before transitioning to another message or frame.
  - Parkville's current EMC regulations for time intervals are a minimum duration of 10 minutes.
- Other municipality regulations for minimum time intervals
  - **Blue Springs** – 6 seconds (change needs to be within 2 seconds)
  - **Gladstone** – 15 seconds
  - **Grandview** – None
  - **Lee's Summit** – 8 seconds
  - **North Kansas City** – 8 seconds
  - **Raytown** – 24 hours
  - **Riverside** – EMCs are not addressed in Zoning Code

# 1. Message Hold Time

- Flashing
  - Recommended they be prohibited since purpose is to attract attention rather than communicate a message.
  - 3 seconds or less could be considered flashing.
  - Flashing Signs are currently prohibited in all Parkville districts, as well as in most Missouri municipalities in the Kansas City region.

## 2. Brightness

- Ways of dimming
  1. Manual
  2. Timed/calendar
  3. Photocell
- Photocell is the recommended method since the sign automatically dims as light conditions change.
- Timed/calendar works well as a backup system
- Manual is not recommended

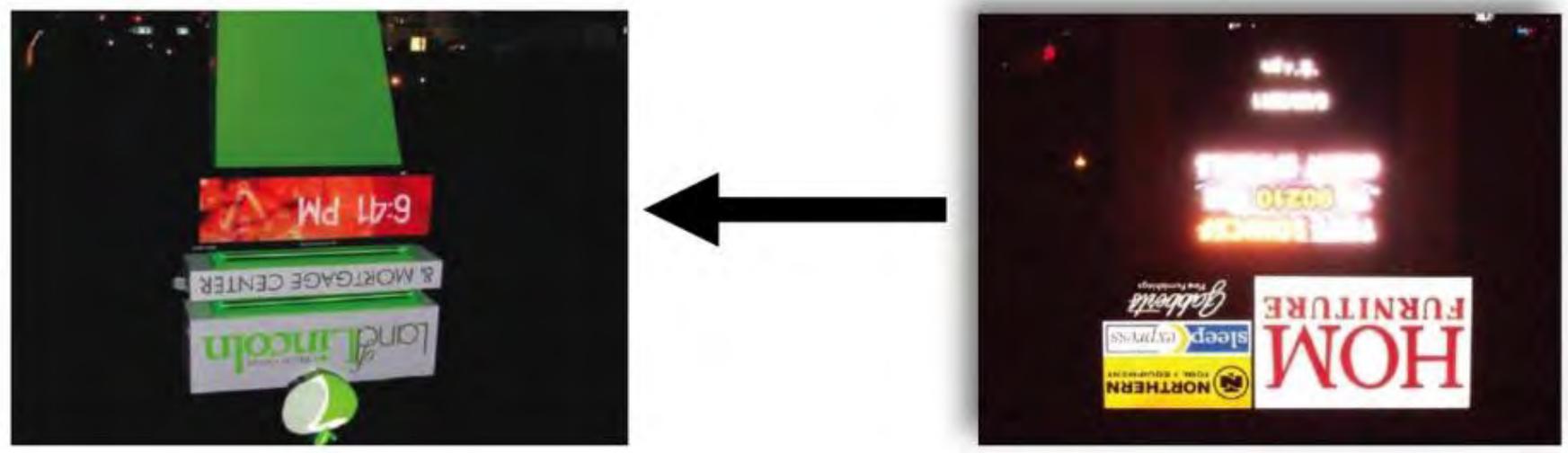
# 2. Brightness

- Nits regulations
  - **Luminance** – Amount or density of light emitted from a lit object (measured in nits [candelas per square meter])
  - **Illuminance** – Amount of light striking a lit object at a given distance (e.g., a passerby eye). Measured in foot candles. Recommended methodology by the International Sign Association (ISA)
  - Over 200 jurisdictions and 8 states have adopted Illuminance standards



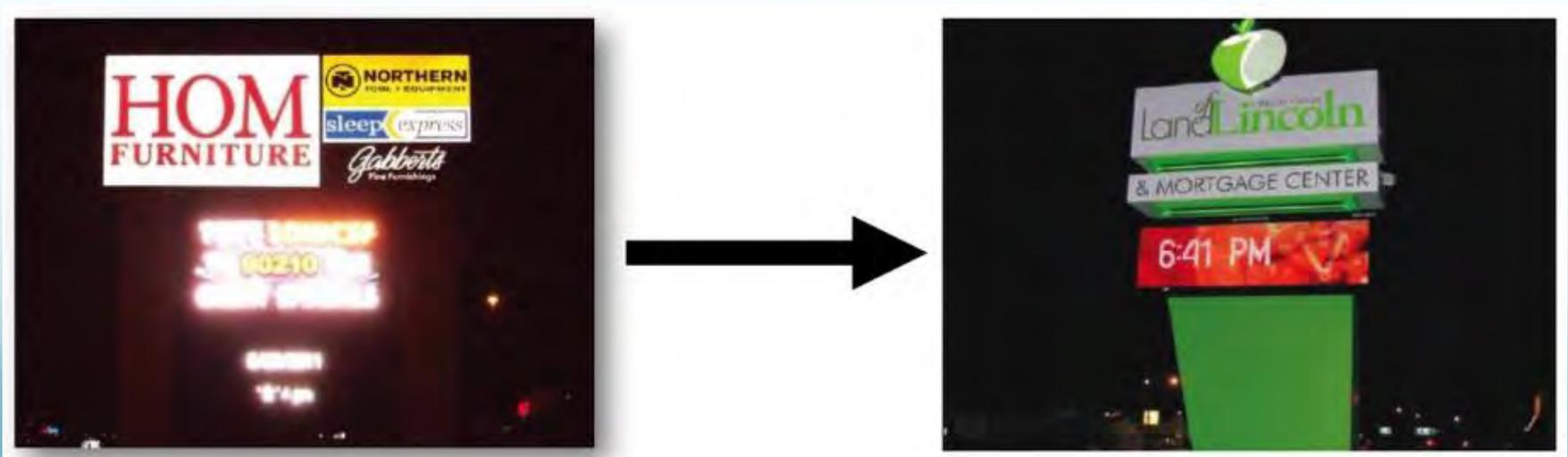
## 2. Brightness

- Parkville's current EMC regulations for brightness are a maximum of 5,000 nits (candelas per square meter) during daylight hours and a maximum of 400 nits (candelas per square meters) between dusk and dawn.

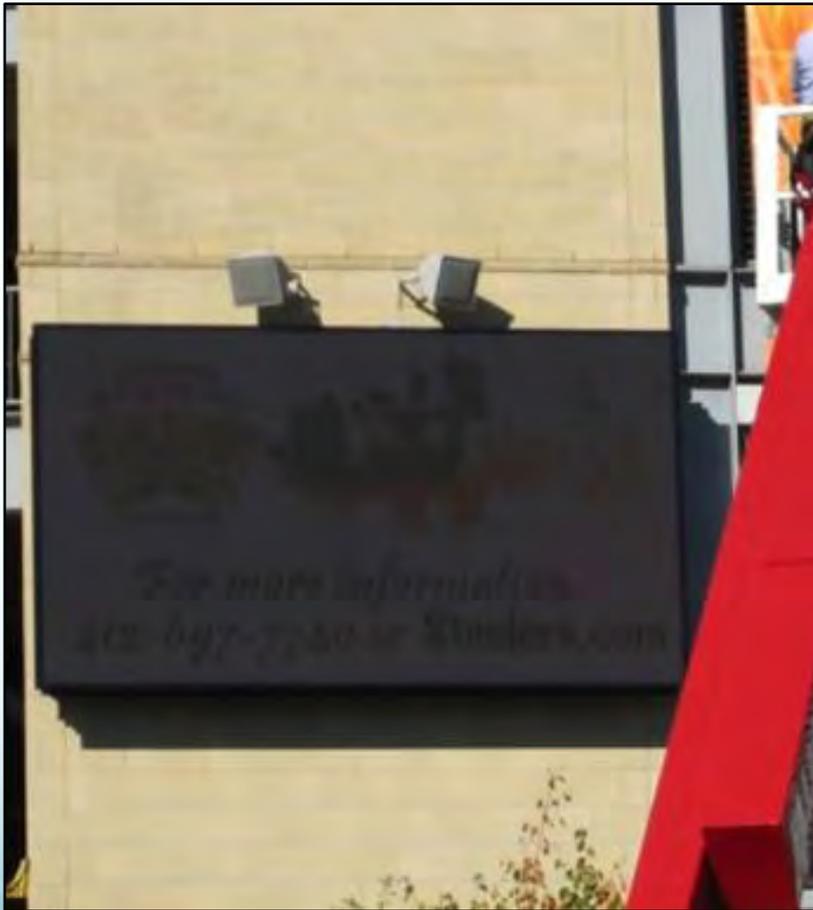


## 2. Brightness

- The ISA found that many communities adopted the 5,000 nit standard because that was the maximum nits based on the technology at the time
- Outdated and not recommended by the ISA since there's no scientific basis for restricting to 5,000 nits.
- Sample language is available in *ISA's Recommended Brightness Levels for EMCs*.



# Daytime Illumination



- Daytime illumination standards are NOT needed.
- Example of a community that regulated brightness during the day.

# 3. Transition Method

1. **Level 1** – Static message w/ instantaneous change
  2. **Level 2** – “Fade” or “dissolve” transition
  3. **Level 3** – Display static images, with messages that appear to move, change in size, or are revealed sequentially
  4. **Level 4** – Full motion video or constant animation
- Depends on aesthetic desires of community

# 4. Area/Sq. Footage Limitations

- Typically jurisdictions will allow for higher percent of EMC sq. footage for entertainment and commercial districts
  - 75-100% of sign face
- Typically jurisdictions restrict percent of EMC sq. footage for residential neighborhoods and less intense districts
  - 50-75% of sign face

# 4. Area/Sq. Footage Limitations

- Other municipality regulations for area/sq. footage
  - **Blue Springs** – No more than 33% of sign area
  - **Gladstone** – No more than 30% of sign area
  - **Grandview** – None
  - **Lee's Summit** – None
  - **North Kansas City** – No more than 25% of sign area
  - **Raytown** – None
  - **Riverside** – EMCs are not addressed in Zoning Code

# 5. Reed v. Town of Gilbert

- U.S. Supreme Court Case (June 2015)
- Dealt with “content neutral” sign regulations
- Stick to the “When, Where and How” regulations

## Content Neutrality is Essential

- Color limitations
- Alphanumeric limitations
- Sequential messaging
- Time, place and manner



# Zoning Considerations

- Consider varying standards such as percentage of allowable area by zoning district.
- Some jurisdictions adopt reasonable offsets from residential districts.
- Avoid borrowing EMC regulations from an adjacent jurisdiction (because they could be outdated)

# Economic Considerations

- Case study by the University of Cincinnati to analyze the economic impact an EMC had on a car dealership outside of Kansas City.
- Installed an EMC:
  - 70% advertising content
  - 30% civic promotion content
- Economic Impact
  - 30% increase in auto sales
  - 80% increase in service work



# Centennial, Colorado Case Study

- <https://courses.planetizen.com/course/electronic-message-centers/7>



- Tax Revenues
- Reduce blight
- Reduce clutter
- Legibility

# References

- *Regulating Electronic Message Centers*
  - Free online course through Planetizen.com
  - Series of eight videos totaling 50 minutes
  - Instructor – James Carpentier (State and local government affairs manager for the ISA)
  - <https://courses.planetizen.com/course/electronic-message-centers>