

CHAPTER 21
THE NORTH EAST BELTLINE OVERLAY DISTRICT

SECTION 21.01 DESCRIPTION AND PURPOSE. The purpose of this overlay zone is to implement the 1998 North East Beltline Joint Development Plan; to provide a consistent development framework; to specify practical development standards; to preserve the natural road edge, scenic views and steep slopes; and to protect the transportation capacity of this important community and transportation corridor. This zone is compatible with a similar zone in Grand Rapids Township and the City of Grand Rapids. The requirements of this overlay zone apply to all land abutting, within 500 feet of, or gaining access from the East Beltline between 4 Mile Road and Grand River Avenue; unless otherwise defined.

The following standards shall not apply to developments (including PUDs) approved prior to January 1, 2002, nor to subsequent amendments or modifications of such developments or PUDs. However, the requirements of this Overlay Zone shall apply to the elements of a development (including PUDs) approved prior to the effective date of this Overlay, that were not specifically addressed in the conditions of approval. That may include building and parking lot setbacks, landscaping, parking, lighting, signs, grading, storm water management, motor vehicle and pedestrian access, and architectural façades and building design.

SECTION 21.02 MODIFICATIONS FROM THE REQUIREMENTS. Notwithstanding the provisions, including specific waiver provisions, of the Overlay District, the Planning Commission may approve a modification from the requirements of the Overlay Zone based on competent, material and substantial evidence that:

1. Special conditions or circumstances exist which are peculiar to the land or use and which are not applicable to other lands or uses in the Overlay Zone.
2. The literal interpretations of this Overlay Zone would deprive the applicant of property rights commonly enjoyed by other properties in the Overlay Zone; and
3. The authorizing of such modification will not be of substantial detriment to neighboring property and will not be contrary to the spirit and purpose of this Overlay Zone.

SECTION 21.03 SETBACKS.

1. Background.
One of the goals of the North East Beltline Joint Development Plan is to maintain "...a natural edge along the East Beltline through gracious development setbacks, preserving natural vegetation and utilizing innovative and low maintenance landscapes along the corridor and the highway right-of-way."
2. Setbacks of Buildings and Parking Lots from the East Beltline.
Buildings and parking lots shall be setback from the East Beltline according to the following schedule:
 - A. Parking Lot Setback – 90 feet, which is measured from the outside edge of the existing through lane, as of January 1, 2002, to the edge of a parking lot. Within the setback, a minimum 25-foot wide landscaped area, measured from the right-of-way to the edge of a parking lot, is required.

- B. Setback for a Building equal to or less than 35 feet high – 140 feet measured from the outside edge of the existing through lane, as of January 1, 2002, with a minimum 25-foot setback between the building and the right-of-way line.
Building height is measured as the vertical distance from the mean of the lowest and highest elevation points adjoining the exterior walls of the structure to the highest point of a flat roof; to the deck line of a mansard roof; and to the mean height between the eave and ridge of the highest roof section for a gable, hip or gambrel roof. The height exception provisions of Section 3.06 of the Zoning Ordinance shall apply where appropriate.
 - C. Building Setbacks for Buildings greater than 35 feet high require 2 additional feet of horizontal setback, for every 1 additional foot in building height above 35 feet.
3. Setback Modifications.
As part of establishing or amending a Special Land Use, or undertaking a Site Plan review, the Planning Commission may reduce the building and parking setbacks to the minimum required setback in the underlying zone district and as part of establishing or amending a PUD the Planning Commission may recommend that the Township Board reduce building and parking setbacks to those required in the PUD under any of the following circumstances:
- A. The property is not capable of being developed if the minimum building setback under the Overlay Zone is applied.
 - B. Application of the minimum building setback under the Overlay Zone results in a PUD or site plan that negatively impacts environmental features such as steep slopes, wetlands, or vegetation.
 - C. Application of the minimum building setback under the Overlay Zone results in a PUD or site plan that does not further the goals of the Master Plan.

SECTION 21.04 LANDSCAPING

- 1. Purpose.
The purpose of this section is to maintain the natural edge and views along the East Beltline, establish a healthy environment by reducing air pollution and heat gain associated with large paved areas, protect wildlife habitat, safeguard property value, and enhance the community's visual character for our citizens' use and enjoyment.
- 2. Landscape Plan.
A concept landscape plan indicating design intent shall be submitted as part of Site Plan, Special Land Use, or PUD applications. Following PUD, Special Land Use or Site Plan approval, a final landscape plan shall be submitted to the Planning Commission or its designee to confirm compliance with the approved concept landscape plan. The final plan shall include, but not necessarily be limited to, the following:
 - A. Location, general type and quality of existing vegetation, including specimen trees.
 - B. Existing vegetation to be saved.

- C. Methods and details for protecting existing vegetation during construction.
- D. Location, sizes, and labels for all proposed plantings.
- E. Existing and proposed contours on site and 150 feet beyond edges of the site at intervals not to exceed 2 feet.
- F. Typical cross section, including slope, height and width, of berms and the type of ground cover to be placed on them.
- G. Location, height and type of any walls.
- H. Plant list(s) showing the required and proposed quantities.
- I. Description of landscape maintenance program, including statement that all diseased, damaged or dead materials shall be replaced in accordance with the standards of this Section.

3. Tree and Landscape Preservation Requirements.

- A. Site plans should preserve all quality existing trees wherever feasible, especially in buffer areas. Relocation of existing trees within the site is also encouraged.
- B. Existing trees may be used to fulfill landscaping requirements, if such trees are in healthy growing condition, are at least the minimum size, are the appropriate type, and are spaced according to their likely mature size.
- C. The area below the drip line of an existing tree to be saved should remain undisturbed. No impervious material should be placed under the drip line and a tree protection fence must be installed around the trees during construction at the limit of disturbance. Tree protection symbols notes and details must be shown on the site plan.
- D. Should any tree designated for preservation, for which landscaping credit is given, die; the owner shall replace the tree with the equivalent species or with a tree which will obtain the same height, spread and growth characteristics. The replacement tree must be a minimum of 2.5 inches caliper.

4. Unaccredited Species.

The following list is of species that are permitted but will not be credited toward required landscaping because of their brittleness, susceptibility to disease and insects, excessive root structure, excessive litter, and or other undesirable characteristics. The planting of these species is not encouraged.

<u>Botanical Name</u>	<u>Common Name</u>
Acer Negundo	Box Elder
Ailanthus Altissima	Tree of Heaven
Catalpa Speciosa	Catalpa
Elaeagnus Angustifolia	Russian Olive
Gingko Biloba (female)	Female Gingko
Maclura Pomifera	Osage Orange
Morus Spp.	Mulberry
Populus Spp.	Cottonwood, Poplar, Aspen

Salix Spp.
Juglans Nigra
Robinia Spp.
Acer Saccharinum
Ulmus Pumila
Ulmus Rubra

Willow
Black Walnut
Black Locust
Silver Maple
Siberian Elm
Slippery Elm

5. Front Yard Landscaping.

Within the required minimum 25-foot buffer area fronting on the East Beltline landscaping should be installed according to the following standards for office, institutional, multifamily or mixed-use areas; commercial-use areas; or parking areas.

A. General provisions:

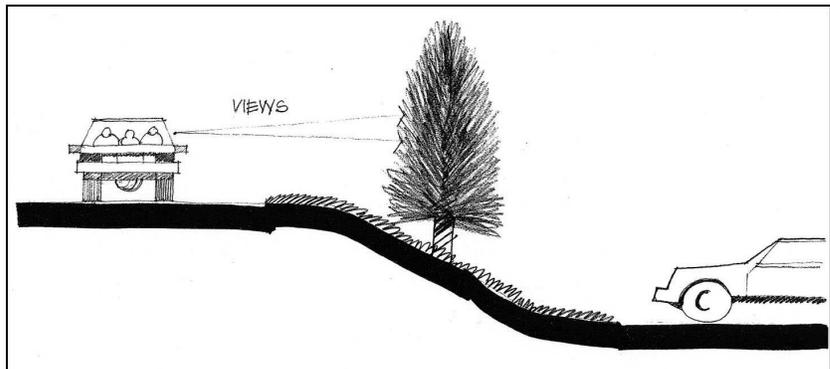
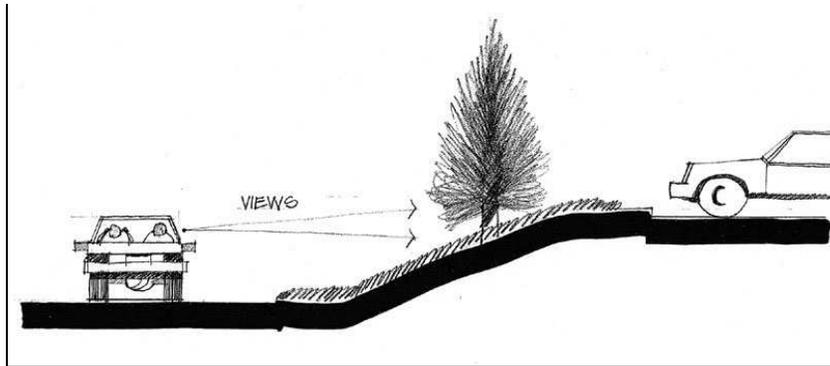
- i. Plants may be clustered into groups or planted in rows.
- ii. Trees and shrubs should be clustered in locations that are most effective in screening undesirable views.

B. Office, institutional, multifamily residential or mixed-use areas: plantings should include a minimum of 3 evergreen trees, 2 shade trees and 8 shrubs for every 100 feet of building frontage. The number of plants shall be proportional to the length of frontage, with fractions rounded up. The Planning Commission may allow a reduction in the number or a variation in the mixture of the tree types.

C. Commercial-use areas: plantings should include a mixture of 5 trees for every 100 feet of building frontage. The number of plants required shall be proportional to the frontage, with fractions rounded up. Additional landscaping may be used, but is not required.

A mixture of evergreen, ornamental and shade trees is encouraged. The Planning Commission may allow a reduction in the number or a variation in the mixture of the tree types.

D. Parking areas: Continuous plantings, berms or walls shall be installed to a minimum of 4 feet in height along the East Beltline (plantings measured after 3 years in the ground). The requirement for plantings, berms, or walls for parking areas that abut the East Beltline may be waived by the Planning Commission if, in the judgment of the Planning Commission, the motor vehicles in the parking lot will be substantially screened from the road by the final topography or existing vegetation. (See illustrations below)



6. Parking Area Landscaping.
For all parking areas that accommodate 10 cars or more, the following standards apply.

- A. Landscaped islands and shade trees shall be located throughout the parking lot so as to relieve and shade expanses of parking, and contribute to the orderly circulation of motor vehicle and pedestrian traffic. Landscaped islands must be a minimum of 160 square feet and a minimum of 9 feet wide. Each island should be planted with at least one canopy tree that is located at least 3 feet from the edge of the island.
- B. Landscape islands shall be calculated on the basis of one landscape island for every 10 parking spaces. Landscape islands may be aggregated. Landscaped corners count towards the required number of islands

The Planning Commission may reduce the number of required landscape islands if it finds that adequate relief and shade is provided by other plantings in and around the parking area.

7. Minimum Standards for plants and other landscape features.

- A. Canopy/shade trees 2.5 inches in caliper
- B. Evergreen Trees 5 feet in height
- C. Shrubs 24 inches in height

- D. Walls Walls shall be of clay, brick, stone or other appropriate material.
- 8. Maintenance of Plants.
 - A. All landscaping plants shall be hardy when planted and maintained in accordance with their natural growth patterns. Withered, diseased or dead plants shall be replaced within a reasonable amount of time, but no longer than one growing season.
 - B. Plants must be controlled by pruning, trimming, or other suitable methods so that they do not interfere with public utilities, restrict pedestrian or vehicular access, or constitute a traffic hazard.
 - C. All planted areas must be maintained in a substantially weed free condition.

SECTION 21.05 PARKING.

- 1. Permeable surface for paving.

At the discretion of the Planning Commission, parking areas that are in excess of the minimum may be surfaced with permeable asphalt, permeable concrete or turf blocks. The calculations for required storm water management and retention measures may be adjusted for the use of such paving.
- 2. Alternative Parking Arrangements.
 - A. Cooperative Parking - At the discretion of the Planning Commission, provisions for cooperative parking may be allowed. Cooperative provisions for off-street parking would be made by contract between two or more adjacent property owners. The parking area provided on any one lot could be reduced to not less than one half the number of required spaces for the use occupying such lot. The lots shall be interconnected for vehicular passage.
 - B. Shared Parking - Where a mix of land uses creates staggered peak periods of parking, shared parking agreements that have the effect of reducing the total amount of needed parking spaces, are encouraged. In these cases the required number of parking spaces may be reduced, at the discretion of the Planning Commission. Retail, office, institutional and entertainment uses may share parking areas. In no case shall shared parking include the parking required for residential uses.
 - C. Deferred Parking - In order to avoid excessive amount of impervious surface, the Planning Commission may approve a development which provides less than the minimum number of parking spaces required if the applicant demonstrates to the satisfaction of the Planning Commission that a reduced amount of total parking spaces will meet the projected parking needs of the project due to:
 - i. The nature, size, density, location, or design of the proposed development, including the design of the circulation and parking plan;
 - ii. Characteristics of the development which will affect the parking needs, including factors such as non-conflicting hours of operation and the sharing of spaces by different users;
 - iii. Any other factors reasonably related to the need for parking for the proposed development; and

- iv. The availability of vacant or otherwise undeveloped land on the same parcel as shown on the proposed development plan, shall remain available to provide additional off-street parking space if additional space is subsequently determined to be necessary by the Planning Commission to meet the parking needs of the development. The available land must be of sufficient size to accommodate the full amount of parking required under the Zoning Ordinance for the use, may not count as any type of required open space and shall be permanently reserved for parking as outlined in a signed and recorded agreement.
3. **Bicycle Parking.**
One bicycle parking space shall be provided for every 20 motor vehicle spaces of the first 200 motor vehicle spaces required for non-residential uses. Bicycle parking shall be provided within a convenient distance to the entrance to the building. Bicycle parking spaces shall consist of a securely fixed structure that supports the bicycle frame without damage to wheels or frame and allows the frame and both wheels to be locked to the structure.

SECTION 21.06 LIGHTING.

1. **Purpose.**
The purpose of this Section is to provide reasonable regulations to direct the location, design and use of certain outdoor lighting at appropriate illumination levels while minimizing its undesirable effects. Specifically, the Section aims to accomplish, where possible, the following benefits for the public health, safety and general welfare, and otherwise in the public interest:
 - A. Maintain safe nighttime driver performance on public roadways by minimizing both brightly-lighted surfaces and lighting glare.
 - B. Promote lighting that provides security but is not unduly intrusive or a nuisance to nearby residents and drivers.
 - C. Preserve the qualities of the corridor by eliminating intrusive artificial light and lighting that unnecessarily contributes to “sky glow”.
2. **Definitions.**
Average Illumination Levels: The overall average of all points on the surface of the illuminated area including the brightest and the dimmest points.
Cut-Off-Angle: The angle between the vertical axis of a luminaire and the first line of sight (of a luminaire) at which the light source is no longer visible.
Cut-off Fixtures: Cut-off fixtures control glare by directing light well below the horizon, out of the viewer's line of sight.
Floodlight: A light fixture designed to light a scene or object to a level greater than its surroundings. The beam of floodlights may range from narrow field angles of 10 degrees to wide angles (more than 100 degrees).
Flush Mounted or Recessed Luminaire: A luminaire that is mounted above a ceiling (or behind a wall or other surface) with the opening of the luminaire level with the surface.
Foot-candle: A measure of light falling on a given surface. One foot-candle is equal to the amount of light generated by one candle shining on a square foot surface one foot away. Foot-candle may be measured both horizontally and vertically by a light meter.
Glare: The condition that results from insufficiently shielded light sources or areas of excessive light within the field of view.

Illuminating Engineering Society of North America (IESNA): An association of professionals in the field of lighting and related professions.

Luminaire: A complete lighting unit, often referred to as a fixture.

Lumen: A measure of light energy generated by a light source. Manufacturers list lumen ratings for all their lamps. Average lumen levels are slightly lower than initial lumen ratings.

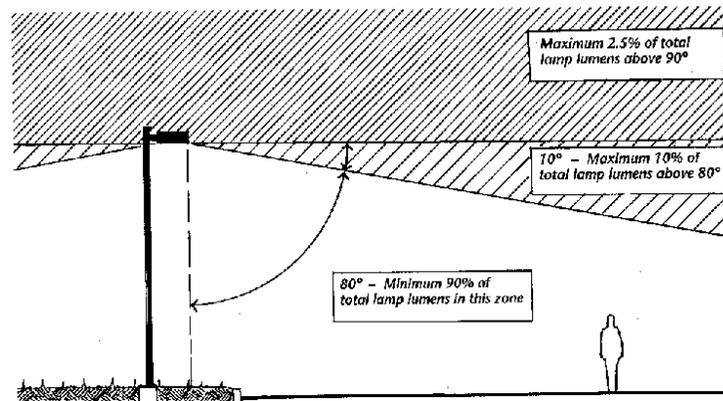
Maximum to Minimum Illumination Ratio: The ratio of the maximum illumination level to the minimum level.

Mounting Height: The vertical distance between the surface to be illuminated and the bottom of the light source.

Uniformity Ratio: The ratio of average illumination to minimum illumination.

3. Waiver.
The Planning Commission may modify the requirements of this section of the Overlay Zone if it determines that in so doing, it will not jeopardize the intent of the Overlay Zone.
4. Lighting Plan.
After Site Plan, Special Land Use or PUD approval, a lighting plan consistent with the approved Site Plan, Special Land Use or PUD shall be submitted to the Planning Commission or its designee in accordance with the following:
 - A. A site plan drawn to a scale of one-inch equaling no more than 30 feet showing the buildings, landscaping, parking and service areas, location and type of all proposed outdoor lighting.
 - B. Analyses and luminance level diagrams showing that the proposed installation conforms to the lighting level standards in this Section. Diagrams shall indicate illumination levels at ground level based on no greater than a 25 foot on-center grid and shall project 25 feet onto adjacent properties or to the setback limit line, whichever is greater. Illumination levels should also be measured for all surrounding streets at the public right-of-way.
 - C. Specifications for all proposed lighting fixtures including mounting heights, photometric data, designation as Illumination Engineering Society of North America (IESNA) "cut-off" fixtures, Color Rendering Index (CRI) of all lamps (bulbs), and other descriptive information on the fixtures.
 - D. The lighting plan shall provide a design for illuminations in accordance with this Section.
5. Exemptions.
The following outdoor light fixtures are exempt from the provisions of this Section.
 - A. Outdoor light fixtures installed prior to the effective date of this Overlay and replacements of such fixtures are exempt from the provisions of this Section.
 - B. Fossil fuel light produced directly or indirectly by the combustion of natural gas or other utility-type fuels.
 - C. Streetlights located within a public right-of-way.

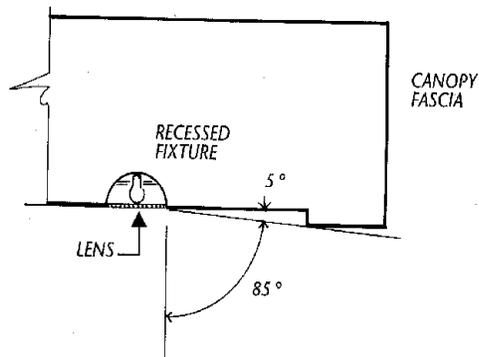
- D. Outdoor light fixtures, which use an incandescent light bulb of 150 watts or less except where they create a hazard or nuisance from, glare or spill light.
 - E. Lighting necessary for road or utility construction or emergencies.
6. Outdoor Light Fixtures.
All outdoor fixtures, including building mounted fixtures, shall be full cut-off fixtures as defined by IESNA.



Full cut-off Fixture as defined by IESNA

7. Parking Lot Lighting.
Parking lot lighting shall be designed to provide the minimum lighting necessary to ensure adequate vision and comfort and not to cause glare or direct illumination onto adjacent properties or streets.
- A. Alternatives.
 - i. The design for an area may suggest the use of fixtures from particular period or architectural style, as either alternatives or supplements to the lighting described above.
 - ii. If such fixtures are not “cut-off” fixtures as defined by IESNA, the maximum initial lumens by each fixture shall not exceed 2000 (equivalent to a 150-watt incandescent bulb).
 - iii. Mounting heights of such alternative fixtures shall not exceed 15 feet.
 - B. Mounting heights of standard cut-off fixtures shall not exceed 30 feet. However, an increase up to 40 feet may be permitted at the discretion of the Planning Commission for large commercial developments if it reduces the total number of lighting fixtures and corresponding support posts, improves overall lighting performance and sufficient justification is submitted that proves the lighting meets the intent of the Section.

- C. Mounting heights of fixtures that are located within 200 feet of a residential uses district shall not exceed 20 feet.
 - D. Average horizontal illumination levels shall be no greater than 2.4 foot-candles with a maximum to minimum ratio no greater than 10:1 and an average to minimum uniformity ratio not to exceed 4:1.
 - E. Average horizontal illumination levels may be increased near building entrances where pedestrian activity is substantial. In such locations, average horizontal illumination levels shall be no greater than 4.0 foot-candles with a maximum to minimum ratio no greater than 10:1 and an average to minimum uniformity ratio not to exceed 4:1.
 - F. The light shall not materially trespass onto surrounding properties
8. Lighting of Gasoline Stations/Convenience Store Aprons and Canopies.
- A. Lighting levels on gasoline station/convenience store aprons and under canopies shall be adequate to facilitate the activities taking place in such locations. Lighting of such areas shall not be used to attract attention to businesses. Signs allowed under the appropriate section of these regulations shall be used for that purpose.
 - B. Areas on the apron away from the gasoline pump islands used for parking or vehicle storage shall be illuminated in accordance with the requirements for parking areas set forth in Section 23.6(6). If no gasoline pumps are provided, the entire apron shall be treated as a parking area.
 - C. Areas around the pump islands and under canopies shall be illuminated so that the horizontal average at grade level is no more than 22 foot-candles with a maximum to minimum ratio no greater than 10:1 and an average to minimum uniformity ratio not to exceed 4:1.
 - D. Light fixtures mounted on canopies shall be recessed so that the lens cover is recessed or flush with the bottom surface (ceiling) of the canopy and/or shielded by the fixture or the edge of the canopy so that light is restrained to no more than 85 degrees from vertical.



E. Gas Pump Canopy

As an alternative (or supplement) to recessed ceiling lights, indirect lighting may be used where light is beamed upward and then reflected down from the underside of the canopy. In this case light fixtures must be shielded so that direct illumination is focused exclusively on the underside of the canopy.

- i. Lights shall not be mounted on the top or sides (fascias) of the canopy, and the sides of the canopy shall not be illuminated.
- ii. The reduction of all lighting levels by at least 50% after 11:00 P.M. are encouraged.
- iii. The level of light trespass onto surrounding properties or roads shall not exceed 0.1 foot-candles.

9. Security Lighting.

The purpose of and need for security lighting (i.e. the lighting for safety of persons and property) must be demonstrated. To the extent that an area is illuminated for other purposes, independent security lighting will be discouraged. All security fixtures shall be shielded and aimed so that illumination is directed only to designated areas and not cast onto other areas. In no case shall lighting be directed above a horizontal plane through the top of the lighting fixture and the fixture shall include shields that prevent the light source or lens from being visible from adjacent properties and roadways. The use of general floodlighting fixtures shall be discouraged.

10. Illumination of Building Façades.

When buildings and structures are to be illuminated, the Planning Commission shall approve a design for the illumination and the following shall apply:

- A. Lighting fixtures shall be carefully located, aimed and shielded so that light is directed only onto the building façade. Lighting fixtures shall not be directed toward adjacent streets, roads, or properties.
- B. Lighting fixtures mounted on the building and designed to “wash” the façade with light are preferred.
- C. The illumination of landscaping shall not generate excessive light levels, cause glare, or direct light beyond the landscaping.
- D. The reduction of all lighting levels by at least 50% after 11:00 P.M. are encouraged.
- E. The light shall not materially trespass onto surrounding properties

11. Night Lighting.

Outdoor fixtures for off-street parking lots are encouraged to be turned off no later than one hour after the site/building closes, except for lights that are necessary for security purposes.

SECTION 21.07 SIGNS. The purpose of this section is to control signs intended to be visible from the public right-of-way and to avoid sign clutter along the East Beltline.

1. Definitions

Abandoned sign: A sign which no longer identifies or advertises a bona fide business, owner, lessor, person, service, product or activity, or for which no legal owner can be found.

Community Special Event Sign: A sign, either portable or non-portable, displayed only for a limited time, to call attention to special events of interest to the general public which are sponsored by governmental agencies, schools or other groups which are non-profit and whose purpose is charitable, philanthropic, religious or benevolent.

Construction Sign: A sign, which identifies the owners, lenders, contractors, architects, and engineers of a project under construction, as well as the project itself.

Directional Sign: A sign which gives directions, instructions, or facility information for the movement of vehicles or pedestrians on the lot on which the sign is located, such as parking or exit and entrance signs, but not including a commercial message.

Essential Services: The erection, construction, alteration or maintenance of public utilities by a municipal corporation, public utility, or cable television company including gas, electrical, steam, communication, safety, water supply systems, or disposal systems, including equipment and accessories in connection therewith necessary for furnishing utility services for public health or safety or general welfare; but not including sanitary landfills.

Foot-candle: A measure of light falling on a given surface. One foot-candle is equal to the amount of light generated by one candle shining on a square foot surface one foot away. Foot-candle may be measured both horizontally and vertically by a light meter.

Ground Sign: A freestanding sign the bottom of which is no more than 24 inches above the finished grade.

Governmental Sign: A sign erected, or required to be erected by a local government, county, or the state or the federal government.

Maximum to Minimum Illumination Ratio: The ratio of the maximum illumination level to the minimum level.

Off-premise Sign: A sign which relates to or advertises an establishment, product, merchandise, good, service or entertainment which is not located, sold, offered, produced, manufactured or furnished at the property on which the sign is located (including, but not limited to, billboards).

On-premise Sign: A sign which pertains solely to the use of the property on which it is located such as to an establishment, product, merchandise, good, service or entertainment which is located, sold, offered, produced, manufactured or furnished at the property or within a PUD on which the sign is located.

Portable Sign: A sign that is not permanent or affixed to a building or structure and by its nature may be or is intended to be moved from one location to another, whether rented or owned, such as "A" frame signs or signs attached to or painted on vehicles parked and visible from the public right-of-way, unless the vehicle is used for vehicular purposes in the normal day-to-day operations of the business.

Pylon Sign: A freestanding sign, the bottom of which is more than 24-inches above the finished grade, and which is supported by a structure, poles, or braces which are less than 50 percent of the width of the sign.

Residential Community Sign: A sign identifying a recognized platted subdivision, site condominium project, multi-family development, or other residential development, which subdivision, project or development has been approved by the local government as provided by this ordinance.

Roof Sign: A sign erected above (or which extends above) the roof line of a building.

Sign: A device, fixture, placard, or structure that uses any color, form, graphic, illumination, symbol, or writing to advertise, announce the purpose of, or identify the purpose of any business, establishment, person, entity, product, service or activity, or to communicate information of any kind to the public.

Wall Sign: A sign painted or attached directly to and parallel to the exterior wall of a building. A wall sign shall extend no greater than 12 inches from the exterior face of a wall to which it is attached, shall not project beyond the wall to which it

is attached, and shall not extend above the roofline of the building to which it is attached.

2. General Provisions.

- A. Signs prohibited: Balloons, balloon signs, strings of light bulbs, pennants, streamers, banners, or flags (except non-commercial flags); portable signs (except as allowed by the Zoning Ordinance); Any sign, including window signs and neon window signs, which have flashing, moving, oscillating or blinking lights (except time and temperature and barber pole signs); roof signs; pylon signs; off-premise signs (except for non-commercial signs and community special event signs); any sign containing words, lettering, photographs, silhouettes, drawings, or pictorial representations of a sexually explicit manner.
- B. Exempt signs: Governmental signs, signs for essential services not exceeding 2 sq. ft in area.
- C. Directional signage: No more than 3 feet in height and 3 square feet in size, except that such dimensions may be exceeded if approved during site plan review.
- D. Illumination: It is the intent of this section to ensure that illuminated signs do not create glare or unduly illuminate the surrounding area.

The following provisions shall apply to externally illuminated signs:

- i. Lighting fixtures shall be carefully located, aimed and shielded so that light is directed only onto the sign façade. Lighting fixtures shall not be aimed at adjacent streets, roads or properties.
 - ii. Light fixtures shall be of a type such that the light source (bulb) is not directly visible from adjacent streets, roads or properties.
 - iii. To the extent possible, fixtures shall be mounted and directed downward (i.e. below the horizontal).
- E. Measurement Methods
- i. The area of a sign shall be measured as the area within a single, continuous perimeter composed of any straight line geometric figure which encloses the extreme limits of writing, representation, emblem, logo, or any other figure of similar character, together with any frame of other material or color forming an integral part of the display or used to differentiate the sign from the background against which it is placed, excluding only the pedestal, poles or other structure necessary to support the sign.
 - ii. The area of the freestanding or projecting sign that has 2 or more faces shall be measured including the area of all sign faces, except if 2 such faces are placed back-to-back and are of equal size, and are no more than 2 feet apart at any point the area of the 2 back-to-back faces shall be counted as the 1 face.
 - iv. The height of a sign shall be measured as the vertical distance from the highest point of the sign to the finished grade of the ground immediately beneath the sign excluding any artificially constructed earthen berms.

3. Residential Communities. (Zoning Districts: RP, RE, R-1, R-1A, R-2, R-3, R-4 and PUD).
 - A. One ground sign identifying a residential community is allowed at each entrance road to the development, except that not more than 2 such identification signs shall be allowed per development and they shall be at least 300 feet apart. The sign shall not exceed 6 feet in height and shall be a maximum of 32 square feet in size.
 - B. The ground sign shall be outside of clear vision corners.
4. Office Uses. (Zoning Districts: Office, C-1, C-2, C-4 and PUD).
 - A. One ground sign identifying a multiple office-building development is permitted at each entrance road to the development, except that not more than two such identification signs shall be allowed per development and they shall be at least 300 feet apart. The sign shall not exceed 6-feet in height and shall be a maximum of 32 square feet in size.
 - B. One ground sign identifying an individual office building is allowed. The sign shall not exceed 8-feet in height.
 - C. Ground signs shall be set back a minimum of 5 feet from a public or private right-of-way and outside of clear vision corners.
 - D. One wall-mounted sign is permitted for each tenant in an office building. The total aggregate of all wall mounted signs shall not exceed 144 square feet and the maximum size of any individual sign shall not exceed 48 square feet. Wall-mounted signs shall be reasonably uniform in nature and location.
5. Commercial Uses. (Zoning Districts: C-1, C-2, C-3, C-4, C-5 and PUD.)
 - A. One ground sign identifying a multiple commercial-building development is permitted at each entrance road to the development, except that not more than two such identification signs shall be allowed per development and they shall be at least 300 feet apart. The sign shall not exceed 6-feet in height and shall be a maximum of 60 square feet in size.
 - B. One ground sign identifying an individual commercial building is allowed. The sign shall not exceed 8-feet in height and shall be a maximum of 32 square feet in size.
 - C. Ground signs shall be set back a minimum of 5 feet from a public or private right-of-way and outside of clear vision corners.
 - D. One wall-mounted sign is permitted commercial establishment in a building. The maximum sign area of any one wall shall not exceed ten percent of the building face upon which the sign is located.
6. Institutional Uses.

Signage for institutional uses shall comply with the provisions of the underlying zoning district as noted in the Overlay Zone.

SECTION 21.08 GRADING AND STORM WATER.

1. Description and Purpose.

Hillsides and natural landforms can be included in the category of critical natural areas. Unlike many other types of features such as woodlots, wildlife and even groundwater, once landforms are gone they are not renewable. For this reason, they play an important role in building community character. This fact is clearly evident on the East Beltline with its rolling topography. The majority of participants in the planning process for the North East Beltline Joint Development Plan viewed these visual attributes as important features. Development of hillsides can affect the equilibrium of vegetation, surface geology, slopes, soils and run-off. It can also drastically change the way community or neighborhood character is perceived. For these reasons, the following regulations shall apply.
2. Protection of wetlands, streams and steep slopes.
 - A. Streams and Wetlands:
 - i. Grading or removal of vegetative cover shall not be permitted within 25 feet of a wetland in any zoning district.
 - ii. Grading, removal of vegetative cover and construction of new structures shall not be permitted within 50 feet of an intermittent stream or 75 feet of a perennial stream.
 - iii. In residential developments, wetlands shall be located in required open space rather than on residential lots or units unless the Planning Commission or the Committee determines that the location in an open space cannot be reasonably achieved.
 - iv. Wetlands and the required buffers for wetlands and streams shall be delineated on final plats, final site condominium plans, condominiums and site plans with a clear notation of use restrictions.
 - B. Steep Slopes: Steep slopes are slopes of 25% or greater.
 - i. Grading or removal of vegetative cover shall not be permitted on land with existing steep slopes, except when:
 - A. The contiguous area of steep slopes is less than 20,000 square feet; and
 - B. There is insufficient area outside of stream and wetland buffers for required sedimentation and erosion control measures.
 - ii. Areas containing existing steep slopes should preferably be included in open space lots or areas.
 - C. Waiver: Disturbance of Wetlands, Streams and Steep Slopes: Grading or removal of vegetative cover on wetlands, streams, wetland buffers or steep slopes is not permitted unless the Planning Commission determines, based on justification provided by the developer that it is necessary for road or utility construction, trails, pathways, or storm water management facilities. If permitted, the grading or removal of vegetative cover shall only be to the extent necessary to accommodate the proposed development. In these cases, the Planning Commission may require planting of areas where grading or removal of vegetative cover has taken place.
3. Site Plan Review Procedures.

The following site plan review procedures shall apply and will help to minimize the negative impacts of extensive site grading:

- A. Site plan review by the Planning Commission shall be required for any parcel larger than one acre. This stipulation will apply to all land uses including residential, commercial, and office/institutional.
- B. A grading plan indicating existing and proposed contours at a two-foot interval shall be required as part of a site plan submittal.
- C. The Township shall closely study and evaluate the potential impacts of proposed grading changes.
- D. To judge the “fit” of any new development with existing site features and surrounding properties, staff and the Planning Commission shall use the following criteria in reviewing all site plans. These standards are intended to provide a frame of reference for the appellant in the preparing site plans as well as for the reviewing authority in making judgments concerning them. These standards will not be regarded as inflexible requirements nor are they intended to discourage creativity, invention or innovation. These criteria include the following:
 - i. Cut and fill slopes shall be minimized.
 - ii. Proper grading and elevation relationships to adjacent properties shall be maintained.
 - iii. The most significant slopes and ridgelines shall be maintained in their natural state by clustering development.
 - iv. The negative effects of grading shall be minimized thereby preserving the natural character of key site areas.
 - v. Mass grading of large pads and excessive terracing shall be minimized.
 - vi. Unstable slopes or slopes subject to erosion shall be protected.
 - vii. Storm water runoff that could result from major changes in topography shall be minimized.
 - viii. Using innovative and low maintenance techniques, steep slopes shall be re-vegetated.
 - ix. Essential grading will be shaped so that it complements natural landforms.
 - x. Large tracts will be graded in workable units following a scheduled timeline so that construction does not result in large areas left bare and exposed to winter/spring runoff.
 - xi. Innovative architecture that responds to a site and its topography will be used.

SECTION 21.09 MOTOR VEHICLE ACCESS.

- 1. Purpose.
The purpose of this section is to control and limit motor vehicle access ways and the distance between them onto the East Beltline. Access ways or driveways must be correctly spaced so as to protect the capacity of this highway and to protect the safety of motorists using the highway while allowing reasonable access.
- 2. Definition of Access.
For the purposes of this section of this Overlay Zone an “access” is an entrance and/or exit for motor vehicles to or from the East Beltline or other public road.
- 3. Non-signalized Access Spacing.
Adjacent accesses shall be spaced as far apart as on-site circulation allows. Table 1 shows the minimum non-signalized access spacing as a function of

posted speed. These distances are based on average acceleration and deceleration considered adequate to maintain good traffic operations. A longer spacing may be required if sight distances are limited at the proposed access location.

Table 1

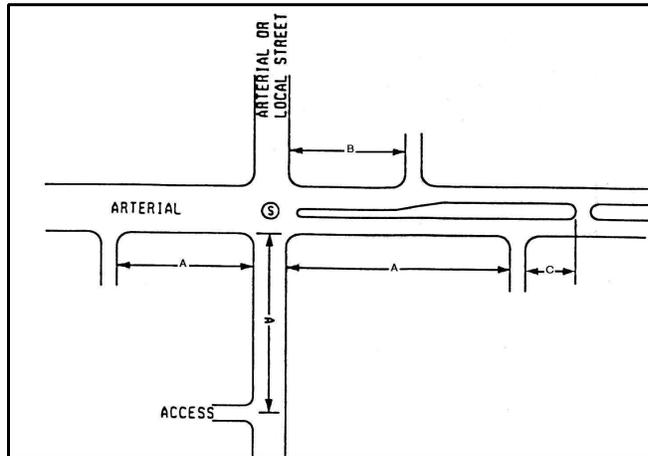
Posted Speed	Center-to-Center of Access
(MPH)	FT
25	130
30	185
35	245
40	300
45	350
50 & above	455

4. Lack of Sufficient Frontage to Maintain Adjacent Spacing.
 - A. In the event that a particular parcel lacks sufficient frontage to maintain adequate spacing, the Planning Commission may require one or more the following.
 - i. An access point to a side street.
 - ii. Access to frontage roads or service drives where they exist or can be constructed.
 - iii. A shared driveway with the adjacent owners. In such case the driveway midpoint should be located at the property line between two parcels. All parties shall agree to the joint driveway in writing.
 If options listed above are not reasonably feasible, the Planning Commission may allow the next lowest spacing from Table (1). For example, on 50 mph roadway requiring 140 meters (455 ft.) spacing, the distance may be reduced to no less than 105m (350 ft.), which is the spacing for 45 mph speed.
 If all the above options are impossible, an access point may be allowed within the property limits.
 - B. In the event that two or more adjacent parcels do not have sufficient frontage to maintain adequate spacing for access, the Planning Commission may require the dedication of joint access easements or cross access easements for shared access to the public street.
5. Passing Flares at Driveways, Right-Turn Lanes or Tapers at Intersections, and Left-Turn Lanes or Passing Flares at Intersections shall be provided in accordance with Michigan Department of Transportation guidelines.
6. Intersection Corner Clearance:
 Accesses shall not be situated within the functional boundary of at-grade intersections. This boundary includes the longitudinal limits of right turn and left

turn lanes. An access point may be allowed within the above boundary if the entire property frontage is located within this boundary. In all quadrants of an intersection access points should be located according to the dimensions shown below.

- A. **Signalized Intersection Control:**
 Accesses shall be offset from intersections and indirect left turn crossovers according to this table and diagram:

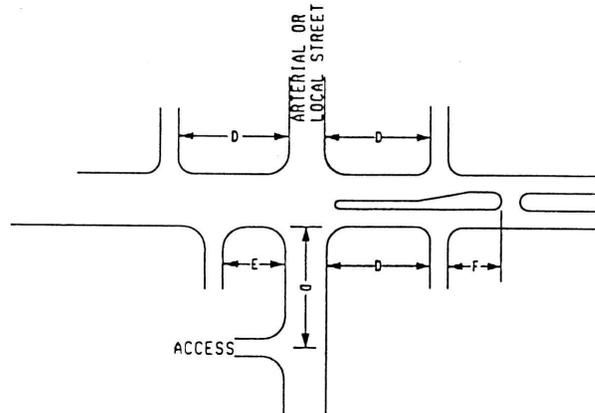
Item	Feet
A	460
B	230
C	150



The above dimensions are for a 40 to 55 mph posted speed.

- B. **Stop Sign Intersection Control:**
 Accesses shall be offset from intersections and indirect left turn crossovers according to this table and diagram:

Item	Feet
D	230
E	170
F	150



7. Access Design.
All access points shall be designed to meet the Michigan Department of Transportation guidelines and standards.

SECTION 21.10 PEDESTRIAN ACCESS.

1. Paved walkways shall be provided for access to adjacent parks, shopping areas, transit stops, anticipated walkways and institutions. Pedestrian movement shall be accommodated within parking lots.
2. Paved walkways, available to the public, shall be provided along all of the East Beltline.

SECTION 21.11 COMMERCIAL AND OFFICE ARCHITECTURAL FAÇADES AND BUILDING DESIGN. All new buildings and structures for commercial and office uses shall be so designed to incorporate the following architectural design features:

1. Height and Scale - the scale and size of a building shall be reasonably compatible with adjacent and nearby buildings.
2. Other Architectural Features - Buildings shall possess architectural variety and enhance community character. Where appropriate, all buildings shall provide architectural features, details and ornaments such as archways, colonnades, cornices, and other architectural features. Building walls over 100 feet in length shall be broken up with varying building lines, windows and architectural accents.