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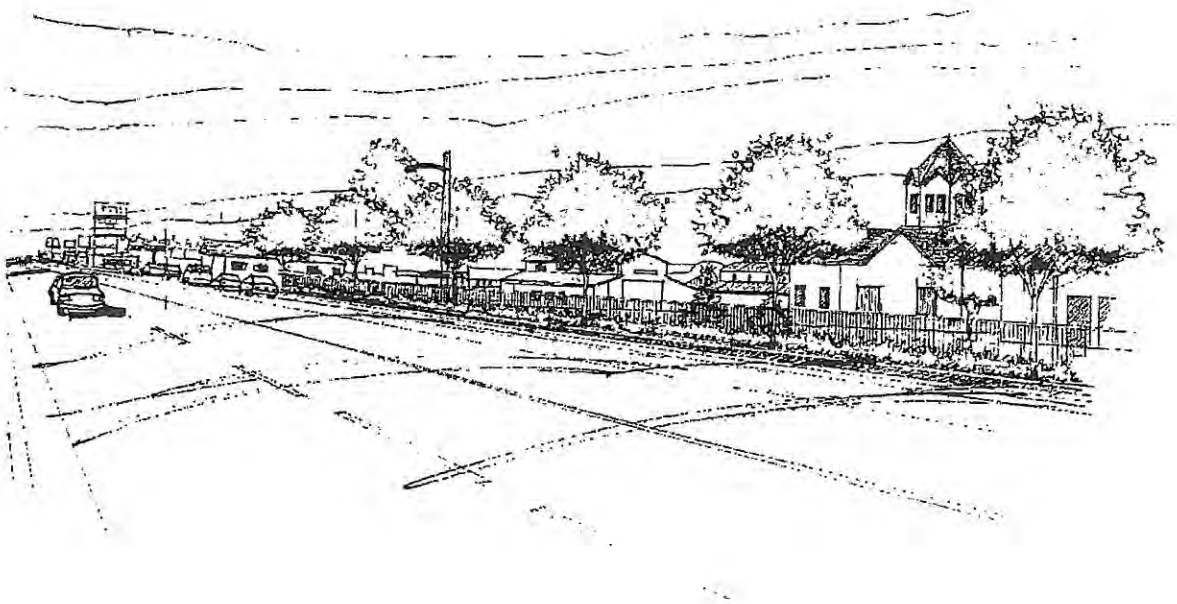
CADILLAC AREA CORRIDOR STUDY



HARING CHARTER TOWNSHIP
CLAM LAKE TOWNSHIP
CITY OF CADILLAC
September - 1999

CADILLAC AREA CORRIDOR STUDY

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✦

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The Cadillac Area Chamber of Commerce

✦

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✦

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Note: Study recommendations are those of the participating communities and design consultants. They do not necessarily reflect the recommendations of the Michigan Department of Transportation.

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INTRODUCTION

Study Partners

The Cadillac Area Corridor Study represents a unique planning effort involving the neighboring communities of Haring Township, Clam Lake Township, and the City of Cadillac. These communities form the Cadillac Metro Area (acronym to be used for purposes of this study). All are traversed by US-131 (Mitchell Street), a system which will soon be supplemented by a new freeway bypass, located east of Cadillac. Construction of the bypass includes three interchanges to be located near the northern terminus of the present US-131 freeway; at M-55, east of Crosby Road; and, at Boon Road, near Plett Road.

The present US-131 will be retained by the Michigan Department of Transportation (MDOT) as a business route. US-131, at its current location, generates over 11,000 vehicles per day at the southerly point of entry into the City. Seasonal periods and holidays experience significantly greater volumes. Within the core area (downtown) of the City, daily traffic volumes rise to over 29,000 vehicles per day. M-55, a designated state trunkline, will remain under MDOT control. Boon Road (i.e., that portion between the new interchange and BR-131), currently a Wexford County primary roadway, will be transferred to the jurisdiction of the Michigan Department of Transportation.

Recognizing the impact of the new freeway, and freeway interchanges, on traffic patterns and future development, Haring Township, Clam Lake Township, and the City of Cadillac joined forces to examine enhancement needs and opportunities for the future US-131 Business Route, associated M-55 and Boon Road segments, and the new freeway interchanges. The study effort was coordinated by the Cadillac Area Chamber of Commerce. The Michigan Department of Transportation provided project funding and staff assistance.

Study Intent and Use

The Cadillac Area Corridor Study presents a narrative and graphic description of design concepts and standards which can be applied to future development and redevelopment opportunities occurring along Mitchell Street (BR-131), M-55, Boon Road, and the new interchanges. The concepts and standards are intended to:

- ❒ protect and enhance the area's living environment
- ❒ promote the area's natural beauty and excellence
- ❒ create common linkages among Haring Township, Clam Lake Township, and the City of Cadillac
- ❒ advance the area's economic growth
- ❒ promote safe and efficient vehicular and pedestrian circulation and access

The plan is intended to be used in a variety of ways:

1. Participating governmental units are encouraged to amend their individual Master Plans to include, by reference or otherwise, the recommendations of the Corridor Study.

2. Participating governmental units are encouraged to use the study in refining and improving local zoning regulations and review procedures applicable to new development or the redevelopment of corridor sites. The implementation of study recommendations in regulatory form helps ensure their use as mandatory standards rather than mere guidelines.

3. Property owners and developers are encouraged to consult the study as new site development concepts and final designs are prepared.

4. Business owners are encouraged to consult the study as site upgrades are contemplated.

5. Participating units of government are encouraged to implement study recommendations as part of their short and long range capital improvements programming efforts. This will help ensure that projects are considered for future funding allocations.

6. From time to time, state and federal highway agencies offer grant funding opportunities for various types of roadway enhancements. Information from the study can be useful units pursuant to the justification of need for such funding and may also be helpful when addressing grant application narrative requirements.

7. Volunteer groups, civic organizations, and others are encouraged to review program recommendations and, as appropriate, consider offering assistance to participating units of government and corridor property owners in the financing, development, and/or maintenance of enhancement activities.

8. To serve as a guide to the local MDOT and Wexford County Road Commission staffs as decisions regarding driveway placement and access control measures are examined and approved.

9. To serve as a guide to the MDOT staff pursuant to the enhancement of the freeway interchanges.

DEVELOPMENT AND CORRIDOR ENHANCEMENT PRACTICES

An Overview of Past Practices

US-131: Historically, US-131 developed in linear (strip commercial) fashion with many land uses directly associated with the automobile and tourism. From the 1950's to the early 1990's, corridor development saw the rapid emergence of gasoline service stations, fast food restaurants, automotive dealerships, recreational vehicle sales, and the like. Studies completed by the City of Cadillac during the mid 1990's found that over one third of all corridor development had a direct association with the automobile (i.e., service stations, vehicular sales, automobile parts, trailers, etc.). The roadway's strip development character is evidenced as one traverses the corridor throughout much of its length. Beginning at approximately Mackinaw Trail and extending to Boon Road, a strip commercial orientation occurs.

Traditionally, site development practices associated with many of the adjoining commercial parcels exhibited little concern for the preservation of natural features (i.e., trees, open space, through views, etc.) or for the implementation of new landscape treatment as a way to compliment on-site buildings and to reduce the harshness of highly visible parking lots, free-standing signs, dumpsters, loading/unloading areas, power poles, and the like. The lack of streetscape and high quality site development were generally not considered necessary to the area's economic growth or well being.

M-55: Historically, M-55 experienced single-family residential development throughout much of its length, complimented by several religious institutions on large sites. This resulted in the placement of lawns, street trees, and other on-site vegetation typically associated with residential areas. As a result, M-55 presented, and continues to offer, an attractive, calming, atmosphere as one traverses the roadway.

Boon Road: Historically, Boon Road experienced a mixture of undeveloped open and wooded sites combined with scattered residential. The southern side of Boon, between US-131 and Plett Road, saw a mixture of low density, strip, commercial and light industrial uses. These developed commercial and industrial sites tended to house buildings of pole type/metal construction. Most sites contained little or no landscape treatment.

An Overview of Evolving Practices

Local attitudes towards the future of US-131, M-55, and Boon Road are changing as the public, business entrepreneurs, local governments, and area agencies are becoming increasingly aware of the importance of corridors that are not only safe and efficient, but also, highly attractive. There is a growing realization that the future synergy of the area's business climate, as well as the overall quality of life for local residents, warrant attractive roadways. In recent years, these facts have resulted in a number of enhancement efforts such as:

- site beautification associated with the retail and professional office development located along US-131, near the Mackinaw Trail Intersection, in Clam Lake Township
- the City of Cadillac Central Business District Streetscape Program
- implementation of the City of Cadillac US-131 and M-55 Land Use Corridor Studies
- site beautification effort associated with the new Meijer retail store, in Haring Township

Public feedback during preparation of the study reinforced the importance of such activities, as well as the need to expand enhancement efforts. High quality, aesthetically attractive, corridors were called for in order to:

1. attract relatively high levels of transient traffic off the future by-pass in order to sustain existing US-131/Mitchell Street businesses
2. foster the area's image as an attractive, desirable, place within which to live, work, and play
3. resolve isolated areas of corridor blight and decline
4. create consistent, aesthetically pleasing, visual images along all roadway segments
5. visually link the three communities thereby reducing or eliminating perceptions of disjointed development and sprawl
6. foster a high quality business environment leading to continued investment in properties adjoining each roadway

7. advance the area's unique beauty and qualities

8. establish a unique, yet manageable, corridor environment

9. create a positive legacy for future generations

THE CORRIDORS - A VARIETY OF CHARACTER

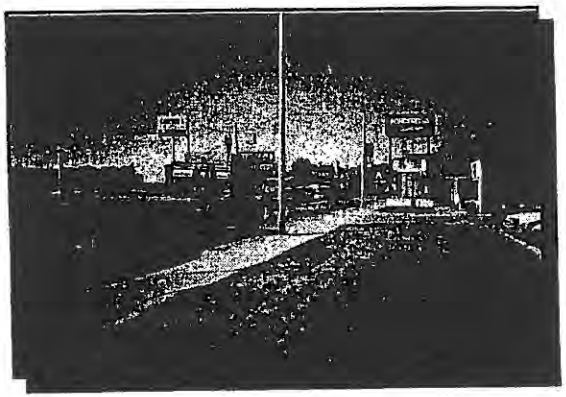
US-131 (Mitchell Street)

The study portion of US-131 is approximately five (5) miles in length. It extends from the present terminus of the US-131 freeway (Clam Lake Township) to Boon Road (Haring Township). The roadway traverses Cadillac's Central Business District (CBD). The road varies in right-of-way width, number of lanes, and posted speed limit. It falls under the jurisdiction of the Michigan Department of Transportation and is currently anticipated to remain as such when reclassified as a business route. As one travels the road (from south to north), five relatively distinct "character" components or segment may be identified:

1) **Freeway Terminus to Granite Street:**
   - area of extended east/west vistas offering views of open space and wooded areas
   - new office and retail development
   - visible, highly attractive, professional office park
   - tourist "feel" as one enters the City due to hotel, motel, and restaurant establishments
   - large, well landscaped, sites
   - high, channeled, vista into the metro area as one descends the hill near the Cadillac Cemetery
   - landscape associated with the two cemeteries (i.e., dense stands of mature pines) adds a positive visual effect to the traveling experience and downtown entry
   - the overall road segment presents an attractive and very positive entry image

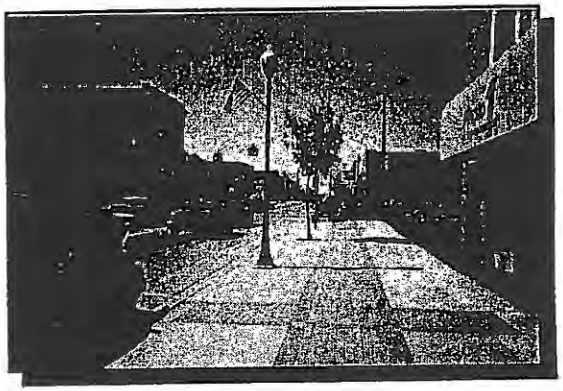
2) **Granite Street to South Street:**

- mixed-use area - remnants of single-family residential, converted single-family homes to office use, professional offices/financial institutions, service stations, restaurants (fast food and other), pharmacy, strip mall, florist, warehouse, auto wash, etc.
- area is undergoing some business redevelopment
- many parcels void of frontage landscape
- limited building setbacks from roadway
- numerous curb cuts
- generally presents a mature image in need of redevelopment
- fair to poor maintenance of street terrace



3) **South Street to East River Street:**

- includes the Cadillac Central Business District (CBD) area comprised of speciality and general retail, restaurants, governmental services, professional offices/financial institutions
- area exhibits significant business synergy and pedestrian activity
- core area of the CBD has received streetscape treatment
- heavy traffic volumes (including automobile and light and heavy trucks), combined with on-street parking and pedestrian crossings, can result in a congested experience as one navigates the core CBD
- most CBD buildings possess good to excellent appearance
- lack of consistent streetscape/site development as one moves in either direction from the core CBD
- the core CBD road segment presents an attractive and positive image

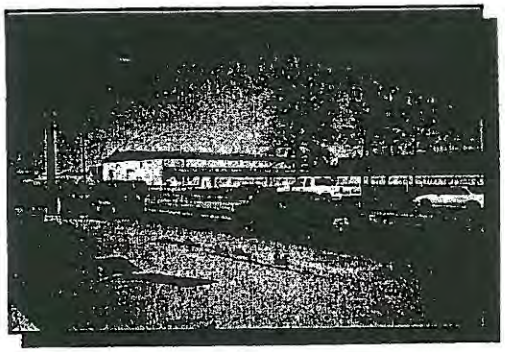


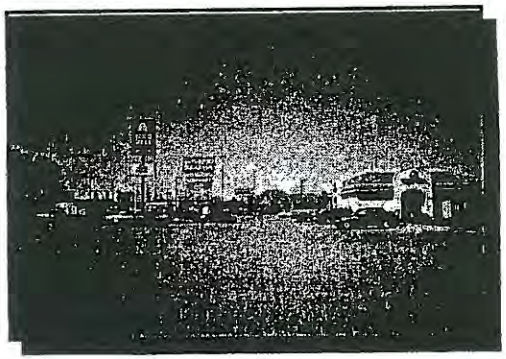
4) **East River Street to 13th Street:**

- closely mirrors the Granite Street to South Street segment (#2)
- presents a mature image in need of redevelopment
- fair to poor maintenance of street terraces

5) **13th Street to Boon Road:**

- location of the Metro area's "big box" retailers [i.e., K-Mart, WalMart, and Meijer
- undergoing new retail construction - experiencing the highest rate of new commercial activity
- possesses several strip commercial centers
- significant number of fast food restaurants, service stations, automotive servicing, general and speciality retail, financial institutions/professional offices, etc.
- location of the Wexford County Fairground - Fairground presents poor visual image (i.e., rear building facades face Mitchell, limited landscape, security fencing surrounds site, etc.)
- many parcels void of frontage landscape - much of the street terrace has been hard surfaced (cemented)
- large expanses of highly visible, paved, parking lots - no interior landscape
- numerous, non-barrier free, curb cuts throughout
- area is generally void of sidewalks
- numerous pole signs/visual clutter
- many buildings/site uses have been allowed to develop/expand near roadway resulting in limited setbacks
- the rapid pace at which this segment is developing/redeveloping results in opportunities to quickly bring about streetscape and associated site improvements





Analyzed as a whole, the US-131/Mitchell Street Corridor:

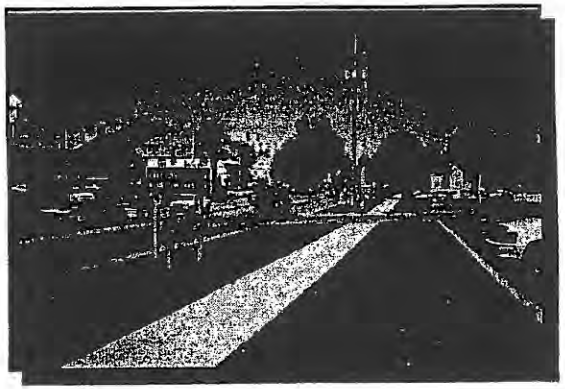
1. lacks a unified (unifying) streetscape
2. has been designed and constructed with limited consideration for efficient access management (i.e., general observations reveal the presence of an excessive number of curb cuts, poorly defined and spaced curb cuts, lack of internal cross-overs/cross-connections between adjoining sites, poorly aligned drives/curb cuts, etc.)
3. is lined with highly visible power poles and associated above ground wires
4. experiences poorly maintained, yet highly visible, street terraces throughout much of its length (i.e., terraces are overgrown with weeds, exhibit presence of litter and debris, etc.)
5. experiences a high number of poorly/non-maintained frontage (front yard) landscapes - -some of the most noticeable problem areas are sites associated with vacant buildings where the existing frontage landscape is no longer maintained
6. is undergoing redevelopment, but is emerging as a typical, unplanned, strip commercial corridor common throughout Michigan

In spite of the above, the US-131/Mitchell Street Corridor has the potential to become an efficient, attractive, roadway. Throughout the corridor, there are pockets of high quality development to serve as catalysts for additional improvement. A number of frontage properties exhibit only minor degrees of difficulty pursuant to enhancement potential. And, perhaps most importantly, there is a strong desire on the part of many local residents and merchants to experience roadway improvements.

M-55 (East Cass and East Division)

The study portion of M-55 extends from US-131 (Mitchell Street) in Downtown Cadillac to the new US-131/M-55 Interchange, east of Crosby Road. The segment is approximately two (2) miles in length. The corridor contains two relatively distinct components (west to east):

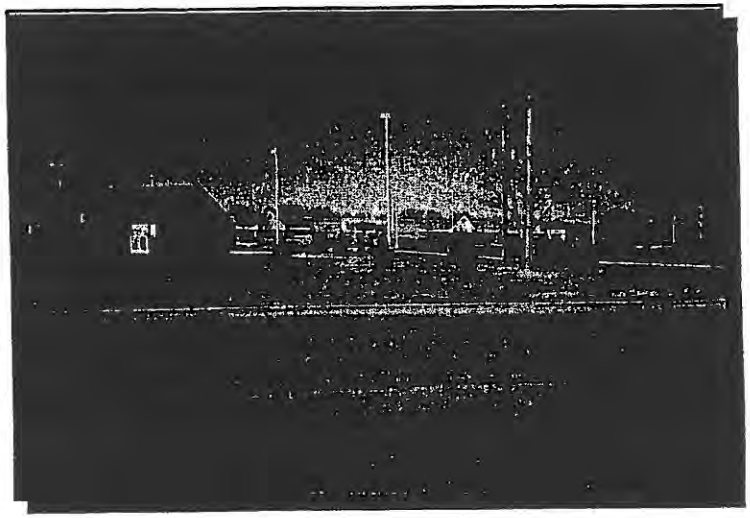
1. **Mitchell Street to Carmel Street:**
   - primarily single-family residential in land use orientation
   - area appears very stable
   - street terrace is tree-lined - - compliments adjacent landscaped home sites
   - homes are mature, but generally well-maintained
   - small commercial sector between Mitchell and Simons Street - - does not detract from the road's residential orientation
   - road segment is aesthetically attractive and presents a positive, calming, image



2. **Carmel Street to the US-131/M-55 Interchange:**
   - generally open and distant vista - - area between Crosby Road and the new interchange contains very open/wide vistas
   - some single-family, however, large parcel church sites tend to dominate
   - limited professional office development
   - most developed sites are landscaped
   - unlike the Mitchell Street to Carmel Street segment, this segment is generally void of trees along roadway
   - road segment is generally attractive and presents a positive image, but could be enhanced with additional streetscape

Boon Road

The study portion of Boon Road extends from US-131 in Haring Township to the new US-131/Boon Road Interchange. For study purposes, the general area around Plett Road has been used as the easterly end point. The single segment is approximately one (1) mile in length. Boon Road is proposed for widening to four (4) lanes, with an additional center turn lane. Boon Road:



- undergoing new retail development - - anticipated to experience additional commercial construction
- Boon Road will assume an increasing visible presence to residents and visitors due to anticipated growth in retail development - - most of which will be based on a regional market area
- contains several speciality retail and service operations which have existed for some time - - sites are generally void of frontage landscape and possess non-paved parking and drives
- several commercial establishments have allowed visible portions of their road oriented yard areas to be used for the placement/storage of products and materials
- the anticipated development/redevelopment of this segment is likely to result in future opportunities to initiate a comprehensive streetscape program and to improve the design and appearance of existing developed properties

CORRIDOR AND INTERCHANGE ENHANCEMENT PRACTICES

Enhancement of the corridors and interchanges involves the consideration and possible blending of a variety of techniques. This section explores those techniques.

Site Design

Sensitive, high quality site design is critical to the visual, functional, and economic life of the Cadillac Metro Area. Sites that are well designed usually result in a overall higher quality of life, property value increases, improved pedestrian safety, and improved vehicular circulation efficiency.

Site design involves a series of elements:

a) building architecture
b) building orientation/setbacks/lot size
c) access/access management
d) parking and circulation
e) landscaping
f) signs/street lights/power poles
g) roadway and site maintenance

a) **Building Architecture** - The building mass and shape should compliment the site. Large, massive structures are generally most appropriate for sites with fewer environmental restrictions. Sites that are wooded, sloping, or have significant views are best suited for less massive and informal buildings that can be carefully positioned into the existing landscape.

- ❒ Building size and design should respect the dominant shape and form of surrounding structures. Excessive duplication, however, should be avoided.

- ❒ Buildings should be no higher than surrounding, mature, tree masses.

- ❒ Rooftop mechanical equipment should either be screened and/or positioned such that visibility from off-site is either non-existent or limited.

- ❒ Power and telephone lines should be placed underground. On-site power poles should be avoided.

- ❒ Plain, pole-type metal buildings should be avoided.

- ❒ The use of windows and other forms of facade openings and embellishments should generally be encouraged. The avoidance, blocking, or elimination of windows or other facade treatment resulting in large, stark-like, walls facing roadways should generally be discouraged.

b) **Building Orientation/Setbacks/Lot Size** - Lot configurations and building orientation are often dictated by zoning requirements for street frontage, minimum lot area, minimum lot width, and yard (setback) requirements.

- ❒ Except for the "zero lot line" character of the City's Central Business District, buildings should maintain frontage setbacks sufficient to accommodate appropriate landscape, pedestrian and vehicular circulation needs, and future road improvement needs (i.e., widening, bike path/sidewalk placement, etc.).

- ❒ The use of "required" front yards, as defined by each of the local zoning ordinances, should be maintained as landscaped open space. Except for sign placement and access drives, the use of these yards for displays, materials storage, vehicular parking, etc. should be prohibited.

- ❒ Generally, the more rural/open space sectors of the various corridor segments (i.e., US-131 in Clam Lake Township, easterly portions of M-55, and much of Boon Road) should maintain larger lots and setbacks in order to retain existing natural vegetation and open vistas and to compliment (balance) the scale and mass of the larger buildings (and building clusters) which are typical to these locations.

c) Access Management

US-131/Mitchell Street, M-55, and Boon Road are each required to perform many functions, and the importance of each function depends on the perspective of those most affected.

- The Michigan Department of Transportation (MDOT) views these highways as arterial roadways intended to carry large volumes of through traffic into and through the area's urban setting. MDOT's mission, therefore, is to preserve the traffic carrying capacity of the network in order to get people from point "A" to point "B" as efficiently and safely as possible.

- Business owners view the highways as a means to attract business and provide access for customers to their establishments. The large volumes of traffic attracted to the designated state arteries become a lure for businesses whose owners view each vehicle as a potential customer. Their objective, therefore, is to divert the traffic from the highway into their establishment.

- Clam Lake Township, Haring Township, and the City of Cadillac view the corridors as the "gateways" to their respective communities and as prime locations to stimulate economic growth – jobs, services, and tax base.

To an extent, the highways serve all of these functions, therefore, it is essential to seek a balance among the several potentially competing objectives. Balance can be achieved through community cooperation and consistent regulatory policy regarding land use and access management.

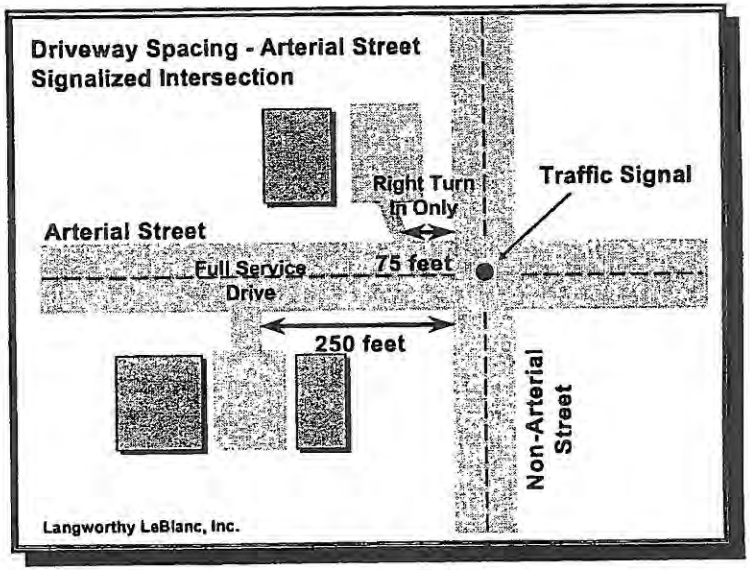
Transportation studies have continually shown that the number, design, and location of driveways can have a great affect on the ability of a road to safely move traffic and provide access for adjacent land uses. Every effort should be made to limit the number of driveways and encourage access from side streets, service drives, frontage roads, and shared driveways.

Driveway Management - Each driveway along an arterial roadway presents a potential conflict point. Vehicles pulling in or out, or slowing to turn, disrupt the smooth flow of traffic. These movements create "side friction". The number, spacing, and design of driveways, therefore, are important factors to consider in order to maintain a desirable level of capacity and movement on the roadway.

The following information presents driveway management guidelines. In some instances, existing land development and roadway patterns may prevent compliance. In such cases, compliance to the maximum extent possible should be achieved. In all instances, unsafe conditions should be avoided.

Spacing - Since portions of roads have speed limits between 45-55 miles per hour, driveway spacing along these major streets is a significant concern. Increasing the distance between each driveway provides a measure of safety by ensuring that drivers can more easily identify the driveway location and respond in sufficient time to slow and appropriately enter the drive.

Likewise, adequate spacing is necessary between driveways and street intersections to avoid conflicts and confusion. Driveway spacing from intersections should be measured from the centerline of the driveway to the extended edge of the travel lane on the intersecting street, unless otherwise noted. The minimum distance between a driveway and an intersecting street should be:



1. 75 feet along non-arterial streets which intersect an arterial street at locations not designated for a future traffic signal;

2. 75 feet for driveways designed and signed for right turn ingress only, excluding tapers or parallel lanes;

3. 100 feet along streets intersecting with major arterial roadways;

4. 250 feet from any existing signalized intersection or location designated for a future traffic signal;

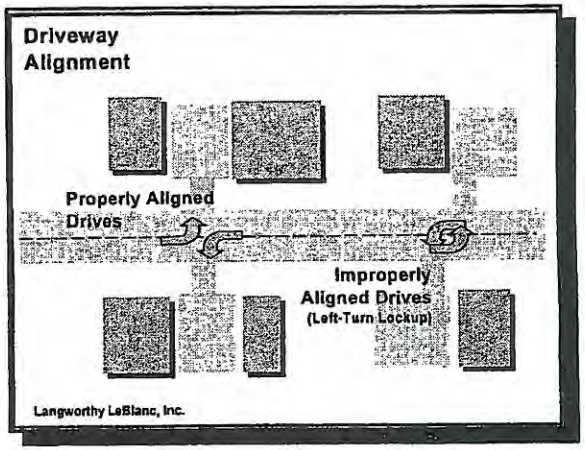
5. If the amount of street frontage is not sufficient to meet the above criteria the driveway should be constructed along the property line furthest from the intersection to encourage future shared use. A frontage road or rear access service drive may also be an option which limits access to side streets.

Minimum and desirable driveway spacing requirements should be determined based on posted speed limits along the parcel frontage. For example, at 55 miles per hour driveways should be a minimum of 350 apart, although 875 feet, or more, is desirable.

Suggested spacing standards are offered in the following table. The "Desirable" values are based on sight distance necessary to allow an exiting vehicle to enter the arterial traffic stream without causing oncoming traffic to decrease their speed by more than 10 mph, and should be required, to the extent feasible, where parcel size permits. The "Minimum" values are based on the distances required to avoid conflicts between vehicles turning right or left from adjacent driveways.

Posted Speed (mph)	Driveway Spacing	
	Minimum (ft.)	Desirable (ft.)
30	125	260
35	150	350
40	185	440
45	230	570
50	275	700
55	350	875

In the case of expansion, alteration, or redesign of existing development where pre-existing conditions prohibit adherence to the minimum driveway spacing requirements, driveways may be located closer than the minimums, but in no case should driveway spacing be less than 60 feet.



Alignment - Driveways should be directly opposite other drives or be offset from opposing property access by a distance sufficient to prevent conflicts with turning vehicles, or what is commonly known as a "left-turn lockup." A minimum desirable driveway offset distance should be 150 feet.

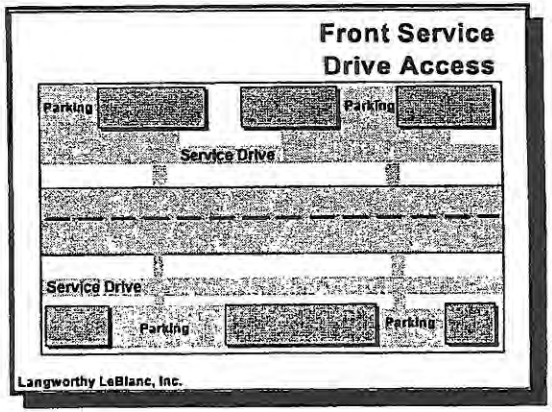
Number - Access to individual parcels should consist of either a single two-way driveway or a pair of one-way driveways. Certain developments generate enough traffic to consider allowing more than one driveway along a major street. Where possible, these second access points should be located on a side street or shared with adjacent uses.

For parcels with frontages of at least 300 feet, an additional driveway may be allowed, but should only be considered following a traffic impact study which demonstrates a need.

Where parcels have frontage on both an arterial and a side street, access should be provided from the side street. For parcels with at least 100 feet of arterial frontage, a right turn in/right turn out only driveway along the arterial could be allowed.

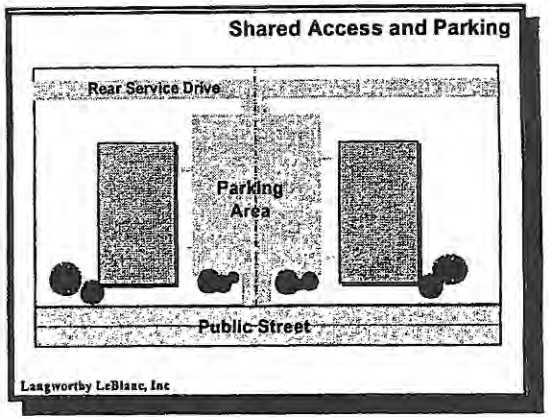
Shared Driveways, Frontage Roads, and Service Drives

Shared driveways by two or more property owners should be required where feasible to reduce the overall number of access points. *Sharing access will require a written easement from all affected property owners during the site plan approval process.* Where a future shared access is desired, the developer should be required to provide an easement for adjacent properties.



Within 1/4 mile of a future signal location, access to individual properties should be provided by alternative access methods (frontage roads, service drives) rather than by direct connection to the arterial. Where shared drives are not practical, an alternative solution would be to require the provision of cross-access between properties (parking lots) so vehicles do not have to enter the roadway to reach adjacent uses. Other access methods, such as service drives (front and/or rear), may also be required.

In areas where frontage roads or service drives are proposed or recommended, but adjacent properties have not yet developed, the site should be designed to accommodate a future drive, with access easements provided. Temporary direct access to the arterial street may be granted for individual properties until the frontage road or service drive is constructed. This access point should be closed when the frontage road or service drive is constructed.



Frontage road and service drive intersections at the arterial street should be designed according to access management guidelines. A frontage road can be delineated through a parking lot by raised islands separating parking from the traffic lane. While frontage roads can significantly relieve potential conflicts, it is

important that they be separated from the public street a sufficient distance to permit vehicle turns and stacking within the site without creating conflicts at the drive approach.

d) **Parking and Circulation** - The design of on-site parking lots has a direct relationship to the safety and efficiency of the adjoining road and to the public's perception of the traveling experience. Many of the parking lots throughout the Cadillac Metro Area have been designed and constructed with little or no regard for these factors.

The region's cold weather conditions are commonly used as justification for avoiding the placement of landscape within parking areas. Concern is voiced over the inability to efficiently remove and store snow when sites are required to incorporate internal landscape. In most cases, such concerns are not justified. Experience throughout the State demonstrates that parking lots can be landscaped without significantly impacting maintenance.

- ❒ Parking lots should be buffered by perimeter landscape. This is particularly important for parking lots abutting a roadway.

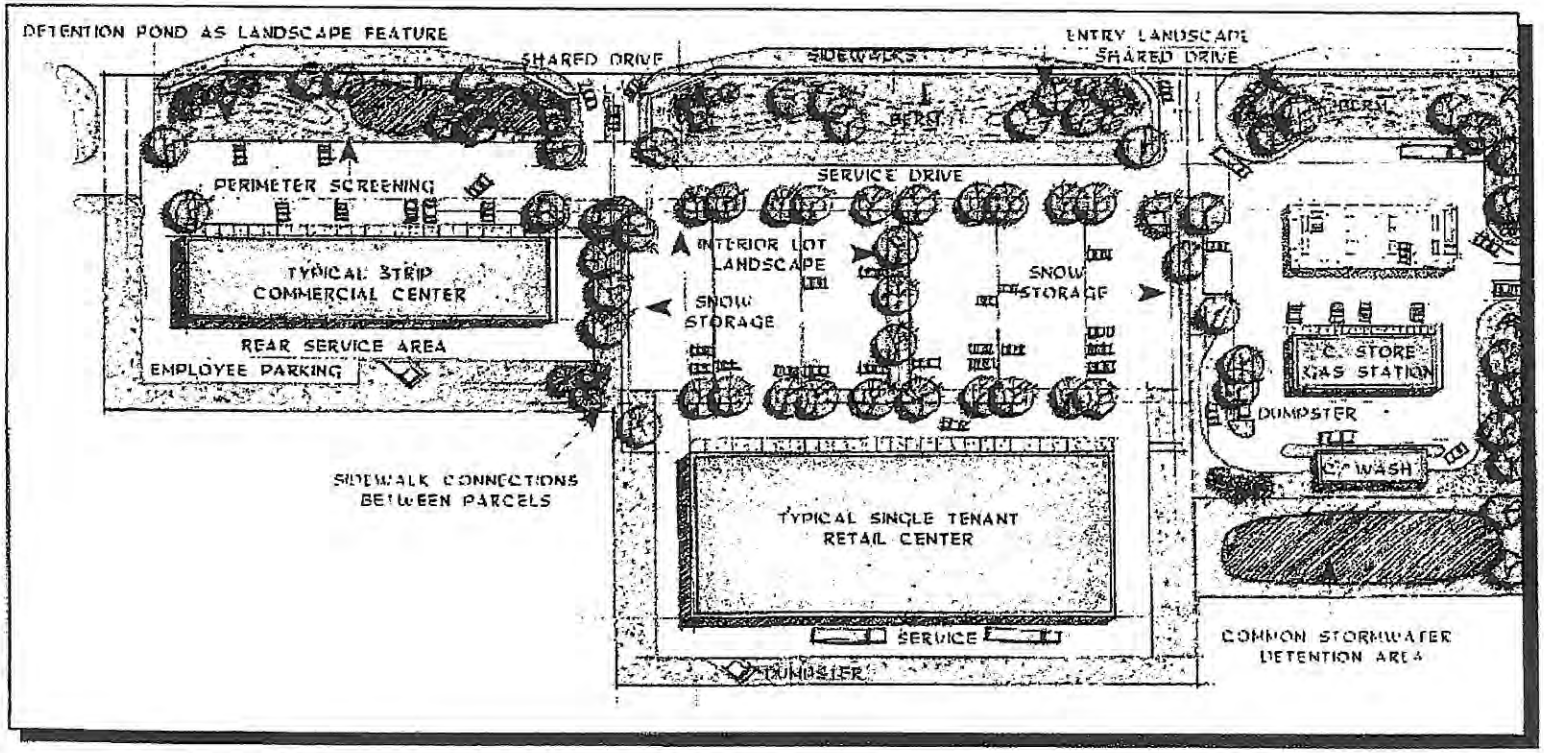
- ❒ Large parking areas (i.e., in excess of fifty spaces) should be broken up with internal landscaped areas. These may be in the form of plant clusters, plant islands, etc.

- ❒ Greenbelts (plant islands) should be used to assist in directing traffic by separating access and primary circulation drives from the actual parking areas.

- ❒ Rear and/or side yard landscape buffers, unless fronting on a public road, may be more openly designed for purpose of snow storage and surface water detention.

The following graphic illustrates use of the above recommendations for a strip commercial operation typical to the Cadillac area. The design elements displayed on the graphic, or those of a comparable nature, should be required of all new commercial operations and for the redevelopment of sites. While the illustration depicts a multiple-use site, the concepts may be applied to individual sites as well.

SITE PLAN CONCEPT



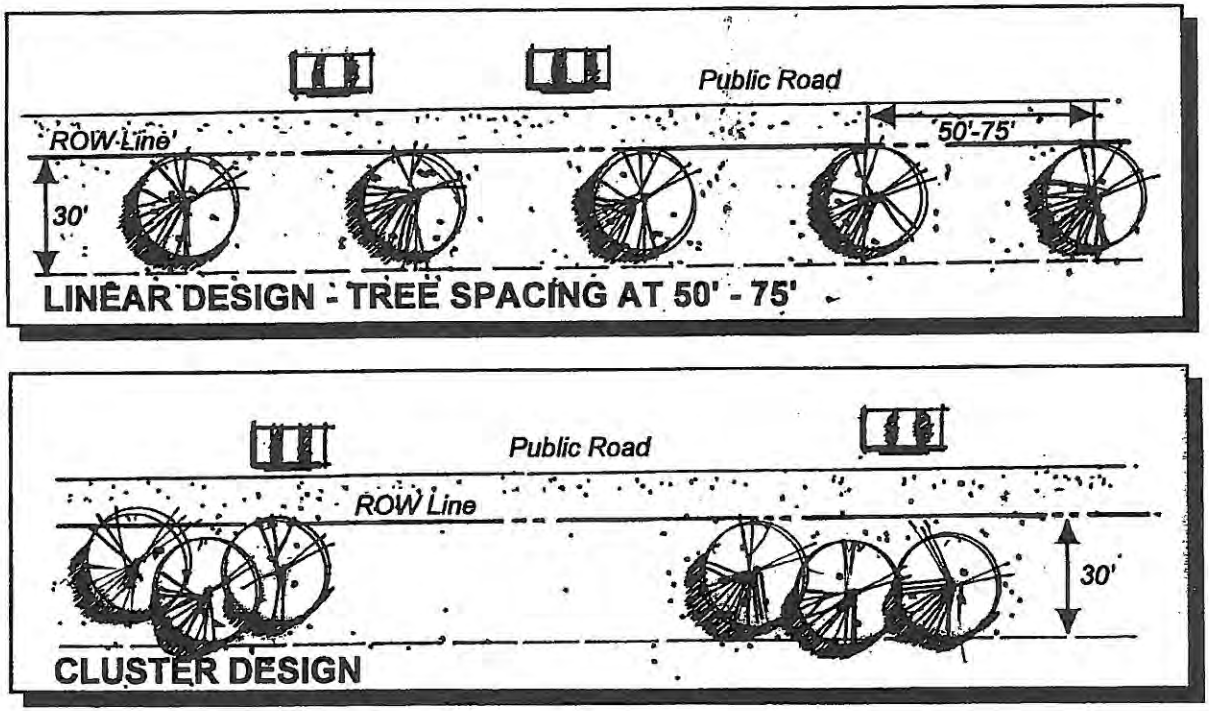
Site plan depicting three parcels in which parking, circulation, and landscaping have been integrated in planned fashion.

e) **Site Landscape - Roadway Frontages**

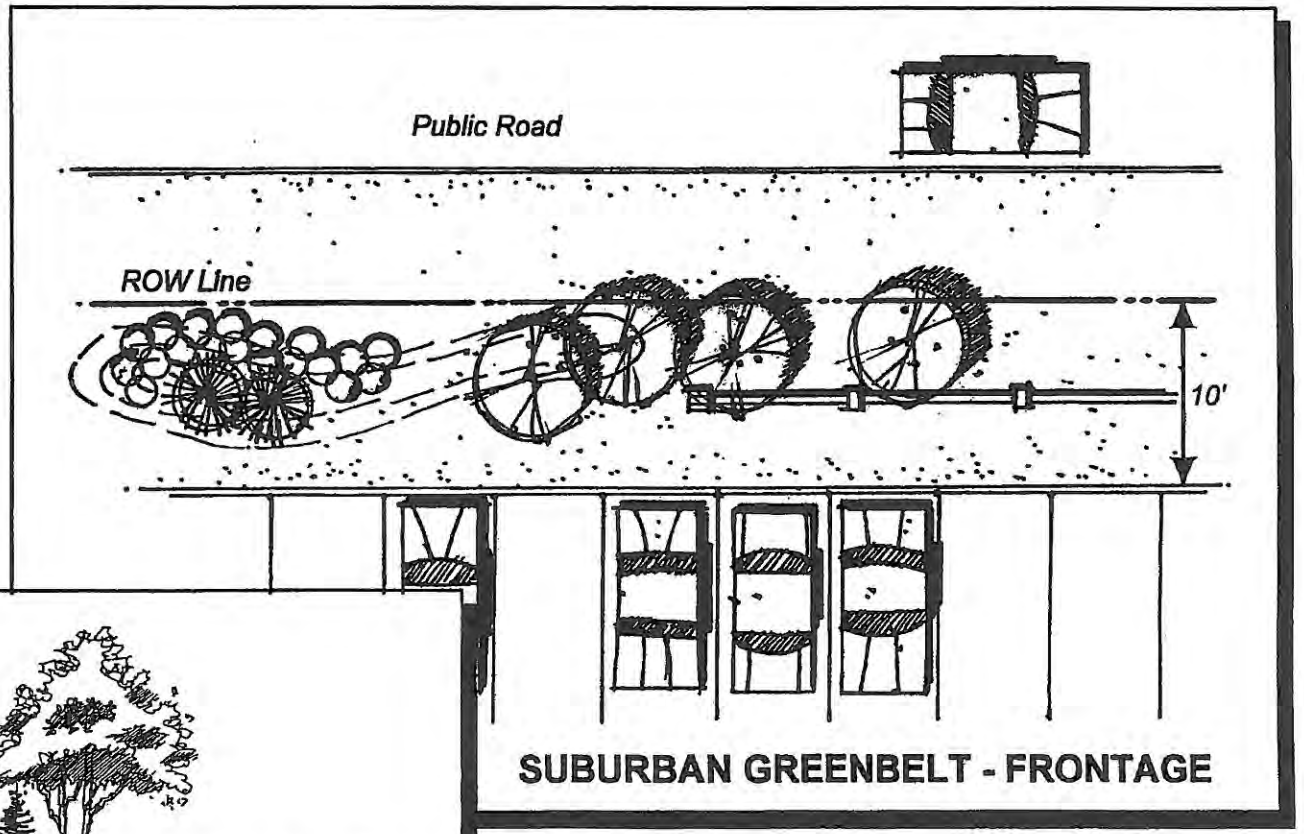
Except for the Cadillac Central Business District, all parcels should possess a fully landscaped, frontage greenbelt using the applicable ***"general"*** design concept as a ***minimum*** design standard:

- **Rural Greenbelt Design** - Parcels located between the interchange and approximately Pearl Street, M-55 (generally west of Carmel Street), and Boon Road.
- **Suburban Greenbelt Design** - Mitchell/131 from approximately Pearl to Boon Road (not including the CBD) and M-55 (Mitchell to Carmel Street)

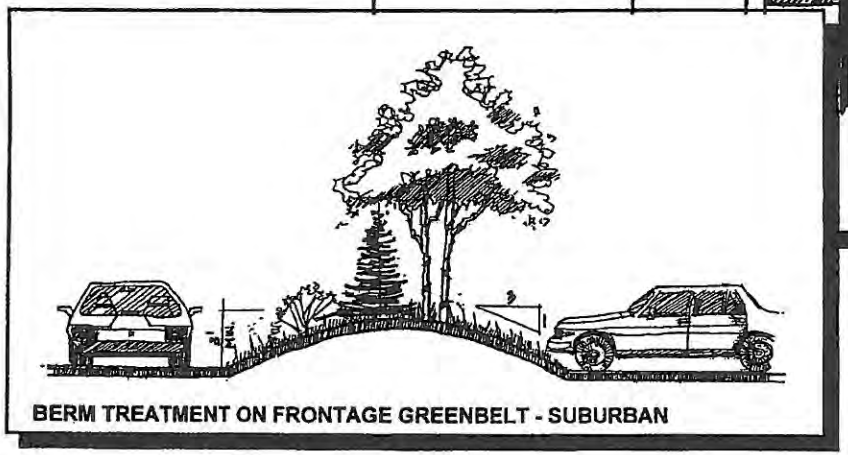
FRONTAGE GREENBELT CONCEPTS - RURAL CORRIDOR LOCATIONS



FRONTAGE GREENBELT CONCEPT - SUBURBAN CORRIDOR LOCATIONS



SUBURBAN GREENBELT - FRONTAGE



BERM TREATMENT ON FRONTAGE GREENBELT - SUBURBAN

Rural Greenbelt Design - The rural (frontage) greenbelt design, proposed for rural (large parcel/open space) locations incorporates the following basic elements:

- Depth - approximately 30 feet
- Vegetation - lawn or comparable ground cover and shade trees at spacings of 50 to 75 feet. Tree clusters may be substituted for a linear arrangement or used in conjunction with a linear arrangement.

Suburban Greenbelt Design - The suburban (frontage) greenbelt design is proposed for more suburban/urban settings. In many instances, the landscape feature will be used to mitigate the visual impacts of a parking area. The design consists of the following elements:

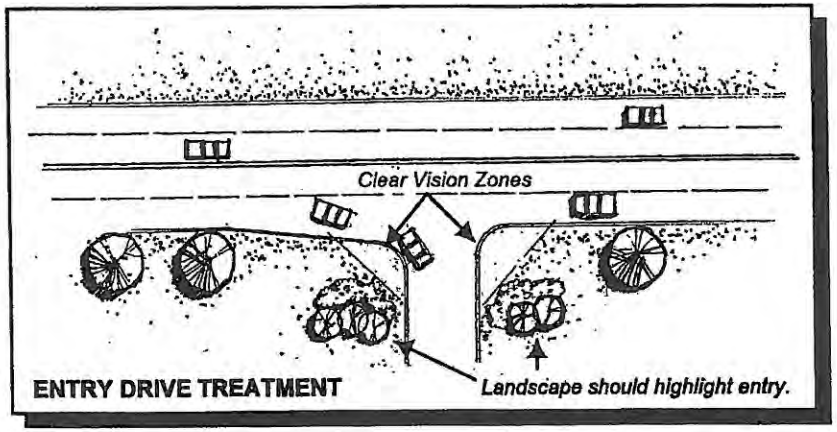
- Depth - 10 to 25 feet
- Vegetation - lawn or comparable ground cover and shade trees in compact linear or cluster fashion. The use of berms and decorative screens are encouraged. Berms should be constructed for ease of maintenance. Excessive height and steep slopes should be avoided. Berms should incorporate grass or comparable ground cover combined with a variety of ornamental trees and/or evergreens and low level shrubs. Decorative screening may consist of brick, ornamental fencing/screening, or combinations of same.

Property owners are strongly encouraged to supplement the basic frontage landscape with additional plant species and planting arrangements integrated into the overall design of their specific sites. The use of ornamental trees, shrubs, perennials, and annuals near entry drives and at the base of ground mounted signs would further enhance the visual quality of each corridor.

[Refer to the Appendix for a plant materials list.]

Entry Drives:

1. Generally, parcels should be limited to one (1) access drive for purposes of ingress and egress. Except for corner parcels, multiple entries are not encouraged. This recommendation is consistent with the character of present development. Most uses along the roadway are accessed by a single entry serving both customer and delivery traffic.
2. All entry points should maintain a clear vision area at the interface of the drive and street. The clear vision area should be landscaped with lawn and/or low level ground cover.



3. Deceleration and acceleration lanes may be warranted depending on the overall roadway design, traffic volumes, type of development served by the entry, and related factors. It is recommended that future site development projects (site plans) be reviewed by the Michigan Department of Transportation, in concert with the local jurisdiction, for a determination of need pursuant the implementation of deceleration and acceleration lanes. Local zoning ordinances should be updated to reflect this requirement.
4. Whenever possible, drives on either side of the roadway should be aligned. Future site plans submitted for local review should include the location of opposing drives.
5. Landscape treatment should be installed which has been designed to:
   a) compliment the frontage landscape
   b) offer an attractive site entry experience
   c) preserve the integrity of clear vision areas

   The design of the landscape program employed for entry treatment, including the type of vegetation used, should reflect the individual tastes of the property owner and should relate well with the building and overall site. Use of a repetitive design among adjoining parcels is not encouraged. Unique designs add to the visual experience of the traveler.

[***Refer also to earlier information on Access Management.***]

f) Signs, Lighting, and Power Lines

Signs - Entry and Private Signs:

Entry Identification Sign - It is recommended that "welcoming" entry identification signs be placed in the following locations:

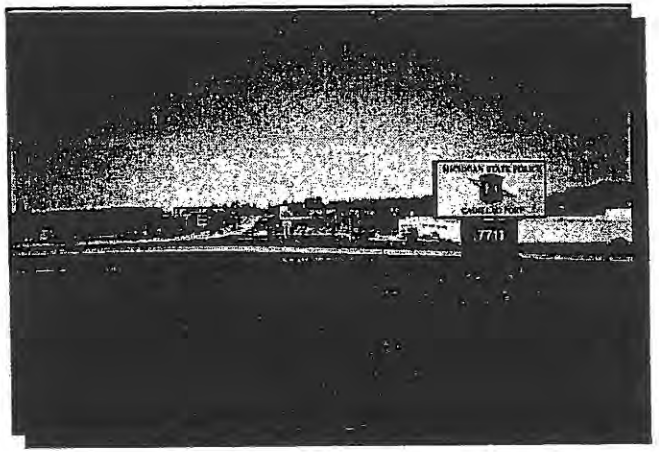
1-North bound lane of Business Route 131, at a point between the interchange off-ramp and the new Michigan State Police office.
2-South bound lane of US-131, north of Boon Road.
3-West bound lane of M-55, east of Crosby Road.
4-West bound lane of Boon Road, west of the interchange off-ramp.

The sign should be located and positioned to provide maximum visibility for passing motorists.

The sign design should reflect the area's natural character and beauty and should employ native materials and appropriate colors accordingly. The use of wood, as opposed to steel or concrete, is recommended. If lighting is desired, ground mounted lights should be used, as opposed to internal lighting. The sign base should incorporate a landscape design which is applied to all four sign locations. It is recommended that a variety of low level shrubs and perennials be used, with the addition of annuals during seasonal periods.

While the sign text may identify the "entry" community, it should also reflect the area as a whole. It should incorporate a text, logo and/or design theme, and overall design character that may be transferred to other public signs.

Private Signs (On-Site Business Identification Signs) - Due to the commercial nature of much of the area, a number of business identification signs presently exist. More are anticipated as new development occurs. The following recommendations are made pursuant to the placement of commercial signs.



1. Prohibit billboard signs and other signs not related to on-site operations.

2. Except for the City's CBD, free-standing signs (i.e., pole and monument/ground signs) should be restricted to a maximum of one (1) sign per premise, not to exceed fifty (50) square feet in sign area (or less). Pursuant to consideration of large frontage sites, the maximum area of free-standing signs could be regulated according to a formula basis. For example, the standard maximum sign area might be permitted to increase based on commensurate increases in frontage width. For instance;

   "The maximum allowable sign area may be increased by five (5) square feet per each one hundred (100) feet of frontage above the minimum lot width as required by local zoning."

3. Avoid the use of ladder signs, signs with multiple sign faces (except for double faces), flashing and blinking signs, and the like. All signs should be professionally constructed and erected.

4. Except for directional signs, the base (base area) of free-standing signs should incorporate low level landscape.

5. Wall signs (sign area) should be restricted to a maximum of ten (10) percent of the wall area to which the sign will be affixed, not to exceed one hundred (100) square feet. Except for parcels with multiple public road frontage (i.e., corner parcels), wall signs should be restricted to one face only. Multiple frontage parcels might be permitted to place wall signs on each "frontage" face.

[Note: additional sign recommendations appear in the Enhancement Recommendations for the specific corridor segments.]

Street Lights - The implementation of a standard street light (period or otherwise) along all corridor segments is not recommended. The variations in land use and roadway character do not warrant such lights. It is recommended:

1. The use of wood poles for street lights should be eliminated. All lights should be mounted on fabricated metal or cement poles. Metal poles should be painted a dark hue (i.e., dark green, dark brown, or black). Poles should contain electrical wiring (or have the capability for internal wiring) and holders for banners and flags. Fixtures should be of a non-glare variety and extended using a cobra head or like style. [Note: poles with a fluted or other unique design might be considered.]

2. Cadillac Central Business District - The period lighting found in the City's Central Business District should be extended to include:

   - the lateral blocks connected to the CBD, between Mitchell and Lake Street
   - the easterly lateral blocks connected to the CBD, for a distance of one (1) block

Power Lines:

1. The development of new (green) sites, and the major redevelopment old (brown) sites should require the burying of all on-site power, communication, and related service lines and cables.

2. The future reconstruction of BR-131 and Boon Road should include analysis of the potential for the burying of existing power lines. Where feasible, power lines should be buried. Should a determination be made that conditions are not conducive to the burying of lines, consideration should be given to the transfer of such lines to less (visually) obtrusive locations.

g) **Roadway and Site Maintenance**

Field observation revealed that a major impediment to the visual quality of Mitchell/US-131 relates to a lack of basic site maintenance. In fact, **maintenance has been identified as the roadway's primary enhancement deficiency.** The most notable exceptions being that stretch of US-131 in Clam Lake Township and extending to approximately Granite Street, and the City's core Central Business District. Existing roadway terraces, sidewalks, and many of the frontage landscapes associated with the sites of adjacent property owners (business and residential) exhibit a lack of basic maintenance (unkept lawns, significant weed growth, presence of litter and debris, etc.).

It is recommended that maintenance of existing sites/site landscape be a priority item.

3. Vegetated roadway terraces (lawn area between the public sidewalk and street curb) should be trimmed on a regular basis and all litter and debris removed. During seasonal periods, it is recommended that maintenance be performed on a bi-monthly basis.

4. Property owners should be encouraged to maintain their individual sites. This includes regular trimming of lawn areas; removal of unsightly weeds, litter, and debris; and, periodic sweeping of drives and parking lots.

5. Dumpsters and open storage areas should be removed or screened. Of particular note are dumpsters and open storage associated with automotive/vehicular operations.

Pursuant to Items 1 and 2, it is recommended the City and Chamber of Commerce collaborate on ways to initiate and sustain a long term maintenance effort. Property owners should be educated on the importance of site quality to the area's economic success. It is also suggested that (public) recognition be given to those property owners who "go the extra mile" to see that frontage properties are beautified and maintained.

M-55 and Boon Road did not exhibit the above level of concern. However, these road segments should also experience ongoing maintenance.

Sustained maintenance is critical to the success of the Cadillac area enhancement program.

SPECIFIC CORRIDOR ENHANCEMENTS

In addition to the general recommendations referenced in prior sections, the following specific recommendations are made:

US-131/Mitchell Street:

Segment 1 - South Interchange (Current Terminus of US-131) to Granite Street.

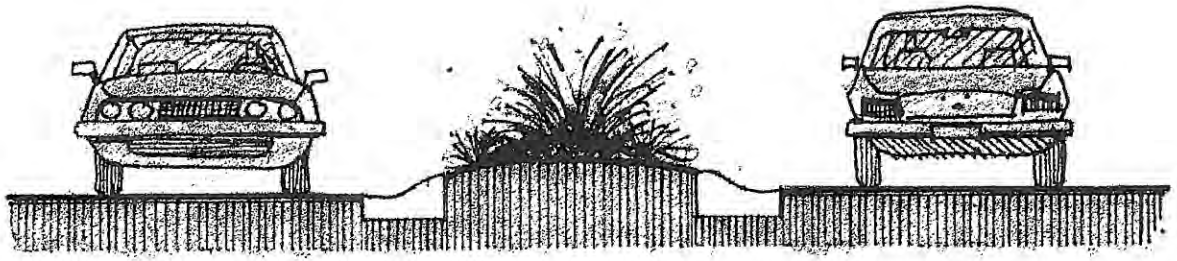
a. This segment exhibits a generally high quality streetscape due to the efforts of adjoining property owners. As vacant parcels are developed, the Township should require, via zoning (site plan review) frontage landscapes comparable to those of the Professional Office Complex, State Police Department, VanDries, etc.

b. The small enclave of automotive businesses (west side of roadway, within the City limits) should enhance frontage landscape to mitigate the visual impacts of their parking lots and on-site storage of materials. [The Suburban Frontage Concept Design would be appropriate for these parcels].

c. The corridor was examined for possible placement of an approximate seven (7) feet boulevard extending along the centerline of (Business Route) US-131 from the interchange to approximately Mackinaw Trail. The size and location of the boulevard was predicated on roadway design information supplied by the Michigan Department of Transportation. Implementation of a boulevard was suggested by the MDOT staff as a possible enhancement feature. The idea was embraced by US-131 Committee members and recommended for inclusion in the study as a project enhancement. [Note: the Committee also requested that MDOT investigate the potential to extend the boulevard to approximately Pearl Street. That investigation is currently underway.]

In addition to the width limitation, the boulevard may not (per MDOT) possess irrigation, nor may mature plants exceed forty-two (42) inches in height. These restrictions, combined with the harsh environment within which plants must exist, result in significant challenges pursuant to the identification of a sustainable landscape feature. It is highly likely that experimentation of the right plant material will be required over the next several years. Initially, it is recommended that cool season, salt and drought tolerant, grasses of varying heights be used. Possible species have been included in the Appendix (plant list).

US-131 SOUTH BOULEVARD
TYPICAL MEDIAN ELEVATION AND SECTION



Vegetation consists of cool season, salt and drought tolerant, grasses of varying heights. Due to existing road right-of-way, road design geometrics, and clear vision standards, the boulevard median has a width of approximately 7 feet and maximum height of 3.5 feet.

Segment 2 - Granite Street to South Street
Segment 4 - River Street to Thirteenth Street

Due to their general land use consistency, proximity to the Cadillac Central Business District, city location, and similarity pursuant to enhancement needs and opportunities, recommendations for Segments 2 and 4 have been combined.

a. As sites are redeveloped, require the implementation of frontage landscape whenever conditions permit. Depending on the site, one may be limited to an individual tree or small tree cluster. Other sites may be suitable for a combination of enhancements including decorative screens, shrubs, and/or other plant or hardscape materials. Of particular concern are those sites with exposed parking areas; exposed loading/unloading areas and bays; exposed building facades lacking windows and pedestrian door openings; outdoor storage areas; and, like features.

   In lieu of waiting for redevelopment opportunities, the City should explore opportunities for placement of landscape in public right-of-way. In unusually tight locations, it may be possible for enhancements to be placed utilizing a combination of public right-of-way and contiguous private property. Under this scenario, it may also be possible for both parties to share enhancement costs.

   The following representative example (page 33) illustrates a modest landscape enhancement used to reduce the visual impact of open service bays, exposed parking areas, and nearby (blank) building wall. Note that the improvement does not significantly impact on-site vehicular circulation which is necessary for this business operation, nor does it preclude internal views of the operation by passing motorists.

b. Segments 2 and 4 are in need of extensive, yet basic, maintenance. These areas exhibited some of the highest levels of need pursuant to maintenance of overgrown street edge terraces and streetscapes. Moreover, many of the adjoining developments possess poorly maintained parking lots.

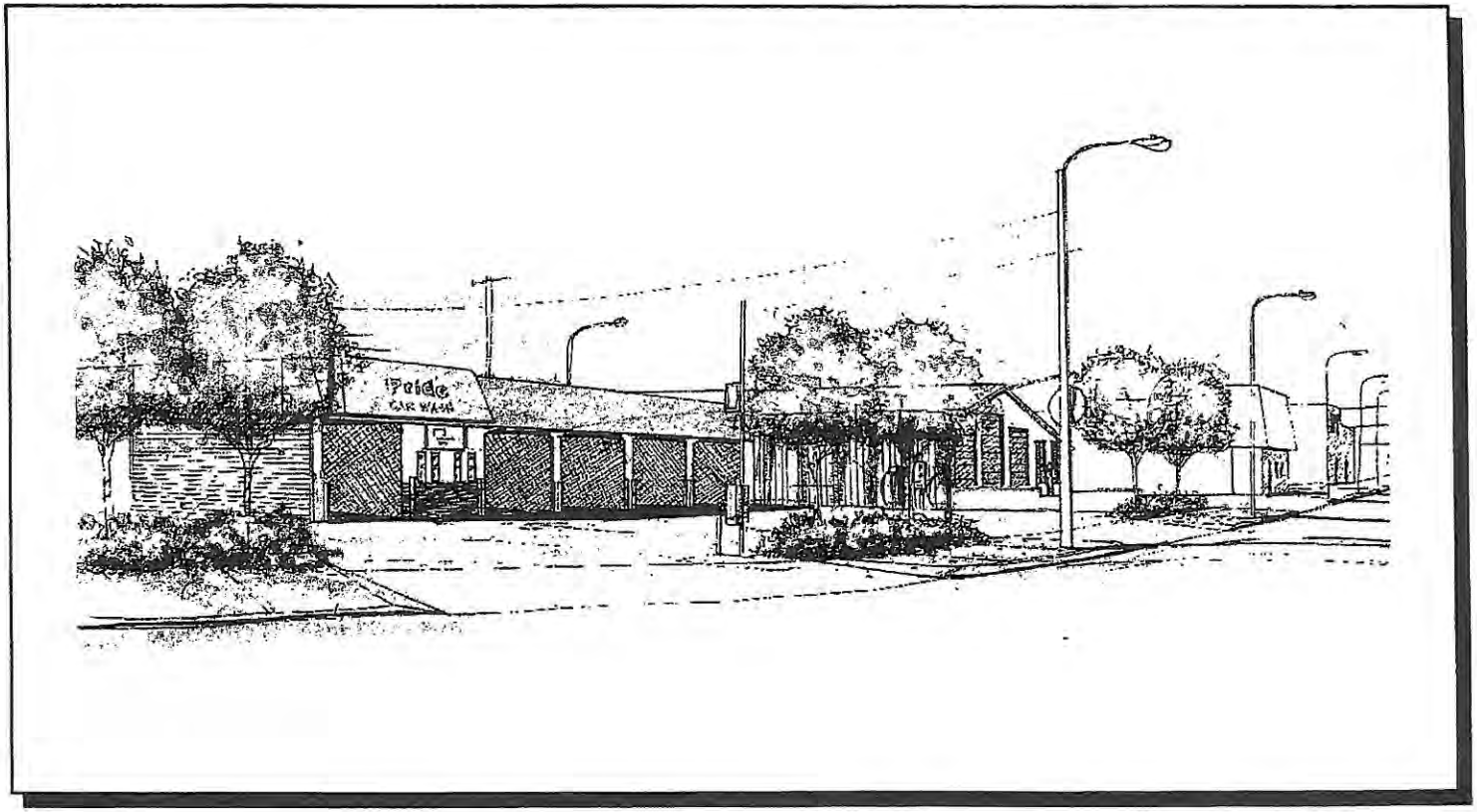
   Due to the proximity of these segments to the City's Central Business District, an aggressive maintenance program is highly recommended in order to compliment the aesthetic quality of the downtown and to provide a more attractive entry image into the downtown area.

c. Along these segments, a number of businesses possess highly visible trash receptacles and outdoor storage areas. These tend to be unsightly and should either be removed or properly shielded. Except for the actual period of collection, trash receptacles should not be maintained at curb side, front yards, or other such locations.

d. Many of the older structures found along these segments are positioned near the roadway on small lots. The City should explore the potential enhancement of rear (alley) access and public parking opportunities as a means of improving the commercial efficiency and marketability of these sites and to provide greater opportunity for frontage enhancements.

e. As an alternative means of resolving the concerns detailed under Item d., above, the assembly of small parcels should be encouraged.

MITCHELL STREET ENHANCEMENT CONCEPT



Small landscape clusters comprised of deciduous trees and low level shrubs. Vegetation clusters are used to enhance the aesthetic quality of a high traffic area. In this instance, the landscape softens the visual impact of the open bays of a commercial use, but does not block views into the site.

Segment 3 - Mitchell Street from Stimson Street to River Street [Cadillac Central Business District]

Segment 3 includes the City's core business district, referred to as the Central Business District (CBD), and associated entry points located at both extremes of this roadway segment. Generally, those portions of Mitchell lying near Stimson Street and River Street might easily blend in to the adjoining Segments 2 and 4, respectively.

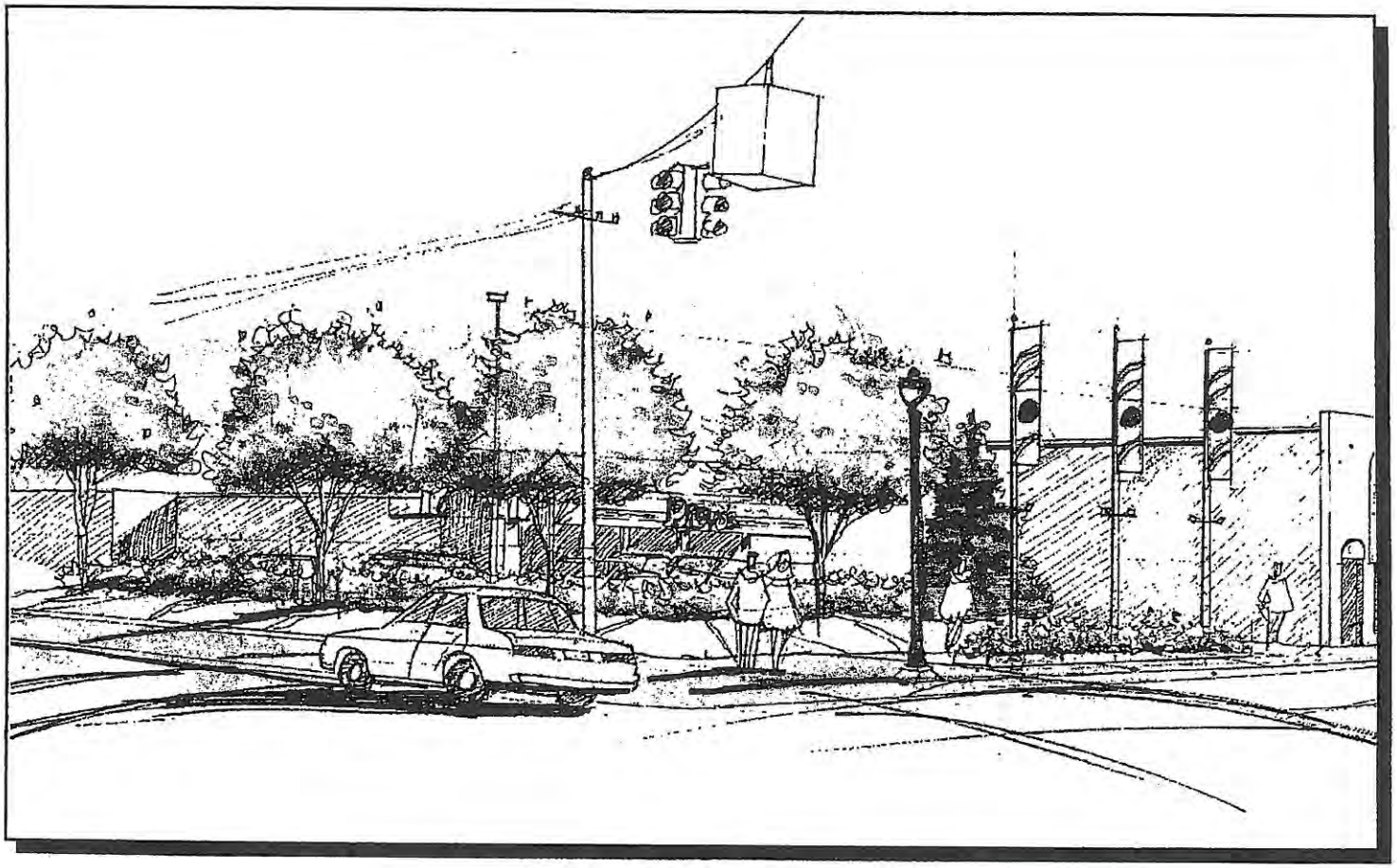
The current high quality character of the CBD limits identified improvement needs within that sector. Suggested enhancements include:

a. There should be greater consistency (uniformity) pursuant to existing street trees. It is common for a single block to contain a variety of trees. This appears to be the result of tree replacements that have occurred over time. Minimally, one (1) tree species should be planted in "blocks" (3 to 5 trees per block) to maintain consistency.

b. Replacement trees should be more comparable in size to existing, mature, trees. Undersized replacement trees are visually disruptive to the continuity of the overall streetscape.

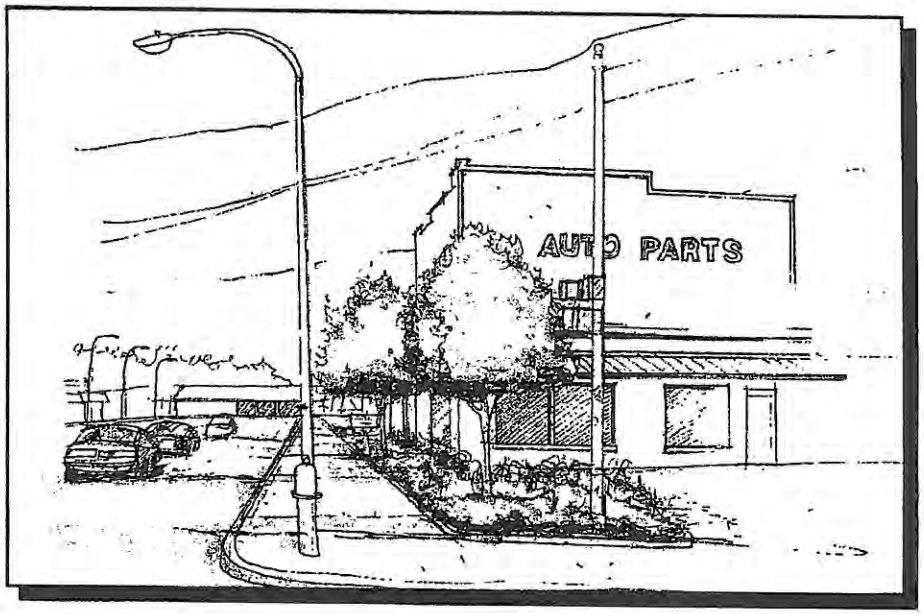
c. The general area bounded by the Mitchell Street/Cass Street Intersection has the potential to serve as a major focal point due to its central location within the CBD, relationship to both BR-131 and M-55 traffic, and proximity (including visual proximity) to Lake Cadillac and the City Park. It is recommended that the southeast corner (existing greenspace area) be further enhanced through provision of additional landscape. The following illustration offers an example of potential treatment. Comparable, although smaller, elements of this treatment may be extended to the remaining corners.

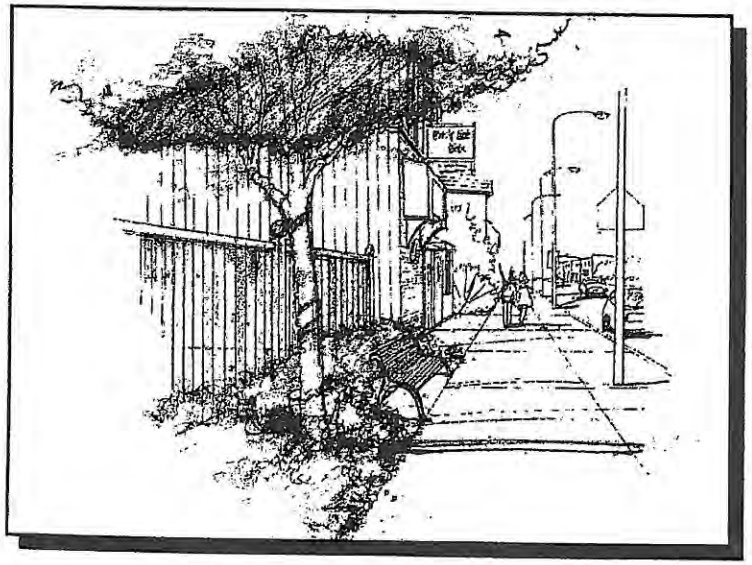
CENTRAL BUSINESS DISTRICT ENHANCEMENT CONCEPT
MITCHELL STREET/CASS STREET INTERSECTION



d. Similar to improvements suggested for sites located in Segments 2 and 4, Segment 3 also possesses opportunity for the shielding of visually intrusive parking lots and other features which impact the area's aesthetic quality. Conversely, frontage landscape also provides opportunity to compliment existing buildings and structures void of these site amenities.

As sites are redeveloped, require the implementation of frontage landscape whenever conditions so permit. Depending on the site, one may be limited to an individual tree, small tree cluster(s), and/or vegetative pockets consisting of shrubs and flowers.

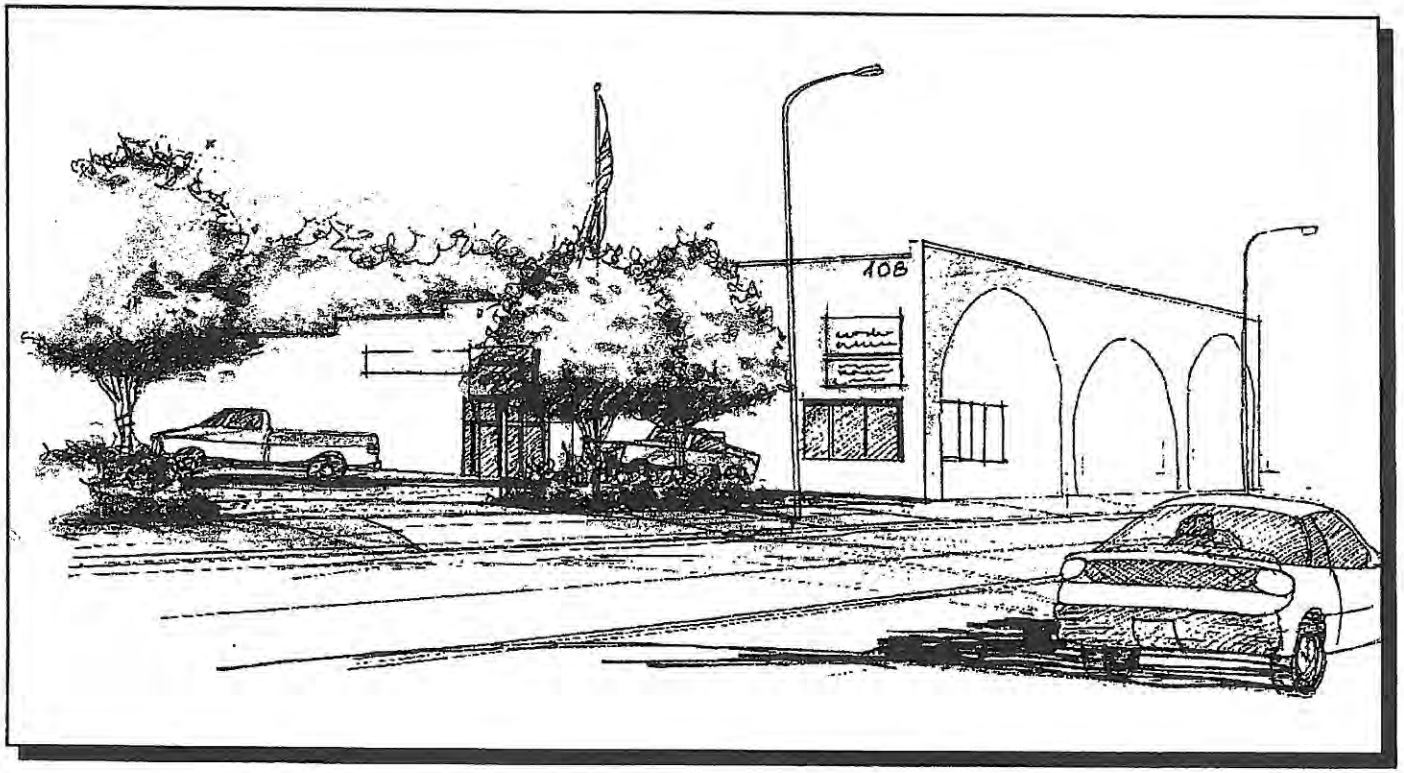




Other sites may also be suitable for a combination of enhancements, including the use of decorative screening in conjunction with landscape.

Waiting for redevelopment to happen in order to bring about site enhancement can prove discouraging to those wishing to experience "immediate" corridor improvement. However, due to funding constraints, property ownership, and like factors, incremental improvement is often the primary means of advancement. Over time, a consistent, pro-active, effort will result in positive change.

MITCHELL STREET CORRIDOR ENHANCEMENT EXAMPLE



Use of minimal landscape treatment between the public sidewalk and private parking lot. Treatment uses ornamental trees and small shrubs (or ground cover). Improvement is complimented by flag pole. Note that building entry, access drive, and signs remain highly visible.

e. **CBD Boulevard** - That portion of Mitchell between Chapin Street and Harris Street was examined for possible placement of a boulevard. This feature was eliminated as a corridor enhancement at the present time due to the following reasons:

- Projections of traffic (per MDOT) indicate that a reduction in volume due to the US-131 Bypass will be short term. The safe and efficient flow of large traffic volumes is likely to be diminished with the presence of a boulevard as motorist contend with an already "tight" driving condition. [Note: this excludes most commercial truck traffic. Volume reductions in commercial truck traffic is anticipated to remain well below current levels.]

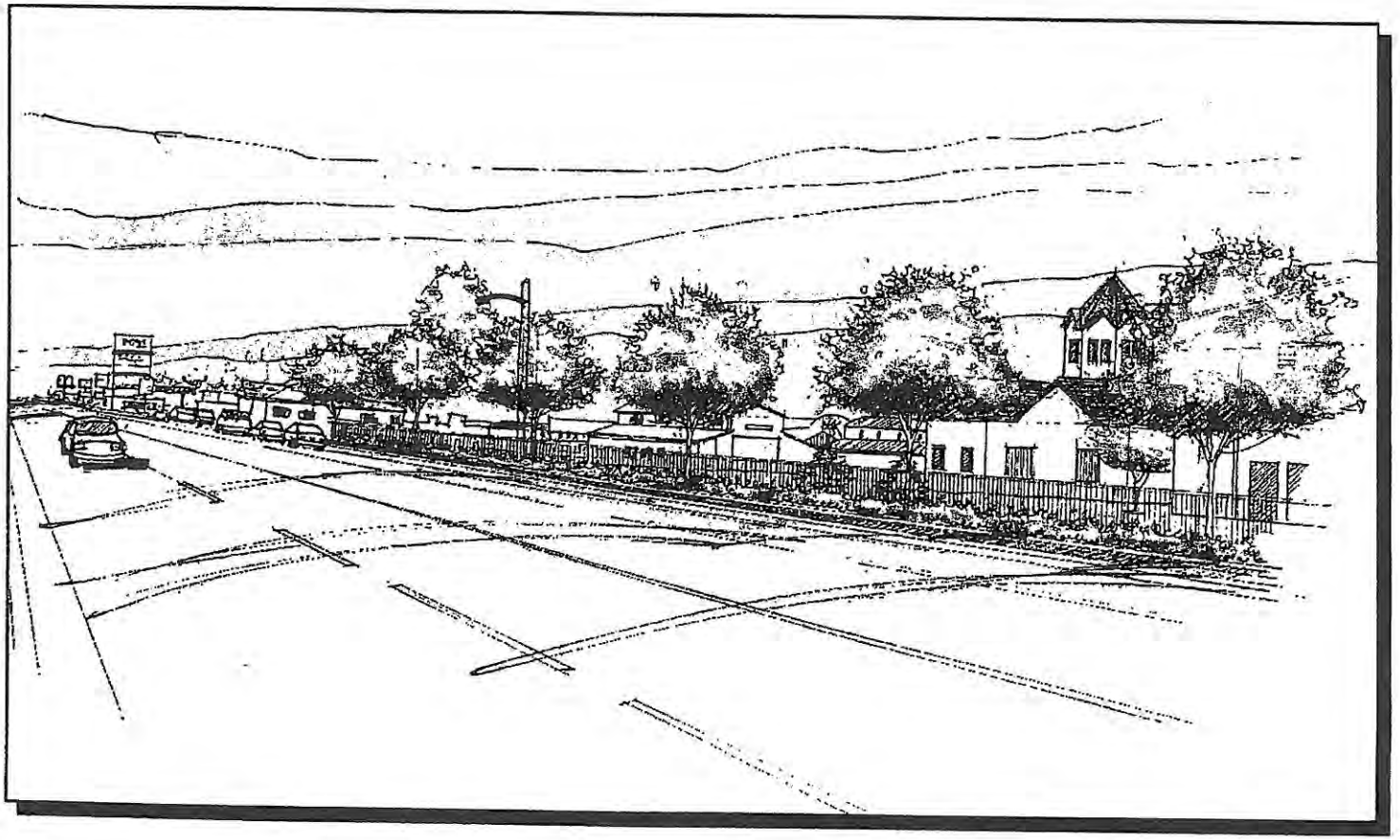
- Placement of a boulevard would require the elimination of at least one (1) lane. Depending on the actual design, two (2) lanes could be impacted. This would necessitate the removal of at least one (1) row of on-street parking. Depending on the actual design, both parking lanes could be impacted. [Note: the above assumes no reduction in existing sidewalk width.]

  On-street parking is important to the adjoining businesses, particularly those located on the east side of Mitchell where public parking facilities are less prominent, rear commercial entries are less developed, and where the existing alley is not conducive to the efficient movement of large volumes of vehicular traffic.

- At least one (1) major business operation requires the use of Mitchell for loading/unloading. A boulevard would be disruptive to that movement. [Note: this study does not recommend the use of Mitchell, nor any public street, for such use. An existing situation which would be impacted by a boulevard is simply being identified.]

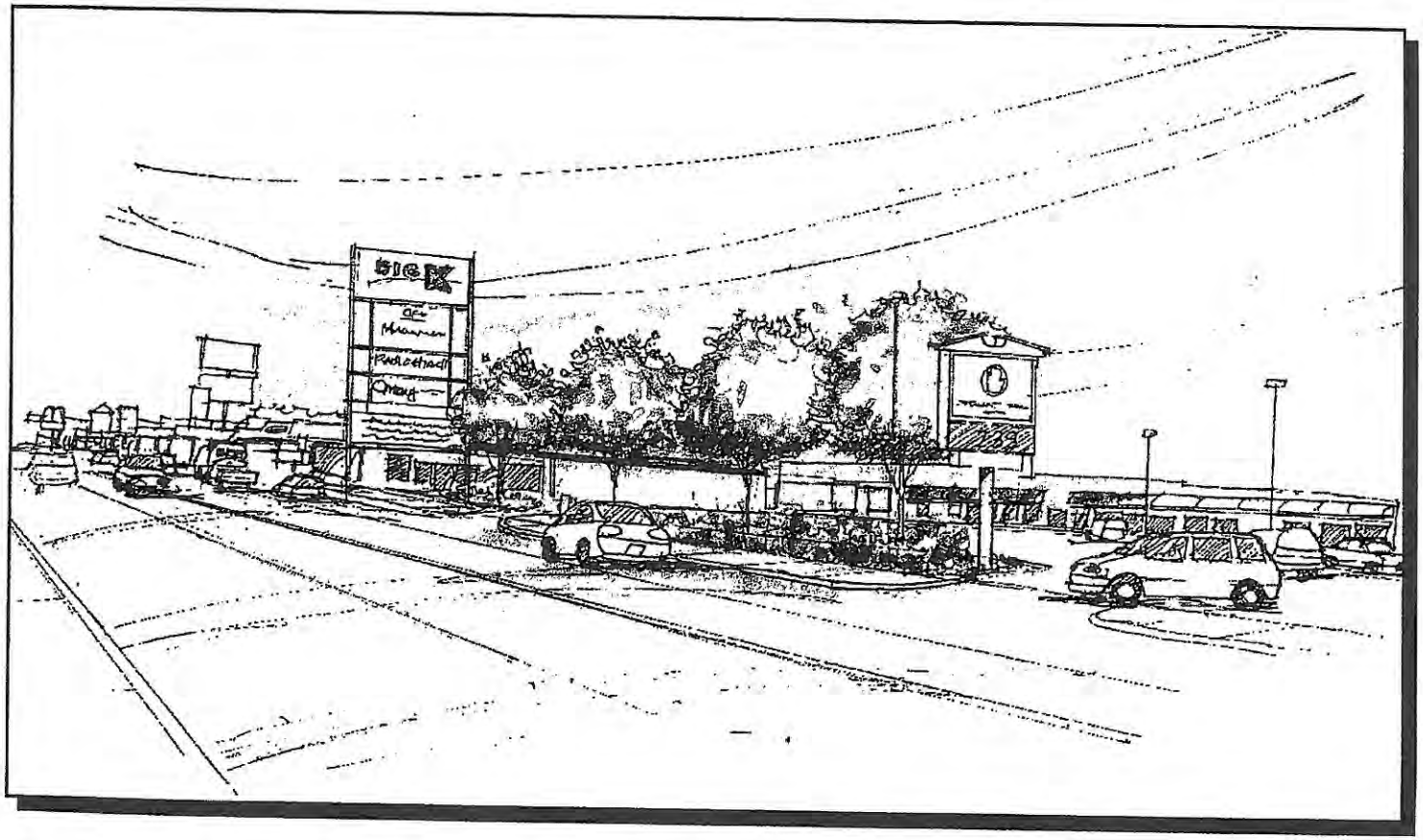
- In addition to the above, the outer travel lanes of Mitchell Street are regularly used by delivery and postal service vehicles for short term parking. The use of Mitchell by these delivery vehicles is not anticipated to cease. Placement of a boulevard would effectively restrict opportunities that currently exist to maneuver around these parked vehicles thereby increasing potential congestion, travel efficiency, and driver frustration.

WEXFORD COUNTY FAIRGROUND ENHANCEMENT
US-131 BEAUTIFICATION



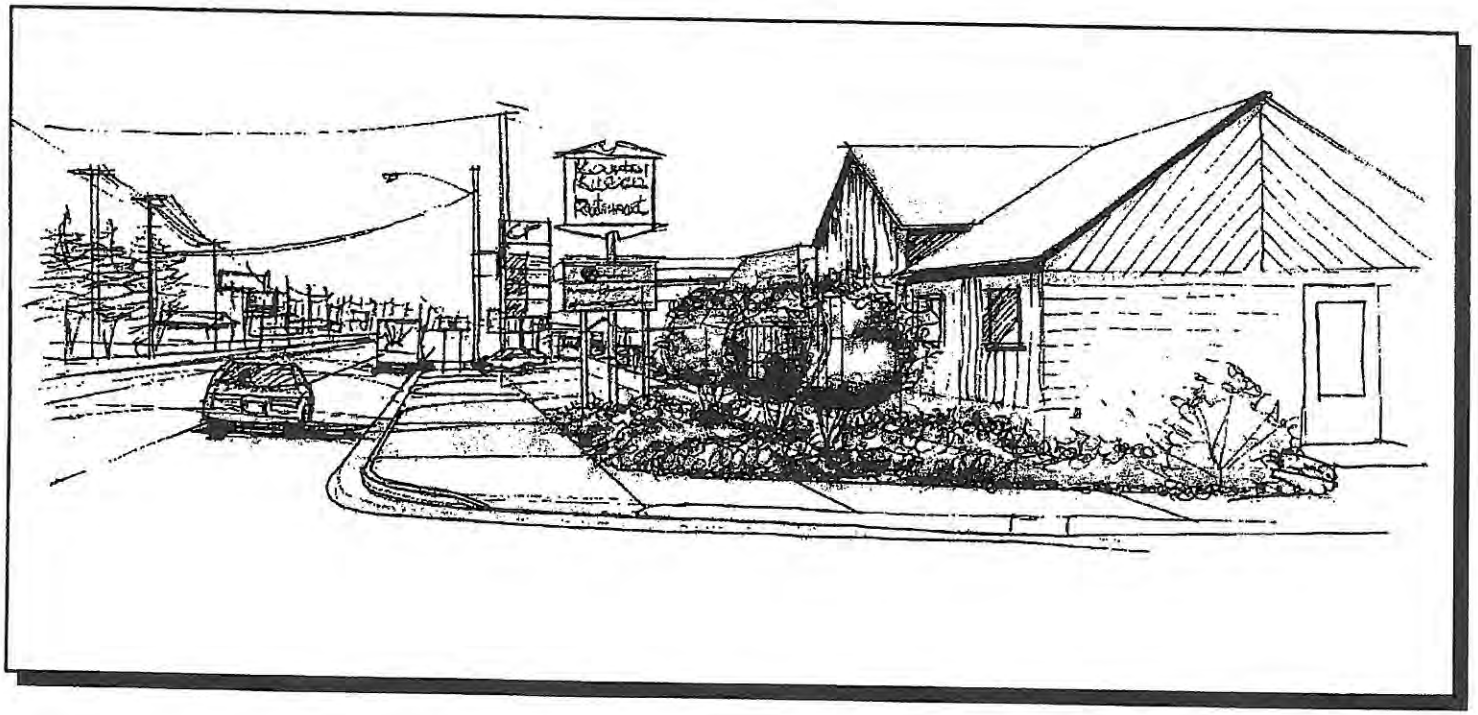
Wexford County Fairground improvement concept employing decorative fence, frontage trees, and low level shrubs. Project represents an opportunity to enhance one of the area's longest street frontage segments.

FRONTAGE LANDSCAPE FOR "BIG BOX" COMMERCIAL CENTER



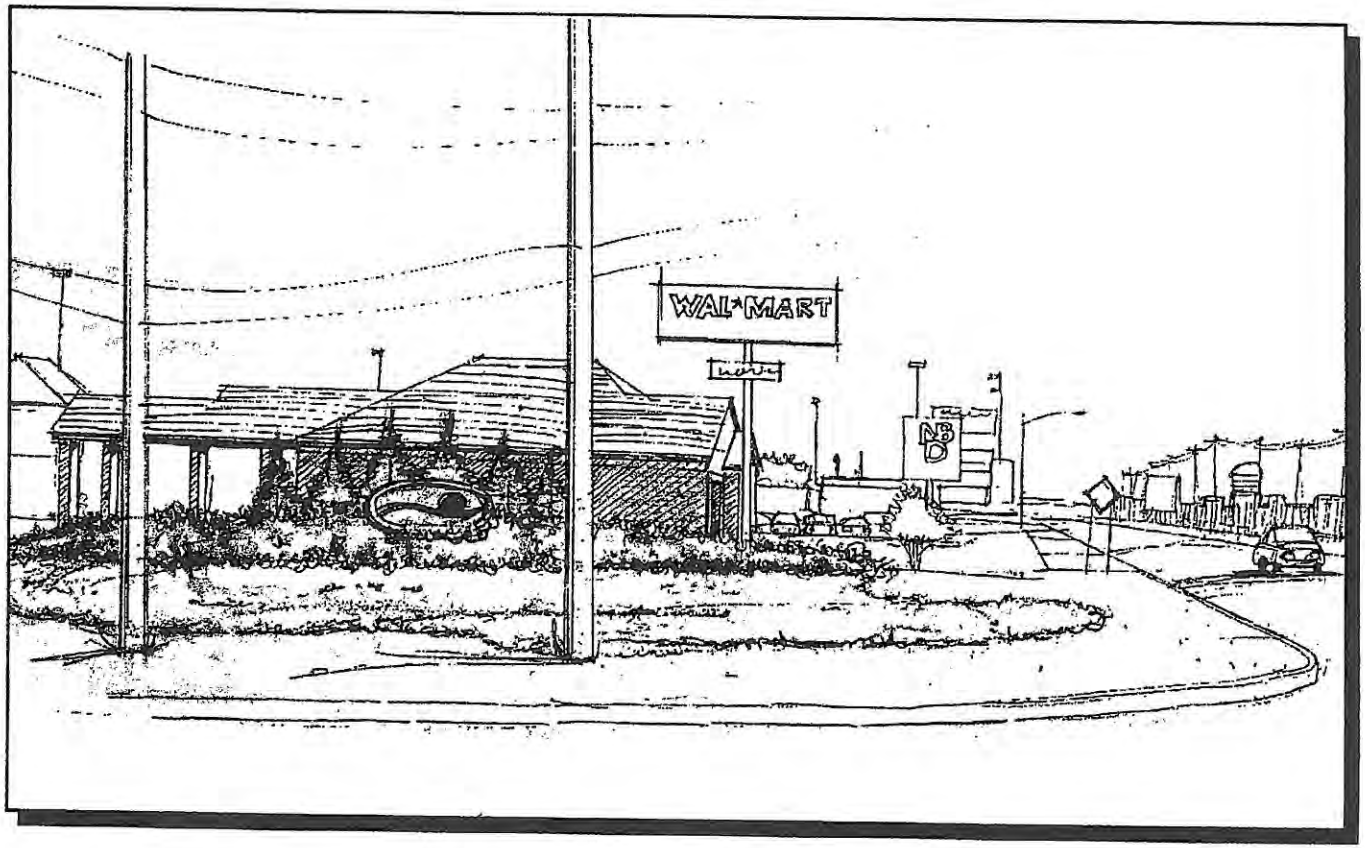
Screening of large, open, parking area through application of trees and shrubs along US-131.

LANDSCAPING OF NON-USED/NON-FUNCTIONAL FRONTAGE



Placement of landscape treatment (low level shrubs and trees) on highly visible, non-use/non-functional, street frontage. Similar nodes are located throughout the US-131 roadway. Enhancement projects of this type might be pursued by garden clubs, civic organizations, and similar agencies.

CLEAR VISION LANDSCAPE TREATMENT
US-131/BOON ROAD



Tiered landscape treatment comprised of ground cover, annuals, and perennials placed near the intersection, followed by low level shrubs against a backdrop of evergreen trees. This location is also suitable for placement of a community identification sign.

M-55:

Segment 1 - Mitchell Street to Carmel Street - Generally, this segment does not require significant enhancement. Recommended projects include:

a. Extension of Mitchell Street period lighting as previously recommended.

b. Placement of frontage landscape along all exposed parking lots.

Segment 2 - Carmel Street to the Interchange:

a. Prohibit pole signs on business and institutional operations. All such signs should be ground mounted, monument type, signs.

b. Placement of frontage landscape along all exposed parking lots.

c. Require corridor enhancement practices throughout.

Boon Road:

a. Required front yards should be retained as landscaped open space. The parking of vehicles and the placement of materials in these locations should be prohibited.

b. Require corridor enhancement practices throughout.

US-131 INTERCHANGES

A variety of local opinion exists regarding the level of enhancement to be afforded the three (3) interchanges. That opinion varies from a basic treatment, comparable to a majority of the rural freeway intersections, to very intensive treatment necessitating the provision of irrigation and ongoing maintenance. The corridor study recommends that the treatment afforded the interchanges be very tasteful, aesthetically attractive, and generally maintenance free.

It is recommended that a four (4) tiered program of treatment be applied to each intersection offering a blend of yearround variation in character and consistent with the area's aesthetic quality. These consists of:

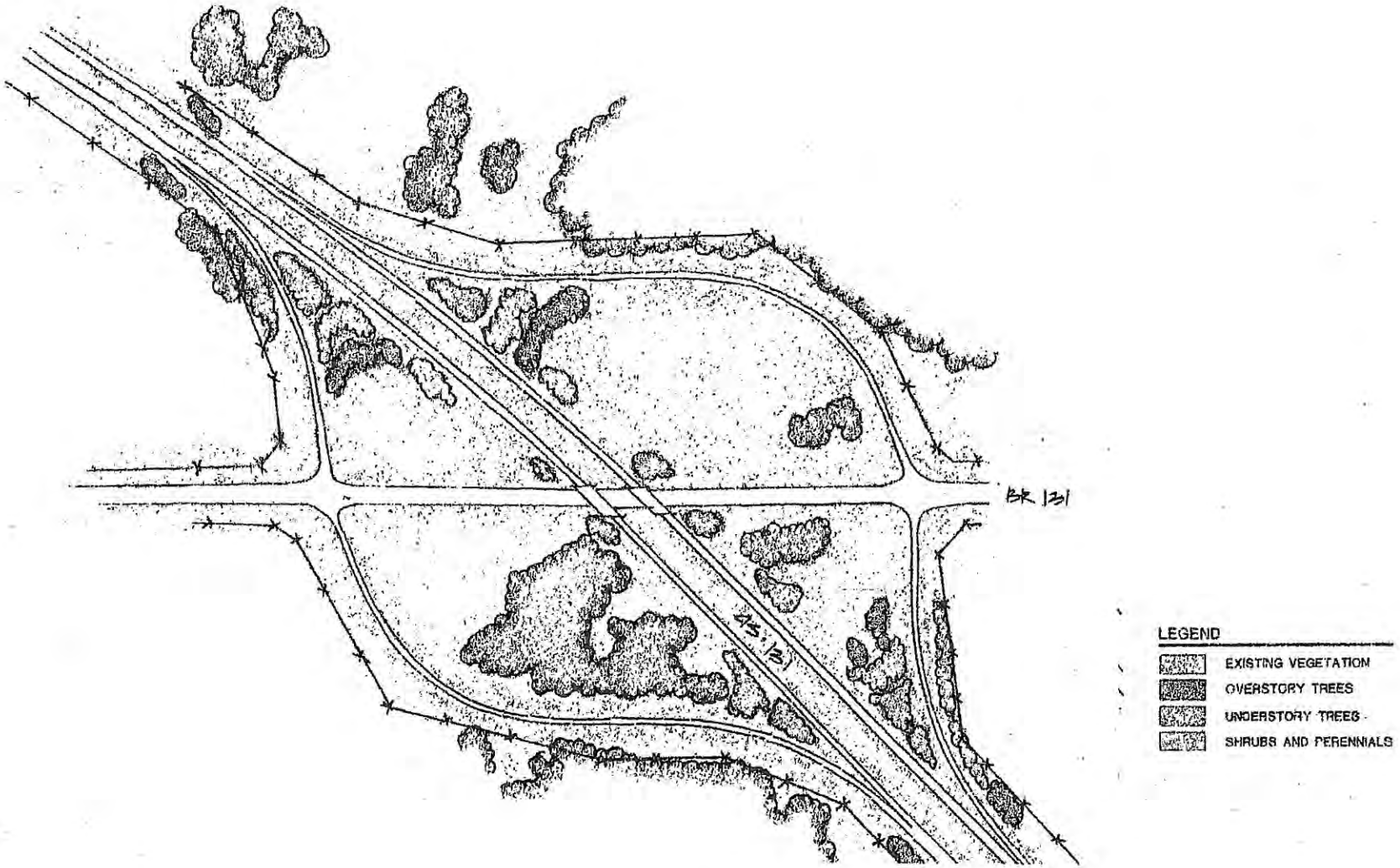
Tier 1 Lawn or ground cover.
Tier 2 Shrubs and perennials
- Rhus aromatica - Fragrant Sumac or cultivars
- Rosa rugosa - Rugosa Rose or cultivars
- Myrica pensylvanica - Northern Bayberry or cultivars
- Potentilla fruticosa - Red Ace or cultivars
- Perennials - drought tolerant varieties

Tier 3 Understory trees
- Acer ginnala - Amur Maple or cultivars
- Elaeagnus angustofolia - Russian Olive or cultivars
- Crataegus laevigata - English Hawthorn and cultivars

Tier 4 Overstory trees
- Asculus hippocastanum - Common Horsechestnut and cultivars
- Pinus nigra - Austrian Pine and cultivars
- Betula papyrifera - Paper Birch
- Acer campestre - Hedge Maple and cultivars

These species have the potential to withstand the area's cold and harsh weather conditions and, in most cases, the impacts of vehicular emissions and road salt spray. Pursuant to species selection, it is recommended that local landscape suppliers be contacted for additional assistance and possible plant procurement. Local landscape contractors are generally familiar with the success of plant material.

EXAMPLE OF INTERCHANGE LANDSCAPE DESIGN CONCEPT



SUPPLEMENTARY RECOMMENDATIONS: - The following are additional recommendations for consideration by the three communities pursuant to corridor enhancement

Projects:

- **Cadillac Water Tower** - A City of Cadillac water tower lies several blocks west of the core downtown. Though distant, the tower will be visible by motorists traveling the US-131 bypass. It is recommended that the water tower be repainted with the addition of a Cadillac area logo (similar to the logo developed for the generic entry identification signs). For maximum visibility, it is suggested the tower possess a high luster white background, with the logo added. Repainting of the tower might be accomplished as part of the City's scheduled tower maintenance program.

- **Area Identification and Directional Signs (Public Signs)** - It is recommended that public signs (i.e., directional signs, public parking lot direction signs, signs for tourist sites and features, etc.) be designed around a consistent, unified, theme incorporating a common logo (i.e., the logo used for the generic entry identification signs, water tower, etc.)

Program Administration:

- **Program Coordination** - Responsibility for plan implementation primarily rests with the individual units of government and the Michigan Department of Transportation. Notwithstanding that fact, it is recommended that a core Study Area Corridor Committee be maintained to assist on matters of program education, funding assistance (i.e., grant writing and administration), program evaluation, intergovernmental and property owner liaison, and related functions. The Committee should consist of representatives from each of the three communities, the Michigan Department of Transportation, and the Wexford County Road Commission.

  It is further recommended that the functions of the Committee fall under the general direction, or administrative oversight, of the Cadillac Area Chamber of Commerce. The Chamber has been instrumental in a similar role pursuant to preparation of the current study effort. That experience, combined with a knowledgeable and enthusiastic staff, render the Chamber the prime candidate for program implementation. Moreover, the Chamber serves as a "connecting link" between area governments, civic organizations, and local businesses and property owners. That role will be invaluable as efforts get underway to advance enhancement activities.

Initial Program Efforts:

The variety and complexity of projects identified by the Corridor Study make the prioritization of projects difficult. In many instances, multiple projects and related activities may occur during the same general time frame. However, in order for the Committee to begin the plan implementation process, the following initial activities are recommended:

a) **Site Plan Review Training Workshop** - Conduct a site plan review training workshop for local planning commissions. The workshop should focus on the importance of the site plan review process and the relationship of the review process to corridor (and community) enhancement. The workshop should employ a "hands-on" approach, using a sample site plan typical to the area.

b) **Property Owner Program Flyer** - Prepare a flyer, or similar instrument, for distribution (mailing) to all (US-131, M-55, and Boon Road) frontage property owners. The flyer should contain general information about the enhancement program, anticipated benefits, need for local cooperation, and where to obtain additional information or assistance on beautification efforts.

c) **Property Owner Enhancement Award** - Develop a special award, with media attention, for the (annual) recognition of property owners who place special attention on the beautification and maintenance of their frontage properties.

d) **Civic Awareness and Involvement Program** - Prepare a list of civic organizations, clubs, etc. potentially interested in corridor enhancement activities. Meet with these groups to explain enhancement needs and benefits and to solicit possible funding and/or volunteer assistance.

e) **Interchange Enhancement** - Based on study recommendations, have MDOT finalize the landscape design plans for the interchanges.

f) **US-131 South Boulevard** - Based on the study recommendation, have MDOT finalize the US-131 South boulevard.

g) **Generic Sign/Logo Design** - Prepare concept designs for the generic entry identification signs, including logo. Concepts should be submitted to each community for review and comment. Based on local input, a final design may be prepared. Pursuant to this project, it is suggested the Committee consider solicitation of name/logo ideas from the general public prior to establishing a final design theme. This exercise could increase public awareness and

enthusiasm of the enhancement program.

h) **Fairground Improvement** - Work with the Wexford County Far Board and the Wexford County Board of Commissioners to initiate improvements to the (Mitchell Street) fairgrounds property. Investigate possible MDOT grant funding (T-21). This activity might also be appropriate as a special fund raising enhancement project.

PLANT SPECIES LIST

The following species (examples only) have the potential to withstand the area's cold and harsh climate and, in most cases, the impacts of road salt spray. The success of plants, particularly shrubs, is widely subject to individual site conditions and general care. It is recommended that local landscape contractors and suppliers be consulted when determining a plant mix.

The use of perennials should be based on site conditions, desired outcome, and local availability.

TREES

A. For planting in close proximity to the street.

- Acer platanoides - Norway Maple and cultivars
- Fraxinus pennsylvanica - Green Ash and cultivars
- Ginko biloba (male only) - Maidenhair and cultivars
- Gleditsia triacanthos inermis - Honey locust and cultivars
- Pyrus calleryana - Ornamental pear and cultivars
- Tilia cordata - Linden and cultivars

B. For planting along the corridor, but not at curbside.

- Acer campestre - Hedge Maple and cultivars
- Acer ginnala - Amur Maple and cultivars
- Crataegus - Hawthorn species and cultivars
- Malus - Most cultivars
- Pinus nigra - Austrian Pine
- Picea glauca - White Spruce

PLANT SPECIES LIST

SHRUBS

Arctostaphylos uva-ursi - Bearberry and cultivars
Aronia arbutoflia - Red Chokeberry and cultivars
Berberis thunbergii - Japanese Barberry and cultivars
Caragana arborescens - Siberian Peashrub and cultivars
Clethra alnifolia - Summersweet and cultivars
Cornus alba sibirica - Redtwig Dogwood and cultivars
Euonymus alatus - Burning Bush and cultivars
Hippophae rhamnodies - Sea Buckthorn
Hydrangea arborescens - Smooth Hydrangea and cultivars
Hydrangea paniculata - Panical Hydrangea
Hypericum prolificum - Shrubby St. Johnswort and cultivars
Ilex Glabra - Inkberry and cultivars
Ilex verticillata - Common Winterberry and cultivars
Common species of Junipers and cultivars
Myrica Pensylvanica - Northern Bayberry and cultivars
Philadelphus coronarius - Sweet Mockorange and cultivars
Picea Abies - Bird's-Nest Spruce and cultivars
Pinus mugo - Dwarf Mountain Pine and cultivars
Potentilla fruticosa - Bush-Cinquefoil and cultivars
Prunus tomentosa - Nanking Cherry and cultivars
Rhamnus frangula - Glossy Buckthorn and cultivars
Rhododendrons and Azaleas
Rhus typhina dissecta - Staghorn Sumac and cultivars
Ribes alphinum - Alpine Current
Rose
Salix caprea - Goat Willow and cultivars
Japanese Spirea
Thuja occidentalis - American Arborvitae and cultivars
Tsuga canadensis pendula - Sargent's Weeping Hemlock
Viburnum

US-131 SOUTH BOULEVARD GRASSES

Helictotrichon sempervirens
Miscanthus sinensis 'Adagio'
Miscanthus sinensis 'Nippon'
Miscanthus sinensis 'Yaku Jima'
Panicum virgatum 'Heavy Metal'
Pennisetum alopecuroides
Pennisetum alopecuroides 'Hamelin'
Pennisetum alopec 'Little Bunny"
Pennisetum alopecuroides 'Moudry'
Pennisetum alopec 'Viridescens'
Pennisetum caudatum