ARTICLE 12

DRAINAGE, UTILITIES, PARKING, LOADING, AND LIGHTING

DIVISION 12.000 PURPOSE

This Article provides the standards for drainage, utilities, parking, loading, and lighting improvements (Ordinance 2808, 08/27/02). These standards are consistent with Paola's community character by ensuring that:

A. Adequate municipal facilities are installed at the time of a project's development so that the uses' occupants have adequate services to protect their health and safety.

B. The facilities will function efficiently and require minimum maintenance.

C. Developments are functional and internally safe to the greatest degree possible without reducing the permitted density and increasing adverse impacts on the environment and adjoining properties.

DIVISION 12.100 DRAINAGE

SECTION 12.110 SURFACE DRAINAGE

Every effort shall be made to utilize natural drainageways rather than an underground stormwater system. Site and street drainage shall be enclosed and conveyed in the TA, BP, and SC districts. Developers shall not be required to enclose drainage on Baptiste for site plan approval or development. This does not preclude the City Council=s ability to form a benefit district drainage improvements along Baptiste Drive. Drainage easements are encouraged to move water from the street face to the back of the lots and natural drainage areas in the rear.

SECTION 12.111 SURFACE DRAINAGE CONFIGURATIONS

The typical open channel storm drainage is a V-shaped swale with grass sides. Such drainage ditches shall have no greater than a 3:1 slope (Figure 12.111). Wherever possible in water supply watersheds and the E, S, and SC Districts, the more natural drainage configurations that follow shall be used (Figure 12.111):

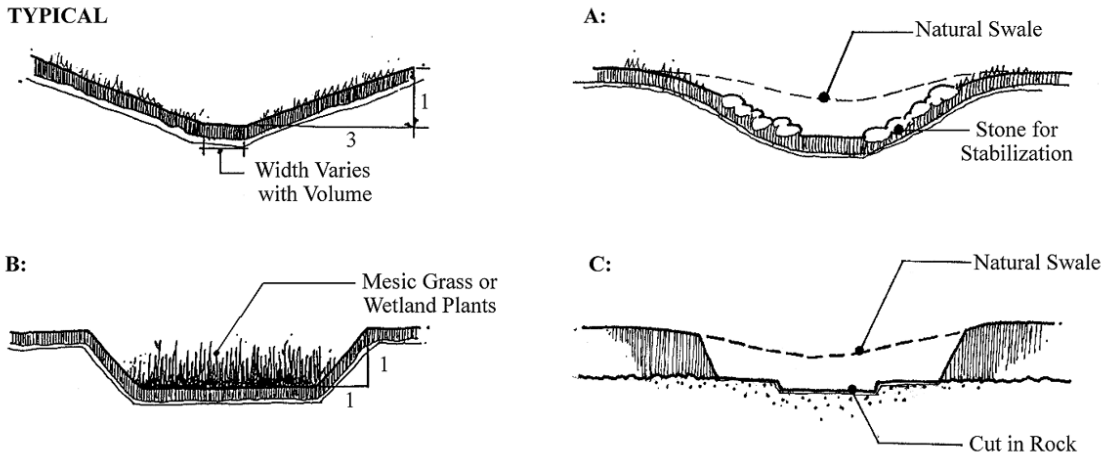
A. Natural swales shall be maintained wherever possible, even when the stream would be on an otherwise buildable portion of a lot. In steeper areas, these swales may require minor widening and stabilization with stone.

B. All improved channels shall be lined with riprap, grouted riprap, concrete, turf or gabions. Channels lined with riprap shall be designed with a filter fabric.

C. On gentle upland slopes, wide steep-sided grassed ditches filter water before entering a water course. These ditches can be made into a landscape feature and also provide additional storm detention in relatively flat topography.

D. In shallow rock areas, narrow channels may be cut into the rock and used without the normal side slope, provided the City's Director of Public Works is satisfied with volumes and velocities.

Figure 12.111
SURFACE DRAINAGE CONFIGURATIONS



SECTION 12.120 DETENTION

A. Each development shall provide on- or off-lot detention of excess stormwater runoff resulting from that development. For this Section's purposes, "excess stormwater runoff" shall include all increases in stormwater resulting from one of the following:

1. An increase in the site's impervious surface resulting from any new buildings, roads, and/or parking lots.
2. Changes in soil absorption caused by compaction during development.
3. Contour modifications, including filling or draining small depressional areas, altering drainageways, or installing collection systems to intercept street flows or replace swales or other drainageways.
4. Altering subsurface flows compared with the site in its natural state.

Detention shall be required based on the land use, pervious surface, and impervious surface for nonresidential uses. Residential uses shall use the residential size and lot type and apply pervious data to open space.

B. No development shall cause downstream property owners, water courses, channels, or conduits to receive stormwater runoff from proposed developments at a higher peak flow rate than would have resulted from the same storm event occurring over the proposed development site with the land in its natural, undeveloped condition. For this Section's purposes, "undeveloped condition" shall include all natural retention areas and drainageways, plus existing highway drainage structures, in the flow calculations.

C. All stormwater storage facilities shall be designed with sufficient capacity to accommodate all runoff caused by the development in excess of the natural, undeveloped condition. The storage capacity of all

storage facilities shall be sufficient to store one hundred fifteen (115) percent of the excess flow, in each watershed, which would result from the 100-year storm of 24-hour duration.

D. The APWA Division V, 5600 Storm Water Drainage System Manual is the approved standard for calculating detention. Where this Section conflicts with the APWA Division V, 5600 Storm Water Drainage System Manual, the requirements of this Section shall apply. Where this Ordinance conflicts with any County, State, and Federal ordinance or regulation, the most restrictive ordinance or regulation shall apply.

E. All detention facilities and improvements required by this Section shall comply with the following regulations:

1. Storage may be provided by wet or dry bottom basins or reservoirs or rooftop storage facilities, except in the water supply watersheds where all basins shall be wet. Wet basins shall have a water volume equal to at least a two (2) hour twenty (20) year storm. In a water supply watershed, wet basins shall have a water volume equal to at least a two (2) hour fifty (50) year storm.
2. Outlet control structures shall be designed as simply as possible and shall operate automatically.
3. Emergency overflow facilities shall be provided.
4. Basins designed without permanent pools (dry bottom basins) in the water supply watershed shall be planted as wetlands.
5. All other dry bottom basins shall be designed to serve secondary purposes for recreation, open space, or other types of use that will not be adversely affected by occasional or intermittent flooding. Each shall:

    a. Facilitate interior drainage and provide natural grades to outlet structures, longitudinal and transverse grades to perimeter drainage facilities, or install subsurface drains.
    b. Be designed for periodic cleaning and sediment removal, which shall be removed from the site or otherwise disposed of in an appropriate manner.
    c. Provide a water depth not exceeding four (4) feet unless otherwise approved by the City's Director of Public Works. The final depth and time of release shall also be consistent with any proposed final use.

6. For basins designed with permanent pools (wet basins):

    a. If fish are to be stocked, at least twenty-five (25) percent of the area of the permanent pool must have a minimum depth of ten (10) feet.
    b. For emergency purposes, cleaning, or shoreline maintenance, facilities shall be provided or plans prepared for the use of auxiliary equipment to permit emptying and drainage.
    c. Aeration facilities may be required when the influent quality and detention time would lower the basin's dissolved oxygen content.

    d. Approach slopes shall be at least 6:1 but not more than 3:1 and shall be at least four (4) to six (6) feet wide and slope gently toward the shore to prevent people or objects from sliding into deep water. A freeboard of two (2) feet above the high-water elevation shall be provided on all retention basins. Irregular natural appearing shorelines and vegetation shall be strongly encouraged.

e. The basins shall be designed to include sediment traps in all inlets. Sediment traps shall be designed to permit periodic cleaning and maintenance. A basin maintenance plan shall be developed to ensure the design depths of the basin will remain stable over time.

7. **Building Regulations.**

a. Detention storage requirements may be met either in total or in part by detention on flat roofs. Design specifications of such detention shall be a part of the Zoning Permit application (Section 21.530). These specifications shall include the storage depth and volume, outlet devices and downdrain designs, overflow scuppers elevations, rooftop structure design loadings, and emergency overflow provisions. Rooftop storage shall not be permitted to drain directly into sanitary sewers or streets. All such storage shall be certified by a registered engineer.

b. Paved parking lots may be designed to provided temporary detention storage on a portion of their surfaces not to exceed twenty-five (25) percent. Outlets shall be designed to empty the stored waters slowly in sheeting action. Storage areas shall be posted with warning signs and shall be designed to fill to maximum depths in not less than one (1) hour.

c. All or a portion of the detention storage may also be provided in underground detention facilities.

8. Retention in floodplains shall be permitted only where the cross section of floodplain is altered to provide the storage, and soils data indicate high water tables will not reduce storage potential.

9. Where required, easements shall be provided for adequate access for inspections, construction, and maintenance of all storm water conveyance systems and detention or retention structures.

10. Basins shall be sodded or seeded with established growth and inspected by the City's Director of Public Works.

F. The developer shall be responsible for maintaining all improvements until such time as streets are accepted, the development is substantially completed, and occupancy permits are issued. However, the developer shall not transfer these maintenance improvements until final approval, final inspection, and a certificate of compliance is granted by the City. Thereafter, all detention improvements shall be maintained in perpetuity by the owner, homeowners association, or by the City (if dedicated and accepted by the City), and cannot be developed for any other use which would limit or cause to limit the use for detention.

G. The developer's engineer shall be required to inspect all drainage facilities under construction and certify their compliance with approved plans. In addition, a registered engineer, employed by the City of Paola, or the City's Director of Public Works may inspect all drainage facilities during construction. When facilities are not constructed according to approved plans, the Zoning Officer has the explicit authority to compel compliance and require correction of any situations not complying with the approved plans.

DIVISION 12.150 UNDERGROUND UTILITIES

SECTION 12.151 REQUIREMENTS

A. Except as otherwise provided in this Section, all utilities shall be installed underground within designated easements by the subdivider or utility company prior to the issuance of a certificate of occupancy. For purposes of this Section, the term "utilities" shall include, but not be limited to, all pipes, poles, wires, connections, conductors, switchers, line transformers and insulators which supply natural gas, electricity, sewage or water, or which may be used for communications transmission.

B. The subdivider, developer or owner of any such area or portion thereof shall make the necessary arrangements for the installation of underground utilities. Such arrangements shall be made with the utility company. A letter from the utility company confirming that such underground insulation as required by this Section has been completed shall be submitted to the Zoning Administrator at the time that a certificate of occupancy is requested. A certificate of occupancy shall not be granted absent such confirmation.

C. The provisions of this Section shall not apply to any of the following uses:

1. All electrical power lines rated at or above "feeder" line class. For purposes hereof, a "feeder" line is defined as that portion of an electrical circuit which provides power from a power substation and which has a rated capacity of 3,000 KVA or more.
2. All telecable lines rated at or above "trunk" line class. For purposes hereof, a "trunk" line is defined as that portion of a telecable systems line that is .750 inches in diameter.
3. Existing poles, overhead wires, and associated overhead structures, when part of a continuous line, or services to individual properties from such existing overhead lines that are within a subdivision previously approved in accordance in conformance with existing regulations.
4. Existing poles, overhead wires, and associated overhead structures, when part of a continuous line, or services to individual properties from such existing overhead lines that serve properties adjacent to but not within areas being subdivided.
5. Any communication line that would otherwise be required by this Section to be underground that uses an overhead pole or structure exempted by this Section.
6. Radio and television antennas.
7. Structures on corner lots, in streets and alleys, and on easements adjacent thereto, and in cases where electrical and communication wires cross a street or other district boundary from an area where overhead wires are not prohibited, may be connected to said overhead wires.
8. Overhead lines attached to the exterior surface of a building by means of a bracket or other fixture and extending from one location of the building to another location of the building or to an adjacent building without crossing a property line.
9. Poles used exclusively for street or area lighting or for traffic control facilities.
10. Service terminals, transformers, regulators, meters or other on- and above-ground appurtenances normally used with and as a part of an underground distribution system.

D. Nothing in this Section will prevent the replacement of poles, overhead wires, and associated overhead structures on these lines when necessary for the purpose of maintaining the line or upgrading the capacity thereof or, in the case of single-phase lines, the addition of the necessary facilities to three-phasing of the line.

E. Electric distribution systems shall be located at the rear of lots except where the property owner makes a written request to the Zoning Administrator for installation elsewhere on the property due to topographic conditions which, in the sole discretion of the Zoning Administrator, outweigh the benefits resulting from rear lot installation and such alternative location will not result in adverse consequences for neighboring properties or the community. (Ordinance 2946, 07/10/07)

(Ordinance 2808, 08/27/02)

DIVISION 12.200 SANITARY SEWER

SECTION 12.210 PUBLIC SANITARY SYSTEMS

Article 4 lists uses in the E District that are permitted to use on-lot sanitary sewer systems. All other uses shall provide public sanitary sewer approved by the City's Director of Public Works unless on-lot systems are permitted by this Division for specific conditions or by Article 14. It is the intent of these regulations that property served by public sewer either be within the city limits or be subject to a fully executed and recorded consent to annexation by the City.

SECTION 12.220 ON-LOT SYSTEMS

On-lot systems shall be permitted approved by the Miami County Environmental Health Department. Lots of record on the date of adoption of this Ordinance shall be allowed to use on-lot systems, provided the system is not within four hundred (400) feet of a public sewer to which the City would allow connection to be made. See Article 5.

SECTION 12.221 ON-LOT STANDARDS

A developer may install an individual sewage disposal system for each lot, if the following criteria are met:

A. The subdivision may not exceed a maximum of twenty (20) lots;

B. Each lot must have the minimum lot and area requirements of Table 4.110 A. for single-family conventional systems permitted to have on-lot sewer systems.

C. All septic tanks and lateral lines shall meet the following setbacks:

1. Dwelling or property line: ten (10) feet.
2. Water supply, including public water lines, wells, and cisterns: one hundred (100) feet.
3. Watercourse: fifty (50) feet. All such systems within the water supply watershed shall meet the standards of Section 05.233.

D. All lateral fields shall meet the Miami County Environmental Health Department standards. If variances are requested of the County, they must also be approved by the City's Director of Public Works.

SECTION 12.230 INTERIM SEWER SYSTEMS

Extending sewer in the Community Growth Area is intended to be phased. Therefore, areas zoned for uses requiring public sewer (Table 4.110 A.) may not currently have sewer available. Alternative systems using permitted system designs shall be permitted provided they meet this Ordinance=s requirements. The permitted systems are:

A. Systems with normal gravity sewers leading to an aerated lagoon treatment system that meets all discharge requirements or irrigates open space land for final disposal or to package plants approved by the State of Kansas.

B. Systems with septic tanks pumping into low pressure sewers leading to an aerated lagoon treatment system that meets all discharge requirements or is used as land application in open space land for final disposal or to package plants approved by the State of Kansas.

C. Sewage lagoons shall be allowed in the Lake Miola Watershed only with the permission of the City and Kansas Department of Health and the Environment.

D. Discharge from package plants shall be allowed in the Lake Miola watershed only with the permission of the City and Kansas Department of Health and the Environment.

The site plan must indicate final disposition of any land used for treatment lagoons, buildings, or land treatment areas.

SECTION 12.231 MANAGEMENT OF INTERIM SYSTEMS

All interim systems shall be managed by the City of Paola. The following conditions shall be attached to the use of such systems.

A. The development shall be within the City=s corporate limits or a fully executed consent to annexation shall be recorded.

B. A home or property owners= association shall be created to which all lots within the development must belong.

C. When City services reach the development, the City at its own determination shall continue the facility or close it. All costs associated with the closing shall be assessed to the benefit district except as provided in E. below.

D. If the land on which the interim system is to revert to the developer or successors, they shall be assessed the costs of removing the system rather than the home or property owners= association. Once removed, the developer may submit a plat of subdivision for the use of the property. If the land is to be open space dedicated to and accepted by the City, the City will pay fifty (50) percent of the grading and removal.

DIVISION 12.300 WATER SUPPLY

SECTION 12.300 SPECIAL STUDY

For multi-family and commercial developments, a special study to determine fire flow and fire protection requirements shall be conducted by an engineering firm licensed to practice in the state of Kansas and shall be sealed by a Licensed Professional Engineer. The study shall cite similar uses and be based on a detailed analysis of the proposed use and the available water supply. The special study shall be submitted at the developer's expense. The City may substitute or rely on the special study for that specific property.

DIVISION 12.400 PARKING AND LOADING

SECTION 12.410 PARKING STALL DIMENSIONS

Table 12.410 specifies the minimum horizontal widths for standard parking rows, aisles, and modules (also see Figure 12.410).

A. The standard parking space is nine (9) feet by eighteen (18) feet (also see Section 12.411).

B. Parking space length can be reduced to sixteen and one-half (16.5) feet, including wheel stop, if additional space of one and one-half (1.5) feet in length is provided for the car's front overhang. The unpaved area shall be planted in groundcover but shall not count towards the required parking lot landscaping.

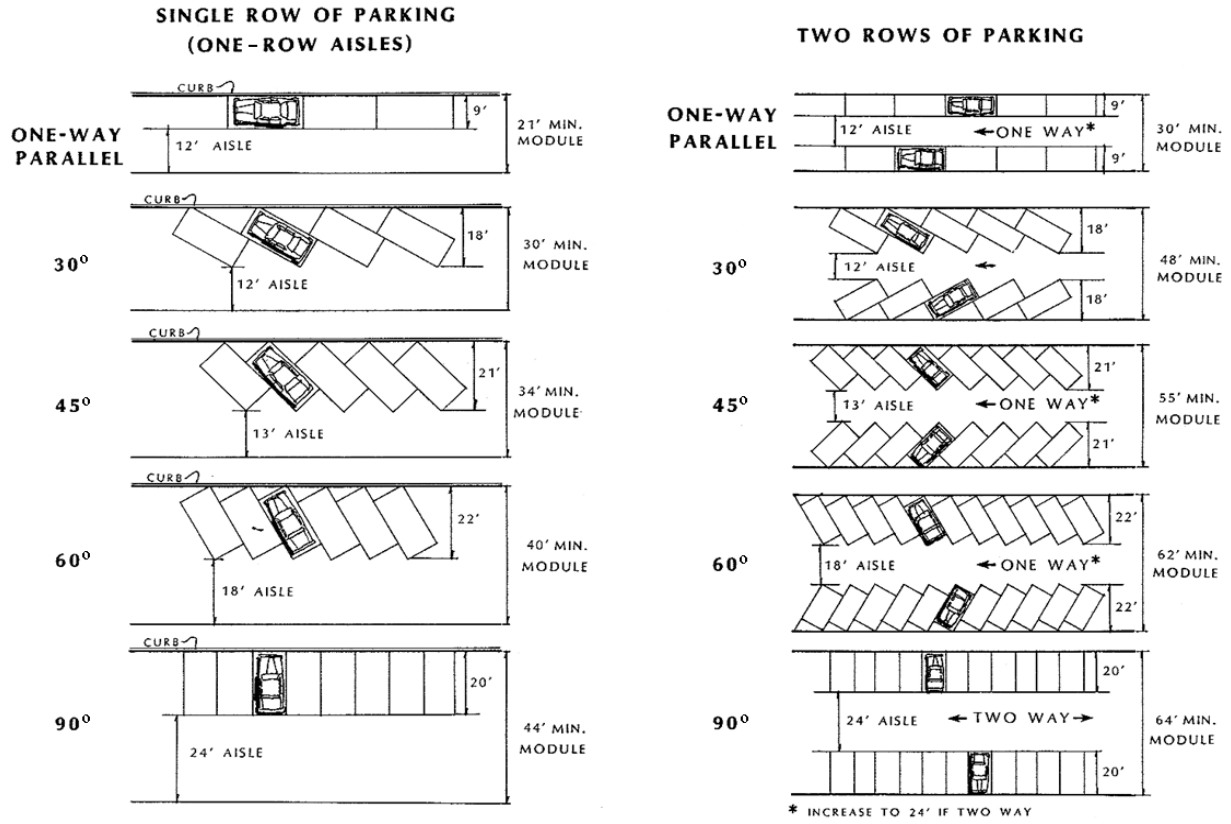
C. Parking spaces shall have a vertical clearance of at least eight (8) feet.

D. In parking structures, minimum aisle widths must be maintained. The owners may designate stalls as being for compact cars. Compact car spaces may be eight and a half (8.5) feet by sixteen (16) feet. The smaller stalls will reduce total width of the area needed for stalls and isles. No more than 20% of the total stalls shall be compact car stalls.

Table 12.410
MINIMUM HORIZONTAL PARKING WIDTHS FOR STANDARD AUTOMOBILES

Dimension	One-Way Parallel	Space Angle (degrees)			
		30	45	60	90
Single Row of Parking					
Parking aisle	9'	18'	21'	22'	18'
Driving aisle	12'	12'	13'	18'	24'
Minimum width of module (row & aisle)	21'	30'	34'	40'	44'
Two Rows of Parking					
Parking aisle	18'	36'	42'	44'	40'
Driving aisle	12'	12'	13'	18'	24'
Minimum width of module (row & aisle)	30'	48'	55'	62'	64'

Figure 12.410
PARKING STALL DIMENSIONS



SECTION 12.411 HANDICAP PARKING

All uses, other than residential served by on-lot parking, shall provide parking spaces for motor vehicles which transport disabled persons in accordance with this Section's standards.

Table 12.411
REQUIRED NUMBER OF
OFF-STREET HANDICAP PARKING SPACES

Number of Parking Spaces Provided	Number of Handicap Spaces Required
1-25	1
26-50	2
51-75	3
76-100	4
101-150	5
151-200	6
>200	7 plus 1 for each 100 additional parking spaces provided over 200

A. Handicap parking spaces shall be a minimum of eight (8) feet wide by eighteen (18) feet long with an adjacent parallel access aisle five (5) feet wide. The adjacent parallel access aisle may be shared by two (2) accessible parking spaces. One (1) in every eight (8) accessible spaces shall have an access aisle a minimum of eight (8) feet wide (rather than five (5) feet) and shall be signed "Van Accessible."

B. Handicap parking spaces shall be located as close as possible to an entrance which allows such persons to enter and leave the parking area and building without assistance.

C. Handicap parking spaces shall be posted and marked with both a ground-mounted sign and pavement marking which includes the international symbol for barrier-free environments and a statement informing the public that the parking space is reserved for use by disabled persons.

D. Residential units designed for occupancy by disabled persons shall provide one (1) handicap parking space for each dwelling unit designed for such occupancy.

E. Off-street parking spaces required for the disabled by this Ordinance shall count toward fulfilling this Ordinance's total off-street parking requirements.

F. Other Ordinance guidelines for handicap accessibility to public facilities shall be in accordance with regulations issued by federal agencies, including the United States Department of Justice, under the Americans with Disabilities Act of 1990. More specifically, these regulations include 28 CFR Part 36 "Nondiscrimination on the Basis of Disability by Public Accommodations and in Commercial Facilities, Final Rule."

SECTION 12.420 OFF-STREET PARKING DESIGN STANDARDS

All off-street parking shall meet the following design standards:

A. All off-street parking areas shall be designed so vehicles do not back out into any road or public right-of-way, except for parking facilities serving single-family residential lots and over-flow parking facilities accommodating less than five (5) vehicles.

B. Each required parking space, except valet parking spaces, shall have unobstructed access from a road or alley, or from an aisle or drive connecting with a road or alley, without moving another vehicle.

C. All off-street parking facilities shall be designed with appropriate vehicular access to a street or alley in such a manner which causes the least interference with traffic movements.

SECTION 12.430 PARKING SURFACES

A. All parking lots shall be paved with concrete, paving blocks, asphalt, or other all-weather surface. Pavers or grids are permitted in low-volume parking or overflow areas. Gravel is not an all weather surface.

B. Light use areas, those needed only twenty-five (25) days per year or less, may be provided with pervious pavements or grids that permit grass to grow through the blocks.

C. Gravel may be considered for parking areas associated with outdoor recreation facilities. A parking lot plan must be submitted for approval by the Planning Commission and City Council. Gravel parking is prohibited for all other areas.

SECTION 12.431 WAIVER - IMPROVING PARKING, LOADING, AND STORAGE AREAS

A portion of the parking lot, loading, and storage areas required under this Ordinance may remain unimproved until such time as the City Council deems it must be improved to serve demand or deems it a nuisance. Such delayed improvement of parking, loading, and storage areas may be permitted only after the Planning Commission is satisfied that initial occupancy of the premises will be adequately served by the unimproved parking, loading, and storage areas and only after the approval of a final development plan that clearly indicates the location, pattern and circulation to and from the deferred parking, loading, and storage areas.

SECTION 12.440 OUTDOOR LOADING BAY AREA STANDARDS

A. **Dimensions.**

1. Each off-street loading space's minimum area, excluding area for maneuvering, shall be eight hundred (800) square feet. Where semi-trailers are prohibited, the minimum area shall be reduced to three hundred (300) square feet.
2. Each outdoor loading bay area's minimum dimensions shall be twelve (12) feet wide and twenty-five (25) feet long. At no time shall any part of a truck or van be allowed to extend into a public thoroughfare or right-of-way while the truck or van is being loaded or unloaded. If the outdoor loading area is covered but not totally enclosed, the minimum height of the outdoor loading bay area shall be fourteen (14) feet.

B. **Maneuvering Space.** Adequate off-street truck maneuvering space shall be provided on-lot and not within any public street right-of-way or other public lands.

C. **Location.** All loading areas are required to be located on the same lot as the building or lot served by the loading area.

D. **Blocking Access.** Blocking loading spaces or parking spaces is prohibited. Loading spaces or parking spaces shall not be located to block access. Permanent or moveable structures of any type, including trash receptacles or compactors, shall be prohibited from parking, loading, or access areas.

E. **Fire Exit or Emergency Access.** Off-street loading facilities shall be designed so as not to interfere with any fire exits or emergency access facilities to either a building or site.

DIVISION 12.500 EXTERIOR LIGHTING STANDARDS

Exterior lighting is regulated to eliminate light spill-over and glare on motor vehicle operators, pedestrians, and land uses within the light source's proximity. Safety considerations are the basis of the regulations, especially with respect to motor vehicles. In other cases, the regulations protect against both nuisance and hazard aspects of glare or excess light.

SECTION 12.501 APPLICABILITY

This Division shall apply to all uses except for public street lighting which shall conform to standards set by the State Department of Transportation and the City of Paola Public Works Department.

SECTION 12.510 EXTERIOR LIGHTING PLAN

Any time exterior lighting is installed or substantially modified, and whenever a Zoning Permit is sought (as required in Section 21.530) , an exterior lighting plan shall be submitted to the Zoning Administrator to determine whether this Article's requirements have been met and that adjoining property will not be adversely impacted by the proposed lighting.

SECTION 12.520 LIGHTING STANDARDS

Two types of light sources or luminaires are available (Figure 12.520). One is a fixture having no cut-off, directing the light to limit view of the light source or luminaire. The second is a cut-off fixture, shielding the light source from view. The maximum permitted luminaire heights are indicated in Table 04.110 A.

Figure 12.520
TYPES OF LUMINAIRES

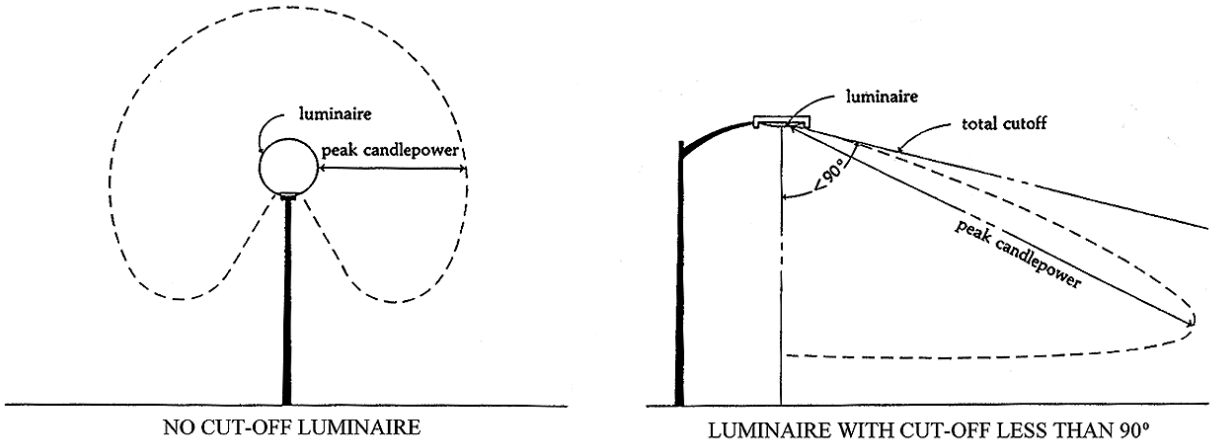


TABLE 12.522 ILLUMINATION – POLE HEIGHT STANDARDS

Table 12.522		
Zoning District	**Regular Pole**	**Cut-Off**
Estate	10 feet	15 feet
Suburban	15 feet	20 feet
Suburban Commercial	15 feet	20 feet
Thoroughfare Access	15 feet	25 feet
Neighborhood Conservation	15 feet	25 feet
Downtown	15 feet	15 feet
Business Park	15 feet	20 feet
Industrial	15 feet	25 feet

SECTION 12.525 ILLUMINATION STANDARDS

The Zoning Officer shall evaluate the level of use activity and designate the use as as high, medium, or low activity. The levels reflect both traffic and pedestrian activity and are illustrated by, but not limited to the following examples:

A. High Activity: Major league athletic events, major cultural or civic events, and regional shopping centers. No such uses exist in Paola at present.

B. Medium Activity: Fast food facilities, community shopping centers, office parks, hospital parking areas, transportation parking (airports, commuter lots, etc.), cultural, civic or recreational events, and residential parking complex.

C. Low Activity: Neighborhood shopping, industrial employee parking, educational facility parking, and church parking.

Activity	Average Maximum (On Pavement)	Minimum Point	Uniformity Ratio (Average:Minimum)
HIGH	4 footcandles	0.9 footcandles	4:1
MED	3 footcandles	0.5 footcandles	4:1
LOW	2 footcandles	0.2 footcandles	4:1

D. Illumination spillover to neighboring properties cannot exceed 0.5 footcandles as measured at the property line.

SECTION 12.530 EXTERIOR LIGHTING FOR OUTDOOR RECREATIONAL USES

Ball diamonds, playing fields, and tennis courts have unique requirements for night-time visibility and generally have limited hours of operation. These uses may meet the following limited use standards for approval of lighting in excess of the exterior lighting standards of Table 4.110 A.

A. The site plan meets all other Ordinance requirements and, to the maximum extent possible, lighting is located to avoid shining on residential uses.

B. Exterior light sources do not exceed the maximum permitted post height of eighty (80) feet.

C. The light source or luminaire shall be cut-off fixtures. The luminaire may have a cut-off angle that extends beyond the property boundaries if:

1. A landscaped bufferyard is provided to prevent light and glare spill-over to adjacent residential property. The Zoning Officer shall be able to require denser bufferyards than those in Table 4.110 A. to achieve this objective.

2. The maximum permitted illumination shall not exceed one (1) footcandle at the residential property line or the street curb, whichever is less.

SECTION 12.531 SIGN LIGHTING, SHIELDED SPOTLIGHTS

Shielded spots shall be screened by evergreen landscaping, walls, berms, or cut-off shielding so the light source is not visible off-site. In most cases, a combination of cut-off shielding and a landscape or other feature will be needed to provide the necessary screening. Figure 12.531 provides an example of how this objective is to be accomplished.

Figure 12.531
SHIELDED SPOTLIGHTS FOR SIGNS