SUBJECT: Regulating outdoor lighting near certain astronomical observatories

COMMITTEE: County Affairs — committee substitute recommended

VOTE: 8 ayes — Ramsay, G. Lewis, Brown, Chisum, Farabee, Hilderbran, Salinas, Shields

0 nays

1 present not voting — Krusee

WITNESSES: For — Patricia H. Reiff, Rice University; Barbara Wilson, George Observatory, Houston Museum of Natural Science

Against — None

On — Phillip W. Kelton, McDonald Observatory, The University of Texas at Austin

BACKGROUND: Local Government Code, ch. 234 gives counties the authority to regulate outdoor lighting near major astronomical observatories, defined as having a telescope with an aperture of at least 75 inches in diameter (only the University of Texas McDonald Observatory near Fort Davis in Jeff Davis County qualifies.) Sec. 234.002 allows the commissioners court of any county located within 57 miles of the McDonald Observatory to adopt orders for the regulation and installation of outdoor lighting in any unincorporated part of the county.

Lighting that may be regulated includes billboard lighting, street lights, searchlights, area lighting, and other lighting used for advertising purposes. Regulations must be designed in a way that protects against outdoor lighting that interferes with scientific astronomical research. In its regulations, the commissioners court may:

- require that a permit be obtained before the installation and use of certain outdoor lighting;
- set a fee for issuing the permit;

- ! prohibit the use of certain outdoor lighting that was incompatible with observatory activities;
- ! establish requirements for the shielding of outdoor lighting; and
- ! regulate the when certain types of outdoor lighting could be used.

The court may apply stricter standards in areas where outdoor lighting had a greater impact on observatory activities. Before adopting outdoor regulations, a court must hold a public meeting and give at least two weeks public notice of the meeting.

The court may establish standards for proposed subdivisions to minimize outdoor lighting interference with observatory activities. It may not approve a subdivision plat that did not meet the standards.

DIGEST:

CSHB 164 would amend Local Government Code, ch. 234 to include in the definition of "major astronomical observatory" a facility established to conduct scientific observations of astronomical phenomena that is equipped with one or more telescopes that have objective diameters that total 69 inches or more and are permanently mounted in enclosed buildings.

On the request of the director of the George Observatory at Brazos State Park in Fort Bend County south of Houston or the Stephen F. Austin State University Observatory in Nacogdoches, the commissioners court of a county located within five miles of either observatory could adopt regulations on the installation and use of outdoor lighting in unincorporated territory of the county. The court also could establish standards for proposed subdivisions and could not approve a plat of a proposed subdivision that did not meet the standards.

This bill would take immediate effect if finally passed by a two-thirds record vote of the membership of each house. Otherwise, it would take effect September 1, 2001.

SUPPORTERS SAY:

CSHB 164 is needed to authorize counties to regulate outdoor lighting near the George and Stephen F. Austin University observatories. Outdoor light pollution hinders the activities of these astronomical observatories that study very faint space phenomena at the edge of their telescopes' visibility. The bill is permissive, and the county commissioners courts affected would

determine based on local circumstances what regulations would be most appropriate.

Light pollution near the George Observatory has increased significantly in recent years, largely due to the use of unshielded outdoor lighting in the streets and yards of new developments. If light pollution continues to increase at the current rate, within five years it will be impossible to conduct research projects currently underway at the observatory.

Under CSHB 164, counties could require new developments to install shielded outdoor lighting which aims the light downward, where the public and businesses need it. Reflectors in the shielding amplify the downward light and allow the use of lower-wattage bulbs, which also provide significant savings in energy costs. For example, a refining plant in Port Arthur estimates that it will save nearly $175,000 annually in energy costs when it completes conversion to shielded lighting.

The bill would not interfere with lighting at football and soccer games. Research at the observatories does not get underway until about 10:00 or 11:00 p.m., after stadium lights have been turned off.

OPPONENTS SAY:

CSHB 164 would allow counties affected by the bill to impose burdensome regulations. Homeowners and businesses might have to pay to install more expensive lighting. In addition, it would create a more cumbersome permitting process and lead to increased costs for developers. Developers would have to pay permit fees and install expensive lighting fixtures to comply with the new county regulations.

CSHB 164 would add incrementally to the ever-increasing authority of counties across the state. Counties could dictate what types of lights homeowners could install on their private property. In addition, the bill could jeopardize stadium lighting during football and soccer games.

NOTES:

The substitute differs from the original version of the bill by adding the Stephen F. Austin State University Observatory to the list of observatories for which county commissioners could adopt outdoor lighting regulations. It stipulates what a commissioners court could require, establish, prohibit, and regulate in its outdoor lighting regulations. It adds the authority to establish

outdoor lighting standards for proposed subdivisions to the counties' authority.