

## CHAPTER 38

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#### Article I. General.

##### **38-101. Purposes of chapter.**

In accordance with the Nebraska Revised Statutes and in order to promote the welfare of the public this Chapter shall have the following purposes with respect to the division of land:

(1) To implement the comprehensive plan and any other official plan, program or policy developed under the guidance of that plan by applying broad, long-range planning and community design standards as the division of land occurs.

(2) To promote good civic design in the arrangement, improvement and relationship of open spaces, community facilities, blocks, streets and lots.

(3) To allow urban design standards and development patterns to support different contexts, land uses and character areas identified in the comprehensive development plan.

(4) To evaluate individual development applications as segments of the entire community, allowing for public and private investments to be coordinated across areas and over time.

(5) To prevent the premature division of land that by its permanence may negatively impact efficient long-term growth and development of the community.

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(6) To ensure that all blocks and lots are served by necessary infrastructure and services, including utilities, transportation, storm drainage, public safety and community facilities.  
(Ord. No. 4233-11/2009)

### **38-102. Jurisdiction.**

This Chapter applies to all land within the corporate limits of the City, and all unincorporated land within two miles of the corporate limits of the City.  
(Ord. No. 4233-11/2009)

### **38-103. Duties of owner or developer generally.**

In the subdivision or re-subdivision, the owner or developer shall exercise due regard to the Purposes of this Chapter and in particular the alignment and location of streets; to adequate surface drainage; to safe and balanced movement of traffic and other modes of transportation; and to provide for roadway surface, utilities and recreation as identified in this chapter.  
(Ord. No. 4233-11/2009)

### **38-104. Annexation of subdivided land - authorized.**

The Mayor and City Council may by ordinance, except as provided in Neb. Rev. Stat. 19-2501 to 19-2508 and amendments thereto, at any time, include within jurisdiction of this Chapter, lots, tracts, streets, or highways that are deemed to be in accordance with the Comprehensive Plan.

(1) Ordinance of Acceptance. If a majority of all the members of the City Council vote for the annexation under this section, an ordinance shall be prepared and passed by the City Council declaring the annexation of such territory to the corporate limits of the City, and extending the limits accordingly. An accurate map or plat of such territory and the dedication of public areas and facilities, certified by the surveyor, and acknowledged and proved as provided by law in such cases, shall at once be filed in the office of the Register of Deeds of the County, together with a certified copy of the ordinance declaring such annexation, under the seal of the City.

(2) Status of Inhabitants. All additions to the City which have been approved and accepted, or which may be laid out in accordance with the provisions of this Chapter, shall be and become parts of the City for all purposes. The inhabitants of such additions shall be entitled to all rights and privileges and be subject to all laws, or regulations of the City.  
(Ord. No. 4233-11/2009)

### **38-105. Plats; delinquent taxes and assessments.**

No plat subdividing real estate within the jurisdiction of this Chapter shall be signed by the City Engineer and Surveyor or filed with the Register of Deeds unless accompanied by written statements of the County Treasurer and the City Treasurer certifying that there are no delinquent taxes or assessments against the real estate being subdivided.

Prior to the submission of the preliminary plat application, the applicant shall contact the Development Services Department and schedule a pre-application meeting with city staff to discuss the application. The pre-application meeting shall take place a minimum of seven (7) calendar days prior to the submission deadline. At the time of the pre-application meeting, the applicant shall provide the information required in Sections 38-202(2)(a)-(m).  
(Ord. No. 4233-11/2009)

### **38-106. Prohibited acts.**

It shall be unlawful for the owner of land, his agent or representative to subdivide land into two (2) or more parts for purposes of building development, whether immediate or future, within jurisdiction of this Chapter without first having obtained acceptance and approval in accordance with the provisions of this Chapter. Persons violating the provisions of this chapter shall be guilty of a misdemeanor and shall be punished by a fine not to exceed One Hundred Dollars (\$100.00) per day. Each day that such violation exists shall be treated as a separate offense.  
(Ord. No. 4233-11/2009)

## **Subdivisions**

### **38-107. Improper subdivisions; waiver of objections.**

Pursuant to the authority granted the City Council in Neb. Rev. Stat. 76-2, 110 (Reissue 1981), the City Council does hereby waive notice to the City of, or any objections it may have to, any and all conveyances purporting to subdivide real estate within, and two miles beyond, the corporate limits of the City of Hastings, which were filed of record in the office of the Register of Deeds of Adams County, Nebraska, on or before May 29, 1984, where such conveyances, or the recording thereof, have failed to comply with any requirement relating to subdivision approval. All such conveyances are hereby validated.  
(Ord. No. 4233-11/2009)

### **38-108. Definitions.**

For the purpose of this chapter, the following words and phrases shall have the meanings respectively ascribed to them by this section:

(1) Corporate limits. The original plat of the city, together with all other plats, lands, lots, subdivisions and outlots or parcels of ground annexed or contiguous thereto, filed and recorded in the Office of the Register of Deeds of the county as additions thereof, and not heretofore or hereafter vacated or otherwise disconnected as provided by law.

(2) Extrajurisdictional area. The area on the official zoning maps of the city, over which the city exercises land use control, extending two (2) miles beyond the corporate limits, and which is identified on the map by section lines, half-section lines or quarter-section lines. The jurisdictional area may be adjusted with changes to corporate limits.

(3) Flood plain. Those lands within the zoning jurisdiction of the City of Hastings which have been or may hereafter be covered by flood water, which lands shall be within areas designated as "100 year frequency flood areas" or "1% annual frequency flood" in official studies previously completed or to be completed in the future by the U.S. Corps of Engineers or other studies completed by State Agencies or the Federal Insurance Administration Agency on file with the City Clerk.

(4) Subdivision. The division of a lot, tract, parcel or acreage of land into two (2) or more sites, or other divisions of land for the purpose, whether immediate or future, of ownership or building development, except that the division of land shall not be considered to be a subdivision when the smallest parcel of land created is more than ten (10) acres in area, or a previously subdivided, recorded lot which can be split into two parcels in compliance with this chapter and Chapter 40, City Code.

(5) Water course, drainageway, channel or stream. A natural or man-made depression in which a current of surface water runoff flows following precipitation.  
(Code 1973, 34-1; Ord. No. 2687 and 4233-11/2009)

## **Article II. Applications and Procedures.**

### **38-201. Approval of subdivision plats.**

No plat of or instruments effecting the subdivision of real property shall be recorded or have any force and effect unless the same be approved by the City Council, subject however, to the exceptions set forth in Section 34-106 of this code. The City Council shall hold no public meeting, nor take any action upon any plat or instrument effecting a subdivision until it has received the recommendation of the Hastings Planning and Zoning Commission.  
(Code 1973, 34-4; Ord. Nos. 2687, 2882, and 4233-11/2009)

### **38-202. Preliminary plat.**

(1) Intent. Preliminary plat procedures are intended to determine whether the proposed division of land will comply with the long-range comprehensive development plan for the City, will meet the design standards of the subdivision regulations, and will result in buildable lots capable of meeting the existing or proposed zoning standards, and any other policies and laws that may relate to development specific property that are contained in other applicable laws or regulations.

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(2) Submittal Requirements. Ten (10) prints of a preliminary plat of any proposed subdivision shall be submitted to the Planning Commission at least fifteen (15) working days before the meeting at which approval is asked. The preliminary plat shall be drawn at a scale no smaller than one hundred (100) feet to the inch, unless otherwise specified. The preliminary plat shall show or be accompanied by the following information:

- (a) The proposed name of the subdivision and names of adjacent subdivisions, and the legal description.
- (b) The names of the owner and the engineer, surveyor responsible for the survey and design.
- (c) Planning Commission and City Council approval block / signature block.
- (d) The location of boundary lines and their relation to established section lines and legal description of the parcel to be subdivided or fractional lines.
- (e) The location and width of existing and proposed streets, roads, lots (approximate dimensions), alleys, sidewalks or trails, building lines, easements, parks and other features of the proposed subdivision. The plat shall show an outline of adjacent properties for a distance of at least two hundred (200) feet, and how the streets, alleys, sidewalks or highways in the proposed subdivision will connect with those adjacent which are of record.
- (f) A topographic survey showing physical features of the property, including watercourses, ravines, bridges, culverts, present structures and other features of importance to lot and street layout. The approximate acreage of the property shall be indicated. Topography of the tract may be required if deemed essential to the design of the subdivision and the location, method and system of surface water drainage. Sanitary sewer facilities and water distribution system shall be identified, including sewer and water pipe sizing to be identified on the preliminary plat.
- (g) Approximate gradients of streets and sidewalks. All grades shall be based on city datum.
- (h) Designation of the proposed uses of land within the subdivision, whether for residential, commercial, industrial or public use, such as parks, schools, fire stations, churches, etc., plus zoning of adjacent tracts.
- (i) Centerline profiles of proposed streets may be required by the City Engineer. See Figure 1 Typical Street Sections.
- (j) A landscape plan.
- (k) North arrow, scale and date.
- (l) All Street Names shall be determined by the City Surveyor or Director of Development Services in order to maintain conformity with current streets and to eliminate redundancy or conflicts for Emergency Services.
- (m) A grading plan identifying:
  - (i) Grades of all lots and improvements in the subdivision.
  - (ii) The internal subdivision drainage and resulting runoff.
  - (iii) The drainage area and resulting runoff from land outside the subdivision area which discharges water into or through the subdivision.
  - (iv) Proposal as to how the computed quantities of surface water runoff will be handled, and detention areas.
  - (v) A map showing internal drainage areas and resulting runoff.
  - (vi) A copy of drainage calculations.

## **Subdivisions**

(3) Approval. Approval of the preliminary plat by the City Council does not constitute acceptance of the subdivision, but is merely an authorization to proceed with preparation of the final plat for record. No grading of streets, or construction shall be done on the subdivision before the final plat is approved by the Planning Commission and by the City Council, except by special permission of the City Council. (Code 1973, 34-5; Ord. Nos. 2687, 2839 and 4233-11/2009)

### **38-203. Final plat.**

Prior to the submission of the final plat application, the applicant shall contact the Development Services Department and schedule a pre-application meeting with city staff to discuss the application. The pre-application meeting shall take place a minimum of seven (7) calendar days prior to the submission deadline. At the time of the pre-application meeting, the applicant shall provide the information required in Sections 38-203(2)(a)-(j).

(1) Intent. Final plat procedures are intended to create an accurate public record for the sale of lots, to guarantee construction of all public improvements according to the standards in the subdivision regulations, and to ensure that all lots are buildable lots according to the appropriate zoning prior to recording.

(2) Submittal requirements. After the preliminary plat has been approved by the City Council, a final plat for record shall be prepared and submitted to the Planning Commission for recommendation by that body and approval by the City Council. Five (5) prints of the plat shall be submitted to the office of the Commission at least fifteen (15) working days prior to the meeting at which approval is asked. The final plat shall be to a scale of one hundred (100) feet to the inch, unless specified otherwise, and shall show or be accompanied by the following information. All plats are required to be on mylar, not velum when submitted.

(a) The name of the subdivision and adjacent subdivisions, the names of streets (to conform wherever possible to existing street names), and the numbers of lots and blocks, in accordance with a systematic arrangement.

(b) An accurate boundary survey of the property with bearings and distances referenced to section or fractional section corner, and showing (in dotted lines) the lines of immediately adjacent streets and alleys with their width and names.

(c) Location of lots, streets, sidewalks, public highways, alleys, parks, trails and other features, with accurate dimensions in feet and decimals of feet, with the length and radii of all curves, and with all other information necessary to duplicate the plat on the ground.

(d) Location and dimension of utility or other easements.

(e) Dedication of all streets, public highways, alleys, parks and other land intended for public use, signed by the owner, and by all other parties who have a mortgage or lien interest in the property, together with any restrictions or protective covenants which are to apply to lots, it being noted that restrictions or protective covenants exceeding zoning or subdividing standards are for the benefit of the subdivision and home owners. Compliance is therefore a responsibility of the subdivision ownership.

(f) A waiver of claim by the applicant for damages occasioned by the establishment of grades or the alteration of the surface of any portion of the streets, and alleys to conform to the grades as established.

(g) Certification by a registered land surveyor to the effect that the plan represents a survey made by him, and that all the necessary boundary survey monuments are correctly shown thereon.

(h) North arrow, scale and date.

(i) A report of title given by an abstracter or attorney licensed to do business in the State of Nebraska certified to the date of the original consideration of the final plat by the Hastings City Council, specifying the names and addresses of all persons or entities owning or having any interest in the real estate included in the proposed plat, as shown in the records at the Adams County Courthouse. For the purposes of this subsection, the term "owner" shall include any ownership interest arising by virtue of a deed, lease, contract, lien, mortgage, deed of trust, court order, or other similar instrument, or arising by operation of law.

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(j) All plats when being submitted to the Planning Department shall bear the signatures of the individuals listed in the ownership report in paragraph (i) above. Said plats shall also bear the signatures of the Adams County Treasurer and the Hastings City Treasurer. The applicant shall at the time the plat is submitted advance to the Planning Department, the funds necessary to file the plat with the Adams County Register of Deeds.

(k) The location of building lines on front and side streets.

(3) All figures and letters shown shall be plain, distinct, and of sufficient size to be easily read, and shall be of sufficient density to make a lasting and permanent record.

(4) When more than one sheet is used, a key map, showing the entire subdivision at smaller scale with block numbers and street names, shall be shown on one of the sheets, or on a separate sheet of the same size.

(5) The Commission shall not recommend the platting of a residential subdivision or an individual lot with a front foot width and square foot land area less than the requirements of Chapter 34, Zoning Ordinance.

(6) Any plat approved by the Hastings City Council shall be delivered to the Planning Director at the time of approval. The Planning Director shall thereupon file the plat with the Adams County Register of Deeds, within five (5) business days of receipt / approval.

(Code 1973, 34-6; Ord. Nos. 2687, 2839, 3071-7/88 and 4233-11/2009)

### **38-204. Administrative plats.**

(1) Intent. Administrative plat procedures are intended to provide expedited review and approval for minor adjustments to legal boundaries and title of property for proper recording, where no public infrastructure is anticipated in association with the application or future anticipated development, and the patterns or ownership and development have otherwise been determined in accordance with the City's long-range comprehensive development plan.

(2) Applicability. A plat effecting a further subdivision of existing lots and blocks may be approved by the City Engineer whenever all required public improvements have been installed, no new dedication of public rights-of-way or easements are involved, and such subdivision complies with all requirements of the Hastings City Code concerning minimum areas and dimensions of such lots and blocks. Such plat need not be reviewed by the Area Planning and Zoning Commission or the City Council.

(3) Administrative Plat Requirements. Any Administrative Plat shall comply with applicable provisions of Chapters 34 and 40 of the Hastings City Code as the City Engineer shall reasonably deem appropriate. A fee for filing such plat shall be charged in an amount equal to that established for a Final Subdivision Plat.  
(Ord. No. 2882 and 4233-11/2009)

### **38-205. Filing fee.**

The Mayor and Council shall adopt, by resolution, a schedule of fees to be paid by all persons submitting a subdivision plat for approval by the City Planning Commission, the Mayor and Council or the City Engineer. Such fees shall be paid at the time of filing the application.

(Code 1973, 34-7; Ord. No. 2687, 3024-7/87 and 4233-11/2009)

## **Article III. Planning and Community Design Standards.**

### **38-301. Blocks and street networks.**

(1) General Street Networks. In general, streets shall be laid out in a network that meets the following parameters, based on centerlines of planned and existing streets:

(a) Arterial Streets shall occur every ½ mile to 1 mile;

(b) Collector Streets shall occur every 1000 feet to ½ mile; and

(c) Local Streets shall occur every 300 feet to 1000 feet.

## **Subdivisions**

Exceptions may be made due to extreme topography or natural conditions or similar significant barrier to connectivity. In no case shall blocks be platted for development exceeding 1,320 feet in any direction.

(2) Arrangement of Lots / Blocks. In case a tract is subdivided into larger blocks than normal building lots, such blocks shall be arranged to permit the opening of future streets and logical re-subdivision.

(3) Relation to Existing Streets and Land. The system of streets designated for the subdivision, except in unusual cases, shall connect with streets already dedicated in adjacent subdivisions; and where no adjacent connections are platted, shall in general be the reasonable projection of streets in nearest subdivided tracts, and shall be continued to the boundaries of the tract subdivided, so that other subdivisions may connect therewith. Unless otherwise recommended by the Planning Commission, provision shall be made for the extension of existing dead-end streets. Off-center street intersections with an off-set of less than two hundred (200) feet will not be approved except in unusual cases. Streets with reverse curves shall have a tangent between curves.

(4) General Street Arrangement. Proposed streets shall conform to existing topography as nearly as possible, in order that drainage problems may be reduced. Streets should, wherever possible, follow valleys so as to form a collection system for surface water. Surface drainage across residential lots or along the side or rear lot lines shall be avoided wherever possible. Where such surface drainage on residential lots is necessary, easements shall be provided and the Commission may require installation of pipe, masonry or rip-rap flumes, or such other protective devices in order that adjacent or surrounding property or the welfare of the public shall not be endangered and maintenance will be kept at a minimum. Sizes of pipe and other drainage structures shall be computed with sufficient accuracy to assure their adequacy, particular attention being given to the drainage areas of surrounding land.

(Code 1973, 34-9; Ord. No. 2687 and 4233-11/2009)

### **38-302. Parks and public facilities.**

Suitable sites for parks, schools, colleges, hospitals, playgrounds, fire stations or other public requirements shall be carefully considered and indicated on the preliminary plan, so that they can be compared with the Comprehensive City Plan, and it can be determined which of such sites, if any, should be indicated on the final plat, and when, and in what manner such areas will be acquired by the public body.

(Code 1973, 34-14; Ord. No. 2687 and 4233-11/2009)

### **38-303. Streets, alleys, trails and sidewalks.**

(1) Major streets – Compliance with Comprehensive Plan. See Figure 1 Typical Street Sections, Appendix A.

(a) For the purpose of facilitating the movement of traffic, certain streets are designated by the major street plan as major streets. A map showing these major streets will be on file in the office of the Planning Department and reference shall be made to this system of major streets before any preliminary plan is approved.

(b) When a proposed subdivision abuts a major street, or is bounded by a line that will in the future lie in a major street, or is divided by a major street, is shown on the major street plan, then the owner of that subdivision shall dedicate, without charge, any land within such subdivision that is necessary to provide conformity with the major street plan, such dedication to be shown on the preliminary plan and final plat.

(2) Width and gradient.

The minimum width of a street right of way shall be sixty (60) feet and the minimum gradient shall be point five percent (.5%).

(3) Dead-end streets.

Except in unusual cases, no dead-end streets will be approved unless such dead-end streets are provided to connect with future streets in adjacent land, but cul-de-sacs may be permitted where the form or contour of the land makes it difficult to plat with connecting streets. Such cul-de-sacs shall provide proper access to all lots shall not exceed six hundred (600) feet in length, and a turnaround shall be provided at the closed end, with an outside radius of at least fifty-five (55) feet. Except in unusual cases, cul-de-sacs will not be permitted where the turnaround is not clearly visible from the entrance to the street.

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### (4) Alleys.

Except in unusual cases, alleys or loading courts shall be provided in business blocks. Alleys are optional in residential districts but should be used for residential formats with narrow lots or building sites, so that vehicle access and parking facilities may be located behind the building lines and streetscapes. Alleys shall have a minimum width of twenty (20) feet of paving for commercial uses, and twenty (20) feet right-of-way with 12 to 16 feet paving for residential uses. In case of intersecting alleys, a cutoff shall be required of at least five (5) feet measured from the point of intersection of the alley lines, the resultant connecting lot line to be at least five (5) feet in length.

### (5) Sidewalks, Trails and Streetscape,

All streets shall have sidewalks in the public right-of-way. Sidewalks shall be a minimum of 4 feet wide on local streets and 5' wide on collector or arterial streets. Trails shall be a minimum of 8 feet to a maximum of 10 feet. Sidewalks shall be on both sides of the street, and located at the right-of-way line. The remaining portion of the right-of-way shall be reserved for a tree terrace separating the sidewalk from moving traffic in the roadway. The tree terrace shall be at least 6 feet wide, except where on-street parking is permitted to support commercial uses, the sidewalk may be expanded to the roadway edge and trees may be planted in a 5 feet by 5 feet tree-well included in the expanded sidewalk area. All sidewalks and trails shall be constructed as part of the roadway paving project.

(Ord. No. 4233-11/2009)

### **38-304. Lots and blocks.**

All portions of the subdivision which are not dedicated as public right-of-way or other public grounds shall be designated as lots or blocks.

(1) Lots. All property anticipated for development, either immediate or future, shall be platted as lots shall meet the required zoning standards for the current or proposed zoning for the property specified in the City of Hastings Zoning ordinance.

(2) Blocks. Any property not designated for development, such as common open space or other community amenities shall be designated as a block with ownership and maintenance responsibilities identified on the plat.

(3) Lot Lines. All rectangular lots and all other lots, so far as practicable, shall have the side lines at right angles to the street on which the lot faces, or radial to curved street lines. Lots with double frontage are undesirable and should be avoided in most cases.

(4) Utility Easements. Where alleys are not included in a plat, easements ten (10) feet in width or of such width as determined necessary by the City Engineer, shall be provided on each side of rear or side lot lines, or where necessary for the proper location or relocation of public utilities; provided, however, the requirements of this Section may be waived by the City Engineer and the Manager of Hastings Utilities where they deem appropriate. If necessary for the extension of water or sewer lines, or similar utilities, or for surface drainage, easements of greater width may be required along lot lines or across lot lines. Easements shall connect with any established easements in adjoining property. Easements for sewer or water lines shall be approved by the Manager of Hastings Utilities.

(5) Building Lines. Building lines shall be shown on all lots intended for residential use, and other classifications as required on lots intended for office, commercial, or industrial use, and shall provide at least the setback required by the zoning regulations.

(Code 1973, 34-11 & 34-12; Ord. Nos. 2687, 2882 and 4233-11/2009)

## **Article IV. Engineering and Technical Standards.**

### **38-401. Required improvements.**

## **Subdivisions**

(1) Generally. Except as provided herein below, the owner or developer of a tract to be subdivided shall install, at its own expense, satisfactory curb, gutter, street lights and sidewalks on all property abutting streets or roadways; pavement on roadways; and all water and sanitary and storm sewer lines within the subdivision which are necessary to serve the subdivision. Installation of the above improvements shall be in accordance with the specifications of the city. Water and sewer lines installed will require the approval of an on-the-job inspector before acceptance by the city. The cost of providing this inspection will be the responsibility of the owner or developer of the tract to be subdivided. Sewer lines shall have flow elevations as directed by the city; provided, the requirement that the owner or developer install improvements at its own expense may be satisfied by compliance with any City Council or Board of Public Works policy pertaining to funding of improvements. Street Lights shall be installed within six (6) months from the time streets are opened for traffic.

(a) In a subdivision of lots, located within one (1) mile of the city limits but not adjacent or contiguous to city limits, the requirements for public sewer and water installations, curb and gutter, sidewalks and trails, plus concrete paved road may be waived only by the City Council after a recommendation by the Planning Commission and recommendation from the Board of Public Works or a waiver of sanitary sewer and water.

(b) In a subdivision of lots located more than one (1) mile from the city limits, the requirements for public sewer and water installations, curb, gutter, street lights and sidewalk / trail, plus concrete paved road may be waived only by the City Council, after a recommendation by the Planning Commission, and the following be accomplished:

(i) Individual water supply and waste disposal systems may be installed when no public water supply system or public sanitary sewer system are available to the property, but such individual systems must be installed in compliance with applicable city ordinances.

(ii) Subdivision streets, other than county roads, shall be constructed and surfaced with Portland Cement Concrete or asphaltic concrete, in accordance with specifications of the City Engineer. Curb, gutter and sidewalk may be omitted.

(2) Pavement. Portland cement concrete or asphaltic concrete may be used for the roadway surface. Curb and gutter shall be of Portland cement concrete. All curb and gutter and roadway surface shall comply with the specifications of the city. Storm water run-off shall be adequately handled through inlets, catch basins or other drainage constructions in accordance with a drainage plan.

(3) Sidewalks / Trails. All sidewalks / trails shall be constructed of Portland cement concrete. Sidewalks shall comply with the specifications of the city.

(4) Inspection. The City Engineer shall make three (3) inspections of all pavement construction:

(a) First inspection to check compaction of subgrade before subbase is applied.

(b) Second inspection to check subbase for compaction, material, sizes, thickness, etc., before prime coat is applied.

(c) Final inspection after roadway is completed.

(d) Twenty-four hours' notice shall be given to the City Engineer regarding any requested inspection.

(5) Bond provisions. After a plat has been duly approved by the Planning Commission and Council, as required in these rules, and after said plat has been duly recorded with the Register of Deeds as required by law, construction may begin on buildings within the subdivision. No building permit shall be issued for a building within such subdivision until the owner or developer has extended all required improvements to and in front of such lot, provided for such improvements pursuant to any City Council or Board of Public Works policy pertaining to funding of improvements as permitted in subparagraph (1) above, or furnished a surety bond conditioned upon the completion of all required improvements in compliance with the specifications of the city. Such surety bond shall be in an amount to be calculated by the City Engineer. Such calculation shall be reasonable and shall not be less than the estimated actual cost of the installation of the required improvements.

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(a) The above surety bond shall guarantee the proper installation of the required improvements for the entire block upon which a lot for which a building permit is requested, fronts. Such installation shall be completed within two (2) years of the effective date of the bond unless the City Council, after recommendation of the Planning Commission, gives special permission to the developer to extend the period for a specific time. In case installation of required improvements is not completed as specified, the city may proceed to construct, reconstruct or install all or any portion of the required improvements using proceeds from the surety bond. Any excess money shall be refunded to the guarantor.

(b) Upon final inspection and approval by the city, such surety bond or unused portion thereof shall be released, provided the owner or developer shall first furnish or cause to be furnished a surety bond conditioned upon the endurance of the improvements, excluding normal wear and damage beyond the control of the owner. Said guarantee shall remain in effect for a period of one (1) year from the date of final approval. The amount of such maintenance bond shall not be less than twenty percent (20%) of the amount of the bond guaranteeing the installation. If, at the end of one (1) year following the date of final approval, there has appeared to be no failure due to faulty or substandard construction of required improvements, then said maintenance bond shall be refunded in full.

(Code 1973, 34-15; Ord. No. 2687, 3279-10/92, 3754-11/2000, 3827-8/2001, 4042-9/2005 and 4233-11/2009)

### **38-402. Urban public street design standards.**

#### (1) General.

This standard shall apply to all public streets located within the City or located within an area to be annexed upon subdivision approval.

The design of public streets in the City of Hastings generally conforms to the *Minimum Design Standards* of the State of Nebraska Board of Public Roads Classifications & Standards, *A Policy on Geometric Design of Highways and Streets* of the American Association of State Highway and Transportation Officials (AASHTO). Details of street construction shall conform to the City of Hastings *Standard Specifications for Municipal Construction* and the *Hastings Standard Plans*.

#### (2) Policies.

##### (a) General.

The City of Hastings street system is designed to promote the safe and efficient movement of vehicular and pedestrian traffic from point of origin to point of destination and to provide an infrastructure element which can be readily maintained.

##### (b) Intersections with major streets.

Where control of access permits, the intersections of collector streets with major streets shall be spaced approximately one half mile apart, with the intersection location dependent upon maintaining the required sight distances. Intersections of local streets with major streets, where permitted, shall be approximately one quarter mile apart, with the intersection location dependent upon maintaining the required sight distances. Block length of local streets shall not exceed 600' in length.

##### (c) Provisions for future extensions.

In new developments, streets which are intended to be extended beyond the limits of the development shall be paved to those limits and shall be designed to provide for the proper handling of surface drainage, storm runoff and the future projection of the street and utilities into the adjacent property. The developer shall be responsible for obtaining and paying the costs for any easements required to permit grading or construction of approved temporary drainage measures beyond the limits of the development.

##### (d) Reviewing agencies.

### Subdivisions

All plans for construction of public street improvements shall be reviewed and approved by the Public Works and Utilities Department. Approval signature blocks shall be provided on all plan submissions. Signature blocks shall include City Engineer/Public Works Director and Director of Engineering, or other authorized agent for Hastings Utilities. Work shall not commence on subdivision development by consultants or contractors until this approval has been granted by said agencies.

(3) Design and construction.

(a) Design speed.

The following design speeds shall be applied for the design of public streets:

Street Classification	Design Speed
Local Streets	25 mph
Collector Streets	30 mph
Major Streets	Determined by Public Works or Traffic Study

(b) Sight distances.

Unobstructed sight distances as set forth in Figures SD-1, SD-2, SD-3 and SD-4 of APPENDIX A, shall be provided at all street intersections and alley accesses for vehicular and pedestrian traffic safety. Fences, walls, signs or other obstructions shall not be placed in the public street and shall not be placed in the sight triangles as set forth in Figures SD-1, SD-2, SD-3 and SD-4 except that chain-link fences free from shrubbery and vines may be placed on private property within the sight triangles at uncontrolled or yield controlled intersections.

(c) Horizontal street alignment.

(i) Intersections.

(1) Angle of intersection.

Streets shall intersect as near as possible at right angles. In no case shall the angle of intersection vary more than 10 degrees from a right angle.

(2) Intersection separation.

Where the streets do not continue through the intersection (T-Type) a minimum separation of at least 200 feet, as measured between the centerlines, shall be maintained.

(3) Intersections on curvilinear streets.

Where a curvilinear street intersects another, a straight tangent section shall be required at the approach to the intersection. The length required for this tangent is dependent upon the radius of the approaching curve. The minimum length of this tangent, as measured from the right-of-way of the intersected street to the point of curvature, shall be as shown in the following table:

Centerline Radius	Minimum Tangent Length
100 ft.	110 ft.
150 ft.	100 ft.
175 ft.	90 ft.
200 ft.	80 ft.
225 ft.	75 ft.
250 ft.	70 ft.
275 ft.	65 ft.
300 ft.	60 ft.
350 ft.	50 ft.
400 ft.	20 ft.
450 ft. and over	No Tangent Required

## Hastings City Code

### (4) T-Type intersections on horizontal curves.

T-Type intersections may be permitted along the outside of any horizontal curve provided the minimum sight distances are provided, based on the design speed of the intersected curved street, and that the minimum approach tangent length is provided in the case of a curvilinear approaching street.

T-Type intersections may be permitted along the inside of a horizontal curve provided that the centerline radius of the curve is 525 feet or greater, and that the minimum sight distances, based on the design speed of the intersected curved street, and the minimum approach tangent length, in the case of a curvilinear approaching street, are provided.

#### (ii) Curvilinear alignment.

##### (1) Horizontal curves.

All changes of horizontal alignment between intersections shall be connected by circular curves. The minimum centerline radius for curves on local streets shall be 100 feet. The minimum centerline radius for collector streets shall be 385 feet. The minimum centerline radii for curves on major streets shall be determined by the Public Works Department.

##### (2) Tangents between horizontal curves.

A straight tangent having a minimum length of at least 100 feet shall be provided between adjacent non-compound horizontal curves where the sum of the radii of the curves is less than 600 feet.

#### (iii) Cul-de-Sacs.

Geometry and details of standard symmetrical and offset type cul-de-sacs for the various property line radii are shown on Figure S-1. Length of cul-de-sac shall not exceed 600' in length, including bulb of said cul-de-sac.

##### (1) Center island.

Center Islands are not recommended.

(2) A curbed center island having a diameter of 30 feet may be placed at the center of the cul-de-sac. The center island shall be landscaped using approved plant materials not exceeding a maximum mature height of 24 inches and certain designated street trees conforming to the requirements of the *Design Standards for Street Trees*. Trees placed in the center island shall be trimmed up to 6 feet above the ground and maintained for traffic sight clearance. Landscape maintenance including replacement and the maintenance of the center island curb, by written agreement between the City and the appropriate parties, shall be the responsibility of the abutting property owners, a homeowners association, or other private entity. Landscaping plans shall include a program for maintenance and replacement of trees and plant material and shall be approved by the Department of Public Works and the City Parks and Recreation Department. All landscaping shall be installed within two planting seasons following the paving construction.

#### (d) Vertical street alignment.

##### (i) Longitudinal grades.

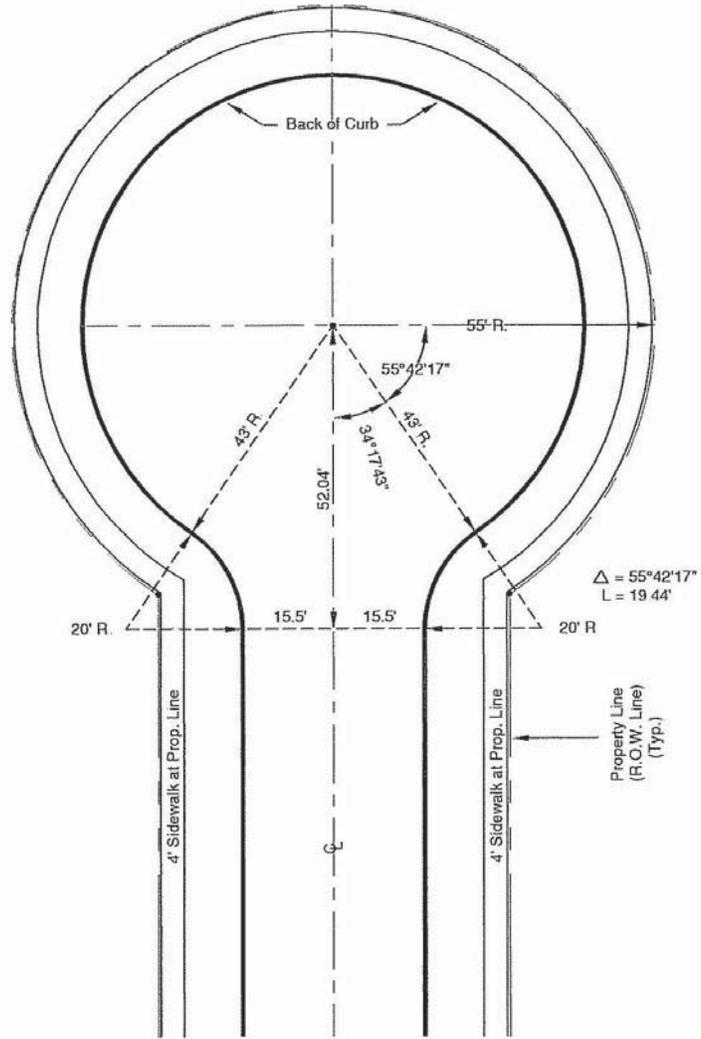
##### (1) Minimum.

The minimum longitudinal grade for all public streets shall be 0.5% to provide for adequate surface drainage. Flatter grades must receive approval from Director of Public Works.

##### (2) Maximum.

The maximum longitudinal grade shall be 8.0% for local streets and 7.0% for collector streets. Maximum grades for major streets shall be determined by the Department of Public Works Department.

# Subdivisions

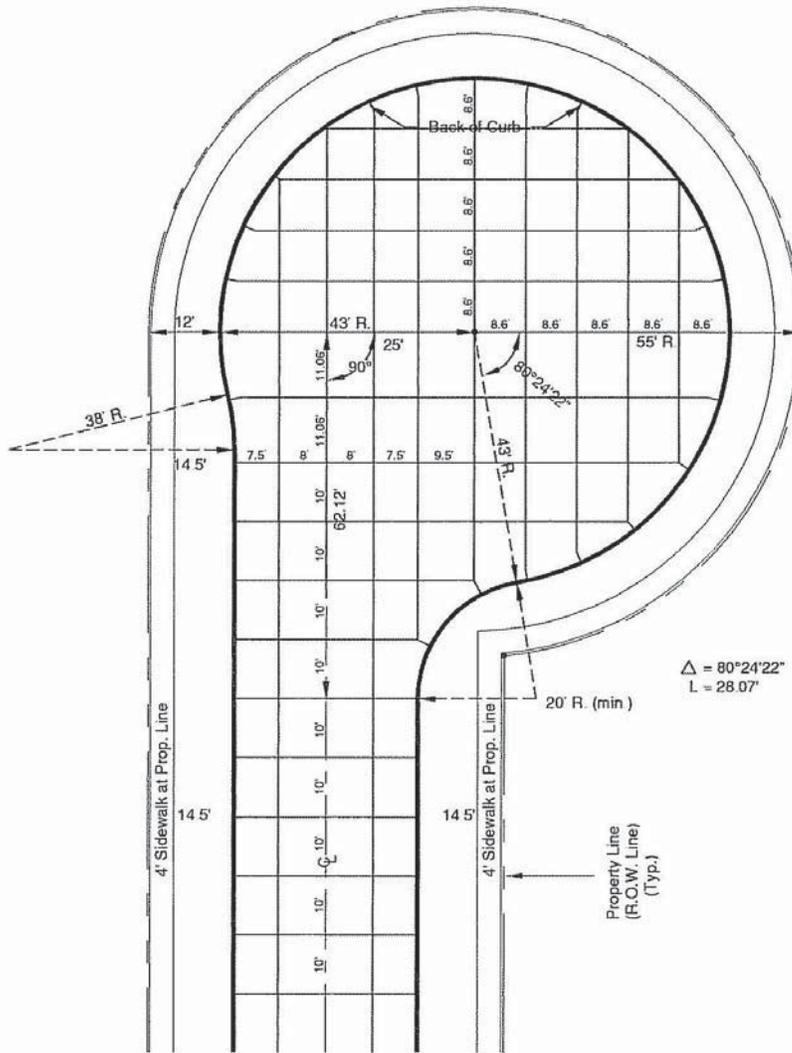


31' Street  
60' Right-of-Way



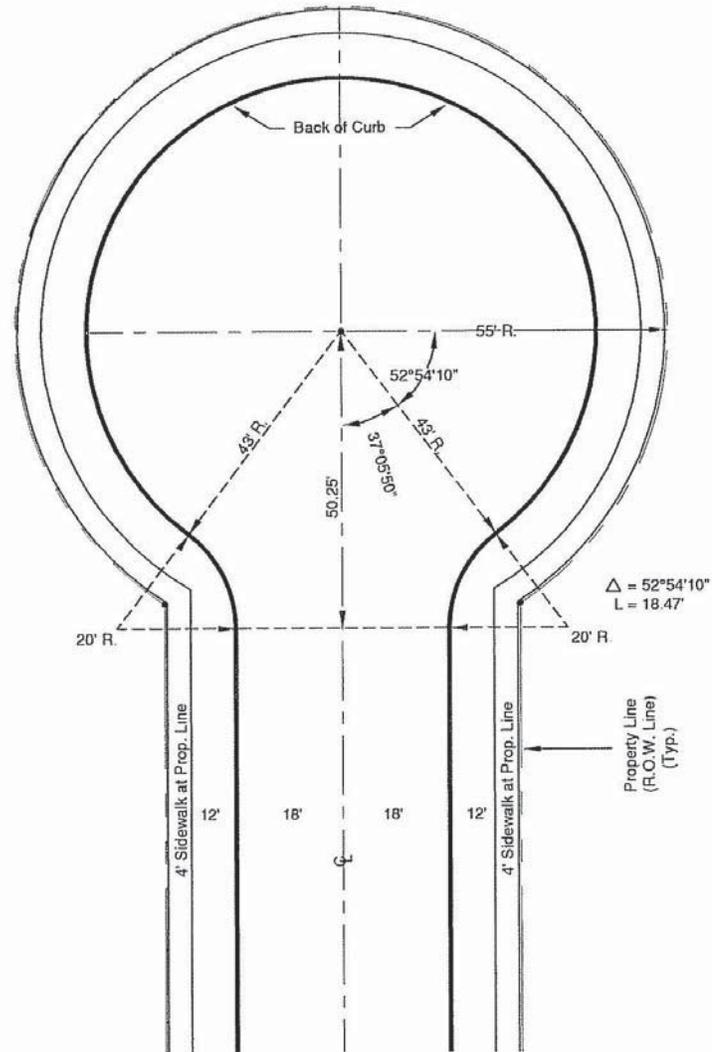


Hastings City Code

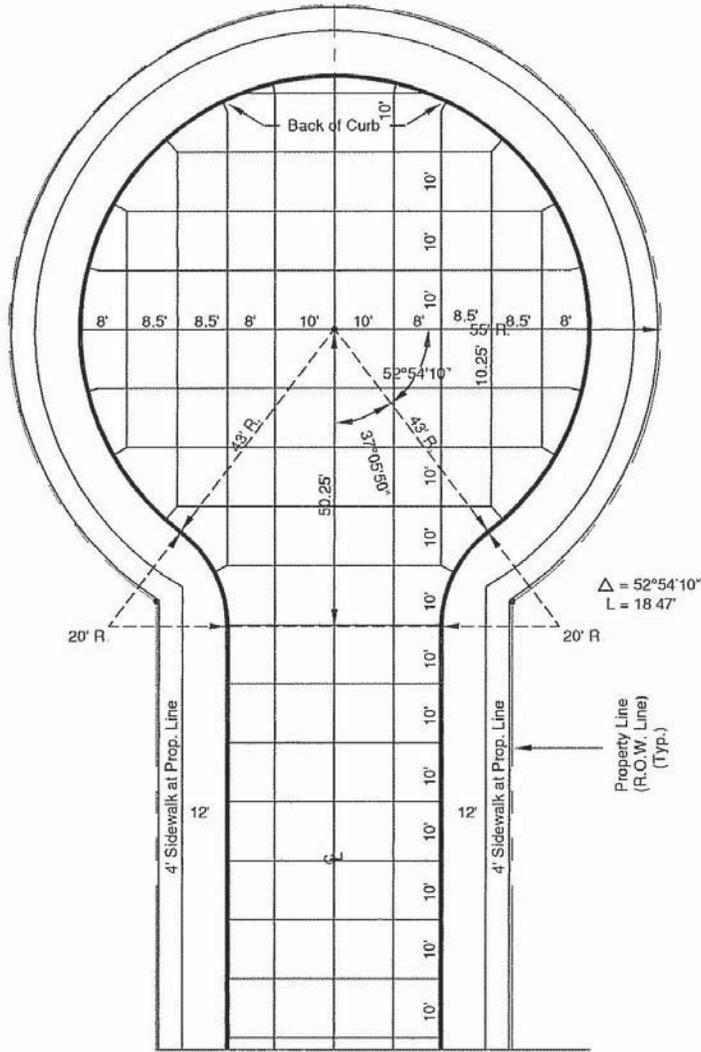


31' Street  
60' Right-of-Way

# Subdivisions

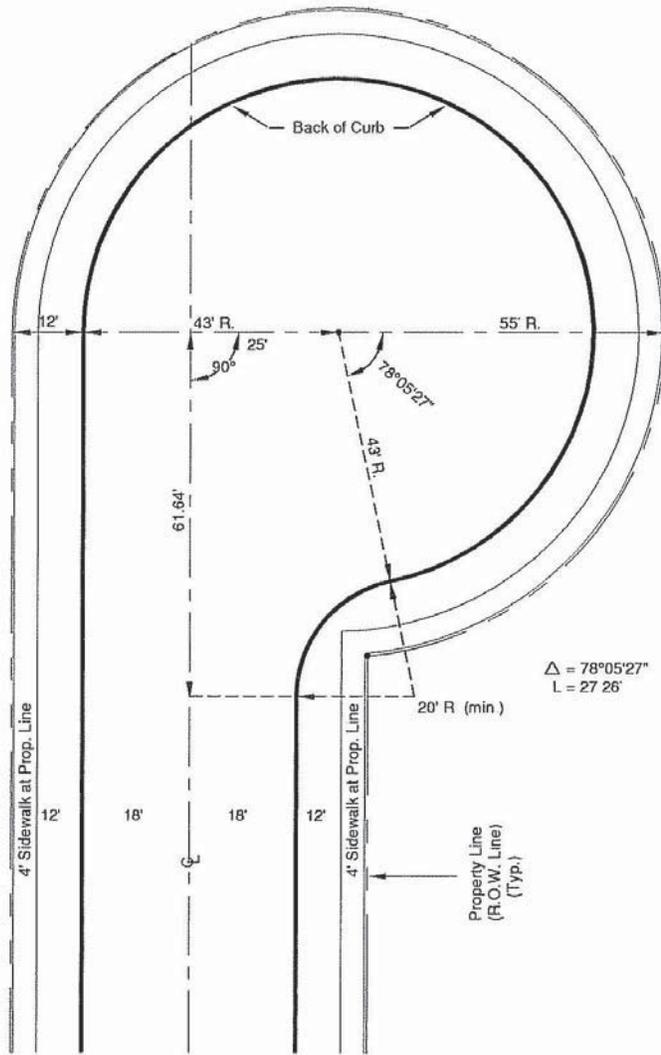


36' Street  
60' Right-of-Way



36' Street  
60' Right-of-Way

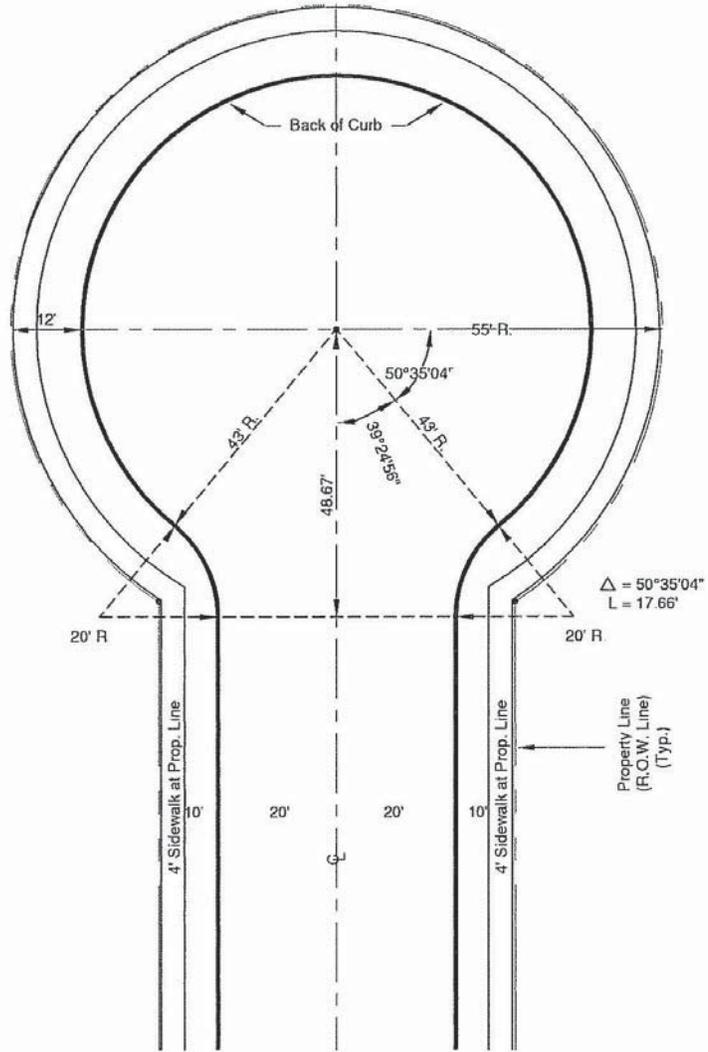
Subdivisions



36' Street  
60' Right-of-Way



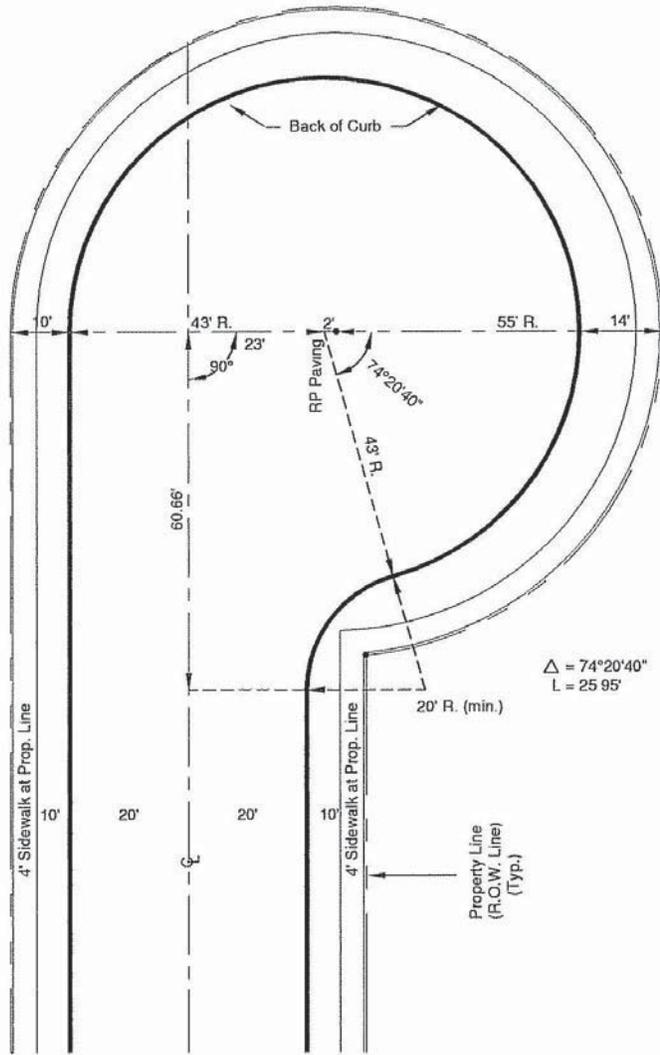
# Subdivisions



40' Street  
60' Right-of-Way



Subdivisions



40' Street  
 60' Right-of-Way



## Subdivisions

Changes in longitudinal grades shall be designed using parabolic vertical curves. Where the algebraic difference between the two grades expressed in percent is 1.0 or less, no curve is required. The minimum length of vertical curves necessary to provide adequate safe stopping sight distance shall be determined using the following formula:

$$L = K A$$

Where: L = Minimum length of curve as measured in a horizontal plane.

K = A measure of curvature, values of which are set forth in the following table.

A = The algebraic difference between the grades of the tangents to the curve expressed in percent.

Design Speed (mph)	K-Value Crest Curves (feet)	K-Value Sag Curves (feet)
25	20	30
30	30	35
35	40	45
40	60	55
45	80	68
50	110	80
55	150	103

For vertical curves connecting flatter grades, care shall be taken to provide adequate slope for drainage. Generally, K < 165 (50 metric) for both sag and crest curves. The length of the vertical curve shall be kept as close as practicable to the minimum length as determined by the above procedure.

(iii) Intersection approaches.

(1) Major streets.

The grade of any street approaching a major street shall not exceed 3.0% within 130 feet of the closest curb line of the intersected roadway.

(2) Collector streets.

The grade of a local street approaching a collector street shall not exceed 3.0% within 70 feet of the closest curb line of the intersected roadway.

(3) Local streets.

The approach grades of all intersecting local streets which continue through the intersection shall not exceed 3.0% within 70 feet of the closest curb line of the intersected roadway. At T-type intersections, the grades of the through street may exceed 3.0%.

(4) Unimproved major streets.

Where new developments abut major streets which are not yet improved to major street standards, approach grades, intersections and abutting property grading should be designed to accommodate the future grades of the major street. The grades and alignment of the major street shall be approved by the Public Works Department.

(e) Roadway right of way & roadway width.

The following table sets forth minimum Right of Way widths for the City of Hastings:

**Hastings City Code**

<b>R.O.W. Widths</b>	
Arterial Street – 5 Lane Design (Expressway)	100'
Arterial Street	80'
Collector Street	70'
Residential Street	60'
Frontage Street	60'
Alley	20'
Commercial or Industrial Parks	80'
Private Roads / Streets	50'

The following table sets forth standard roadway widths, as measured to the back of the curbs, for streets located within residential and commercial/industrial zoning districts:

<b>Street Classification</b>	<b>Zoning</b>	<b>Roadway Width</b>
Local	Residential	31 ft. With Parking
Local	Residential	36 ft. With Parking
Local	Commercial/Industrial	37 ft. With Parking
Collector	Residential/Ag/ Commercial	40 ft. No Median
Collector	Residential	2 – 21 ft. Roadways with Median
Local – Permanent Turnaround (cul-de-sac)	Residential	43 ft. Outside Radius
Local – Permanent Turnaround (cul-de-sac)	Commercial Industrial Office	No Parking – 49.5 ft. Outside Radius With Parking – 55.5 ft. Outside Radius
Major Street	All	Determined by Public Works Department

In locations where the roadway width changes, those changes shall be accomplished using a tapered section. The minimum length of that taper shall be determined by multiplying the offset of the roadway edge by the design speed. Tapers shall not extend through intersections.

(f) Street grading cross-section.

Generally, streets shall be graded to provide slope to the roadway from the building lines on either side of the street. This section will provide capacity in the street to carry excess runoff from major storms. Slopes from the top of curb to one foot back of the sidewalk line shall be 2.0%, except at those locations where it is necessary to allow for storm drainage overflow away from the roadway. In such case the area may be sloped away from the top of curb at a grade not exceeding 2.0%. The slope from the sidewalk to the building line should be not less than 2.0%. In areas where existing conditions might require that the sideslope to back of the sidewalk exceed 2% in order to achieve uniformity, the Public Works Department may approve a steeper slope not to exceed 8%.

Excavation for streets, construction of embankments and roadway subgrade preparation and compaction shall conform to the requirements of the *City of Hastings Standard Specifications for Municipal Construction*.

(g) Roadway cross-section.

(i) Pavement crown.

Except at intersections, roadway paving shall be designed with the top of the curbs level from one side to the other. On local and collector street roadways with no medians, the roadway surface shall have a transverse slope (crown) of 2.0% from the gutter line to the roadway centerline. Where medians are present, the roadway surface shall have a transverse slope as shown on the current edition of the Standard Plans of the City of Hastings. Deviations from this cross slope shall be approved by the Public Works Department.

**Subdivisions**

Pavement slopes and details for major streets shall be determined by the Public Works, generally conforming to the current edition of the Standard Plans of the City of Hastings.

(ii) Curbs.

Concrete curbs shall be placed on both sides of all roadways. Curbs on local and collector streets may be either combined curb and gutter or integral curb and shall conform to the requirements of the *City of Hastings Standard Specifications for Municipal Construction* and the details shown on the *Hastings Standard Plans*. Curb type and details for major streets shall be determined by the Public Works Department.

(iii) Roadway paving.

Roadways shall be surfaced with either Portland cement concrete pavement or asphaltic pavement. Minimum roadway pavement or base thickness for the various street classifications is shown in the following tables for the various pavement types. If the anticipated average daily truck traffic exceeds the limits set forth in the tables, the Public Works Department may require greater surfacing thickness.

**Table 1 Portland Cement Concrete Pavement (47B)**

Street Classification	Zoning	Thickness
Local	Residential ADTT * < 50	6"
Local	Commercial/Industrial ADTT * < 300	8"
Collector	Residential ADTT * < 50	8"
Collector	Commercial/Industrial ADTT * > 300 but < 800	9"
Major Street	All	Determined By Public Works Department

**Asphaltic Concrete Pavement**

2 ½ " Surface Course on 6" Asphaltic Concrete Base

Street Classification	Zoning	Thickness
Local	Residential	8 ½"
Major Street	All	Determined by Public Works Department *

\* ADTT = Average Daily Truck Traffic  
(excluding two axle trucks with four wheels)

(h) Alley pavement.

Where permitted, the entire width of the alley shall be paved with portland cement concrete pavement of the same minimum thickness as set forth in Table 1 above and without curbs. Design and construction shall conform to the requirements of the *City of Hastings Standard Specifications for Municipal Construction* and the details shown on the *Hastings Standard Plans*.

(i) Intersection geometry.

At intersections, the curbs of intersecting roadways shall be connected by circular curves having radii as shown in the following table (as measured to back of curb):

**Hastings City Code**

Street Classification	Zoning	Radius
Local	Residential	20 ft.
Local	Commercial/Industrial	30 ft.
Collector	Residential	20 ft.
Collector	Commercial/Industrial	30 ft.
Major Street	All	Determined by Public Works Department

At intersections of local or collector streets with major streets, additional right or left turning lanes, medians, tapered roadway sections or other special features may be required to accommodate anticipated traffic. At the intersection of two major streets, additional lanes, larger radii, three centered curves or other special features may be required. The Public Works Department will provide the specific design requirements at these locations on an individual basis.

(j) Lateral obstacle clearance.

Minimum obstacle clearance for curbed sections shall be 2 feet as measured from the back of curb to the face of the obstacle. Minimum obstacle clearance for non-curbed sections shall be 8 feet as measured from the edge of the driving lane to the face of the obstacle. Traffic control devices conforming to the standards of the *Manual on Uniform Traffic Control Devices* will be allowed in the obstacle clearance zone.

(k) Temporary turnarounds.

Where required, temporary turnarounds shall be constructed in conformance with the details shown on the *Hastings Standard Plans*. Direct access to the temporary turnaround from abutting properties will not be permitted.

(l) Sidewalks.

Sidewalks through open spaces and pedestrian walk easements, which are required by subdivision approval or special permits, shall be constructed as a part of the roadway paving project. Sidewalks in the public streets shall be constructed as required by subdivision approval.

(i) Alignment.

Where the sidewalk is located in the public street, the sidewalk shall generally be aligned parallel to the right-of-way line with the edge of the sidewalk located on that line, or approved by Public Works Department. The longitudinal sidewalk grade shall generally be parallel to the roadway curb grade. Sidewalks located in pedestrian easements shall be centered in that easement, or as approved by the Public Works Department.

Sidewalks not located in the public street shall be constructed with smooth and aesthetically appropriate horizontal and vertical alignments which are free of abrupt changes and which generally blend with finish grading contours for the surrounding area. Normally, longitudinal grades for these sidewalks should not exceed 5%. Longitudinal grades not exceeding 8% may be used for short distances to overcome greater elevation differentials.

(ii) Street approach ramps.

Street approach ramp shall conform to current ADA requirements and Standards of the City of Hastings.

(iii) Cross-section.

Sidewalks shall be at least 4 ft. wide and shall have a transverse slope of 2% in the direction of the natural surface drainage, or as approved by Public Works Department. Sidewalks shall be constructed of Portland cement concrete and shall have a minimum thickness of 4 inches. Sidewalks on collector streets shall be at least 5' wide.

Sidewalk construction shall conform to the requirements of the *City of Hastings Standard Specifications for Municipal Construction*.

(m) Drainage facilities.

## Subdivisions

Storm sewers, open channels, culverts, inlets and other drainage facilities and appurtenances shall conform to the requirements of the *Drainage Criteria Manual* of the City of Hastings, Nebraska.

(n) Roundabouts.

(i) General.

Roundabout intersections as set forth herein are generally to be used in residential and commercial-industrial districts as traffic calming devices or for aesthetic purposes. They may be used for intersections having three to five approaching streets. Use of roundabouts on major streets shall be subject to special considerations and will require specific approval and be subject to specific design considerations determined by the Department of Public Works.

(ii) Access not permitted.

Access directly to the roundabout from abutting properties shall not be permitted.

(iii) Roundabout spacing.

Roundabouts shall be spaced at least 900 feet apart as measured from center to center.

(iv) Angle between approaching streets.

The angle between the centerlines of any two streets approaching the roundabout shall not be less than 70°.

(v) Roundabouts on curvilinear streets.

Where a roundabout is located on curvilinear streets, a straight tangent section shall be required at the approach to the roundabout. The minimum length of this tangent, as measured from the outside curb radius of the roundabout to the point of curvature on the approaching street, shall be as shown in the following table:

Centerline Radius	Minimum Tangent Length
150 ft.	100 ft.
175 ft.	90 ft.
200 ft.	80 ft.
225 ft.	75 ft.
250 ft.	70 ft.
275 ft.	65 ft.
300 ft.	60 ft.
350 ft.	50 ft.
400 ft.	20 ft.
450 ft. and over	No Tangent Required

Roundabouts may be placed along a horizontal curve provided that the centerline radius of the curve is 525 feet or greater, and that the minimum sight distances, based on the design speed of the approaching streets, are provided.

(vi) Grades.

The grade of any roadway approaching a roundabout shall not exceed 3.0% within 70 feet of the outside curb radius of the roundabout. The grades across the roundabout shall not exceed 3.0%.

(vii) Geometry.

In general, roundabouts in residential districts shall be designed to accommodate the turning radius of a standard AASHTO BUS design vehicle and roundabouts in commercial industrial districts shall accommodate a standard AASHTO WB-50 design vehicle.

## Hastings City Code

### (viii) Right-of-way.

The right-of-way for the roundabout shall have a minimum radius equal to the radius of the outside curb line of the roundabout plus 16.5 feet.

### (ix) Splitter islands.

Splitter Islands shall have a minimum area of 80 square feet.

### (x) Curbs.

Concrete curbs shall be placed on both sides of the rotary roadway and around the splitter islands. Curbs may be either combined curb and gutter or integral curb and shall conform to the requirements of the *City of Hastings Standard Specifications for Municipal Construction* and the details shown on the *Hastings Standard Plans*.

### (xi) Roadway cross-slope.

The transverse slope of the rotary roadway paving shall not exceed 3.0%.

### (xii) Landscaping.

The center island of the roundabout may be landscaped using approved plant materials not exceeding maximum mature height of 24 inches and certain designated street trees conformation to the requirements of the *Design Standards for Street Trees*. Trees placed in the center island shall be trimmed up to 6 ft. above the ground and maintained for traffic sight clearance. Notwithstanding the above, no plant material, having a maximum mature height in excess of 6 inches shall be placed within 4 ft. from the back of the curb. Landscape maintenance and replacement, by written agreement between the City and the appropriate parties, shall be the responsibility of the abutting property owners, a homeowners association or other private entity. Landscaping plans shall include a program for maintenance and replacement of trees and plant material and shall be approved by the Department of Public Works and the City Parks and Recreation Department. All landscaping shall be installed within two planting seasons following the paving construction.

### (xiii) Sidewalks.

Pedestrian traffic across the rotary roadway and center island is to be discouraged. Crosswalks on the approach roadways shall be located at least 25 feet back from the yield line or outside radius of roundabout.

### (xiv) Signs.

The roundabout shall have the required traffic control signs, as determined by the Department of Public Works, in place prior to opening to traffic.  
(Ord. No. 4233-11/2009)

## **38-403. Private roadway design standards.**

### (1) General.

This standard shall apply to all private roadways located within the City of within the zoning jurisdiction of the City of Hastings.

### (2) Policies.

#### (a) Reviewing agencies.

All required permits for construction of private roadway improvements shall be obtained from the City of Hastings Development Services Department and all plans for that construction shall be reviewed and approved by the Public Works Department.

### (3) Design and construction.

## Subdivisions

(a) Design speed.

The following design speeds shall be applied for the design of private roadways:

Location	Design Speed
Private Roadway – Urban	25 mph
Private Roadway – Rural	30 mph

This standard shall apply to all private roadways located within the City of within the zoning jurisdiction of the City of Hastings.

(b) Sight distances.

Unobstructed sight distances as set forth in Figures SD-1, SD-2, SD-3 and SD-4 of APPENDIX A, shall be provided at all street intersections and alley accesses for vehicular and pedestrian traffic safety. Fences, walls, signs or other obstructions shall not be placed in the public street and shall not be placed in the sight triangles as set forth in Figures SD-1, SD-2, SD-3 and SD-4 except that chain-link fences free from shrubbery and vines may be placed on private property within the sight triangles at uncontrolled or yield controlled intersections.

(c) Horizontal roadway alignment.

(i) Intersections.

(1) Angle of intersection.

Roadways shall intersect as near as possible at right angles. In no case shall the angle of intersection vary more than 10 degrees from a right angle.

(2) Intersection Separation.

Where the roadways do not continue through the intersection (T-Type) a minimum separation of at least 120 feet, as measured between the centerlines, shall be maintained.

(3) Intersections on curvilinear roadways.

Where a curvilinear roadway intersects another, a straight tangent section shall be required at the approach to the intersection. The length required for this tangent is dependent upon the radius of the approaching curve. The minimum length of this tangent, as measured from the near edge of the pavement of the intersected roadway to the point of curvature, shall be as shown in the following table:

Centerline Radius	Minimum Tangent Length
100 ft.	110 ft.
150 ft.	100 ft.
175 ft.	90 ft.
200 ft.	80 ft.
225 ft.	75 ft.
250 ft.	70 ft.
275 ft.	65 ft.
300 ft.	60 ft.
350 ft.	50 ft.
400 ft.	20 ft.
450 ft. and over	No Tangent Required

This standard shall apply to all private roadways located within the City of within the zoning jurisdiction of the City of Hastings.

**Hastings City Code**

(4) T-Type intersections on horizontal curves.

T-Type intersections may be permitted along the outside of any horizontal curve provided the minimum sight distances are provided, based on the design speed of the intersected curved roadway, and that the minimum approach tangent length is provided in the case of a curvilinear approaching roadway.

T-Type intersections may be permitted along the inside of a horizontal curve provided that the centerline radius of the curve is 525 feet or greater, and that the minimum sight distances, based on the design speed of the intersected curved roadway or street, and the minimum approach tangent length, in the case of a curvilinear approaching roadway, are provided.

(ii) Curvilinear alignment.

(1) Horizontal curves.

All changes of horizontal alignment between intersections shall be connected by circular curves. The minimum centerline radius for curves on private roadways within the City (urban) shall be 100 feet. The minimum centerline radius for private roadways outside the City (rural) shall be 385 feet.

(2) Tangents between horizontal curves.

A straight tangent having a minimum length of at least 100 feet shall be provided between adjacent non-compound horizontal curves where the sum of the radii of the curves is less than 600 feet.

(d) Vertical street alignment.

(i) Longitudinal grades.

(1) Minimum.

The minimum longitudinal grade for all private roadways shall be 0.5% to provide for adequate surface drainage.

(2) Maximum.

The maximum longitudinal grade shall be 8.0%.

(ii) Vertical curves.

Changes in longitudinal grades shall be designed using parabolic vertical curves. Where the algebraic difference between the two grades expressed in percent is 1.0 or less, no curve is required. The minimum length of vertical curves necessary to provide adequate safe stopping sight distance shall be determined using the following formula:

$$L = K A$$

Where: L = Minimum length of curve as measured in a horizontal plane.  
 K = A measure of curvature, values of which are set forth in the following table.  
 A = The algebraic difference between the grades of the tangents to the curve expressed in percent.

Design Speed (mph)	K-Value Crest Curves (feet)	K-Value Sag Curves (feet)
25	20	30
30	30	35

For vertical curves connecting flatter grades, care shall be taken to provide adequate slope for drainage. Generally,  $K < 165$  (50 metric) for both sag and crest curves. The length of the vertical curve shall be kept as close as practicable to the minimum length as determined by the above procedure.

(iii) Intersection approaches.

## Subdivisions

(1) Public streets.

The grade of a private roadway approaching a public street shall not exceed 3.0% within 50 feet of the closest right-of-way line of the intersected street. All vertical curves shall be located completely beyond this approach platform.

(2) Private roadways.

The approach grades of all intersecting private roadways which continue through the intersection shall not exceed 3.0% within 60 feet of the centerline of the intersected roadway. At T-type intersections, the grades of the through street may exceed 3.0%.

(e) Roadway width.

The following table sets forth minimum widths, as measured to the back of the curbs, for private roadways:

Roadway Use	Roadway Width
General Access	28 ft.
Access to Less than 30 Residential Parking Spaces	21 ft.
Access to Residential Lots of One or more Acres	20 ft. w/ 4 ft. Shoulders

In locations where the roadway width changes, those changes shall be accomplished using a tapered section. The minimum length of that taper shall be determined by multiplying the offset of the roadway edge by the design speed.

(f) Roadway cross-section.

(i) Pavement crown.

Except at intersections, roadway paving should be designed with the top of the curbs level from one side to the other. On private roadways, with no medians, the roadway surface should have a transverse slope (crown) of 3.0% from the gutter line to the roadway centerline. Where medians are present, the roadway surface shall have a transverse slope of 3.0% across the entire roadway on each side of the median. Roadways without curbs shall have a transverse paving slope (crown) of 2.0% from the edge of the paving to the roadway centerline and transverse shoulder slopes of 6.0%.

(ii) Curbs.

Concrete curbs shall be placed on both sides of all roadways.

(iii) Roadway paving.

Roadways shall be surfaced with any of the following surface types:

- (1) Portland cement concrete.
- (2) Asphaltic concrete.
- (3) Brick pavers.
- (4) Pervious asphaltic concrete with sub-drainage.
- (5) Open concrete paving blocks.
- (6) Other surfacing as approved by Public Works Department.

## Hastings City Code

### (g) Intersection geometry.

At intersections, the curbs of intersecting roadways shall be connected by circular curves having a minimum radius of 20 ft. (as measured to back of curb).

At intersections of private roadways with major streets, the minimum radius shall be 30 feet. Additional right or left turning lanes, medians, tapered roadway sections or other special features may be required to accommodate anticipated traffic. The Public Works Department will provide the specific design requirements at these locations on an individual basis.

### (h) Drainage facilities.

Storm sewers, open channels, culverts, inlets and other drainage facilities and appurtenances shall conform to the requirements of the *Drainage Criteria Manual* of the City of Hastings, Nebraska.

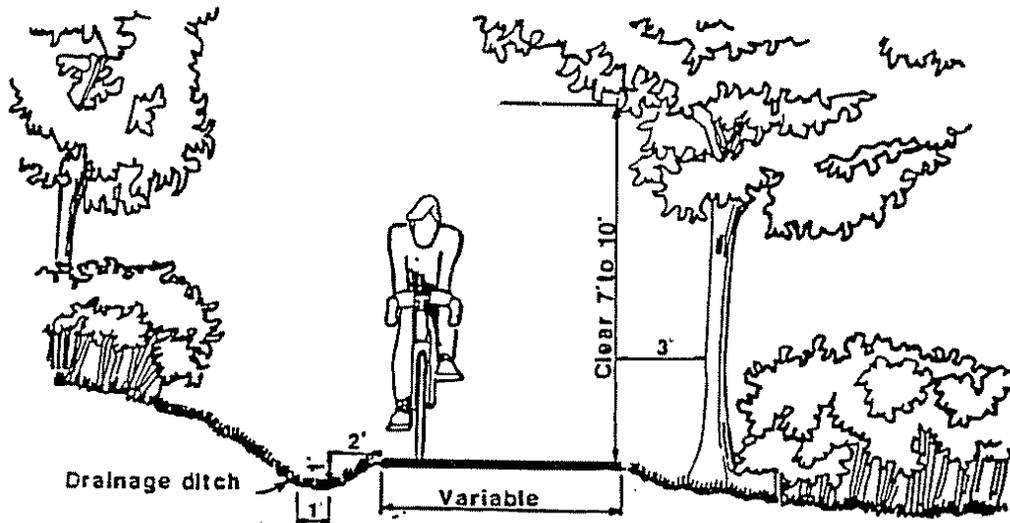
### (i) Traffic control devices.

Roadway signage, pavement markings and other traffic control devices for private roadways shall conform to the current version of the Federal Highway Administration's *Manual on Uniform Traffic Control Devices*. (Ord. No. 4233-11/2009)

## 38-404. Design standards for hiker biker trails.

### (1) Clearing.

Any vegetation, except grasses, should be cleared a minimum of 3 feet from the edge of the bike route surfacing. Overhead clearance should be maintained for a 10-foot minimum. All dead branches and trunks should be removed from above the trail. All vegetation, including roots, on the subgrade should be removed down to bare earth.



Typical Section Showing Clearing & Drainage

### (2) Drainage.

Drainage should be properly handled to prevent washouts, and to avoid ground saturation beneath the trail. The trail should be sloped to provide runoff, and ditches should be provided where necessary. Underdrains may be necessary in very wet places to prevent frost action with resultant heaving.

In special instances, catch basins and drains may be needed.

### (3) Pavement.

**Subdivisions**

(a) Bases and subbases need to be adequately prepared to protect the surface. Removal of topsoil, stumps and roots and compaction of subgrade to City Standards will normally be adequate. In wet or otherwise poor conditions, crushed stone or fly ash may be necessary for stability. General Construction Standards of the City of Hastings shall apply.

(b) Pavement shall be constructed of 10' wide 47B concrete, 6" thick minimum.

\*8' in width may be approved by the Public Works Department if existing landscaping or vegetation causes difficulty in achieving design section.

(c) These minimum standards may be superceded by FHWA requirements for Federally Funded Trails.

(4) Sight distances.

The sight distance to any hazard or potential hazard must be a minimum of 50 feet at 10 m.p.h. that allows four seconds to react to any obstacle or hazard. If this sight distance cannot be provided, warning signs must be posted.

(5) Grade.

Bike paths shall not exceed a 5% grade (except for very short distances). If difficult grade problems cannot be overcome, measures should include the provision of rest stops or lower grade "switchbacks". Table 1 shows some suggested relationships between grade and grade-lengths.

**TABLE 1  
GRADE AND GRADE LENGTH CRITERIA**

<b>Bikeway Gradient</b>	<b>Desirable</b>	<b>Normal Length</b>	<b>Maximum Length</b>
10.0%	Not Recommended	33'	66'
5.0	Not Recommended	131'	262'
4.5	82'	167'	334'
4.0	102'	203'	410'
3.5	148'	295'	590'
3.3	148'	295'	590'
2.9	200'	400'	800'
2.5	262'	525'	1,050'
1.7	590'	1,180'	----
1.5	----	2,100'	----

(6) Radius of curvature.

In these standards, a design speed of 20 m.p.h. is recommended for Bike Paths. The following simple linear equation which related curve radius to design speed at the relatively low speeds bicycles normally travel will be used to arrive at radius of curvature.

$$R = 1.25 v + 1.4$$

Where V = speed in m.p.h.  
R = Curve radius in feet

This equation allows for a minimum R of 58' at a V of 20 m.p.h. Since Biker Paths in the Parks are used for both pedestrians and bicycles, a maximum of .06 foot per floor superelevation will be used. Figure 1 below (Standard Superelevation for Bikeways, Source: State of Oregon) will be used to determine superelevation up to the maximum allowable.

$$\text{Plot of } \frac{V}{qR} = \frac{\tan \theta + \left[ \right]}{1 \left[ \tan \theta \right]}$$

## Hastings City Code

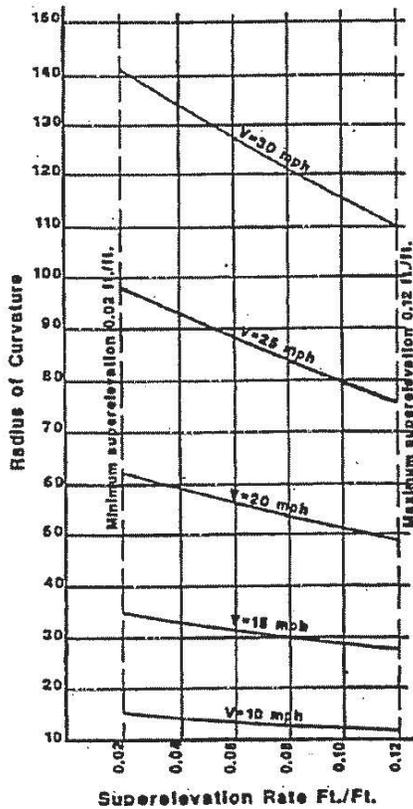
Where  $V$  - velocity, ft/sec

$q$  = acceleration due to gravity, ft/sec

$R$  = radius of curvature, ft

$f$  = coefficient of friction on dry pavement = 0.4

$\tan \theta$  = superelevation rate, ft/ft



**Figure 1: STANDARD SUPERELEVATION FOR BIKEWAYS**  
Source: State of Oregon

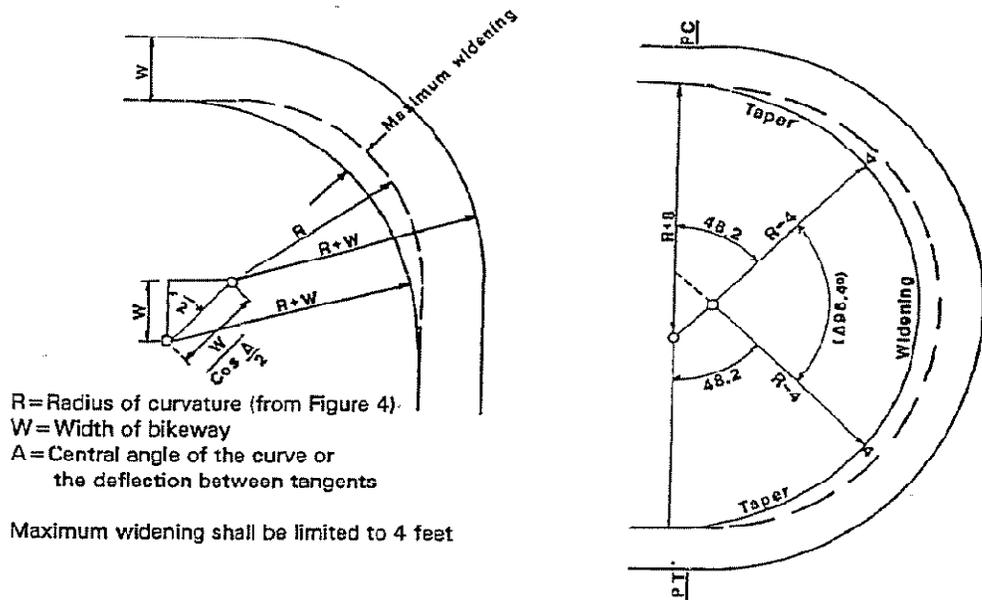
Curvature shall be based on a normal design speed of 20 m.p.h. Within limits shown, either the radius or the superelevation may be varied to fit individual situations. The dependant variable may be selected from the adjacent chart. Descending grades in excess of 7 percent (7%) will have a design speed of 30 m.p.h. Climbing grades in excess of 3 percent (3%) may use a 15 m.p.h. design speed. The descending grade determines the design speed on two-way bikeways.

Curvature shall be based on a normal design speed of 20 m.p.h. Within limits shown, either the radius or the superelevation may be varied to fit individual situations. The dependant variable may be selected from the adjacent chart. Descending grades in excess of 7% will have a design speed of 30 m.p.h. Climbing grades in excess of 3% may use a 15 m.p.h. design speed. The descending grade determines the design speed on two-way bikeways.

Bike Paths with curves of radii of less than 100 feet will be widened in accordance to the attached methodology in Figure 2 as developed by the State of Oregon. Maximum widening is limited to 4 feet.

When widening reaches 4 ft. ( $\Delta > 96.4^\circ$ ), that width shall be carried on a radius of R-4 through the central portion of the curve ( $\Delta > 96.4^\circ$ ) as shown on the right.

## Subdivisions



**Figure 2: CURVE WIDENING**  
 Source: State of Oregon

(7) Width of path.

Minimum width is ten feet, this will allow a cyclist in one direction to meet and pass a cyclist going in the opposite direction.

(8) Bridges.

The width of bridges will need to be the minimum width of the path, or as approved by the Public Works Department.

(9) Bike path graphics.

(a) Route signing.

(i) All bikeway signing shall conform to the *Manual on Uniform Traffic Control Design*.

(ii) Adequate signing should be deployed at all decision points along a bikeway. This includes both signs informing the cyclist of directional changes and confirmatory signs to ensure that route changes have been correctly perceived.

(b) Bike pedestrian and roadway crossing signs.

(i) Warning signs indicating to motorists that bicycles should be anticipated and to cyclists that motor vehicles or pedestrians may be encountered should be installed on the approaches to points of potential conflict and at high activity areas. Included are:

(1) Points where a bikeway crosses a roadway or sidewalk.

(2) At bikeway starts and terminations or transition areas involving potential conflict movements.

(3) At intense activity areas such as the vicinity of parks, schools, recreational facilities and community centers.

### Hastings City Code

(iii) Motorists directed warning signs on urban streets should be placed at least a halfblock in advance of the conflict point, and all circumstances such signing whether directed to motorists or cyclists should be placed sufficiently in advance of the conflict point to permit appropriate perception and reaction. Additional cyclist directed warning signs may be installed as required to warn cyclists of specific hazardous conditions.

#### MOTOR VEHICLE DIRECTED AND WARNING SIGNS



Black on Yellow Background  
BIKE ROUTE DESIGNATION SIGNS (White on green Background)



#### Message Plates

To be mounted above the official marker to designate the beginning and ending of the bike route, and to trailblaze that bikeway.



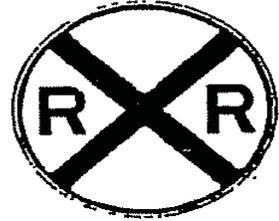
#### Directional Plates

To be mounted below the official marker to guide cyclists along the bikeway and to trailblaze the bikeway.



#### TYPICAL BIKEWAY SIGNING

**CYCLIST DIRECTED WARNING SIGNS**  
(Black on yellow background)



**TYPICAL BIKEWAY SIGNING**

## Hastings City Code

This standard shall apply to all private roadways located within the City of within the zoning jurisdiction of the City of Hastings.

(Ord. No. 4233-11/2009)

### **38-405. Driveway design standards.**

#### (1) General.

This standard shall apply to all residential and commercial driveways located within the City and commercial driveways located outside the City Limits but within the zoning jurisdiction of the City.

Construction of any driveway shall require and be subject to the conditions of a driveway permit issued through the Department of Development Services. Requirements for permit applications are covered herein.

#### (2) Policies.

##### (a) General.

It is the policy of the City of Hastings to promote the maximum safe and efficient travel of persons on the public right-of-way and to preserve the maximum capacity of the roadway to accommodate such travel.

The issuance, denial, modification and revocation of driveway approach permits and the ordering of the removal, reconstruction, relocation, or alteration of any driveway approach may be used to implement this policy.

Driveway approaches shall be designed so that under the specific conditions for the property:

(i) Reasonable access from the roadway is afforded.

(ii) Horizontal separation from other approaches and roadway intersections is the maximum attainable.

(iii) The area and number of points where conflicts between vehicles using the approach, through vehicles using the roadway and pedestrians using the sidewalks is kept to a minimum.

(iv) Speed differential between vehicles using the approach and vehicles on the roadway is kept as low as possible.

(v) The driver entering or leaving the approach has the maximum unobstructed view of other vehicles using the roadway.

(vi) The maximum safety and efficiency of the right and left turning vehicles using the approach is afforded.

(vii) The frequency at which vehicles must stop or substantially reduce speed on the roadway because of actions of vehicles entering or leaving the driveway approach is kept to a minimum.

(viii) The maximum safety, efficiency and capacity of the roadway is promoted.

##### (b) Costs of construction.

The Owner of the property served by the driveway approach shall pay all costs for constructing the driveway approach; required additional turn lanes; pavement widening; median construction or reconstruction; alteration of manholes, storm sewer inlets, water valves or fire hydrants; relocation of power poles or light poles; and alteration of any other public utilities affected by the construction of the driveway approach. Street Department will address asphalt replacement adjacent to driveway approach at no cost to applicant.

##### (c) Number of driveway approaches.

Guidelines for the number of driveway approaches to be permitted are as follows:

## Subdivisions

(i) For single and two-family dwelling units, only one driveway approach per dwelling will be permitted unless the application meets the requirements for a circular driveway as set forth in Figure D-1. One additional driveway approach for a property may be granted on a non-major street when a site drawing and written request indicating the justification for such additional drive is submitted and such request is approved by the Director of Public Works or designated representative.

(ii) Only one two-way commercial driveway approach or one pair of one-way commercial driveway approaches should be permitted to a property having less than 400 feet of frontage and taking access from a major street.

(iii) Commercial driveway access to a major street from adjoining properties having a total frontage of less than 200 feet should be consolidated where possible. Jointly used driveways are encouraged along major streets to obtain maximum spacing of driveway approaches. These joint use driveways should provide at least a 50 feet deep access easement between the property owners.

(iv) For property located on a corner, commercial driveway access should be limited to one driveway approach. If the property is located at the intersection of a major street and a local or collector street, the driveway approach should be located on the local or collector street to reduce potential conflicts. If desirable horizontal separation of the driveway approach from the intersection and other approaches is attainable, and the land use warrants additional access, an access to both streets may be permitted.

### (3) Design.

#### (a) General.

Driveways used for commercial or industrial purposes, except those leading to loading docks or vehicle access doors, shall be designed such that vehicles can leave and enter the roadway in a forward motion.

Driveways to residential properties which have more than three garage units or parking stalls shall be designed such that vehicles can leave and enter the roadway in a forward motion.

#### (b) Location.

Driveways shall be located to provide maximum separation from other drive approaches and roadway intersections to minimize impeding vehicle traffic on the roadway. Minimum and standard dimensions for driveway approach separation, clearances from roadway intersections and offsets at T-intersections or median openings are shown on Figure D-2. The minimum values shown in this figure are the smallest dimensions which shall be permitted. The standard values shall be used to the extent possible within the property frontage.

#### (c) Sight Distance.

Unobstructed sight distances as set forth in Figure SD-3 and SD-4 of APPENDIX A, shall be provided at all driveway approaches for vehicular and pedestrian traffic safety. Fences, walls, signs or other obstructions shall not be placed in the public street and shall not be placed in the sight triangles as set forth in Figures, SD-3, and SD-4. Chain link fences shall not be allowed in front yards.

#### (d) Driveway approach geometry.

Driveway throat widths, return radii or tapers, and angles are shown in Figure D-2 for the various land uses and street classifications. Typical driveway approach details are shown in Figure D-3.

#### (e) Driveway approach grades.

The driveway approach surface shall meet the sidewalk at sidewalk grade. The sidewalk grade shall be established by the Public Works Department or in conformance with approved subdivision layout plan. Normal sidewalk cross-slope through the driveway approach shall be 2%. Where the walk abuts the curb, the cross-slope shall not exceed 2%. No more than 8% slope (ADA) into the street from the outside edge of sidewalk (nearest to street) will be permitted.

### **Hastings City Code**

The owner or the owner's representative shall notify the Street Superintendent and request grade stakes for the driveway approach and inspection of the work before concrete is poured. The Public Works Department and/or Development Services Department shall be notified at least two working days in advance to give time to schedule any inspections. Work done without prior inspection shall be removed if the completed construction is not in accordance with terms of the permit.

(f) Driveway approach cross-section and construction.

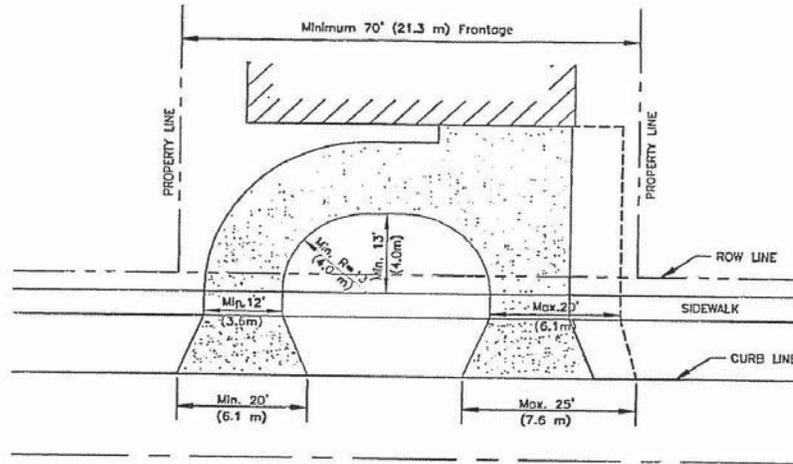
Driveway approaches on paved roadways shall be surfaced with concrete from the roadway edge to the property line. The minimum thickness of driveway approaches for single or two-family dwellings is 6 inches from the roadway edge back to the property line.

The minimum thickness of commercial driveway approaches is 6 inches from the roadway edge to the property line. The Public Works Department may require a greater thickness for commercial driveways depending on the geometry of the approaches, anticipated traffic volumes and number of trucks using the driveway.

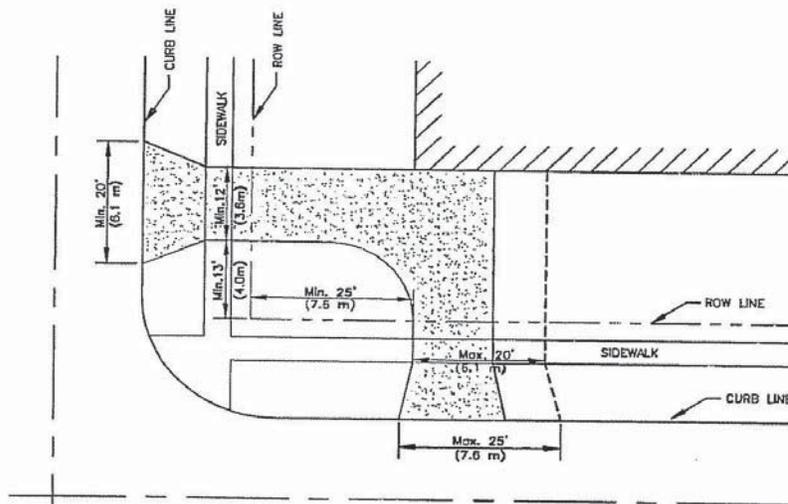
Along roadways improved with a rural-type cross-section and parallel ditch, a drainage culvert shall be installed under the driveway approach. The length, size, grade and location of the culvert shall be determined by the Public Works Department. The culvert is to be purchased by the property owner and installed by the City.

Driveway approaches shall be constructed in conformance with *City of Hastings Standard Specifications for Municipal Construction*.

# Subdivisions



CIRCULAR DRIVEWAY



CIRCULAR DRIVEWAY - CORNER LOT

NOTE: THE MAXIMUM TOTAL WIDTH OF THE TWO CURB-CUTS FOR A CIRCULAR DRIVE APPROACH SHALL BE 45' (13.7 m)

CIRCULAR DRIVEWAYS  
for One and Two-Family  
Dwelling Units

FIGURE D-1

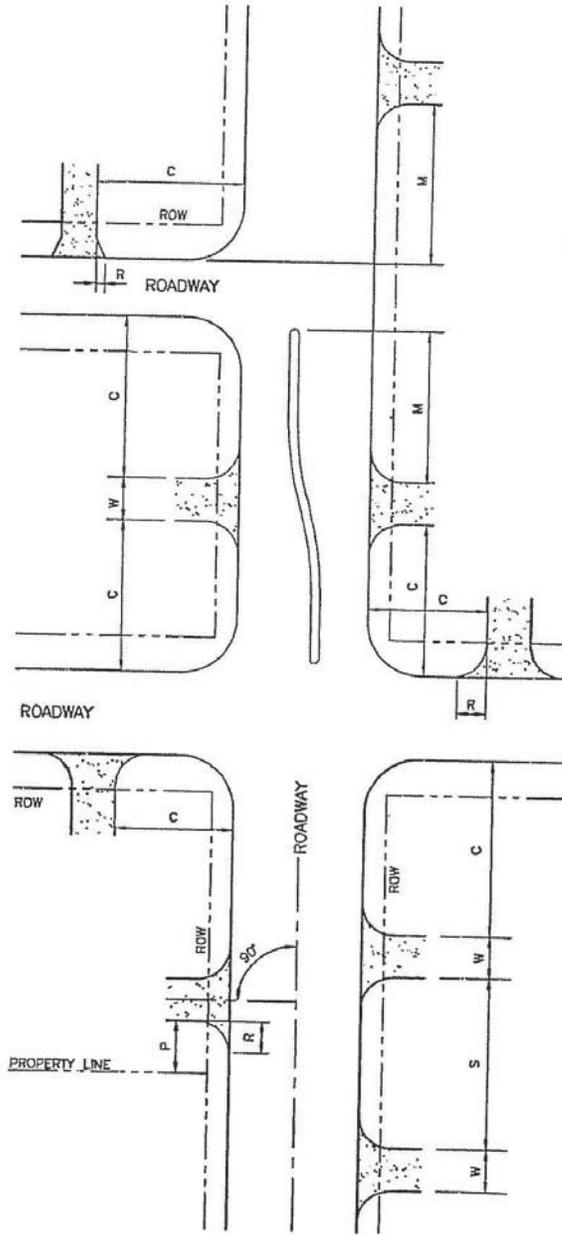


FIGURE D-2

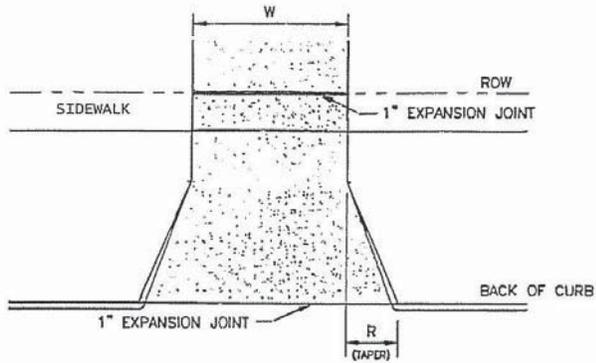
DRIVEWAY DIMENSIONS

	THROAT WIDTH - W		RETURN RADIUS - R	
	TWO-WAY	ONE-WAY	MAJOR ST.	LOCAL/COLL.
Single or Two-Family	10' to 25'	-	2.5' to 5'	2.5' to 5'
Multiple Dwelling Less than 20 Stalls 20 or More Stalls	20' to 25'	15' to 20'	15'	15'
	25'	15' to 20'	15' to 20'	15'
Commercial Less than 150 veh/hr 150 veh/hr or more Truck Access	25' to 35'	15' to 20'	15' to 20'	15'
	30' to 40'	20' to 22'	25'	20' to 25'
	30' to 40'	20' to 25'	25'	20' to 25'

DRIVEWAY SPACING & CLEARANCES

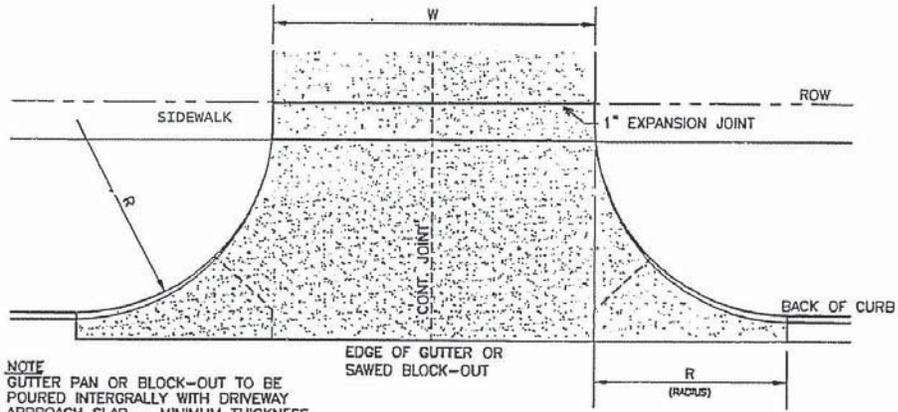
ELEMENT	ROADWAY CLASSIFICATION		
	MAJOR STREET	LOCAL	COLLECTOR
Driveaway Separation - S	MINIMUM	STANDARD	STANDARD
	30'	150' Min.	50'
Commercial	5'	150' Min.	50'
Single or Two-Family	55'	150' Min.	-
Intersection Clearances - C	MINIMUM	STANDARD	STANDARD
	55'	150' Min.	150'
Major - Major	55'	150' Min.	150'
Major - Local/Collector	75'	75'	-
Local/Collector-Local/Coll	R	30'	R
T-Intersection or Median	R	30'	R
Opening Offset - M	R	30'	R
Property Line Offset - P	R	30'	10'

# Subdivisions



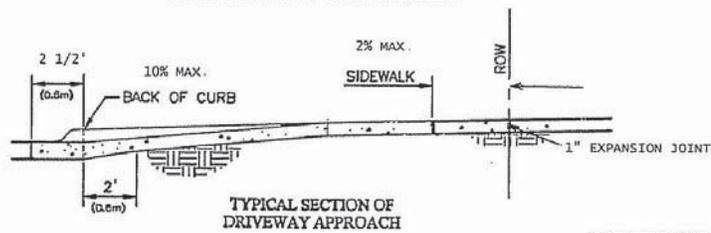
NOTE:  
FOR DIMENSIONS  
"W" AND "R" SEE  
FIGURE D-2

PLAN OF  
RESIDENTIAL DRIVEWAY APPROACH



NOTE  
GUTTER PAN OR BLOCK-OUT TO BE  
POURED INTERGRALLY WITH DRIVEWAY  
APPROACH SLAB - MINIMUM THICKNESS  
= ROADWAY PAVEMENT THICKNESS TO 2'  
(0.6 m) BACK OF CURB.

PLAN OF  
COMMERCIAL DRIVEWAY APPROACH



TYPICAL SECTION OF  
DRIVEWAY APPROACH

DRIVEWAY DETAILS

FIGURE D-3

MINIMUM 6" CONCRETE TO PROPERTY LINE  
47B OR 6 1/2 SACK ABX (OR AS APPROVED BY CITY ENGINEER)



**Subdivisions  
Table VS-1  
Waiting Vehicle Storage Requirements**

Type of Use	Min. Waiting Vehicle Storage
Financial Institution – Electronic Teller	2 vehicles per lane*
Financial Institution – Personal Teller	4 vehicles per window or kiosk*
Car Wash – Self Service	4 vehicles per bay at entrance* 1 vehicle per bay at exit
Car Wash – Automatic/Conveyor	300 ft. per bay at entrance* 2 vehicles per bay at exit
Drive-Thru Restaurant	5 vehicles per window*
Drive-Thru Coffee Shop	
-Driver Side Service	4 vehicles per lane*
-Passenger Side Service	2 vehicles per lane*
Drive-Thru Pharmacy	2 vehicles per lane*
Service Stations	
-Service Islands	2 vehicles per pump lane*
-Service Bay	1 vehicle per bay*
-Quick Lube/Oil Change	2 vehicles per bay*
-"Starting Gate Design" (4 or more pump islands side by side 18 ft. apart)	1 vehicle per lane*
Gated Parking Lot Entrance	1 vehicle per gate
Garage Unit or Overhead Door (major streets only)	1 vehicle per door

\*Storage requirements are in addition to vehicle being served.

Required vehicle storage shall not block driveways or required parking stalls and shall not be located in side, front or rear yards where parking stalls are prohibited. Each vehicle storage unit shall be 22 ft. long.

(h) Additional turning lane requirements.

Additional turning lanes, widening or other special treatments to the roadway may be required if the Public Works Department determines that the projected driveway and roadway traffic volumes warrant such additional construction. Specific details of the required construction shall be determined by the Public Works Department.

(4) Additional requirements.

(a) State highways and federal aid system.

Construction of driveways on State Highways and Streets covered by Federal Aid agreements within the City of Hastings must be reviewed and approved by the Nebraska Department of Roads.

The streets covered by such agreements are shown on a map on file in the Public Works Department. The Public Works Department will forward a copy of the site plan to the Permits and Right-of-Way Division of the Nebraska Department of Roads for their review prior to approval by the City.

Applications for driveways on State Highways inside and outside of the Hastings City Limits shall be made directly to the Nebraska Department of Roads.

(b) Driveways outside Hastings city limits.

Applications for construction of residential or farm driveways on County maintained roads outside of the Hastings City Limits but within the zoning jurisdiction of the City shall be approved by the Adams County Highway Superintendent.

## Hastings City Code

Applications for construction of commercial driveways outside of the Hastings City Limits but within the zoning jurisdiction of the City shall be approved by the Public Works Department and the Adams County Highway Superintendent.

(c) Tree removal permits.

Prior to approval of any driveway approach permit which may require removal, relocation or trimming of any tree located within the public street right-of-way, the applicant shall obtain permission for such tree work from the City Parks and Recreation Department.

(5) Median openings.

(a) General.

Requirements and procedures for obtaining access to an existing or proposed median opening on public streets in the City of Hastings as follows:

(i) A written application outlining the request for a median opening or access to a new or proposed median opening shall be submitted to the Public Works Department along with (3) three copies of a 1"=20' scale drawing of the proposed median opening or access showing in detail the adjacent property including buildings, parking stalls and driveways. Traffic data and documentation shall also be submitted which address the following:

(1) Justification.

(a) Develop the volume of traffic that will be generated by the development(s) served by the median opening and how that traffic will be distributed to this and to other points of access.

(b) Identify which traffic movements are affected and develop the volumes of those movements.

(c) Identify available alternate accesses and circulation routes.

(d) Establish the volume/capacity impacts with and without the break(s). Impacts at other break locations and at affected nearby intersections must also be considered.

(2) Location/geometry.

(a) Based on the projected volumes, how much left turn storage is required?

(b) Can left turn storage be constructed both directions from break without affecting left turn storage for other nearby intersection(s)?

(c) Is break location likely to require signalization in future? If so how will signalization affect the capacity of the roadway, turn storage requirements, detector placement, etc.?

(d) If the break location is not signalized, are there adequate gaps in the roadway traffic to allow crossing and turning movements?

(e) Does the proposed median break meet the sight distance requirements set forth in Appendix A?

(3) Compatibility with other land uses.

(a) Is the proposed break compatible with current and proposed land uses on the opposite side of the street?

(b) Are all adjacent owners in agreement on location of the median break, internal circulation routes and other points of access?

(ii) The design of the median opening and associated driveways shall follow the design guidelines shown in Figures D-2 and Table LT-1.

### Subdivisions

(iii) Construction in streets covered by Federal Aid agreements must also be approved by the Nebraska Department of Roads and Federal Highway Administration. The Public Works Department will coordinate the reviews with the Nebraska Department of Roads.

(iv) If the proposed driveway will permit exiting traffic to turn left, the property owners on both sides of the street abutting the proposed median opening shall dedicate a minimum 50' deep by 60' wide right-of-way stub prior to approval of the median opening.

(v) The property owners shall submit a development plan showing their intent to dedicate public access easements across their property to directly adjoining lots not having direct access to a median opening. The location and alignment of the easements shall provide reasonable vehicular access during the existence of the median opening and be approved by the Public Works Department. All public access easements shall be drafted by the applicant and approved by the City Attorney and City Surveyor.

(vi) After the concept and design of the proposed median opening has been approved by the City, Nebraska Department of Roads and Federal Highway Administration as required, an Executive Order authorizing construction of the median opening will be prepared by the Public Works Department and forwarded to the Mayor and Council for review and approval.

(vii) All costs related to the design and construction of the median opening and associated driveways shall be the responsibility of the applicant.

(viii) Median openings will be considered only in roadway sections where adequate left-turn storage can be provided without adversely affecting storage for existing median openings or future median openings to other public streets.

(xi) The above policies do not apply to the State or Federal Highway System. Those roads are under the direct jurisdiction of the Nebraska Department of Roads.

#### (b) Design.

Details of median opening geometric requirements are shown in Figure D-4. The length of the required left turn storage lane is determined by the following formula and Table LT-1:

$$M = (DHV)(I) \div 3600$$

Where: M = Average Number of Vehicles per Interval

DHV = Design Hour Volume of Left Turning Vehicles

I = Interval = 90 seconds with signal = 60 seconds without signal

#### Example

Given: DHV = 486 Left Turning Vehicles With Signal

M =  $(486)(90) \div 3600 = 12.2 =$  Average Number of Vehicles per Interval from Table LT-1:

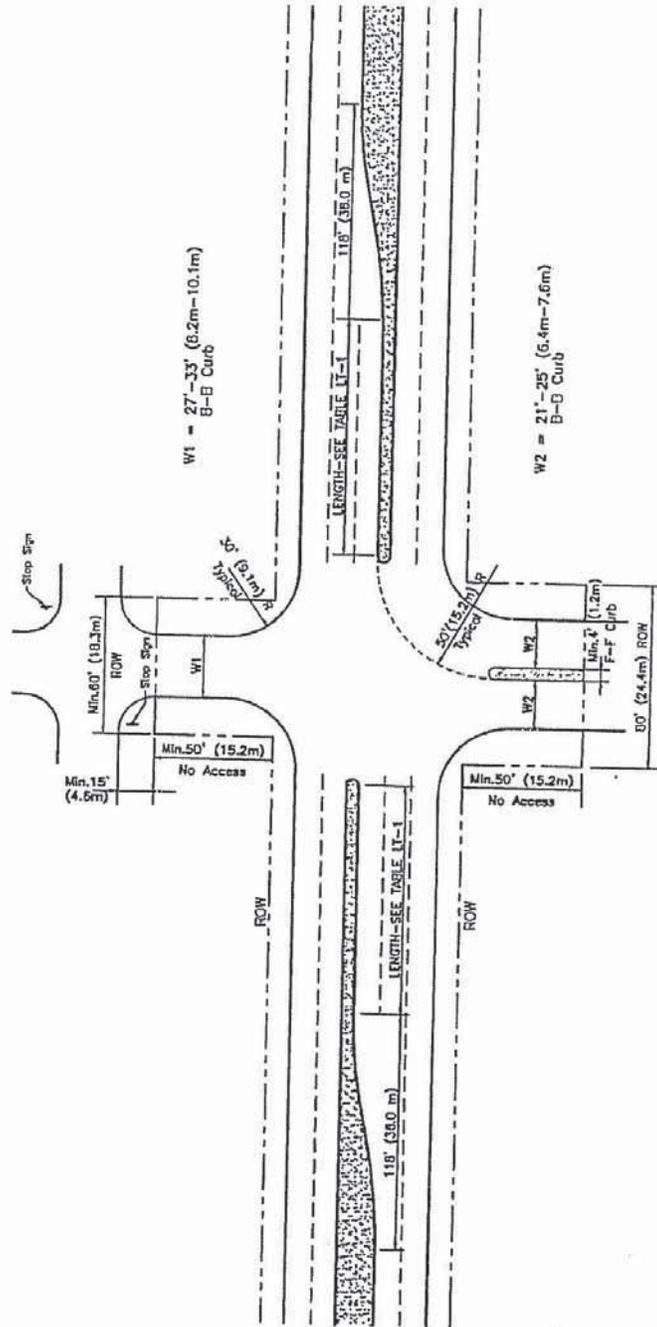
The 95% Probability Maximum Number of Vehicles Turning Left During the Same Interval =  
19

Thus: Length of Turn Lane Storage =  $(19)(25') = 475' = (19)(7.62 \text{ m}) = 144.8 \text{ m}$

**Hastings City Code  
Table LT-1  
Left Turn Lane Length**

<b>Average Number of Vehicles per Interval M</b>	<b>95% Probability Maximum Number of Vehicles During Same Interval</b>	<b>Length of Left Turn Lane</b>
0.1 to 0.3	2	150' min.
0.4 to 0.8	3	150' min.
0.9 to 1.3	4	150' min.
1.4 to 1.9	5	150' min.
2.0 to 2.6	6	150'
2.7 to 3.3	7	175'
3.4 to 4.0	8	200'
4.1 to 4.7	9	225'
4.8 to 5.4	10	250'
5.5 to 6.2	11	275'
6.3 to 7.0	12	300'
7.1 to 7.8	13	325'
7.9 to 8.6	14	350'
8.7 to 9.4	15	375'
9.5 to 10.2	16	400'
10.3 to 11.0	17	425'
11.1 to 11.8	18	450'
11.9 to 12.6	19	475'
12.7 to 13.4	20	500'
13.5 to 14.2	21	525'
14.3 to 15.0	22	550'

# Subdivisions



STANDARD ACCESS TO MEDIAN OPENING ON MAJOR STREET

FIGURE D-4

## Hastings City Code

### (6) General instructions for driveway permit application.

#### (a) General.

Application for driveway permits are made to the City of Hastings Development Service Department.

The application shall include the address and legal description of the property served by the proposed driveway approach, the property owner's name, length of proposed curb cuts, the name, signature and telephone number the representative of the property owner authorized to make decisions concerning the driveway approach binding on the property owner.

#### (b) Application for driveways serving single family and two-family dwellings.

Application for driveway permits for single and two-family dwelling units may be approved by the Development Services Department when it is determined that the site plan drawn on the application is in conformance with these standards and the regulations of the City. Only one such driveway may be approved for each dwelling unit unless the application meets the requirements for circular drives as illustrated in Figure D-1. One additional driveway for a single buildable lot may be approved on non-major streets when a written request and drawing as set forth herein is submitted indicating the justification for such additional drive and when the same is approved by the Director of Public Works.

#### (c) Application for driveways in conjunction with building activity.

Application for driveways in conjunction with building activities shall be filed at the time of application for the associated building permit. The issuance of the driveway permit and payment of fees however, need not coincide with the issuance of the building permit.

#### (d) Multi-family, commercial and industrial uses.

Applications for driveway permits for all driveways, other than single or two-family dwellings, shall include three (3) copies of a site plan which shows the following items:

1. Scale drawing (1" = 20') with north arrow indicated.
2. Property lines and setback lines of property served, with dimensions.
3. Building and structure lines (note overhead or drive-in door locations).
4. Parking lot layout, with dimensions of aisles and stalls.
5. Parking lot barriers.
6. Adjacent roadways and sidewalks.
7. The proposed driveways, with dimensions.
8. Location of physical features of the property (i.e. trees, poles, inlets, manholes, valves, utilities, existing drives or curb cut locations, and service connections, within the public right-of-way).
9. Proposed traffic volume and vehicle type using the driveways.
10. Curb shall be ground or total removal and replacement shall be determined by Street Superintendent or authorized representative.

(Ord. No. 4233-11/2009)

## Subdivisions

The Commercial Driveway Application Checklist included hereafter (a clear photocopy is permissible) shall accompany the application to facilitate review by the Public Works Department.

### DRIVEWAY APPLICATION CHECKLIST

Residential  Commercial

1. This property is legally described as Lot \_\_\_\_\_, Block \_\_\_\_\_,  
\_\_\_\_\_ Subdivision,  
Section \_\_\_\_\_, Township \_\_\_\_\_ North, Range \_\_\_\_\_ East, City of Hastings, Nebraska.
2. The commonly known street address: \_\_\_\_\_
3. Name and/or Use of property: \_\_\_\_\_
4. Driveway dimensions: (reference: *Figure D-2 Driveway Design and Location Standards*)
  - a. Distance from property line to centerline of driveway \_\_\_\_\_
  - b. Distance from closest side street curb to near edge of driveway \_\_\_\_\_  
(minimum 55')
  - c. Throat width of driveway approach (W) \_\_\_\_\_
  - d. Radii dimensions (R) \_\_\_\_\_
  - e. Total curb cut dimension (W + R + R) \_\_\_\_\_
5. Parking lot dimensions: (reference: *Figure PL-1 Parking Lot Design Standards*)
  - a. Angle of Parking \_\_\_\_\_
  - b. Stall Width \_\_\_\_\_
  - c. Stall Depth \_\_\_\_\_
  - d. Aisle Widths \_\_\_\_\_
6. Special Considerations:
  - a. Vehicle waiting storage requirements are: \_\_\_\_\_ (reference: *Table VS-1 Driveway Design and Location Standards*).
  - b. Sight distances: Speed \_\_\_\_\_ mph Required sight distance \_\_\_\_\_ feet  
(reference: *Figure SD-4 Appendix A*).