

19.02

Subdivision Design, Construction and Improvement Requirements

Unified
Development
Code

Title 19





19.02

Subdivision Design and Improvement Requirements

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MINIMUM STANDARDS**19.02.010**

The design standards of this Chapter shall constitute the minimum design and construction standards for all development and land divisions created through the parcel map, tentative map and final map processes. All improvements required by this Title shall be designed, installed and maintained in accordance with applicable City standards.

DIRECTOR OF PUBLIC WORKS**19.02.020**

The Director of Public Works is responsible for the administration and enforcement of any provisions of this Title that are assigned or delegated to the Director of Public Works by the provisions of this Title. In connection with that responsibility, the Director of Public Works shall have the authority to:

- A. Cooperate with the Director of Planning and Development in administering and enforcing this Title;
- B. Act upon and process applications under this Title, to the extent assigned or delegated that responsibility;
- C. Conduct the necessary review of maps and development documentation which have been submitted under this Title;
- D. Provide interpretations and references regarding applicable requirements for off-site improvements, rights-of-way, dedications, and drainage and traffic studies;
- E. Provide comments or other input to ensure the inclusion of appropriate survey data, recommendations and related documentation;
- F. Approve or deny administrative exceptions and waivers in accordance with the provisions of this Title; and
- G. Delegate, designate or assign to another person any function described in this Subchapter, except to the extent not permitted by law.

LOTS**19.02.030****A. City Boundary Line.**

Lots shall not be divided by City boundary lines.

B. Minimum Area Requirements

In addition to the minimum lot area requirements of

this Title, the size of any lot which is not served by public water supply or which is not served by a public sanitary sewer system must comply with applicable Clark County District Board of Health standards.

SIDEWALKS**19.02.040**

Sidewalks shall be provided in accordance with City standards. Alternative pedestrian ways, greenbelt systems or other sidewalk designs may be approved by the Director and the Director of Public Works. The final sidewalk system shall provide a logical and continuous path to area pedestrian destinations, including schools and playgrounds. Sidewalk and pedestrian way width and construction shall be in accordance with City standards.

DRAINAGE IMPROVEMENTS AND FACILITIES**19.02.050**

The design and construction of all curbs, gutters and other drainage improvements and facilities shall comply with City standards and with any site-specific drainage plan and technical drainage study that has been accepted or approved by the City.

CURBS AND GUTTERS**19.02.060**

All curbs and gutters on streets with a right-of-way width of sixty feet or more shall be L-type. On all other streets, whether private or public, thirty-inch roll-type curb and gutter may be allowed as long as the requirements of the site-specific drainage plan and technical drainage study do not prohibit the use of roll-type curb due to anticipated drainage flows.

SANITARY SEWER IMPROVEMENTS**19.02.070**

The design and construction of all sanitary sewer improvements shall comply with City standards.

PUBLIC SANITARY LINES**19.02.080****A. Location**

Public sanitary sewer lines shall be located in dedicated public rights-of way, public streets, public sanitary sewer easements or public alleys. In any case where a public sanitary sewer line is located in a public utility easement, a sanitary sewer easement shall also be granted.

B. Installation

Except in commercial subdivisions, public sanitary sewer



er lines shall be installed to provide laterals to each lot. Laterals that serve single-family dwellings shall have a minimum diameter of four inches and be extended to the property line. Plans and profiles showing the exact location of constructed public sewer lines along with all laterals shall be submitted to the City upon completion of construction.

SANITARY SEWER CLEANOUT

19.02.090

No sanitary sewer cleanout shall be permitted in public rights-of-way.

WATER SUPPLY

19.02.100

A. Adequacy

Water supply shall be adequate for all domestic use plus fire protection. The system is adequate if it can furnish the required fire flow (in gallons per minute) from any fire hydrant for the required duration of time while the required residual pressures are maintained in the system. Fire flow shall be provided in accordance with the requirements of the Fire Code and the Department of Fire and Rescue.

B. Delivered By Pump

Adequate water supply does not include the extent to which a system depends upon pumps delivering directly to mains. Required fire flow shall be available even though pumps may not be operating.

C. Source Other Than Water District

For a subdivision that proposes a water supply from a source other than the Las Vegas Valley Water District, the subdivider must submit to the City a copy of a State well permit; the design showing pressure, capacity, potential population capable of being served; and measures necessary to comply with National Board of Fire Underwriters recommended fire flow. The subdivider must submit an agreement or other written commitment satisfactory to the City guaranteeing a water supply for the subdivision. Lines to hydrants shall conform to recommendations of the National Board of Fire Underwriters.

D. From Wells

Any water supply obtained from wells shall be clearly shown on the map. A statement shall be submitted stating the capacity of the well, pressure, population that can be served and State certificate number issued for each well.

FIRE HYDRANTS

19.02.110

A. Determination of Number Required

For purposes of determining the number of hydrants required for a particular development, the maximum amount of flow per hydrant that may be counted in determining the system's adequacy is one thousand five hundred gallons per minute. The criteria for determining the fire flow and number of hydrants for any specific subdivision shall be those set forth in the Fire Code and the I.S.O. Manual adopted by the City.

B. Placement

Fire hydrants shall be spaced in accordance with the requirements of the Fire Code and the Department of Fire and Rescue.

C. Location

Hydrants shall be located in conformance with applicable Standard Drawings and the Fire Code. No hydrant shall be located inside or within twenty feet of the required right-of-way radius of a cul-de-sac. Public fire hydrant easements shall be provided for all public fire hydrants not located within public street rights-of-way.

D. Installation

Fire hydrants shall be installed prior to the commencement of any combustible construction in accordance with the requirements of the Fire Code and the Department of Fire and Rescue. All-weather access, as approved by the Department of Fire and Rescue, shall be provided to all hydrants and combustible construction.

E. Specifications

Hydrants shall conform to the latest edition of American Water Works Standard, C502, for fire hydrants, and the specifications set forth in City standards.

LANDSCAPING PLAN

19.02.120

Where landscaping is proposed or required for a residential subdivision, a landscaping plan shall be provided by the subdivider as an integral part of the subdivision design. Such a plan shall be prepared and submitted with each final map application addressing the landscape design of the subdivision with respect to such features as wall or fence design; land forms or berms; rocks and boulders; trees and plant materials; sculpture, art, paving materials, street furniture; subdivision entrance statements; common area landscaping; and other open space areas. Landscaping



shall conform to all applicable City requirements. In no case shall landscaping or landscaping features be permitted that impede proper visibility at intersections or driveways.

IMPROVEMENTS

19.02.130

A. Essential Rights-Of-Way and Off-Site Improvements

Uses of land permitted in each zoning district shall be allowed only when the permit for any proposed improvement on the land includes provisions for the:

1. Dedication of all essential rights-of-way for major streets, minor streets, flood control, utilities and other public purposes; and
2. Provisions for the installation of essential off-site improvements as directed by the City. Essential rights-of-way and off-site improvements are defined as those rights-of-way and improvements required in connection with a proposed Rezoning, Special Use Permit, Variance, or Site Development Plan; required by the subdivision regulations of the City; or required by the Director of Public Works as appropriate and necessary to mitigate the impact of the development of property in the area. All improvements shall be constructed in accordance with the City standards and specifications.

B. Construction Agreement

The subdivider is responsible for the construction of all public improvements and for any private improvements associated with the parcel map or subdivision that may be required by the City. Required improvements shall be completed prior to the recordation of the parcel map or final map, unless the subdivider enters into an agreement with the City to install such improvements as provided for in Section (C) of this Subchapter or has executed a covenant running with land agreement, whichever is applicable, as determined by the Department of Public Works. Required dedications must be accomplished prior to the release of the parcel map or final map or such dedications must be noted on the approved maps as being offered for dedication.

C. Secured Agreement Required

The subdivider shall execute an agreement that guarantees the construction of the required public improvements and shall provide security for their construction in an amount equal to the estimated cost of construction plus ten percent additional for contingencies. The agreement shall be secured by such good and sufficient bond or other security as is deemed appropriate

by the City to protect the public interest, and shall be in an amount determined to be sufficient to complete all required improvements and to remove all rubbish, trash, debris, surplus material and equipment from the area. The Director of Public Works shall be responsible for review and, if deemed acceptable, approval of all cost estimates for construction of required public improvements. The subdivider's engineer shall be responsible for submitting all improvement plans and quantity estimates in a manner and form that complies with City requirements.

D. Common Area Improvements Requirements

1. In connection with the approval of any parcel map or final map, the developer or subdivider must provide for the installation of common area improvements by obtaining the City's approval of either a phasing plan or a development agreement, as determined by the Director and the Director of Public Works.
2. The phasing plan or development agreement shall set out a development schedule for all common area improvements, including but not limited to water, sewer and storm drainage lines; streets; open space improvement; trails; parks; and landscaping. Except as otherwise provided in Subsection (3), completion of common area improvements within any residential subdivision shall be scheduled to be concurrent with development (e.g., when fifty percent of the development is completed, at least fifty percent of the common area improvements shall be completed). Calculation of the percentage of the development that is completed shall be based upon the number of building permits issued.
3. All common area improvements within any residential subdivision shall be completed when seventy-five percent of the development is completed (e.g., when seventy-five percent of the development is completed, one hundred percent of the common area improvements shall be completed). Calculations of the percentage of the development that is completed shall be based on the number of building permits issued.
4. A phasing plan is subject to review and approval by the Director of Public Works, as are revisions to the plan.
5. A development agreement is subject to review and approval pursuant to Subchapter 19.16.150.
6. In the case of either a phasing plan or development agreement, the City is authorized to require security or a performance guarantee for the installation of



common area improvements. The amount of the required security or performance guarantee shall be established by the Director of Public Works, and the form of security or performance guarantee must be acceptable to the City Attorney. To the extent possible, the provisions of Section (C) shall apply directly or by analogy to the installation of improvements and security required under this Section.

7. In accordance with Section 19.16.050(K), a specific parks in-lieu-of plan must be approved with the tentative map if the developer proposes park improvements in lieu of paying residential construction taxes.

E. Security Documents

The surety documents or other documents of security required in connection with an agreement to install improvements shall specify the duration of the security and its manner of release, and shall provide remedies in the event of default. Such security may be in the form of:

1. A cash deposit or approved government securities;
2. A performance or surety bond issued by a company authorized to issue such bonds in Nevada;
3. An agreement with a lending institution operating under Nevada law; providing, that the institution shall reserve sufficient funds out of the subdivider's construction loan (or funds otherwise set aside for the use of the subdivider) to assure completion of all required improvements, shall retain ten percent of the funds until the improvements are accepted by the City and shall not release any funds without the approval of the Director of Public Works;
4. A first deed of trust on real property located in or near the City. The deed of trust must name the City as beneficiary and be accompanied by appropriate agreements or other documents that sufficiently bind the subdivider and trustor to the satisfaction of the City Attorney. The appraised market value of the property which is the subject of the deed of trust must equal or exceed one hundred twenty-five percent of the value of the amount of security determined necessary by the Director of Public Works; or
5. In the case of improvements whose estimated cost is fifty thousand dollars or less, an agreement with the City providing that, in consideration of issuing a building or grading permit, the City may withhold certificates of occupancy or the inspection of

buildings associated with the project unless and until the improvements have been completed to the City's satisfaction.

F. Special Improvement Districts

A subdivider may request the inclusion of a subdivision within a special improvement district and the City may include a subdivision in accordance with applicable procedures. If the City Council approves a special improvement district that includes a subdivision, the City shall release the subdivider from the improvement guarantee executed pursuant to Section (E) above. The obligation to release shall not accrue until the contract for the special improvement district project has been awarded, and the release shall be only to the extent that the work of improvement will be accomplished through the special improvement district.

G. May be required

In connection with development approvals or permit approvals for residential and nonresidential developments that are not otherwise subject to the land division requirements of this Title, the City may require, as a condition of approval, that the developer install one or more of the following, to applicable City standards:

1. Appropriate off-site improvements;
2. Site access improvements; and
3. Private streets and common area improvements that are proposed to serve the development.

H. Off-site improvements agreement—Security

In order to assure the installation of any improvements required pursuant to Section (G) of this Subchapter, the developer may be required to do one or more of the following:

1. Enter into a development agreement or covenant running with land agreement;
2. Enter into an off-site improvements agreement and post adequate security therefor in accordance with the provisions of this Subchapter ;
3. Provide an alternate or equivalent means of assurance that is satisfactory to the City, including the payment of moneys in lieu of improvements.



INTERSECTIONS**19.02.140****A. Length**

Any intersection of any street that provides external access from a subdivision to any existing or planned street abutting the subdivision which has a right-of-way of sixty feet or more shall be offset from any other intersection by at least two hundred twenty feet, measured from centerline to centerline. Intersections of streets providing service internally within a subdivision, where they do not intersect arterial or major streets, shall be offset a minimum of one hundred twenty-five feet. The City Traffic Engineer, at his sole discretion, may allow lesser separation than the distances set forth above if the applicant can demonstrate that the alternative design can safely accommodate traffic circulation.

B. Angles

Street intersections shall be at an angle of ninety degrees, or as close to ninety degrees as is practicable. In no case shall an intersection be at an angle less than seventy-five degrees.

VERTICAL CURVES**19.02.150**

Vertical curves shall be provided in all changes in grade where the total algebraic difference is one percent or greater meeting the standards of the most recent edition of "A Policy on Geometric Design of Highways and Streets" (also known as The Green Book). The Director of Public Works may waive this requirement if the applicant can demonstrate that meeting this requirement is impractical.

REVERSE OR COMPOUND CURVES**19.02.160**

Reverse or compound curves on any street, except residential streets, shall be separated by a tangent of one hundred feet or more. The Director of Public Works may waive this requirement if the applicant can demonstrate that meeting this requirement is impractical.

ROADWAYS AND STREETS -- DESIGN CRITERIA**19.02.170**

- A. The design of roadways shall take into account and be based upon topography and drainage considerations.
- B. All lots shall have frontage on, and access to, a public street or an irrevocable private street or private drive. Public street dedications to ensure lot access or the continuity of necessary public streets adjacent to

or through the subdivision also may be required, as necessary, by the Department of Public Works.

STREET GRADE REQUIREMENTS**19.02.180**

All streets should be designed and located so that as many building sites as possible are at or above the grade of the street. Grades of streets shall conform as closely as possible to the original topography. A combination of steep grades and curves should be avoided. Minimum street grade shall be 0.004 feet per foot, unless an acceptable alternate design is approved by the Director of Public Works.

SIGHT CLEARANCE**19.02.190**

A sight visibility restriction zone (SVRZ) shall be provided at all intersections, including roadway with roadway and driveway with roadway intersections. Each such zone shall comply with Standard Drawing No. 201.2 of the Uniform Standard Drawings, Clark County Area, as it may be revised from time to time, or the applicable sign restriction standards set forth in the most recent edition of the manual entitled "A Policy on Geometric Design of Highways and Streets," as published by the American Association of State Highway and Transportation Officials. Each SVRZ shall be detailed on all plans that depict drainage, grading, fence layout, landscaping or other construction improvements. If required by the City Traffic Engineer, an additional exhibit detailing the SVRZ shall be recorded and a copy submitted to the City plans library. The final map shall provide a general statement making reference to the latest approved construction improvement plan. If a separate SVRZ exhibit is required by the City Traffic Engineer, the final map shall make reference to the exhibit as a recorded document identified by its book and instrument numbers. The SVRZ requirements of this Section shall apply to the location of all public and private facilities and improvements, as determined by the Director of Public Works.

PAVING TRANSITIONS AND CROSSOVERS**19.02.200**

The Director of Public Works may require the subdivider to install paving transitions and crossovers to accommodate existing and proposed paving improvements with a "sawtooth" or nonuniform alignment or width if the necessary public right-of-way or easement exists or can be obtained by the City.

ACCESS STREET PAVING REQUIREMENTS**19.02.210**

The subdivider shall provide paved access from existing paved streets to the subdivision boundary where no such



access exists. The access must be paved to a minimum travel width of twenty-four feet, with AC paving and standard base course as specified by the Director of Public Works. The Director of Public Works shall designate which street must be improved as an access street and may require a secondary paved access route and other mitigation measures deemed necessary as a result of or based upon traffic projects within the subdivision, the location of the subdivision, or neighborhood concerns.

COMPACTION OF STREET SUB-GRADE AND BASE MATERIALS

19.02.220

Compaction of street sub-grade and base materials shall comply with City standards.

DRIVEWAYS

19.02.230

- A. Driveway design and construction shall comply with City standards.
- B. For nonresidential development, or for residential lots other than single-family or duplex lots, the number, type and location of driveways must first be approved by the Director of Public Works.
- C. Except as otherwise permitted by this Chapter or by City standards, or as otherwise approved by the Director of Public Works:
 1. For any single-family or duplex residential lot, no more than a single entrance or circular driveway shall be provided.
 2. No driveway access shall be permitted from the side or rear yard of any residential lot onto any primary or secondary thoroughfare so designated on the City's Master Plan of Streets and Highways.

STREET LIGHTING

19.02.240

Street lighting for public streets shall be designed, installed or upgraded in accordance with City standards unless the City Council allows an exception. The installation or upgrading of conforming lighting may be deferred if the deferral is approved by the City Council and the applicant executes a covenant running with land agreement to secure the installation or upgrade.

ACCESS CONTROL GATES AND STORAGE AREAS

19.02.250

When utilized on private streets or drives, access control gates and storage areas shall be designed, installed and

located in accordance with City standards. Access control gates and all appurtenant facilities and equipment shall not be located in the public right-of-way. An adequate vehicle queuing area as determined by the Director of Public Works must be provided in order to prevent blockage of public streets. A pedestrian gate separate from the vehicular movement area shall also be provided.

EMERGENCY ACCESS GATES

19.02.260

All emergency access gates shall be designed, installed and maintained in accordance with City standards.

PRIVATE DRIVE CONSTRUCTION

19.02.270

Private drives shall be constructed in sufficient manner and width to accommodate anticipated on-site traffic conditions and shall be in accordance with any applicable City standards.

TRAFFIC CIRCULATION SAFETY

19.02.280

Subdivisions shall be designed to provide safe and convenient living environments and traffic circulation. Whenever blocks are longer than one thousand two hundred feet, the Planning Commission may require the dedication and construction of pedestrian walkways, pedestrian or bicycle pathways or greenbelts of not less than five feet in width where deemed necessary for circulation and access to schools and playgrounds. The complete length of any such way shall be fully visible from the adjacent street.

VEHICULAR ACCESS PROHIBITION TO PRIMARY OR SECONDARY THOROUGHFARES

19.02.290

Each lot within a subdivision shall have access to a public or private street or private drive that complies with City standards. Lots with residential zoning and having less than one hundred feet on any side adjacent to a primary or secondary thoroughfare, as designated on the City's Master Plan of Streets and Highways, shall be prohibited vehicular access to the primary or secondary thoroughfare. The access prohibition shall be clearly indicated on the recorded final map. Unless no alternative exists due to the size or depth of the land to be divided, no residential lot shall front onto a primary or secondary thoroughfare. All such lots shall be oriented to have either their rear or side yard lines adjacent to the primary or secondary thoroughfare.





