

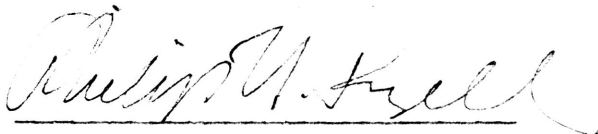
AN ASSESSMENT OF THE EXISTING SIGN QUALITY  
WITHIN THE CITY OF COLLEGE STATION

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of the Undergraduate Fellows Program

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Approved by:



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## ABSTRACT

This study focuses on the problem of visual pollution in College Station. Basically, the study reviews the present sign control ordinance in College Station and the local conditions to determine compliance with the ordinance. The study also examines psychological and pertinent sign control data to develop criteria applicable to sign control in College Station. Once developed, the criteria is applied to two cases in College Station as examples of application. Finally, the study ends with a discussion of possible implications and implementation. The study also concludes with a demand for further research of related topics.

## ACKNOWLEDGEMENTS

My special thanks go to Philip N. Pregill for his dedication and support throughout this project.

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WITHIN THE CITY OF COLLEGE STATION

"We have saved Grand Canyon for that 1% of our population who go there for one week in the summer, but we have condemned the remaining 99% to an increasing lack of beauty, charm, variety and amenity in our cities and suburbs." John W. Houck, 1969

INTRODUCTION

Signs are an important part of every community. In our automobile dominated society, signs are indicators of activities and directional mechanisms. The styles, colors and sizes all reflect the culture of a community. But signs have also become a mistaken notion of free enterprise. (Constantine and Jacobson, 1961) Signs keep getting larger and brighter, the most powerful competitors dominating the scene. The result, of course, is an overly complex visual situation, demanding more attention than the auto-driver can possibly give. Lewis Mumford aptly stated, "The signs grow chaotic and their total lack of organization results in a nullification of their prime purpose - communication." (Constantine and Jacobson, 1961)

This chaos begins to affect the safety and well-being of individuals as well as the aesthetic quality of the environment. As a future landscape architect, I am concerned about this problem, especially as it relates to the visual quality of the future environment.

College Station is faced with this problem of "visual pollution". College Station is a community with little or no pedestrian scale, the automobile dominating as the mode of transportation. As a result, there are numerous detached signs lining the roadways.

This theses conforms in style and format to Landscape Architecture Quarterly.

In the fall of 1976, the City Council of College Station began to take affirmative action against this visual pollution by amending the present sign ordinance with stricter regulations for detached signs. The present ordinance sets certain performance standards based mainly on size, setback, and location. However, this ordinance applies only to new or rebuilt signs, making no provisions for the existing "non-conforming" signs.

Sign control is basically not a new problem. Many communities, such as Longboat Key, Florida, and San Diego, California, have very strict sign ordinances, especially as relating to the size of signs. In the past few years, there has been a great interest in this topic. Of note are two studies, one in Baltimore County, the other in Boston. The Baltimore County study is summarized in the book Street Graphics by William Ewald. This study analyzes the problem from a psychological viewpoint to determine a system to analyze street graphics and develop a control system "to fit the concept of amenity into an administrative framework that is consistent with the basic principles of American law." (Ewald, 1971) The Boston study illustrated in City Signs and Lights by Ashley, Myer and Smith uses a similar system to determine criteria or controls relevant to the social problems in Boston. Both of these studies have an important influence on the process of analysis and inventory used for College Station.

#### PROBLEM DEFINITION AND RESEARCH PARAMETERS

This theses is concerned with the problem of analyzing the existing signs in College Station to see if they meet the performance standards in the ordinance and to formulate recommendations based on the research.

Methodology

The initial step in solving a problem of this type is to develop a process or flow chart as seen in Figure 1. The first step is to define the problem as it relates to College Station and identify research parameters. The next step involves the collection of data: review of the existing ordinance (Figure 2), inventory of the existing conditions in College Stations, and research on visual perception. Implications of the analysis are examined and further investigated to develop criteria for College Station, followed by a summary of the results.

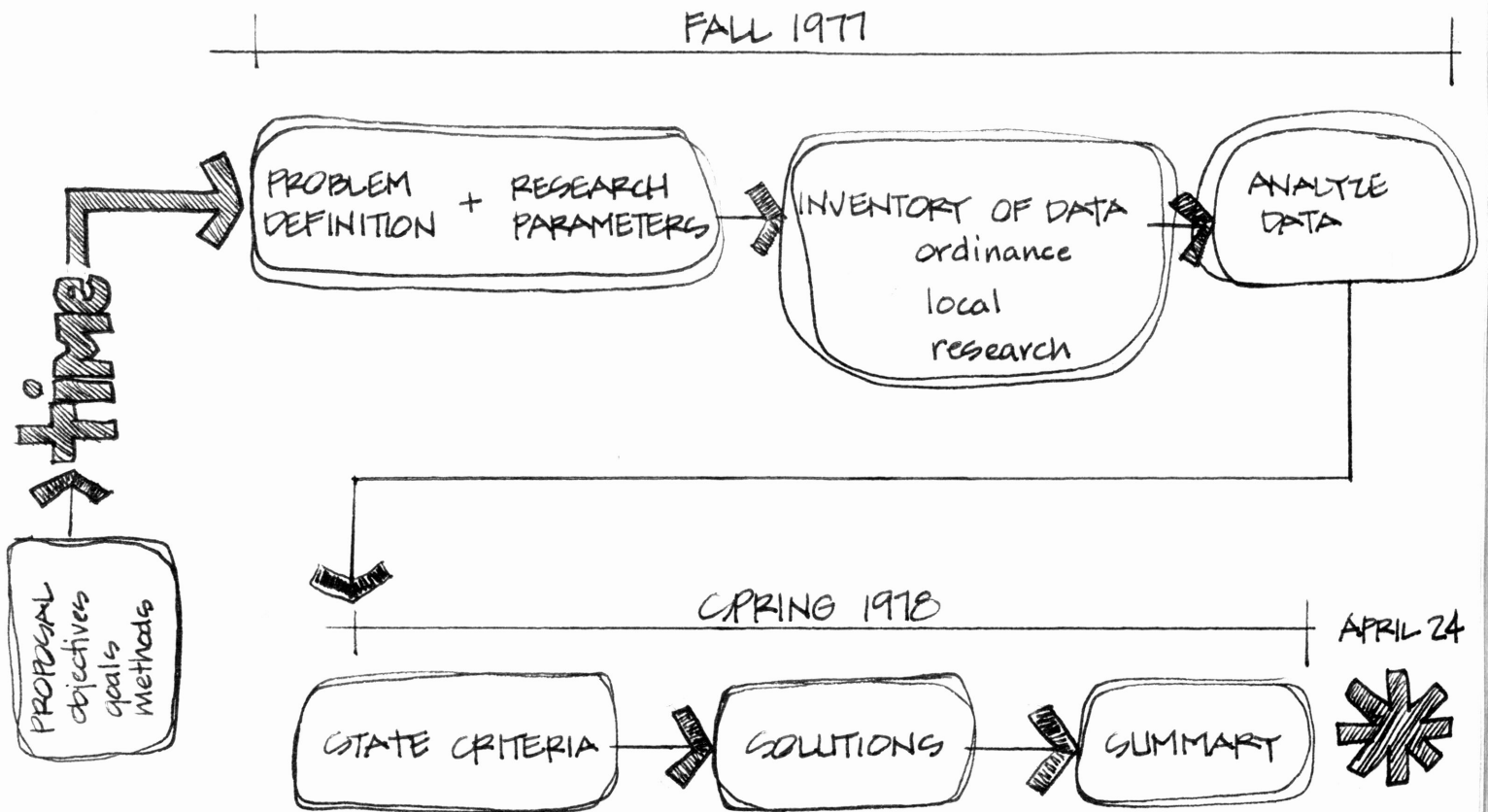




FIGURE 2 - ORDINANCE

SIGN REGULATIONS --- COLLEGE STATION

Signs in College Station are regulated by the Zoning Ordinance and the Standard Building Code. Any application for building permits must have written or drawn on the plans the information necessary to show compliance with the regulations for the type of sign to be constructed. No permits can be issued for new or rebuilt signs which do not comply. The following is a brief summary of the most significant regulations:

GENERAL

No sign may advertise products or services not available on the site.  
A sign with flashing lights or moving parts must be at least 50 feet from any street or alley.  
Connection of any electric sign must be done by a licensed electrician.

REQUIREMENTS

NEED FOR PERMIT

DETACHED SIGNS

No more than one detached sign per building plot. A building plot is a lot, tract or parcel under one ownership, bounded by the property line.

A detached sign higher than 25 feet or more than 100 sq.ft. of surface area will require design by a registered engineer or architect. The building official may require this for a smaller sign if necessary.

No sign may be erected nearer than 10 feet to the right-of-way of a street.

A plot-plan showing the location with respect to the property line. Any question as to the location of the property line may require a survey at the expense of the owner or applicant.

No sign constructed entirely of wood may be more than 24 feet high at any point.

The bottom of a detached sign must be over 3 feet above ground.

Wind loads designed for must be noted on the plans. (See new code req'ts)

Any wood supports embedded in the ground must be pressure treated.

Indicate any flashing or moving parts.

Show size of all structural members, size of face and size and number of connectors.

WALL SIGNS

Surface face must be of sheet metal.

Show size of sign and materials to be used.

A wall sign may not cover any wall opening required for egress.

Show size and number of fasteners to wall.

Minimum fastener size for masonry walls is 3/8" x 5" deep.

Show section of wall to which sign is to be attached.

ROOF SIGNS

May not project past exterior wall.	Plan showing location on roof and roof structural members.
Bottom edge at least 6 feet above roof.	Elevation or section showing anchorage to structural members.
Constructed entirely of steel.	Notes or details of connectors.
Maximum 24 feet high above roof.	Building official may require architect or engineer's analysis of loading of building roof.
Bearing must be to walls, beams, columns or girders. (Not to deck.)	

PROJECTING SIGNS

Constructed entirely of non-combustible materials.	Plan showing location of sign with respect to building and property lines.
All guys, anchors, rods, etc. must be a minimum 3/8" diameter, set at no less than 45° to the direction of load.	Sections through walls at points of anchorage.
May not project above roof line.	Sizes of connectors, guys and all structural members.

MARQUEE SIGNS

Must be constructed entirely of metal.	Elevation showing location on marquee, sizes of supports and connectors.
No less than 8 feet above ground.	May require an engineer's or architect's analysis of sign or marquee.
May not extend beyond marquee.	
Not more than 1 foot below or 6 feet above marquee or more than 8 feet total height.	

Size and area limitations and types of signs prohibited in certain zones-- see Section 8 of the zoning ordinance.

Ordinance No. 850  
Zoning Ordinance

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8-B TEMPORARY SIGNS: A temporary sign pertaining to the lease, rental or sale of premises or structure located thereon is permitted in all districts when located on such premises or structure. Such signs shall not be lighted, and shall not exceed fifteen (15) square feet in area. No permit is required.

8-C DEVELOPMENT SIGNS: "Ground Signs" announcing or describing a legally approved subdivision or land development may be temporarily erected for a period of not more than six (6) months. Such signs shall not exceed three hundred (300) square feet in area, and may be indirectly lighted. Signs having flashing or moving parts, or "Spectacular Signs" are not permitted. Refer to the Building Code for permit requirements.

8-D.1. RESIDENTIAL DISTRICTS: A person having a legal home occupation may display a nameplate on the face of the building or porch. The nameplate may contain only the name and the occupation of the resident. It shall be attached directly to, and parallel to the face of the building or porch. It shall not exceed two (2) square feet in area, shall not be illuminated in any way, and shall project not more than six (6) inches beyond the building or porch. No permit is required.

8-D.2. RESIDENTIAL DISPLAY: Display of merchandise or examples of work is classified as a sign, and is not permitted in any residential district, except on approved non-conforming property where legally permissible. This is also applicable to residences in P-U-D's.

8-D.3. APARTMENT OR TOWNHOUSE-ROWHOUSE DISTRICTS: One (1) "Ground Sign" or "Wall Sign" or "Marquee Sign" may be erected on the property of an apartment, apartment complex, townhouse or rowhouse complex, visible from a particular street, if not more than one hundred and fifty (150) square feet in area, to advertise the name and facilities available. It may be indirectly lighted, but must have no flashing or moving parts. No "Spectacular Signs" may be installed. See Building Code for permit requirements. This is also applicable to apartments or townhouses in P-U-D's.

8-D.4. MOBILE HOME PARK DISTRICTS: A "Ground Sign" or "Wall Sign" of not more than one hundred (100) square feet total area may be erected on the property of the mobile home park, and may be indirectly lighted; however, it shall have no flashing lights or moving parts, and no "Spectacular Signs" may be installed. See Building Code for permit requirements. This is also applicable to mobile home parks in P-U-D's.

8-D.5. NEIGHBORHOOD BUSINESS DISTRICTS: Signs when attached to buildings shall advertise only services or products which are offered within the building to which the sign is attached, and such signs shall not extend above the roof line or such building, or more than one (1) foot from the face of the building. No flashing or moving signs are permitted and no "Spectacular Signs" are permitted. No detached signs or billboards are permitted. See Building Code for permit requirements. This is also applicable to neighborhood businesses in P-U-D's.

8-D.6. OTHER DISTRICTS: No sign shall have flashing lights or moving parts if within fifty (50) feet of a public street. "Spectacular Signs" must be installed with bottom of sign a minimum of fifteen (15) feet above the ground, and must be at least fifty (50) feet from a public street. No sign or any part thereof shall be located within ten (10) feet of any public street or public easement. No more than one (1) detached sign shall be allowed on any one building plot.

AN ORDINANCE AMENDING THE ZONING ORDINANCE NO. 850

BE IT ORDAINED BY THE CITY COUNCIL OF THE CITY OF COLLEGE STATION, TEXAS:

Section 8-D of Ordinance No. 850 is amended to include Article 8-D.9.

Detached Signs.

8-D.9. DETACHED SIGNS: A detached sign, any part of which is nearer to the curb or pavement edge than (20) feet, may not have any part higher than (4 1/2) feet above the top of the curb or pavement centerline, whichever is higher. Detached signs farther than (20) feet from the curb or pavement edge may not have any part higher above ground at the sign than (1/2) the distance from the curb or pavement edge; nor may the area of any detached sign exceed either 1) the square of (1/6) the distance in feet from the base of the sign to the curb or pavement edge or 2) more than one square foot of sign per two feet of plot frontage on a public street, whichever is greater.

PASSED AND APPROVED this 9th day of December, 1976.

APPROVED

*Lance Maxene*  
Mayor

ATTEST

*Heena Kelly*  
City Secretary



## Inventory of Data

After reviewing the present ordinance, the next step is to devise a method to perceptually analyze the existing signs in relation to this ordinance. A common method is an inventory method, surveying the area by automobile. Approximately every .1 mile, data is collected relating to location, type, height or size, setback, general condition and apparent compliance with the ordinance. A sample of the data is collected in chart form as appears in Figure 3.

To supplement this data, this study experimented with a photographic technique of measurement based on true height in perspective. The method basically involved photographing the signs with a camera held at approximately the same height each time. The film was developed into slides which could then be superimposed with a horizon line. This horizon line represents a line five (5) feet above the ground plane and can be used to determine both vertical and horizontal distances.

FIGURE 3 - INVENTORY DATA

Street	Sign Name	Type	Height	Setback	Remarks	Compliance
Hwy 30	Travis House Apts.	Det.	15'	20'	disrepair	yes
Hwy 30	Spin N Market	Det.	25'	25'	flashing red lights	no
Hwy 30	Car Wash	Det.	25'	40'		yes
Hwy 30	Tanglewood South Apts.	Det.	5'	15'	temporary	no
Texas	Safeway	Wall	3' x 40'			yes
Texas	3-C Bar B-Q	Wall	2' x 10'		2 signs	yes
Texas	GTE Phone Mart	Proj.	3' x 8'			yes
Texas	Court's	Proj.	4' x 20'			yes

Street	Sign Name	Type	Height	Set-back	Remarks	Compliance
Texas	Culpepper Plaza	Det.	35'	40'	disrepair	no
Texas	Carnaby Square	Proj.	3' x 10'			yes
Texas	Eckerd Drugs	Proj.	4' x 20'			yes
Texas	Regan's	Proj.	3' x 10'			yes
Texas	Top Drawer	Proj.	3' x 15'		above roof	no
Texas	Curiosity Shop	Proj.	3' x 6'			yes
Texas	Exxon	Det.	20' x 50'	35'	no scale	no
Texas	Shell	Det.	15'	10'		no
Texas	Discount Liquor	Det.	18'	5'		no
Texas	Carter's	Det.	20'	25'	color	no
Texas	Aggieland Inn	Det.	25'	50'	flashing lts	yes
Texas	Holiday Inn	Det.	28'	30'	flashing lts	no
Texas	Holiday Inn	Proj.	3' x 15'			yes
Dominik	Pepe Taco	Proj.	4' x 10'		flashing lts	yes
Dominik	Pepe Taco	Det.	4' x 15'	10'		no
Dominik	Kentucky Chick.	Det.	20'	15'		no
Dominik	Whataburger	Roof	3' x 33'		not 3' above roof	no
Dominik	Whataburger	Det.	15'	10'		no
Texas	Redmond Terrace	Det.	20'	15'		no
Texas	Gibson's	Det.	15'	20'		no
Texas	Gibson's				too many on building	no
Texas	Saber Inn	Det.	20'	10'		no
Texas	Shell	Det.	30'	15'		no
Texas	Pizza Inn	Det.	25'	10'		no
Texas	Ramada Inn	Det.	25'	8'		no
Texas	Last Nat'l Bank	Det.	25'	12'		no

## Visual Perception

There are many variables to consider in determining performance standards or criteria for sign control. The most basic of these variables is, of course, visual perception. The purpose of signs is to visually or graphically communicate a message. Therefore, a study of how, why, or actually what we see is extremely important.

An analysis of visual perception must begin with an explanation of the psychology and physiology of seeing. The eye is made up of the following parts: cornea, pupil, iris, lens, rods, cones, retina, optic nerve and fovea.

"The human eye...the most important optical instrument. Here lies the focusing lens, giving a minute inverted image to an incredibly dense mosaic of light receptors, which convert the patterns of light energy into the language the brain can read - chains of electrical impulses." (Gregory, 1966)

However, visual responses are not instantaneous as may be expected. Generally, the eye uses 0.1 to 0.3 seconds to fixate on an object, provided the eye and object are in relatively fixed positions to each other. (Ewald, 1971) If the fixation object is moved, the estimated latency of movement is one-fifth of a second. (Gregory, 1966)

This response time becomes even more critical when the viewer is in an automobile in motion. Generally the total reaction time is three-fourths of one second, which may seem insignificant except that at 60 miles per hour, the car is moving 88 feet per second. So, the car has traveled 66 feet before the eye and brain can coordinate activities. (Ewald, 1971)

Another factor affecting this reaction time is the location of the object with respect to the viewer's cone of vision. For example, objects in the central cone of vision can be perceived with fine

detailing. Moving only one (1) degree from the center of the fovea creates a 50% drop in pattern acuity or detail resolution. An object eight (8) degrees from the center has only 15% of maximum detailing. Obviously this information is even more significant when considering the cone of vision of a typical driver at various speeds. See Figure 4.

There are some generalizations about perception and driving that are helpful to note. As a driver's speed increases, his concentration becomes more intense and focused directly on the road ahead. For example, at 25 miles per hour the natural focusing point is approximately 600 feet ahead of the car; at 45 miles per hour, 1200 feet ahead of the car. Therefore, the driver's peripheral vision is decreasing while his speed and depth of field increases. See Figure 5. (Ewald, 1971)

With increasing speed, foreground details fade so that by 40 miles per hour, the closest point of clear vision is approximately 80 feet in front of the car. By 60 miles per hour, clear detail can be detected in an area 110 to 1400 feet ahead of the car, that distance traversed in less than 15 seconds.

Also important to visual perception is the human ability to process information. George Miller of Princeton University observed a "span of absolute judgment", or the capacity to make judgments about what we see. He found that in the average observer the span is only seven categories of information at one time. The "human span of immediate memory" is about seven items, and the "human span of attention" is recognition of about six objects per glance. (Ewald, 1971)

Ralph Haber's study indicates that there are two different types of memory, pictorial and linguistic. His experiments further revealed that "the capacity to remember pictures may be unlimited"; since pictures appear to be stored in the brain without words or labels.



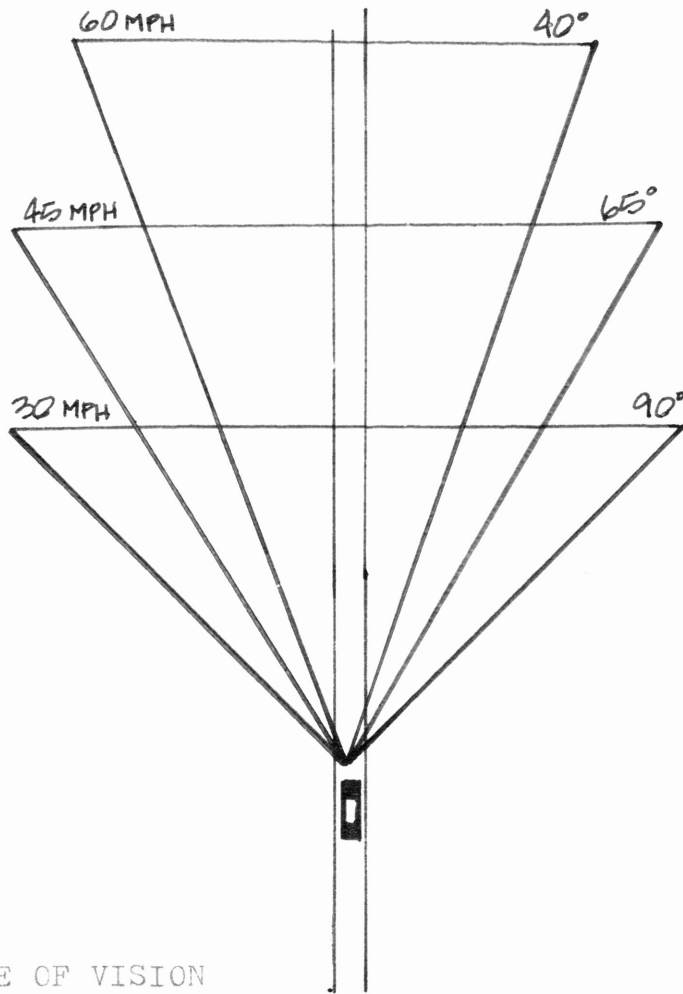


FIGURE 4 - ANGLE OF VISION

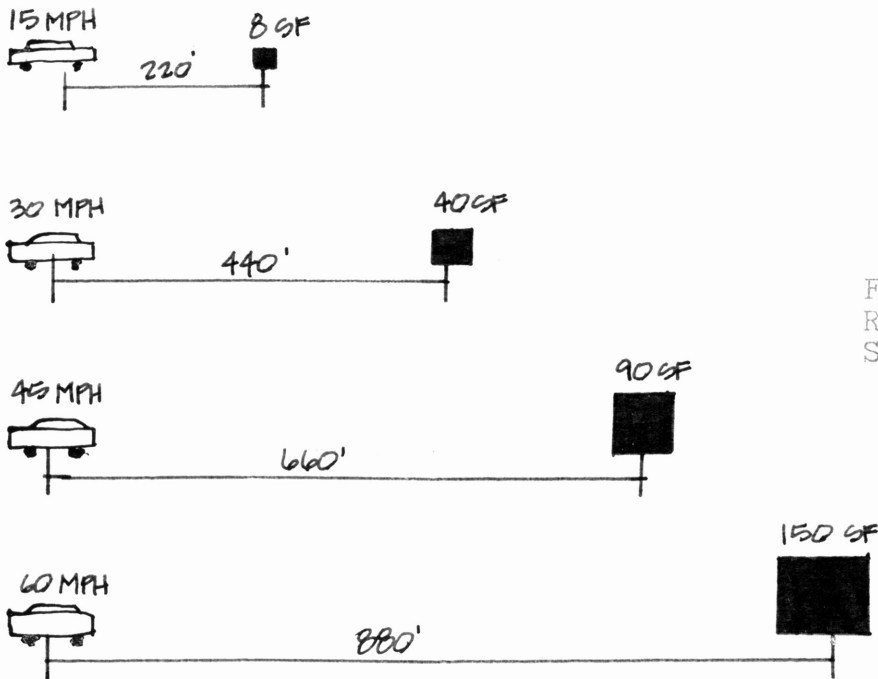


FIGURE 5 - SIZE OF SIGN  
RELATIVE TO SPEED AND  
SIGHT DISTANCES

Linguistic memory is composed of short term and long term memory. Short term memory holds approximately 4 to 6 items which are lost rapidly without rehearsal or coding into long term memory. (Haber, 1970)

Legibility is another very important variable in visual perception, and legibility is a function of letter size, type face, color, contrast, driving speed and illumination. Many studies have been done on the effectiveness of color in advertising, and most indicate similar results as follows:

BEST	WORST
black on yellow	orange on white
black on white	red on green
blue on white	blue on black
green on white	black on blue
white on green	yellow on white

In general, the best color contrast comes from using dark colors on light backgrounds or light colors on dark backgrounds, with the worst color contrast from dark on dark or light on light colors. (Burt, 1938)

Other factors to consider in color perception are the frequency of color detection. Generally, reds and oranges are noticed more, possibly because red looks nearer to the observer. Both reds and greens are only noticed in the center of the retina, yellows and blues detected outside this central cone. (Hattwick, 1956)

Besides color legibility, the type face and size of type are important considerations in legibility analysis. For example, studies indicate that all upper case letters are easier to read. This difference of 10 - 30% reading speed is based generally on the notion that people read by fixating on the word as a whole rather than individual letters. Therefore, a word in lower case letters is easier to read since the reader recognizes the shape of the word. The size of the letters depends on the distance from which they are to be viewed. In general,

the accepted practice is 50 feet of legibility per inch (1") of letter height. So for 900 feet (approximately 2 blocks), the letter size should be 18 inches. (Ewald, 1971)

### Other Research

There are other sources for sign control criteria, including the Standards by the Landscape Bureau of the Department of Public Works and the Minimum Property Standards by the National Roadside Council. These standards basically determine what type of signs are objectionable and should be removed. These two sets of standards are similar in some ways as abstracted below:

1. No sign may obstruct sight distances.
- \* 2. No sign may have flashing or moving parts or colors and symbols similar to traffic signals within view of the motorist.
- \* 3. No sign may permit leaking or direct rays of light toward traffic.
- \* 4. Signs should not be "clustered" or "nested", especially signs containing reading matter that cannot be comprehended at the designated speeds.
5. No free-standing sign should be greater than 15 feet in overall height from the ground.
- \* 6. No commercial establishment shall have more than 2 signs.
- \* 7. No private or non-official signs are permitted in the highway right-of-way.

\* indicates direct application to College Station

### ANALYSIS OF DATA

#### Existing Ordinance

The present sign ordinance for College Station regulates detached signs, wall signs, projecting signs, roof signs, and marquee signs. The ordinance also designates certain zones where types of signs are appropriate.

Basically, the ordinance regulates the setback, size, location, and connections or fasteners. In the fall of 1976, the City Council "toughened" the ordinance relating to detached signs by requiring stricter standards for the height and setback of detached signs along the streets.

Also, the ordinance makes no provision for enforcement, except requiring building permits for certain sizes of signs.

#### Analysis of Local Data

The inventory data on the existing conditions in College Station represents only a sample of the total data collected. This data does not represent precise measurements, but it does offer approximations appropriate to this study. Before implementation of any ordinance, each sign should be precisely measured.

The inventory included 75 signs of which 46 were not in compliance with the ordinance. This figure represents over 60% non-conforming signs. The most common offender appears to be the detached sign, which generally is located too close to the road for the size or height of the sign. Other problem signs are the projecting signs which extend above the roof lines.

This data then indicates that there is, in fact, a problem in College Station.

#### Business Identity Analysis

From the previous information, it is becoming apparent that simplicity is the key to advertising, that is, using a minimum number of letters, words, and symbols. The next important concept is that of corporate or business identity. Of course, slogans and trade names have long been an important part of national corporate

advertising, but the same advertising principles also apply to small neighborhood businesses. "At a basic level, a visual identity may consist of a symbol or logotype, a letterstyle, and a color scheme. A good corporate identity is one that will identify and express the personality of the corporation..." (Pilditch, 1970) Psychologists recommend short trade names that are easy to see and pronounce, thus repeated for reinforcement. Trade names should also be unique, difficult to imitate, and easy to transfer to other media such as letter heads, nameplates, door signs and so on.

### CRITERIA

The data collected in this study indicates that there is a problem with non-conforming signs in College Station. The data also begins to suggest some perceptual information that can be developed into criteria applicable to College Station. Rather than redesigning the existing signs as was the initial objective of the study, this study will now focus on developing more rigid standards to supplement the present ordinance and address the issues of implications and enforcement.

The following is a final list of the criteria that can be applied to the context of the present ordinance.

1. Maximum number of signs per commercial establishment limited to two (only one (1) detached)
2. Maximum of 6 - 10 characters of information (words and/or symbols) per sign
3. Use of contrasting colors for maximum legibility
4. Letter size maximum of 1" of increased size for every 50 feet of distance
5. Size of signs relative to driving speeds, ie. for 45 miles per hour, signs should be only 90 square feet

6. Directional or index signs located in the central cone of vision along with traffic signals; advertising limited to peripheral vision
7. Signs appropriate to the character of surrounding area; special zoning based on traffic speeds such as commercial, residential, and industrial

The following examples will help to further illustrate the problem in College Station and recommended solutions.



FIGURE 6 - UNIVERSITY DRIVE

Figure 6 is a photograph of University Drive. The problems here are detached signs located too close to the road. The signs appear to meet the psychological data relating to size and lettering, yet they contain more than 6 - 10 items of information per sign. There is also the problem of more than one sign per premise. Figure 7 lists the issues and their compliance with the ordinance and research.

UNIVERSITY DRIVE

KASLES

SCALE

PROXIMITY

LIGHT QUALITY

NUMBER

LETTER

HEIGHT

COLOR

MATERIAL

ORDINANCE

RESEARCH

+

+

-

-

0

+

-

-

0

+

-

+

0

+

0

+

FIGURE 8 - UNIVERSITY DRIVE SOLUTIONS



Figure 8 represents a sketch of the same area on University Drive as seen in Figure 6. Applying the criteria developed for College Station, many of the extraneous signs were removed or consolidated. The result is a more pleasant street scene and better sight distances for the motorist.

Figure 9 is a scene on Texas Avenue. Redmond Terrace Shopping Center has a large detached sign in close proximity to the street. This sign contains more than 10 items of information. Gibson's Discount Center also has a detached sign in the Redmond Terrace Parking Lot. This sign too is in close proximity to the street and contains more than 10 items of information.





FIGURE 9 - TEXAS AVENUE

Figure 10 lists the issues and their compliance with the ordinance. The signs meet the research criteria concerning scale and lettering, but they violate both the ordinance and research data in proximity and number.

REDMOND TERRACE

FIGURE 10

KISLES

SCALE

PROXIMITY

LIGHT QUALITY

NUMBER

LETTER

HEIGHT

COLOR

MATERIAL

ORDINANCE

RESEARCH

+

+

-

-

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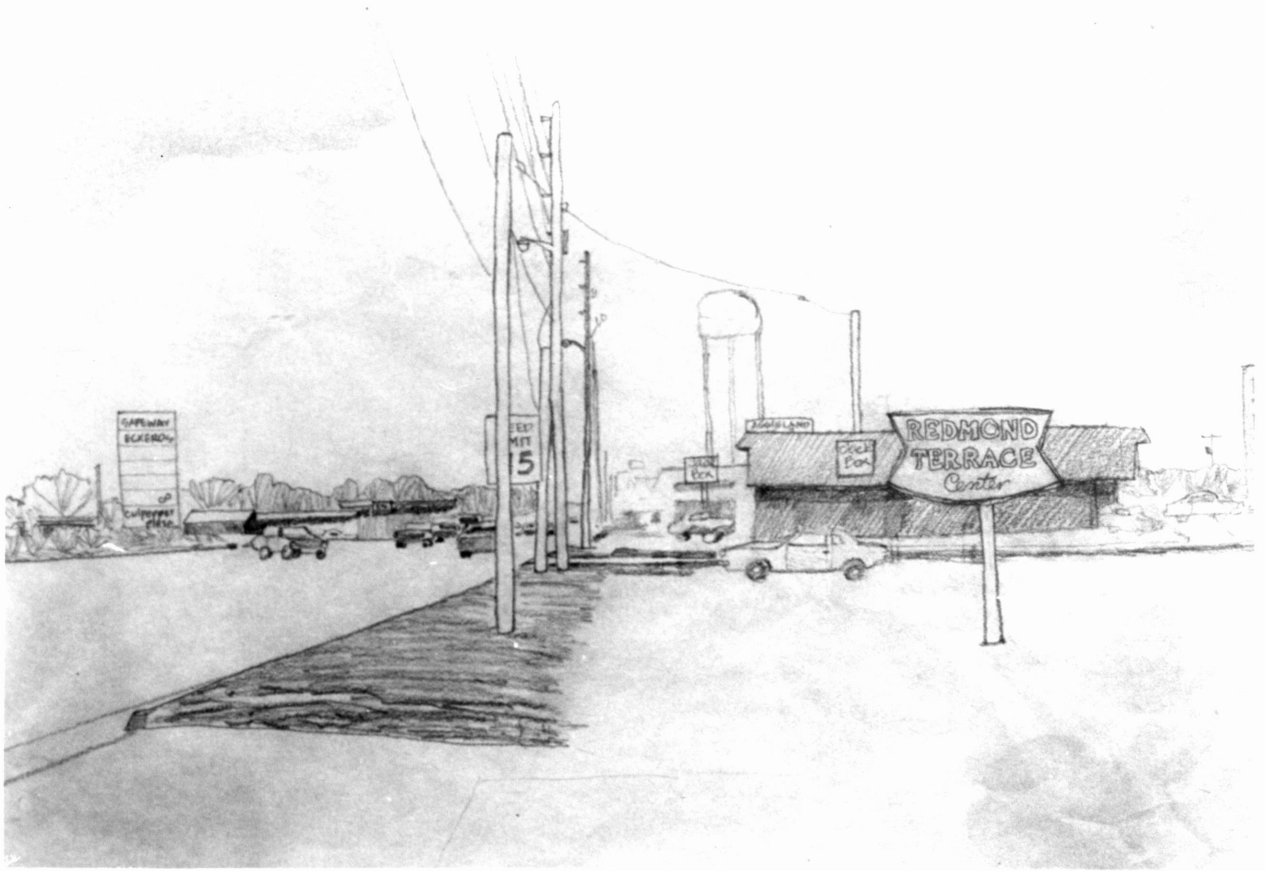


FIGURE 11 - TEXAS AVENUE SOLUTIONS

Figure 11 represents a sketch of the same area on Texas Avenue. Applying the develop criteria indicates removal of one of the detached signs and consolidating the other information into one sign identifying the shopping center.

These solutions are intended only as recommendations or possibilities. Each sign in question is a design problem in itself and should be addressed as such at the appropriate time.

IMPLEMENTATION

Effectiveness of sign control ordinances depend both on governmental and voluntary cooperation by local businesses. The problem in College Station is how to deal with the existing non-conforming signs. This issue demands more research though there are several solutions that may be appropriate for College Station. One such solution might be amoritization. Amoritization is based on the notion that signs have to be refurbished every 5 - 10 years under normal useage. At the end of this period, the owner should have already recouped their initial investment in the sign. Using figures from the initial investment, an amorization schedule could be derived. The non-conforming signs could remain in existence for a period of time commensurate with initial investment before having to comply with the ordinance. A sample schedule follows:

INITIAL COST	AMORITIZATION PERIOD
less than \$500	6 months
\$500 to \$1000	12 months
\$1000 to \$3000	24 months
\$3000 to \$6000	48 months
more than \$6000	60 months

At the end of the amoritization period, the owner would be expected to construct a conforming sign.

Another solution might involve tax credits or incentives for owners rebuilding their non-conforming signs. A final approach might be public education as to the problem and workable solutions. Once the public understood the possible results, "peer pressure" might be a viable solution.

CONCLUSION

This topic is pertinent to College Station and will continue to be important as the community grows. The problem will only become more complex and unsightly unless firm action is taken.

This study has addressed the identification of the problem and development of criteria, working toward an acceptable solution for College Station. But this study is only a beginning. There are specific areas that still demand research as follows:

1. Enforcement
2. Visual perception
3. Public education and acceptance

## BIBLIOGRAPHY

### BOOKS

- Ashley, Myer and Smith. City Signs and Lights. Boston Redevelopment Authority, 1971. 272 p.
- Burt, Harold E. Psychology of Advertising. Dallas: Houghton Mifflin Co., 1938. 467 p.
- Constantine, Mildred and Jacobson, Egbert. Sign Language for Buildings and Landscape. New York: Reinhold, 1961. 212 p.
- Ewald, William R. Street Graphics. Washington, D. C.: American Society of Landscape Architects, 1971. 175 p.
- Gregory, R. L. Eye and Brain. Toronto: McGraw-Hill, 1966.
- Hattwick, Melvin S. How to Use Psychology for Better Advertising. New Jersey: Prentice - Hall, Inc., 1956.
- Houck, John W. Outdoor Advertising: History and Regulations. Notre Dame: University of Notre Dame Press, 1969. 320 p.
- Pilditch, James. Communication by Design. New York: McGraw-Hill. 1970.
- Roadside Protection. American Automobile Association, 1951. 130 p.

### MAGAZINES

- Haber, Ralph Norman. "How We Remember What We See". Scientific American, May 1970, pp. 104-112.

SHELLEY GAY EUBANKS

APRIL 1978

School Address: 1001 Harvey Rd. #111  
College Station, Texas

Home Address: 1908 Buckner  
Longview, Texas

Phone: 713 693-5341

Phone: 214 759-4204

Age: 22  
Marital Status: Single  
Health: Excellent

#### FAMILY

Parents: Jerry M. Eubanks, P.E.  
B.S. Petroleum Engineering, Texas A&M University, 1953

Nora Gene Elder Eubanks  
Attended Hockaday Junior College, Dallas, Texas

Brother: Jay M. Eubanks  
B.S. Microbiology, Stephen F. Austin, Nacogdoches, 1976

#### EDUCATION

High School: Pine Tree High School, Longview, Texas  
Valedictorian with 97.4 grade average

College: Texas A&M University, College Station, Texas  
Major: 1 1/2 years Zoology  
3 years Landscape Architecture  
Grade Point ratio: 3.86

Studies include: drawing, design, horticulture, professional practice  
Degree expected: B.S. Landscape Architecture, May 1978

#### AWARDS, HONORS, ACTIVITIES

##### Scholarships and Awards

Texas A&M University Valedictory Scholarship 1973  
Former Students of Landscape Architecture Endowment 1977

Who's Who Among American Colleges and Universities 1977

Nominee Danforth Fellowship 1977

Nominee Thomas Gathright Award, Dept. of Landscape Architecture 1976

University Undergraduate Fellows Program 1977-78  
Topic: "An Assessment of the Existing Sign Quality in  
College Station"  
Advisor: Phil Pregill

## Scholarships and Awards Continued

Nominee American Society of Landscape Architects Student Merit  
Award for Excellence (Interviews to be April 21, 1978)

Distinguished Student every semester

## Honor Societies

Phi Kappa Phi National Honor Fraternity

Cap & Gown Senior Honor Society

Tau Sigma Delta National Architecture Honor Society

Alpha Zeta CWENS (now Lambda Sigma)  
Social Chairman  
Mistress of the Feast

Alpha Lambda Delta

## Campus Activities

Opera and Performing Arts Society (OPAS), 1973-77  
Chairman 1977  
Secretary 1976

OPAS Executive and Nominating Committee 1977  
Secretary of Nominating Committee to select officers of  
Executive Committee whose purpose is to select the  
programs offered by OPAS and encourage continued  
support of the Fine Arts

Student Chapter American Society of Landscape Architects, 1974-78  
Workshop Speaker Chairman 1977  
Editor of L.A. TIMES, first newsletter to former students  
of the Department of Landscape Architecture

MSC Directorate representative from OPAS, 1977

Undergraduate Programs Committee for the College of Architecture, 1977-78  
Representative from the Department of Landscape Architecture  
to College committee responsible for reviewing new  
courses in the College and making recommendations to  
the Dean concerning academic affairs

Student YMCA  
Fish Camp Counselor 1974

Dean of Women's Council 1974-75  
Representative from Mam'selles

Representative to Women's Symposium at SMU, 1975



## Campus Activities Continued

Student Aggie Club

Cotton Pageant Duchess 1977

Representing Deep East Texas A&M Mothers Club

Host & Fashion

Mam'selle

Representative to Dean of Women's Council

Longview Hometown Club

Secretary 1974

## Civic and Social Activities

City of College Station Community Appearance Committee 1978

Appointed to help study and possibly revise the  
existing sign ordinance in College Station

Emphasis of the committee in improving the aesthetic  
quality of College Station

Member of St. Andrew Presbyterian Church, Longview, Texas

Chi Omega Fraternity

Rush Chairman 1975

Vice President 1976 in charge of chapter scholarship

President 1977

Active Scholarship Award 1976, 1977

Best Active 1977

Appointed Alumnae Chapter Visitor from 150 national applicants

## WORK EXPERIENCE

Summer 1977: Allen, Buie & Associates, Inc., Architects and Planners, Longview, Texas  
Drafting, design, reproduction, general office

Spring 1977: Community Development Workshop, Texas A&M University  
Renovation of Hillsboro, Texas, City Park  
Instructor - Tom Gardner

Summer 1976: Assistant to Park Planner, Longview Parks Department, Longview, Texas  
Ed Schimmel, Director  
Design, planting design, maintenance, layout, drafting, reproduction

Summer and Christmas holidays 1973-75: East Texas Bank & Trust, Longview, Texas  
General assistant in bookkeeping, customer service, switchboard

TRAVEL EXPERIENCE

Summer 1976: Three weeks in Japan, with layovers in Hawaii

Spring 1978: Two weeks in Florida with Landscape Architecture Field Trip

HOBBIES

Ceramics, drawing, needlework, tennis, snow and water skiing

PARENTAL INVOLVEMENT AT TAMU

Father: Member of Deep East Texas A&M Club  
Vice President in charge of Scholarship selections

Mother: Member of Deep East Texas A&M Mothers Club  
Vice President at inception  
President 1977-78  
Attended Mothers Club Conference 1977  
Will Attend Mothers Club Conference April 15, 1978