

Chapter 16.20

ENGINEERING PLAN

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16.20.010 Requirements generally.

The engineering plan shall show the information required in Sections 16.20.020 through 16.20.060 and required materials under Title 18. The engineering plan shall be accompanied by a properly executed checklist as set forth in Section 16.36.020. (Ord. 1987-M-45 § 6.)

16.20.020 Easements.

- A. The City requires a minimum ten-foot wide, perimeter utility and drainage easement around each subdivision. Easements shall be provided for all overhead or underground utility services or surface water drainage where necessary. They shall be ten-foot wide and shall be established at the rear of each lot and along such other lot lines as necessary to provide continuity of alignment from block to block. At deflection points in these easements, if overhead utility lines are contemplated, additional easements shall be established for pole line anchors.
- B. In a subdivision containing sixty acres or more, where lots are to be served by individual water supply and sewage disposal systems, and future resubdivision may be contemplated upon the installation of public or community water and sanitary sewer facilities, easements of required width shall be shown for utility and street installation at locations necessary to serve lots in any future resubdivision.
- C. Where a subdivision is traversed by a watercourse, drainageway, channel, or stream, there shall be provided a drainage easement conforming substantially with the lines of such watercourse. It shall include an additional area at least fifteen feet wide adjoining both edges of the established area that has been affected by damaging flood waters, as certified by the subdivider or his engineer.
- D. All existing drainage and underground utility installations which traverse property to be subdivided shall be protected by easements.

(Ord. 2000-M-36 § 1; Ord. 1963-21 § VI(1): Prior code § 11.006(1).)

16.20.030 Public utilities.

- A. All utility lines for telephone and electric service shall be placed in rear line easements when carried on overhead poles;
- B. Where telephone, electric, and gas service lines are placed underground entirely throughout a subdivision area, conduits, or cables shall be placed within easements or dedicated public ways in a manner which will not conflict with other underground services. Further, all pad-mounted transformers shall be located so as not to be unsightly or hazardous to the public.

(Ord. 1963-21 § VI(2): Prior code § 11.006(2).)

16.20.040 Sewers.

- A. All sewer plans and installations shall conform to the standards and specifications of the city as set forth in Ordinance No. 1960-29 as revised or superseded.
- B. Sanitary sewer lines shall be installed to serve all properties in the subdivision except subdivisions where individual sewage disposal systems are permitted.
- C. Where sanitary sewer mains of larger capacity than necessary to serve the subdivision as delineated in the preliminary plan are required to serve the future growth in the vicinity of the subdivision, as determined by the city, the city shall then reimburse the subdivider for the difference in cost of the smaller size pipe and the larger size pipe, said larger size to be determined by the city council.
- D. A storm sewer system shall be constructed throughout the entire subdivision to carry off water from all inlets and catchbasins, and shall be connected to an adequate outfall. such sewers shall provide for an extension to land lying within the upland drainage area, whether such land is within the subdivision or not. Storm sewers shall be designed by the Rational Method, and copies of the design computations shall be submitted with the plans. Inlets shall be provided so that surface water is not carried across or around any intersection, nor for a distance of more than six hundred feet in the gutter. The storm water drainage system shall be separate and independent of the sanitary sewer systems. Surface water drainage patterns shall be shown for each and every individual lot and block.

(Ord. 1963-21 § VI(3): Prior code § 11.006(3).)

16.20.050 Water supply.

- A. All water main plans and installations, including all appurtenances thereto, shall conform to the standards and specifications of the city as set forth in Ordinance No. 1960-29 as revised or superseded.
- B. Water distribution facilities including all pipe, fittings, hydrants, valves, vaults, et cetera, shall be installed to serve all properties within the subdivision.
- C. Where water mains of larger capacity than necessary to serve the subdivision as delineated in the preliminary plan are required to serve the future growth in the vicinity of the subdivision, as determined by the city, the city shall then reimburse the subdivider for the difference in cost of the smaller size and the larger size pipe, said larger size to be determined by the city council.

(Ord. 1963-21 § VI(4): Prior code § 11.006(4).)

16.20.060 Street improvements.

All streets shall be completely improved to the full right-of-way in accordance with the following requirements and standards:

- A. The general street layout shall conform to that shown on the approved preliminary plan;
- B. Pavements shall be constructed in accordance with the minimum standards as shown in Table 1;
- C. Combination concrete curb and gutter, type B-6.12, or combination curb and gutter of greater widths shall be constructed as part of the pavement, except for streets in areas zoned "Estate." Roadways in areas zoned "Estate" may be constructed without combination curb and gutter, provided the flow velocity of water in the ditches will not exceed four feet per second. (Ord. 1990-M-41 § 4.)
- D. All street widths are measured back to back of curbs, except estate area roadways, which are measured edge to edge of driving surface;
- E. Heavily traveled streets in industrial and residential areas shall be considered on an individual basis and pavement designs shall be based on specific engineering data for each street;

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- F. The minimum curb radius at intersections of minor streets shall be twenty-feet; at intersections of minor streets and collector streets, the minimum curb radius shall be thirty feet; and at intersections of collector streets, the minimum curb radius shall be fifty feet;
- G. Concrete sidewalks shall be constructed in accordance with Chapter 12.30.060, Paragraph C, of the St. Charles Municipal Code;
- H. Street signs will be installed by the city in accordance with current standards, and the subdivider will be required to pay for the costs, including labor and materials, for these sign installations;
- I. Street lights will be installed by the city at all intersections and cul-de-sacs and at other suitable locations along the streets in accordance with current standards and the subdivider will be required to pay for the costs, including labor and materials, for these street light installations;
- J. A complete storm drainage system including appropriate stormwater retention and detention facilities shall be constructed throughout the subdivision. The storm drainage system must discharge into a storm sewer or drainageway with adequate capacity for the additional flow and adequate provisions must be made for surface overflow when the capacity of the storm drainage system is exceeded to ensure that buildings are not flooded or threatened by flooding. Stormwater retention and detention facilities must be located on public lands with appropriate provisions for access and maintenance;
- K. All parkways within the right-of-way shall be cleared of all stumps, rocks, trees that cannot be saved and construction debris and shall be graded with a minimum of four inches of topsoil and seeded or sodded;
- L. Street trees shall be planted in accordance with Chapter 12.20 of the St. Charles Municipal Code along all streets where trees do not already exist;
- M. Cul-de-sac turnabouts shall have geometry consistent with city Standard Drawings Nos. 16.20.060.01 or 16.20.060.02.

(Ord. 1992-M-67 § 1; Ord. 1982-M-10 § 1; Ord. 1979-M-41 § 1(c); Ord. 1977-M-42 § 3; Ord. 1976-M-43; Ord. 1963-21 § VI(5): Prior code § 11.006(5).

TABLE 1

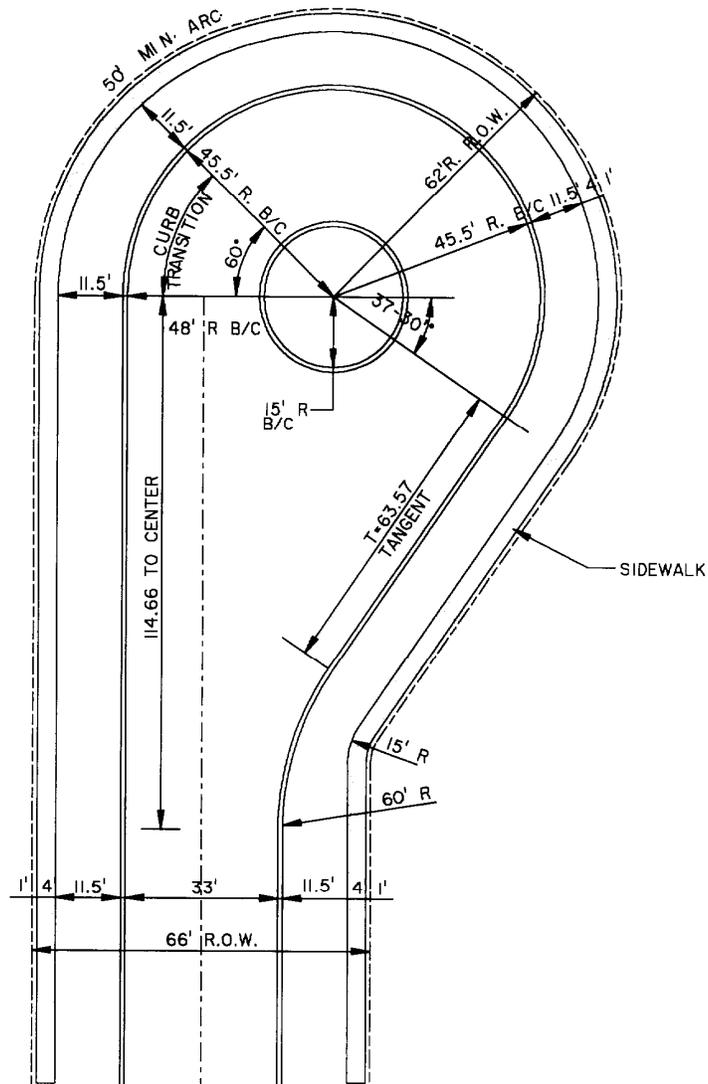
Street Designation	Minimum R.O.W. Width	Minimum Street Width	Minimum Structural Number	Minimum Horizontal Centerline Radius	Minimum Tangent
Residential					
Estate	66 ft.	26 ft.	2.40	200 ft.	50 ft.
Minor	66 ft.	33 ft.	2.90	200 ft.	50 ft.
Collector	80 ft.	39 ft.	3.65	300 ft.	100 ft.
Major	100 ft. 16.20.60(E)	52 ft.	See Section	500 ft.	200 ft.
Industrial					
Local	66 ft.	40 ft.	3.00	200 ft.	50 ft.
Collector	80 ft.	44 ft.	See Section 16.20.060(E)	300 ft.	100 ft.
Major	100 ft.	52 ft.	See Section 16.20.060(E)	500 ft.	200 ft.

Street Designation	Minimum Gradient	Maximum Gradient	Minimum Soil Support (I.B.R.)	Maximum A.D.T.
Residential				
Estate	0.5%	7.0%	3.0	400
Minor	0.5%	7.0%	3.0	1,000
Collector	0.5%	5.0%	3.0	3,500
Major	0.5%	5.0%	3.0	10,000
Industrial				
Local	0.5%	5.0%	3.0	1,000
Collector	0.5%	5.0%	3.0	3,500
Major	0.5%	5.0%	3.0	10,000

(Ord. 1992-M-67 § 1; Ord. 1977-M-42(part).)

STD. DRW. NO.
DATE : 12-18-97

ECCENTRIC CUL-DE-SAC GEOMETRY



- NOTES: 1.) ISLANDS ARE OPTIONAL AT THE DISCRETION OF THE CITY.
2.) FIRE HYDRANTS AND STREET LIGHTS SHALL BE LOCATED IN THE THROAT OF THE CUL-DE-SAC AND NOT THE BULB UNLESS DIRECTED BY THE CITY.

CITY OF ST. CHARLES

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