

**CITY OF PAPIILLION
PLANNING COMMISSION
STAFF REPORT**

APRIL 26, 2023 AGENDA

**ACCESS MANAGEMENT
ORDINANCE AMENDMENT
TC-23-0001**

I. GENERAL INFORMATION

A. APPLICANT:

City of Papillion

B. REQUESTED ACTION:

Approval of Ordinance #1996 to amend Chapter 170 (Subdivision of Land), Article V (Subdivision Design Standards) to provide for access management and subdivision through route regulations.

C. BACKGROUND:

The Planning Department currently uses the access management policies for the City of Omaha and Sarpy County as a guide for making recommendations related to access management. Based upon input from the development community, staff is recommending that such policies be incorporated into Chapter 170 to ensure consistent application of the access management regulations.

II. ANALYSIS

A. COMPREHENSIVE PLAN:

1. Chapter Three of the Comprehensive Plan establishes the goals related to the development of an integrated transportation system. These goals include:
 - a. Providing for the safe and convenient movement of all residents of Papillion.
 - b. Assuring that the transportation system is adequate to meet the demands placed upon it.
 - c. Using the transportation network to support desirable patterns of community development.
 - d. Providing mobility for people who are not using automobiles.
 - e. Encouraging a balanced growth pattern that distributes traffic in ways that safeguard the city's transportation system.
2. The proposed ordinance amendment will help meet these goals by establishing the standards for access points to minor and major arterial streets and collector streets within the City of Papillion's zoning jurisdiction and by encouraging through routes within subdivisions. This will ensure safe and convenient movement for residents while assuring that the transportation system is adequate for current and future traffic needs.

3. The Comprehensive Plan identifies the functional classifications for street. These include:
 - a. Expressways: Expressways are restricted access, free-flow roads, designed to carry high traffic volumes at high speeds with minimum friction. All traffic movement is lane-separated by flow direction, and all intersections with local and regional roads are made with grade-separated interchanges. Interstate 80 is an example of an expressway.
 - b. Major Arterials: These roads serve regional needs and connect major activity centers. They usually serve the highest traffic corridors and are designed to accommodate relatively high speeds (usually above 40 miles per hour in urban areas). These streets often use access control devices such as raised medians to reduce traffic conflicts. Highway 370 is an example of a major arterial.
 - c. Other Arterials (also known as Minor Arterials): These major streets connect with and complement the major arterial system by linking major activity centers and connecting various parts of the city together. Unlike expressways, other arterials usually provide access to adjacent properties and generally accommodate extensive left -turn movements and curb cuts. These major streets are designed for speeds of 40 mph or below.
 - d. Collectors: The collector system links neighborhoods together and connects them to arterials and activity centers. Collectors are designed for relatively low speeds (30 mph or below) and provide unlimited local access. Collectors run within residential areas and distribute trips from arterials to their ultimate destinations. They also collect traffic from a neighborhood's local streets and channel it to arterials.
 - e. Local Streets: Local streets serve individual properties within residential or commercial areas. They provide direct, low-speed access for relatively short trips. Local streets may include cul-de-sacs, which should not exceed 300 feet in length only in exceptional circumstances.

4. The proposed ordinance uses the following road classifications: major arterials, minor arterials, collectors, and local streets. Given that the Nebraska Department of Transportation controls access to the expressways within Papillion's jurisdictions, regulations for this classification are not included.

B. STAFF COMMENTS:

1. The purpose of ordinance amendment is to establish the standards for access points to minor and major arterial streets and collector streets within the City of Papillion's zoning jurisdiction. Standardization of access points will provide for a safe, efficient, and reliable network of arterial and collector streets with the City of Papillion's zoning jurisdiction as the City grows. Further, access management is

necessary to balance traffic safety and efficiency with reasonable access to property.

2. The specific changes include:
 - a. Expanding § 170-15 (General guidelines for subdivision layout) to add subsections (K) – (M) related to access control points, access point management, and spacing and alignment of intersections.
 - b. Supplementing § 170-16(A) with subsection (6) to add through route requirements for new subdivisions.
 - c. Updating § 170-16(E) to add requirements related to intersection design, traffic signal placing, access spacing requirements, and access control.
 - d. Add the following figures and table to supplement the code additions:
 - i. Figure 170-16(A)(6) – Subdivision Through Routes
 - ii. Figure 170-16(E)(5) – Access Spacing
 - iii. Table VI – Intersection Hierarchy
3. The proposed ordinance amendments are consistent with recommendations that staff commonly make for development. The proposed amendments reflect the best practices for subdivision design and access management. They are also consistent with access management policies for surrounding jurisdictions such as the City of Omaha and Sarpy County.
4. A legislative version of the changes with redlines is attached.

III. **RECOMMENDATION**

The Planning Department recommends approval of the Ordinance #1996 (TC-23-0001) because:

1. The adoption of regulations related to subdivisions and public street dedications are authorized by Nebraska State Revised Statutes § 19-916 through § 19-921; and
2. The proposed regulations promote the vision and goals of the Comprehensive Plan

IV. **COPIES OF REPORT TO:**

Applicant
Public upon request

V. **ATTACHMENTS:**

Ordinance #1996 Legislative Version

Report prepared by:

Travis Gibbons, Planning Director

Ordinance #1992
Access Management Ordinance Amendment
Legislative Version

ARTICLE V. Subdivision Design Standards

§ 170-15. General guidelines for subdivision layout.

Subdivisions shall be designed to comply with the following overall performance objectives:

- A. Avoidance of disturbance or other adverse effects on ground water and aquifer recharge.
- B. Reduction and minimization of cut and fill.
- C. Avoidance of unnecessary impervious surfaces.
- D. Prevention of flooding and encroachment of water onto other real properties outside the boundaries of the applicable subdivision, except for facilities designed as part of a regional or community-wide stormwater management system that is intended to account for such flooding and encroachment of water from such subdivision.
- E. Provision of adequate access to lots, including alternative routes to lots and sites within the subdivision, and the minimizing of cul-de-sacs over three hundred and fifty feet (350’).
- F. Mitigation of negative environmental effects on surrounding properties, including effects of shadow, noise, odor, traffic, drainage, and utilities.
- G. Preservation of natural drainage patterns.
- H. Reduction and minimization of the number of multiple frontage lots.
- I. Avoidance of lots that access arterial or collector streets.
- J. Provision for ADA accessible facilities.
- K. Establishment of access control based on future development and projected traffic needs.
- L. Minimization of the number of access points to reduce the number of potential conflicts to promote public safety.
- M. Proper spacing and alignment of intersections to reduce the number of potential conflicts to promote public safety.

§ 170-16. Streets and alleys.

The arrangement, character, extent, width, grade, and location of all streets shall conform as near as possible to the Comprehensive Plan and shall be considered in their relation to existing and planned streets, to topographical conditions, to public convenience and safety, and in their appropriate relation to the proposed uses of the land to be served by such streets.

A. Overall roadway system design.

- (1) The roadway system shall be designed to permit safe and orderly movement of vehicular and pedestrian traffic to meet, but not exceed, the needs of the present and future served population; to be simple and logical; to respect natural features, topography, and landscape; and to present an attractive streetscape.
- (2) The roadway system shall conform to the City's Comprehensive Plan. For streets not shown on the Comprehensive Plan, the arrangement of such streets shall provide for the logical extension of existing streets and streets shown on the Comprehensive Plan.
- (3) The internal street network of a subdivision should provide for logical, continuous extensions of streets to and from adjacent subdivisions, both existing and those yet to be platted.
- (4) The roadway system shall provide adequate traffic flow through a subdivision and provide at least two (2) routes from each lot within the subdivision to the rest of the City, except as explicitly permitted by the City Council and any governmental agency with jurisdiction over the applicable roadway system. Additionally, the roadway system should be designed to discourage through traffic from using local streets and local traffic from using arterials.
- (5) The roadway system shall provide an internal street network that creates a high level of connectivity as defined in the Comprehensive Plan.
- (6) The roadway system shall provide through routes within subdivisions that allow direct and continuous access to the adjacent arterial and collector street network. Such through routes shall be direct in nature with continuous access that allows easy navigation between the arterial and collector street network. At least three (3) north-south and three (3) east-west through routes shall be provided per mile unless the City Engineer and Planning Director determine that through routes are not feasible due to topography, environmental sensitivity, or other condition as deemed appropriate by the City Engineer and Planning Director. Such through routes shall be generally located at the quarter (1/4) and half (1/2) mile intersections with the adjacent streets as depicted on Figure 170-16(A)(6). The half (1/2) mile routes shall provide the most direct routes between the adjoining arterial and collector streets. Alternate routes that provide through routes at locations other than the quarter (1/4) or half (1/2) mile; provided that the City Engineer and Planning Director determine that such alternate route is required due to topography, environmental sensitivity, human conflicts, or other condition as deemed appropriate by the City Engineer and Planning Director.

- B. Street extensions. The roadway system, including the internal street network, of the proposed subdivision shall provide for the continuation or appropriate projection of streets and alleys already existing in areas being subdivided. Where, at the determination of the City Council, it is desirable to provide street access to adjoining properties, proposed streets shall be extended by dedication to the boundaries of such properties. Where the City Council deems it necessary, such dead-end streets shall be provided with a temporary turnaround having a radius of at least fifty feet (50') or an equivalent means as authorized by the City Engineer. The roadway system, including the internal road network, of the proposed subdivision shall provide for extending existing roads, but in no case shall a road extension be of less width than the minimum width required in these regulations based on the road classification.
- C. Dedication of right-of-way for new streets. The dedication of right-of-way for new streets measured from lot line to lot line shall meet the right-of-way requirements as provided in Table II of these regulations. All points of access to all streets classified as arterial or collector streets shall be subject to the approval of the City Council. Marginal access streets may be required by the City Council for subdivisions fronting on arterial streets.
- D. Dedication of right-of-way for existing streets. Subdivisions platted along existing streets shall dedicate additional right-of-way, if necessary, to meet the minimum street width requirements set forth in these regulations. The entire minimum right-of-way width shall be dedicated where the subdivision is on both sides of an existing street. When the subdivision is located on only one (1) side of an existing street, one-half (1/2) of the required right-of-way width, measured from the centerline of the existing roadway, shall be dedicated.
- E. Intersections.

(1) Intersection design.

- (a) Conflicts at intersections shall be minimized.
- (b) Adequate stopping sight distances shall be provided, as deemed necessary by the City Engineer, to allow drivers to react to potential conflicts and stop.
- (c) Adequate intersection sight distances shall be maintained to provide opportunity for a driver who is waiting at an access point to enter or cross the street.
- (d) An area upstream and downstream shall be provided from any access point where drivers will need to change speed, brake, or maneuver should a vehicle turn onto the street.
- (e) Appropriate spacing shall be provided to eliminate interference between two or more vehicles attempting to enter the street at the same time.
- (f) The function area necessary to minimize congestion shall be provided in the area extending upstream and downstream of the physical intersection (including the longitudinal limits of the auxiliary lanes).

~~(4)~~(2) Street intersections. Streets shall intersect as nearly as possible at an angle of ninety degrees (90°), and no intersection shall be at an angle of less than seventy-five degrees (75°) unless specifically approved by City Council. Street curb intersections shall be rounded by a radius of at least twenty-five feet (25') for residentially zoned lots and thirty-five feet (35') for all other zoning districts. When the smallest angle of street intersection is less than seventy-five degrees (75°), the City Engineer may require curb radii of greater length. In all cases, the intersection radii shall not reduce the sidewalk width to less than five feet (5') and shall allow for PROWAG compliant ramps which adhere to the standard City curb ramp details. As necessary, property lines at such street corner shall be chamfered or otherwise set back sufficiently to permit such curb, sidewalk, and curb ramp construction. No lot or other parcel of land which abuts on and has access to either a collector or a minor street shall have a service drive, curb cut, or other means of access within seventy-five feet (75') of the right-of-way of such arterial street.

(3) Driveway intersections. Driveways shall align with adjacent driveways or streets to the maximum extent possible in order to prevent offset intersections. For non-residential use type classifications, a minimum of one hundred and fifty feet (150') between driveways shall be required. When a driveway is located across from and between two other driveways that are on the opposite side of the street and unable to align, such driveway should be equally spaced between the opposing driveways.

(4) Traffic Signal Placing. Traffic signal placing shall be permitted at no closer than one thousand three hundred and twenty feet (1,320') to maximize signal progression, capacity, and speed.

(5) Access Spacing Requirements.

(a) Spacing Required. Full access to minor and major arterial may be permitted at quarter (1/4) mile, half (1/2) mile, and one (1) mile intervals. The preferred spacing for between two full access intersections is one thousand three hundred and twenty feet (1320'); however, a minimum spacing of one thousand two hundred feet (1200') is required. Right-in, right-out access may be permitted at the eighth (1/8) mile interval. The preferred spacing between a full access intersection and a right-in, right-out intersection is six hundred and sixty (660'); however, a minimum spacing of five hundred feet (500') is required. Such spacing requirements are depicted on Figure 170-16(E)(5).

(b) Interim Measures Permitted. Interim access control measures may be permitted until the City Engineer determines that development warrants more restrictive control to provide for public health, safety, and welfare. For example, full access may be temporarily permitted at the eighth (1/8) mile when an arterial street is not yet improved to its ultimate profile.

(6) Access Control – Intersection Hierarchy. The hierarchy of intersections shall be established in Table VI. Connecting street classifications that are more than one level above or below in the hierarchy shall be avoided unless the City Engineer and Planning Director determine that such connection is required due to topography, environmental

sensitivity, or other condition as deemed appropriate by the City Engineer and Planning Director. Private access shall only be permitted to connect with local streets; provided, however, that shared private access may be permitted to higher classification streets upon the determination by the City Engineer that such connection is appropriate for public health, safety, and welfare.

- F. Street jogs. Street jogs with centerline offsets of less than one hundred and fifty feet (150') shall be prohibited.
- G. Cul-de-sacs. Cul-de-sacs shall be prohibited unless the City Engineer and Planning Director determine that a cul-de-sac is required due to topography, environmental sensitivity, geometry, or other condition as deemed appropriate by the City Engineer and Planning Director. Cul-de-sacs shall not be longer than four hundred feet (400') and shall be provided at the closed end with a turnaround having a diameter at the outside of the pavement of at least seventy-five feet (75'), except such turnaround in industrial and commercial areas shall be one hundred feet (100') in diameter. The length of a cul-de-sac shall be measured from the centerline of the intersecting street to the center point of the closed end turnaround of the cul-de-sac.
- H. Street names. Streets shall be named in a manner that is consistent with the naming conventions established for the Douglas-Sarpy County metropolitan area, including the numbering of north-south streets.
- (1) Names in alignment. Proposed streets in alignment with existing streets shall bear the names of such existing streets.
 - (2) No duplication. The name of a proposed street that is not in alignment with an existing street shall not duplicate the name of any existing street within the Douglas-Sarpy County metropolitan area.
 - (3) Name change at curvature. Whenever a street alignment changes direction more than sixty degrees (60°) without a return to the original alignment within a distance of five hundred feet (500'), the name of the street should be changed at the point of curvature.
 - (4) Cul-de-sac naming. A cul-de-sac street serving not more than four lots shall take the name of the intersecting street.
 - (5) Approval by the City Council required. The proposed names of all streets shall be subject to the approval of the City Council prior to such names being assigned or used.
 - (6) Similar sounding streets. Street names shall be easy to pronounce, spell, and read to reduce confusion. Similar sounding street names, although spelled differently, shall be avoided (EXAMPLE: Lee and Leigh). In addition, the same street name should not be given a different or multiple street types (EXAMPLE: "Main" should not be "Main Street" in some places and "Main Road" in other places).
 - (7) Vanity street names. Streets named after the subdivision shall be prohibited.

I. Horizontal and vertical street curves.

- (1) A tangent of a length to be determined by the City Engineer shall be introduced between reverse curves on all streets. Where there is a deflection angle of more than ten degrees (10°) in the alignment of a street, a curve with a radius adequate to ensure safe sight distance shall be made.
- (2) All vertical curves shall be designed to meet the American Association of State Highway and Transportation Officials (AASHTO) stopping sight distances/headlight distance required based on design speed.

J. Street grade and elevations.

- (1) All streets shall be designed so as to provide for the discharge of surface water from the pavement and from the right-of-way by grading and drainage. The minimum street grade shall not be less than seven-tenths of one percent (0.7%). Streets that would be subject to inundation or flooding shall not be approved. Profiles or elevations of streets shall be furnished by the subdivider. Street grades shall conform to the minimum requirements provided in Table I of these regulations.
- (2) Accessible crosswalks shall be identified, and street grades shall be adjusted accordingly to meet PROWAG requirements.

K. Private streets. There shall be no private streets platted within a subdivision.

L. Alleys.

- (1) When required. Alleys may be required to give access to the rear of all lots used for commercial and industrial purposes. Alleys shall not be required in residential areas except in cases where the subdivider provides evidence of the need for alleys that is satisfactory to the City Council.
- (2) Design. Alley intersections and sharp changes in alignment shall be avoided, but, where necessary, corners shall be cut off sufficiently to permit safe vehicular movement. Dead-end alleys shall be avoided where possible, but if unavoidable, shall be provided with adequate turnaround facilities and signage at the dead end, as determined by the City Council.
- (3) Maintenance. Maintenance and snow removal of alleys shall not be the responsibility of the City.

M. Other right-of-way easements.

- (1) Easements for utility rights-of-way shall be not less than five feet (5') in width and whenever possible shall be provided along the rear and side property lines. See Table IV.

- (2) When a subdivision is traversed by a watercourse, drainageway, channel, or stream, a stormwater easement or drainage right-of-way shall be provided with adequate width for both waterflow and maintenance operations. The total width of any such easement shall be sufficient to accommodate a one hundred (100)-year storm event, calculated for a fully developed upstream drainage basin. The minimum width of such easement shall be established by the Papillion Creek Watershed Management Policies and the Southern Sarpy Watershed Management Policies, as applicable. Parallel streets, parkways, walkways, or bridges may be required in connection with such drainage easement.

N. Outlots.

- (1) Number minimized. The total number of outlots within a subdivision should be minimized to the greatest extent possible.
- (2) Ownership of PCSMP outlots. At the time of platting, the subdivider shall be expressly identified as the owner of any outlot(s) being utilized for permanent Post Construction Stormwater Management for a particular subdivision. Ownership of such outlot(s) may be transferred from the subdivider to a homeowners or business owners association for the subdivision once such entity is formed. Ownership of any such outlot(s) shall not be transferred to the City unless expressly authorized by resolution of the City Council.
- (3) Ownership of Outlots. At the time of platting, the subdivider shall be expressly identify ownership over all outlots. Ownership of any outlot(s) shall not be transferred to the City or sanitary and improvement district unless expressly authorized by resolution of the City Council.
- (4) No buildings permitted. No buildings, other than those approved by resolution of the City Council, or otherwise allowed pursuant to a subdivision agreement between the City and subdivider, are permitted on outlots.
- (5) Narrow outlots adjacent to public roadways prohibited. Narrow outlots adjacent to public roadways shall be prohibited. The subdivider shall extend private lots to the right-of-way. The subdivider may dedicate landscape easements within private lots if desired or incorporate the narrow outlots into public right-of-way as directed or authorized by the City Engineer and Planning Director.

Figure 170-16(A)(6): Subdivision Through Routes

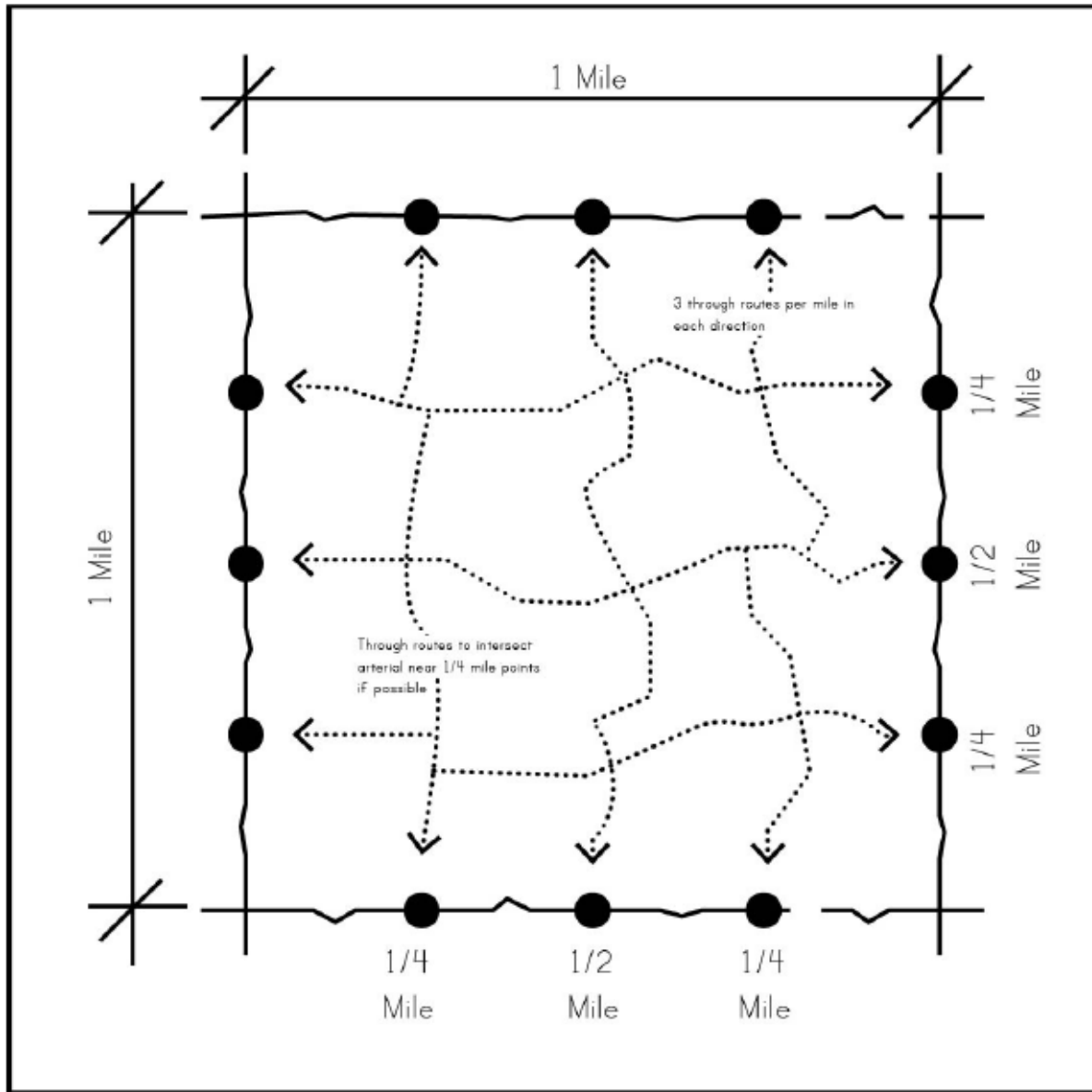


Table VI
Intersection Hierarchy (Lowest to Highest Classification)

<u>Private Access</u> ¹	<u>Local Street</u>
<u>Local Street</u>	<u>Collector Street</u>
<u>Collector Street</u>	<u>Minor Arterial</u>
<u>Minor Arterial</u>	<u>Major Arterial</u> ²

¹ Lowest Classification

² Highest Classification