City of Vilonia

Master Street Plan

Vilonia, Arkansas

Adopted by the
Vilonia Planning Commission
June 19, 1997

Adopted by the
Vilonia City Council
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INTRODUCTION

Streets and highways serve three basic functions: providing passageways for the movements of people and goods; providing access to property; and providing land for public utilities. These same streets are increasingly being relied on to provide the passageways for the movements of people and goods not only for automobile and trucks by also for other modes of transportation. The rights-of-way of streets and roads need to accommodate sidewalks for pedestrians, special lanes for bicycles and for local transit busses. The development of multi-modal passageways to accommodate the new arrangement of land use has increased the importance of a master street plan. The master street plan is a design for the basic mobility needs of the traveling public and helps to shape the orderly growth and development of the city and its surrounding area.

Existing and planned streets strongly influence land use patterns and urban activities. Conversely, the type and intensity of land developments affect the operational efficiency of the existing streets serving an area and may result in the demand for increased street capacities. For example, the construction of a new street or the widening of an existing street often results in more intensive land use development, which in turn generates increased traffic volumes on the particular street. So, land development and street improvement decisions by the public and private sectors are interrelated. For this reason, decisions that affect land use and the street system should be guided by the comprehensive plan of the city and the overall goals and objectives of the comprehensive plan should be realized through enforcement of the adopted master street plan, brought about the administration of the subdivision regulations.

The intended purpose (function) of a roadway strongly affects the amount of access afforded from abutting land and the design association. For instance, the Federal interstate freeways and other urban freeways are designed to provide a high level of traffic capacity at fast travel speeds with little or no access to abutting property. Local streets, on the other hand, are designed for less travel capacity and serve primarily to provide access to property. The master street plans presents a recommended hierarchy of streets and highways by functional classification and these classifications should be used to indicate the recommended design of a route and the amount of access afforded to abutting property.

Planning for streets and roadways takes place at both state and local government levels. At the State level, the Arkansas State Highway and Transportation Department (AHTD) is responsible for the State system. This system is an important segment of the highway network that serves people throughout the cities and counties.

Arkansas cities and counties have the responsibility and authority to develop and maintain a system of streets and roads. Both have legislation authorizing them to undertake planning in general and to prepare plans specifically pertaining to their streets and roads.

Implementation of master street plans is necessarily accomplished at both the state and local government levels. The AHTD has the responsibility to design, construct and maintain the state highway system. Cities and counties are responsible for the construction and maintenance of their streets and roadways. Additionally, cities and counties have regulatory authority which can be utilized to protect future right-of-way for streets and roadways including those of highways. Also, cities have the authority to establish setback (or build-to) lines parallel with the street rights-of-way and the control of entry locations, i.e., driveways, to streets and roadways. A city can acquire right-of-way through dedication, purchase, gift, or condemnation.

The City of Vilonia is permitted by State Act 186 of 1957 to plan and implement plans beyond its corporate limits in unincorporated parts of Faulkner County. This extraterritorial planning jurisdiction is defined as the "Vilonia Planning Area". Within the defined area, the City may, after adoption of the Master Street Plan, adopt "Control of Development and Subdivision of Land Regulations". The City is then in the position of reviewing plants of addition for approval. Often, the plats of addition create new streets that are added to the City or the Faulkner County roadway system. While the City has the authority to approve the platting of streets in unincorporated areas and, may authorize them to be filed for record, Faulkner County must determine whether to receive the dedication and future maintenance responsibility of streets in the unincorporated area.

IDENTIFICATION OF THE PLAN

The Master Street Plan of Vilonia, Arkansas is composed of two parts, this textural material and the plan map entitled, "Master Street Plan, Vilonia, Arkansas". The plan establishes the functional classification of all highways, streets, and roads within Vilonia's planning area. These classifications are symbolized on the Master Street Plan map. The plan sets forth the minimum right-of-way requirements and design criteria for each of the functional classifications. The design criteria herein established will be implemented by provisions of the subdivision regulations ordinance of the city, the policies of the Arkansas Highway and Transportation Department (AHTD), the policies from the METRO 2020 Metropolitan Transportation Plan of 1995, and the policies of Faulkner County. The plan is the official guide for the Vilonia Planning Commission and City Council in making decisions relative to land development proposals and street improvements.

RESPONSIBILITY AND AUTHORITY

Power to Adopt and Enforce Plans

"Cities of the first and second class and incorporated towns shall have the power to adopt and enforce a plan or plans for the coordinated adjusted and harmonious development of the municipality and its environs." (Act 186 of 1957.)

The Planning Commission

The Vilonia City Council has created a planning commission with appointment and terms of members provided by city ordinance. The Planning Commission has selected its officers, established its meeting dates, adopted rules and regulations and by-laws for the discharge of its duties and the transaction of business, all according to Act 186 to 1957, as amended. Further, the Act states:

"The general purpose of the Planning Commission is to prepare or have prepared a plan or plans of the municipality, to receive and make recommendations of public and private proposals for development, to prepare and administer planning regulations, to prepare and transmit to the legislative body recommended ordinances implementing plans, and to advise and counsel the city government and other public bodies..."

Master Street Plan

"The Planning Commission may prepare and adopt a master street plan which shall designate the general location, characteristics, and functions of street and highways. The Plan shall include the general locations of street and highways to be reserved for future public acquisition; it may provide for the removal, relocation, widening, narrowing, vacating, abandonment, and change of use or extension of public ways." (Act 186 1957.)

GENERAL GOALS, AND POLICIES OF THE MASTER STREET PLAN

It is a goal of the City of Vilonia to construct streets with emphasis on the quality of travel an arterial provides rather than the number of vehicles per day a roadway can accommodate. Alternative modes of travel such as pedestrian movement, bicycle travel, and transit usage will be encouraged as a mean to reduce the number of required vehicle per trips per day and the current level of auto dependency. Level of service will be considered but not at the expense of pedestrian movement and safety. The community transportation network should be fashioned so that residents can travel safely by a variety of means.

For many in the community, walking or biking is primary mode of transportation. The elderly many times prefer to walk, because they do not fell comfortable driving or are unable to drive due to health limitations. Young people, not yet old enough to drive, walk or rider their bikes from place to place even if sidewalks are not provided. People walk and exercise, because it is healthy and enjoyable. Residents should feel that it is equally convenient to walk, jog, or ride a bike as it is to drive short distances.

In the interest of promoting modes of transportation other than the automobile, the City of Vilonia has a goal to place more emphasis on non-motorized forms of transportation. By developing facilities for pedestrians and recreational use, the city intends to transform roadways into a public domain used equally by automobiles and non-motorized forms of transportation. Residential and commercial developments will be constructed in a manner which encourages safe, convenient pedestrian mobility.

Parking is a necessity which can have positive or negative effects on the appearance of a community. From its inception, the location and character parking areas should be considered in the planning of development. Surface parking should be attractive, convenient, and thus more inviting, for potential users. The City of Vilonia has developed a goal to discourage the development of parking lots which lack landscaping, are too large for the development they are serving, have unpaved or unmarked surfaces, and are poorly located.

Policy: It is the policy of the City of Vilonia to adopt standards for arterial streets that create a boulevard setting with a park-like median with landscaping and to eliminate standards for continuous left turn lanes on arterials.

Policy: It is the policy of the City of Vilonia to require sidewalks on both sides of all arterials with wide planting strips between the curb and the sidewalk.

Policy: It is the policy of the City of Vilonia to require the development of new streets in a grid of modified grid network and to encourage the construction of new two-lane roads connecting arterials.

Policy: It is the policy of the City of Vilonia to require pedestrian scale lighting on all streets and to coordinate the height of signage with tree and lighting heights. The appropriateness of signage shall be determined by the land use and / or neighborhood.

Policy: It is the policy of the City of Vilonia to allow the construction of alleys behind houses and to encourage the placement of utilities behind structures and underground.

Policy: It is the policy of the City of Vilonia to discourage the construction of cul-de-sacs in new developments and to allow them only when physical restraints make them the only alternative.

Policy It is the policy of the City of Vilonia to encourage the construction of neighborhood arterials with visual termination points, such as public buildings, parks, or churches in the T-intersections of the modified grid network. Neighborhood centers will be organized around green or common open space and will have multiple points of street access.

Policy: It is the policy of the City of Vilonia to repair all buildings to front on public streets.

Policy: It is the policy of the City of Vilonia to establish standards for preferred traffic calming devices within the roadway network.

Policy: It is the policy of the City of Vilonia to promote a transit route between Vilonia and Conway, when the City of Conway begins internal transit service.

Policy: It is the policy of the City of Vilonia to prohibit the construction of fences, walls, and other barriers which prevent easy and inviting walking, cycling, or other similar recreational activities.

Policy: It is the policy of the City of Vilonia to construct sidewalks and bicycle paths in a comprehensive network which is both complementary and supplemental to the roadway network.

Policy: It is the policy of the City of Vilonia to encourage the connection of pedestrian and bicycle routes between new and existing developments.

Policy: It is the policy of the City of Vilonia to adopt design criteria for pedestrian and bicycle routes along major arterials including landscaping and lighting standards.

Policy: It is the policy of the City of Vilonia to allow rear parking and on-street parking on specified streets in residential areas and neighborhoods centers.

Policy It is the policy of the City of Vilonia to require landscaping in parking lots.

Policy: It is the policy of the City of Vilonia to contain the size of lots and establish a minimum number for handicapped parking spaces required on a single surface parking lot.

Policy: It is the policy of the City of Vilonia to require that parking lots be placed in the rear and to the side of commercial or industrial developments whenever possible. Parking lots which are place in front of structures should be separated from roadways by planting landscaping screens, construction earthen berms, or providing combinations of the two between streets and the parking spaces.

Policy: It is the policy of the City of Vilonia to provide a safe, secure parking lot for those wishing to car pool to work in Conway and Little Rock, thus reducing the number of automobiles on the roadways.

IMPLEMENTATION OF THE PLAN

Following adoption and filing of the Master Street Plan, the Vilonia Planning Commission ma transit Vilonia City Council such ordinances and regulations as are deemed necessary to carry out or protect the intent of thu Master Street Plan or parts thereof.

Scope of the Plan

The plan is compiled within the scope of the specific planning objective set forth below:

a. To functionally classify the street network both within the City and within the extraterritorial planning boundary according to standards set in the METRO 2020 Metropolitan Transportation Plan of 1995.

b. To functionally classify the street network in accordance with the nomenclature and standards as established and enacted by the General Assembly of the State of Arkansas, Act 308 of 1973.

c. To coordinate road construction in the Vilonia Planning Area with the road plan for Faulkner County, Arkansas.

d. To indicate on the plan map the corridors for proposed new major streets and roads of functional Class V or higher.

e. To recommend criteria and standards and to guide street and roadway improvement and new construction.

FUNCTIONAL CLASSIFICATION

As enacted by the General Assembly of the State of Arkansas, Act 308 of1973, functional classification is defined as the grouping of public ways by likeness or service or purpose into classes or systems according to the character of service they are intended to provide. These routes include streets and highways beginning with Class I Interstate Freeways and extending through Class VI Local Streets. The Classes I through V are symbolized on the Master Street Plan map to show both existing and future routes. The Class VI Local Streets, however, are symbolized to show only the existing streets. No proposed or future Class VI Local Street are shown.

The provision of future local streets to serve subdivided private property, when access is needed, is the responsibility of the developer of property. It remains the responsibility of the City of Vilonia to regulate through stated principles and policies, as reflected in this plan text, how these streets are constructed. There are instances when the private development process also affects the higher classification of existing and proposed streets and the developer will be required to dedicate additional right-of-way, make needed street improvements, or provide financial means in lieu of improvements.

The hierarchy or functional nomenclature of streets and highways, depicted on the Vilonia Master Street Plan, is shown in the following two tables. The first table establishes the classification along with the accompanying "level of service" for each class. The second table is a summary of Right-of-Way and Design Standards. These standards will be utilized when the developers of private property are involved in development which impacts these existing and future routes.

RIGHT- OF- WAY REQUIREMENT MODIFICATION

1. Generally the developer of private property will not be required to furnish additional right-of-way or paving width, beyond plan requirements, when the development proposal impacts highways that are in either the Federal or State system. When the development will cause impact on City and County streets and roads, even though the streets and roads may be Principal or Minor Arterial Streets or Collector Streets, the developer will be required to participate in the improvement of such streets and roads. The extent of participation in the improvement depends upon the amount of improvement needed to bring the street in question up to the standard called for in this, the Vilonia Master Street Plan. The City may assist in the negotiation of an agreement between current developer and additional, even future, developers to create equity in improvement costs.

2. Proposed streets, subject to the Vilonia “Control of Development and Subdivision of Land Regulations", that would extend existing streets, shall be constructed, in terms of right-of-way and paving width, at the same or greater width, of the existing facility, but in no case less than the required minimum width as indicated on the table on opposite page.

3. The instigator of the development of land that adjoins and gains access from a substandard existing street or streets shall dedication additional right-of-way and paving commensurate to functional class in order to bring such street or streets up to standards. Such other improvements as curb and gutter, sidewalks, street lighting, landscaping, etc. shall also be provided for along the affected street segments.

Table 1
Arkansas Functional Classification System
Established by Act 308 of 1973

Class Number	Rural Systems	Municipal Systems	Lead of Service
I	Interstate Freeways	Interstate Freeways	Provide basic interstate service, link major cities.
II	Other Principal Arterial	Other Freeways and Expressways	Provide high level of interstate and intrastate service, connect major generators of internal city traffic.
III.	Minor Arterial Highways	Other Principal Arterials	Serve trans-state travel to and through principal cities. Provide a system for the major traffic generators within a city.
IV.	Major Collector Roads	Minor Arterial Streets	Provide connections to and through the large centers of population within the state.
V.	Minor Collector Roads	Collector Streets	Provide inter-county service. Serve the economic and state park areas not serviced by a higher system/ collect and distribute traffic to and from major streets; provide intra-county service to and into population centers and other recreational and
		I	industrial area.
VI.	Local Roads	Local Streets	Service small rural communities. Provide access to residential area, subdivisions and neighborhoods within cities; provide direct access to adjacent properties in rural areas with cities.

Table 2
Summary of Right- of-Way and design Standards

	Class I & II	Class III	Class IV	Class V	Class VI	Class VI
Right- of-Way (min.)2	200'	100'200'	80'-100'	60'-70'	40'-50'	60'4
Paved Width	(see cross section diagrams which follows)					
Centerline Grade (max.)3		9%	9%	12%	15-16%	15%
Sight Distance (min)		350'	300'	200'	150'	150'
Radius of Curve		650'	650'	350'	125'-225'	225'

1. Arkansas Highway and Transportation Department Standards.
2. Class III- intersection approaches will require an extra width of 20' extending 250' from the centerline of intersecting arterials and collectors. Class IV- intersection approaches may require an extra width of 10' extending 150'; from the centerline of intersecting arterials and collectors.
3. Centerline grades may be increased subject to the approval of the City Engineer.
4. Includes 10' utility and road work easement, 5' on each side of road.

THE FROM OF STREETS AND BLOCK CREATION

1. The basic pattern of existing and proposed Collectors is shown on the Vilonia Master Street Plan. The developers of land traversed by these existing and proposed Class V streets will be responsible for their improvement and initial construction. Additionally, the Class V streets are the framework and provide the connection for Class VI streets. The system of Class V streets are laid out on the Vilonia Master Street Plan to form a large scale grid system by following, wherever practical, the half of quarter section lines of the United States System of Land Survey.

2. The proposed Class VI streets are not shown on the Vilonia Master Street Plan because where they are ultimately constructed is left to the discretion of the developer of private land but using the principle and policies of this plan. These Class VI streets are the most important ones in the hierarchy of streets in the provision of direct service to the abutting property.

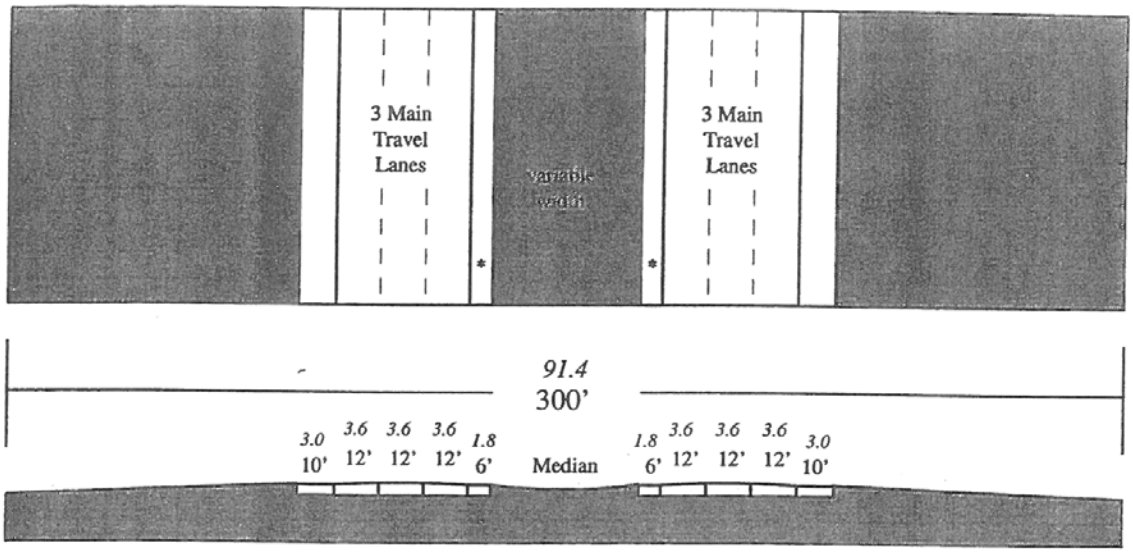
3. The Class VI streets shall form a network within the grid of Class V streets. Cul-de-sacs are discouraged. The interconnecting, less wide, Class VI streets shall be laid out in a grid or modified grid in order to appropriately distribute the flow of traffic, i.e., increase the choices of routes thereby improving the level of service on any given street. The Class VI streets will be designed to accommodate two way service on two lane streets with on-street parking.

4. The network of Class VI streets require that every street connect to at least two other streets. Cul-de-sacs shall be restricted as a street design choice. The cul-de-sac shall only be used when a physical structure (natural topographical or manmade structure) constrains the connection of that one street to at least two other streets.

RIGHT-OF-WAY AND GEOMETRIC DESIGN STANDARDS- MAJOR CLASSES

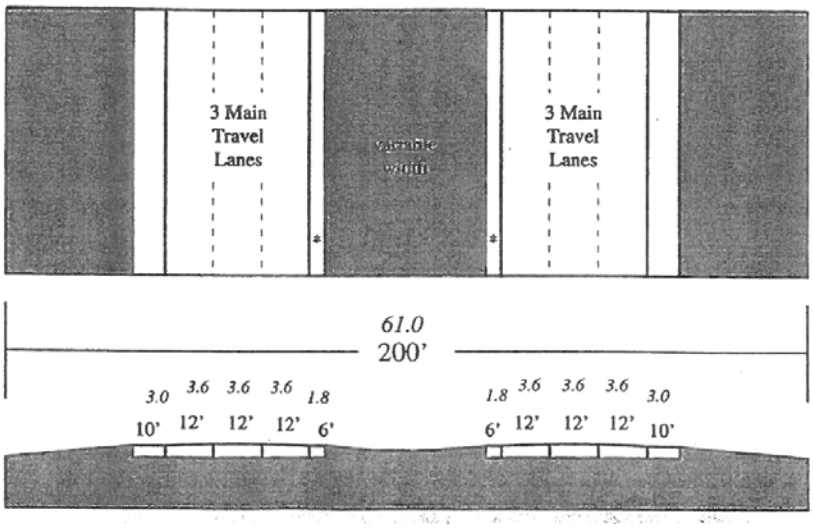
The following figures contain minimum right-of-way requirements and geometric standards for Class I roadways through Class V streets, as adopted in the METRO 2020 Metropolitan Transportation Plan of 1995. Figures for Class VI streets are shown on subsequent pages, and the design variations within the class are noted by types. These drawings show the maximum potential use of the right-of-way for each class in its final stage. Although the intensity of use of the right-of-way may vary over time until the maximum use is reached, the initial minimum right-of-way reservation cannot be altered. Certain classes may not exist or be proposed within the Vilonia Planning Area.

CLASS I
Interstate



Freeways are divided, fully access-controlled facilities, while expressways are divided, partially-controlled facilities with access available at minor arterials or higher functionally classified roadways.

CLASS I
Freeway

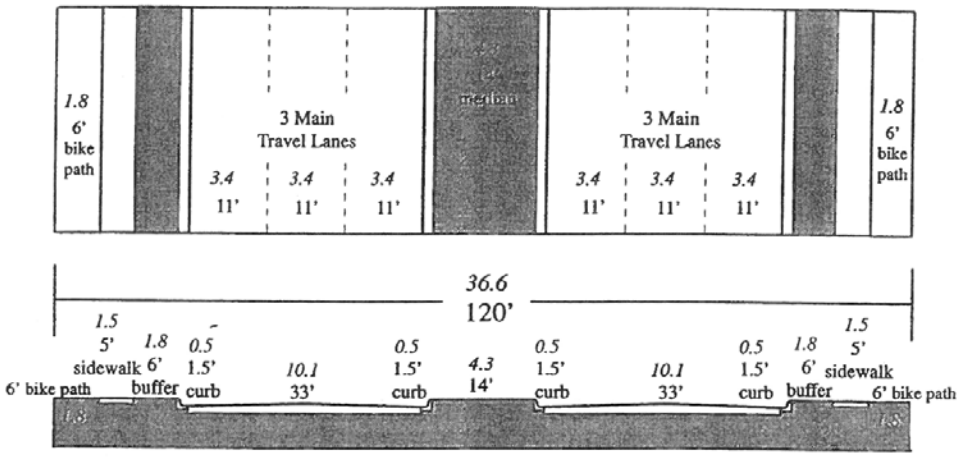


*inside shoulder increases to 10' (3) width with Jersey type barrier

Italic type indicates metric measurement in meters (measurements may not add up to totals due to rounding).

CLASS III

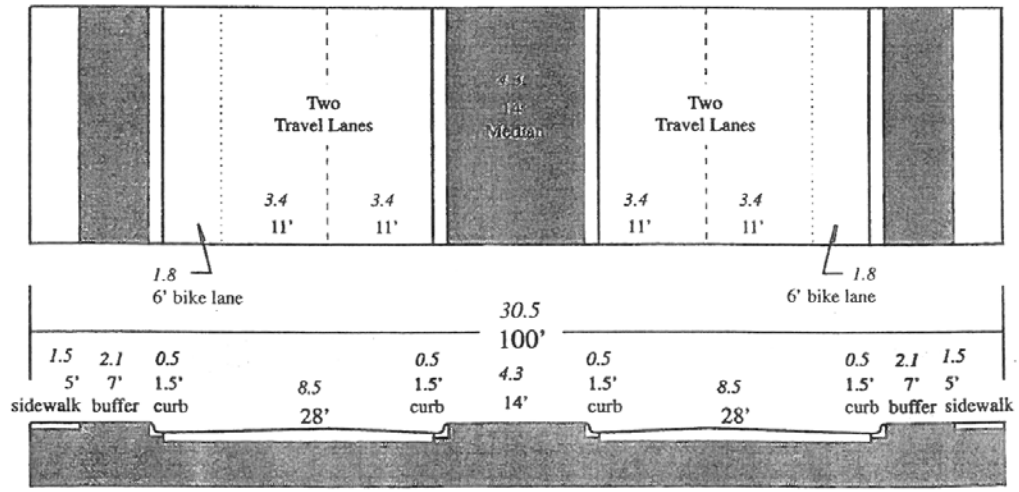
Principal Arterial - Divided, Two One-Way
Bike Paths in Off-Street Location*



Minor Arterials provide network connections within and through the urban area. These facilities typically provide a greater amount of access to adjoining land as compared to principal arterials. The recommended minimum right-of-way width for minor arterials is 90 feet (without bike lanes) and 100 feet (with bike lanes), which allows two (2) main travel lanes in each direction. The increased right-of-way width is reflective of a Class II bike lane and would only be necessary along the section of the minor arterial where the bike lane actually travels.

CLASS IV

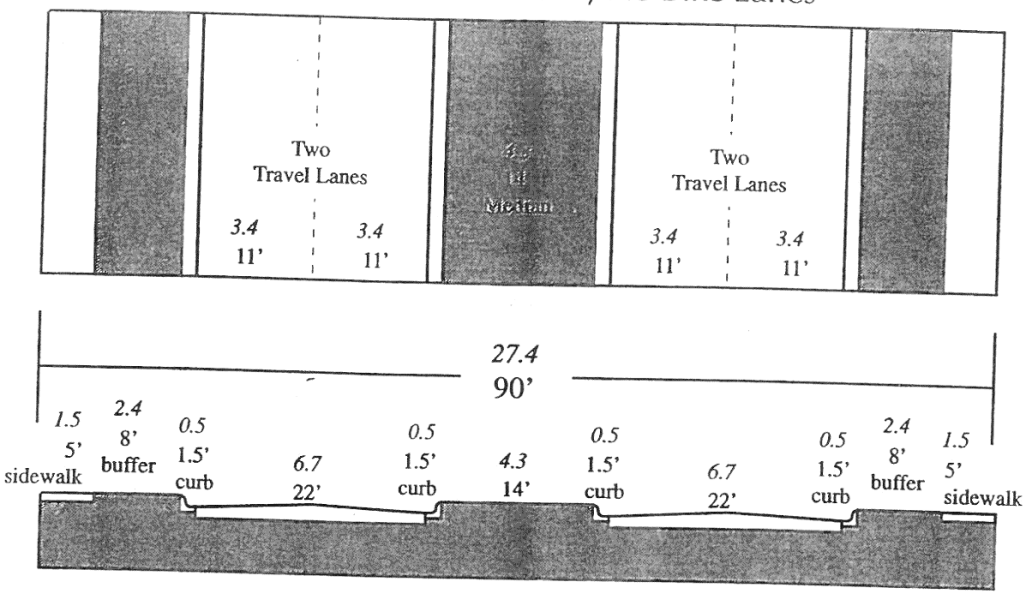
Minor Arterial - Divided, with Two One-Way
Bike Lanes Next to Curb



*if a two-way bike path is used, 12' *(3.6)* is added to one side only
Italic type indicates metric measurement in meters (measurements may not add up to totals due to rounding).

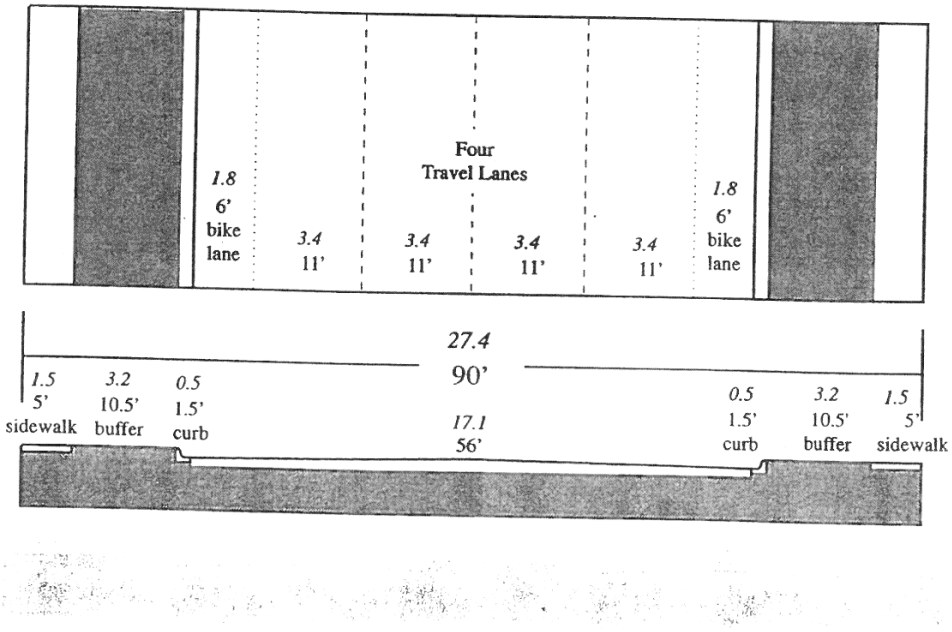
CLASS IV

Minor Arterial - Divided, No Bike Lanes



CLASS IV

Minor Arterial - Undivided, with Two One-Way Bike Lanes Next to Curb

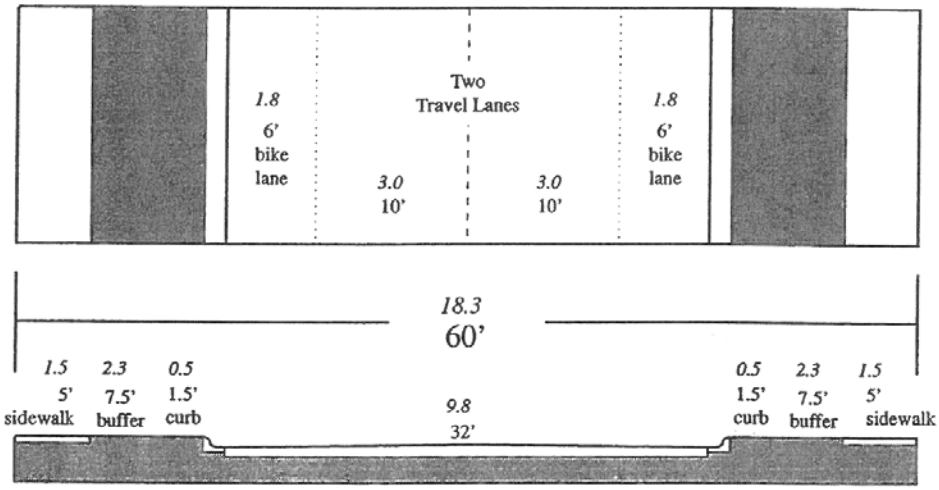


Italic type indicates metric measurement in meters (measurements may not add up to totals due to rounding).

Collector roadways connect local traffic with the arterial roadway network and provide easy acces to adjoining land. The recommended minimum right-of-way width for collectors is sixty (60) feet, which allows two, ten (10) foot travel lanes and six (6) foot bike lanes on both sides. Collectors can accommodate both Class II and Class III bike lanes within the recommended right-of-way.

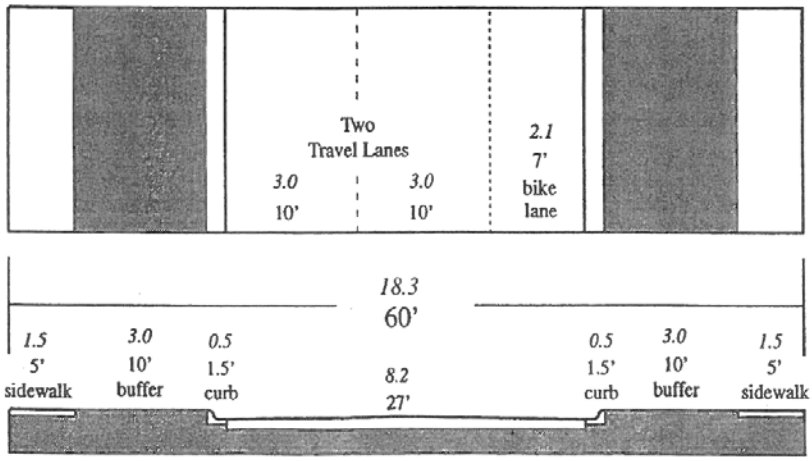
CLASS V

Collector - Two Travel Lanes, Two One-way Bike Lanes on Both Sides



CLASS V

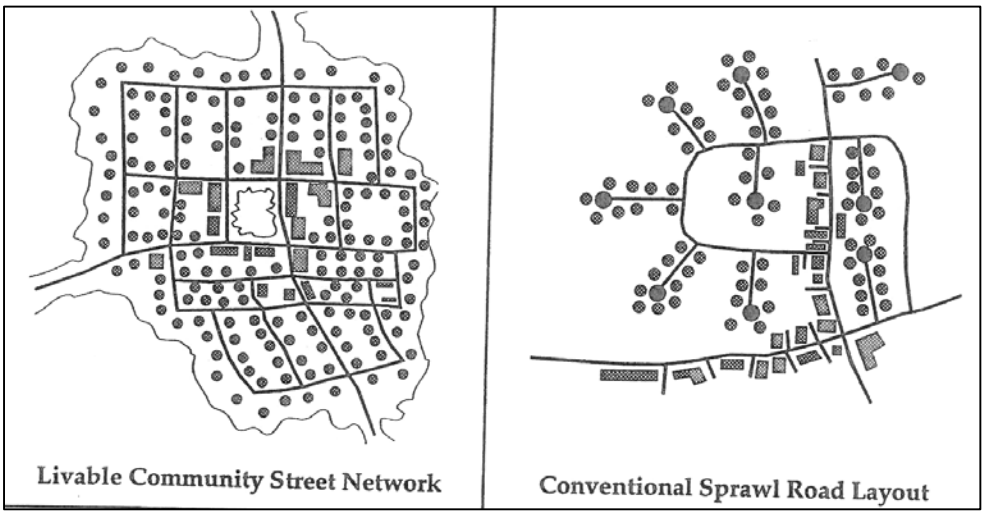
Collector - Two Travel Lanes One Bike Lane



Italic type indicates metric measurement in meters (measurements may not add up to totals due to rounding).

RIGHT-OF- WAY AND GEOMETRIC DESIGN STANDARDS-CLASS VI

The local Class VI streets create the basic form of the City of Vilonia. The class of street must be considered foremost in development plans for neighborhoods. The local streets will influence pedestrian and vehicular movement in a positive way to achieve stated transportation policies of Vilonia. Streets should function as a network to provide order and legibility.



As can be seen in the above, "Conventional Sprawl Road Layout," businesses represented by the rectangles all have dead-end driveway access to an arterial street. The result is that automobiles must maneuver in and out of these businesses, always returning to the arterial street. There is no opportunity for a shopper to go from one business to the other without returning to the arterial street. This maneuvering on and off the arterial street by local traffic is clearly in conflict with the principal function of the arterial street which is to move intracity traffic.

Within subdivisions outside the city limits of Vilonia, where no lots are less than five acres, the minimum road surface preparation shall be in accordance with Faulkner County Road Standards and the roads must be dedicated to and accepted by the County.

CLASS VI

TYPE 1

The Ally / Lane: The lowest order of Streets

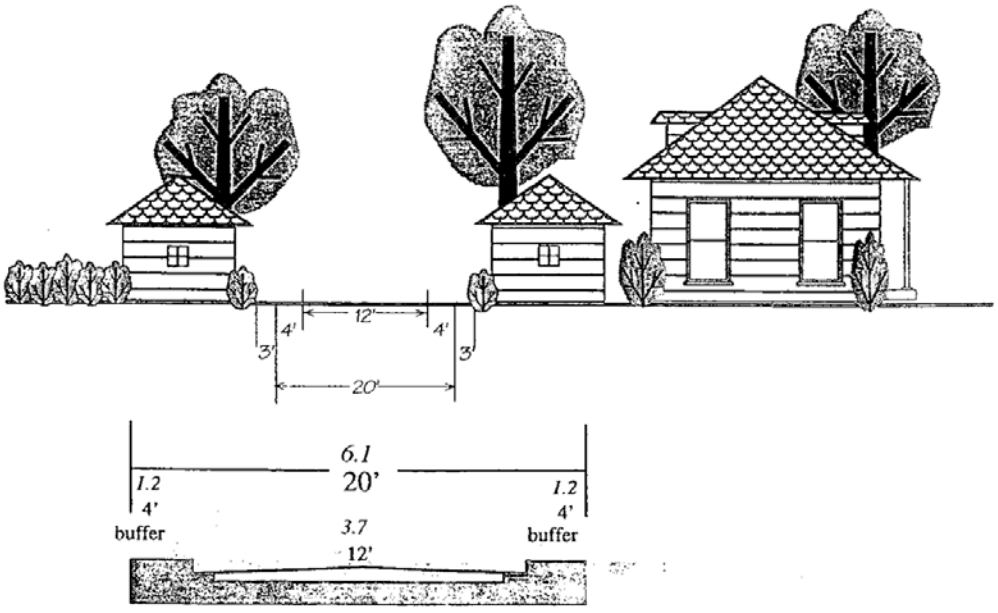
20 foot right-of-way
12 foot pavement
3 foot build-to line
15 mph

Adjacent Land Uses

Garages
Parking Lots
Accessory units above garages
Accessory residential units

Story Height
1 to 2 stories

The alley is the backbone of a block, a semi-public neighborhood space. The alley provides access to the rear of the property and eliminates the need for front yard driveways. The alley provides the opportunity for more positive front yard streetscape. It can decrease the cost of the lot through the opportunity for narrower lots. Utility easements are easily accommodated in the alley. A three foot build-to line is recommended. Alley lighting would be provided at intersections and by fixtures attached to garages.



Italic type indicates metric measurement in meters (measurements may not add up to totals due to rounding).

CLASS VI

TYPE 2

The Narrow Two-Way Residential Street

40 foot right-of-way
21 feet of pavement
1.5 foot curbs
10 to 15 foot build-to line
15 - 20 mph

This residential street will accommodate a small number of vehicular trips ranging from 500 to 1,800 ADT. Each unit has vehicular access from an alley. Bicycle riding is safe and easy on this type of road. Street lighting should be located in the boulevard and be pedestrian scaled. Fences or hedges should be set back three to four feet from a four foot sidewalk. A three foot utility easement can be located adjacent to the sidewalk, if it is not provided in the rear alley. Electric, telephone, and cable television lines are located in this easement. Water, sewer, and gas lines, and storm drains are located in the boulevards.

Adjacent Land Uses

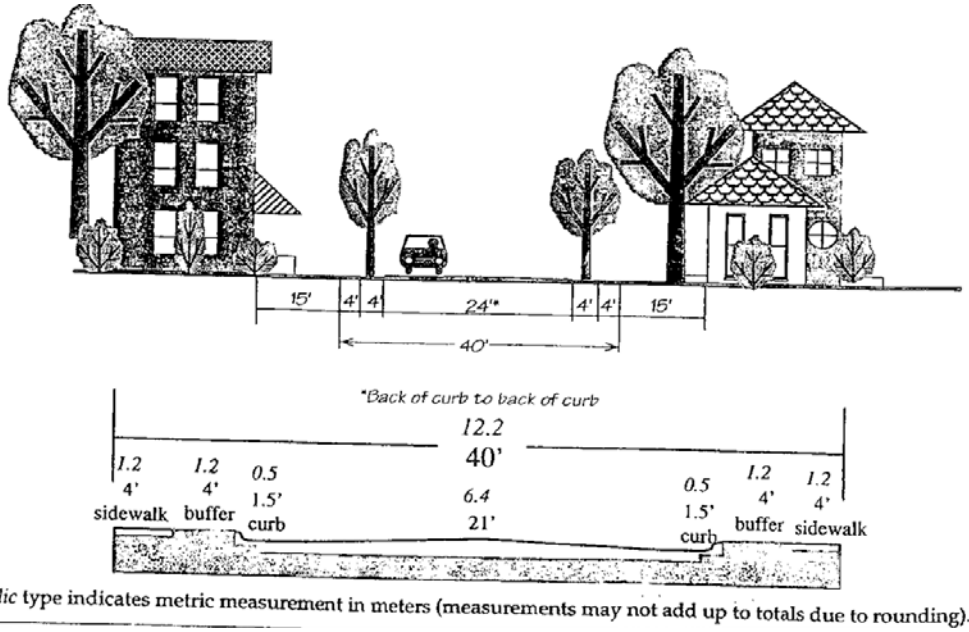
Small and medium width lot single family
Duplex units
Townhouses
Mutli-family
Large lot single family houses with large setbacks

Story Height

2 to 3 stories

Entrance

Finished floor 2 to 4 feet a sidewalk grade.



Italic type indicates metric measurement in meters (measurements may not add up to totals due to rounding).

CLASS VI

TYPE 3

The Two-Way Residential Street

50 foot right-of-way
24 feet of pavement
1.5 foot curbs
15 foot build-to line
20 -25 mph

Adjacent Land Uses

Small, medium and large lot single family
Duplex units
Townhouses
Multi-family
Homes

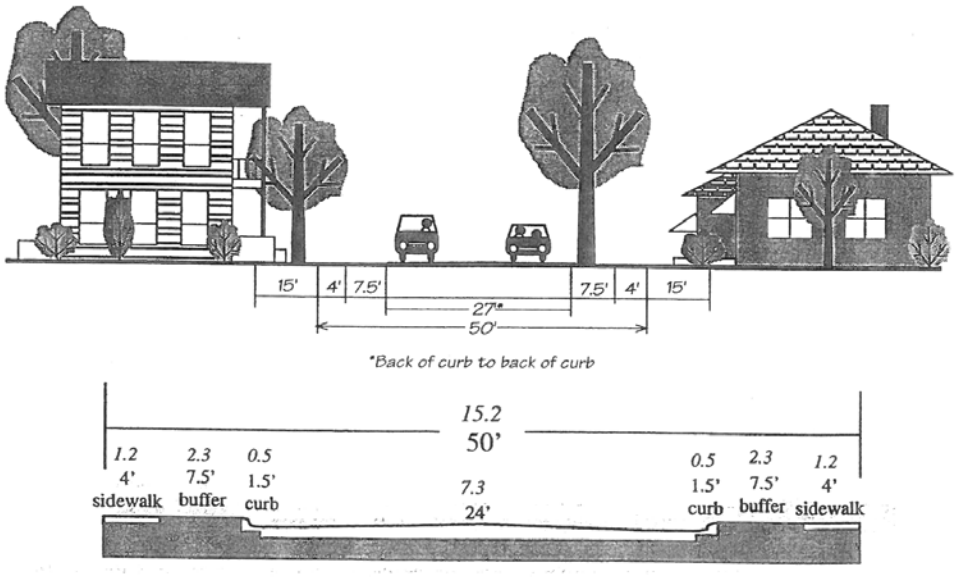
Story Height

2 - 3 stories

Entrance

Finished floor 2 to 4 feet above finished grade.

This residential street will accommodate a moderate number of vehicular trips ranging from 500 to 3,000 ADT. Each unit can have vehicular access from a driveway or an alley. Bicycle riding is more difficult on this type of road. Street lighting should be located in the boulevard and be pedestrian scaled. Fences or hedges should be set back three to four feet from a four foot sidewalk. A three foot utility easement can be located adjacent to the sidewalk, if it is not provided in the rear alley. Water, sewer, and gas lines, as well as storm drains are located in the boulevards.



Italic type indicates metric measurement in meters (measurements may not add up to totals due to rounding).

CLASS VI

TYPE 4

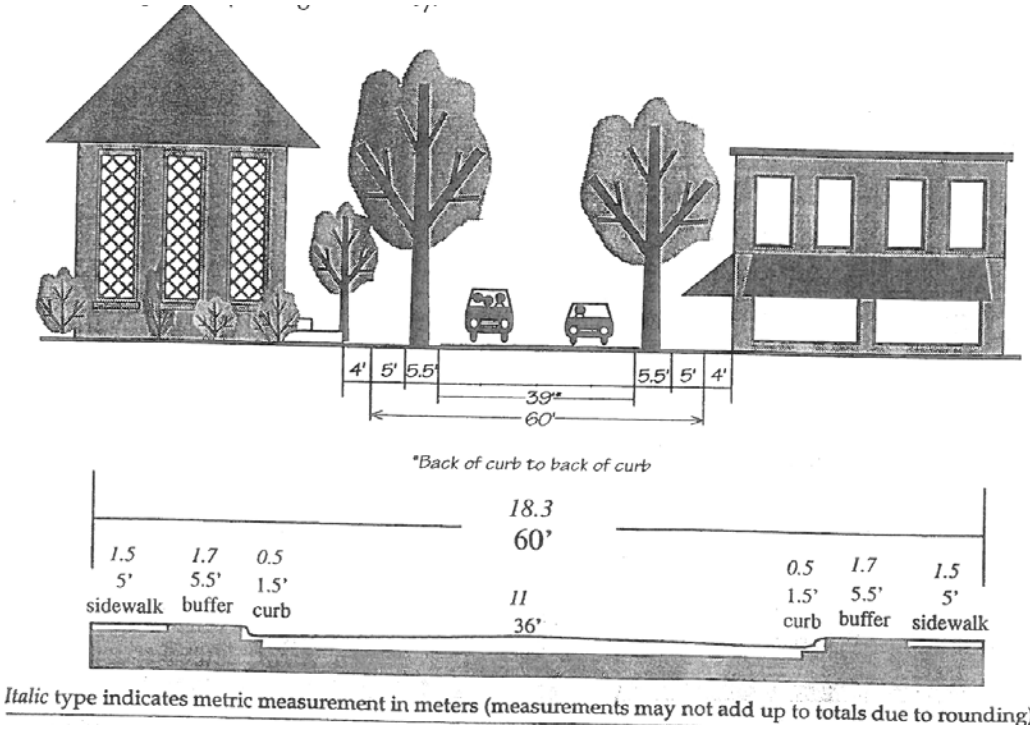
Main Street:
The Commerical / Mixed - Use Street
60 foot right-of-way
36 feet of pavement
1.5 foot curbs
0 - 4 foot build -to line

Adjacent Land Uses
Commercial - Offices or Retail (0f limited footprint)
Mixed-use

Story Height
2 - 3 stories

Entrance
On grade level with the sidewalk.

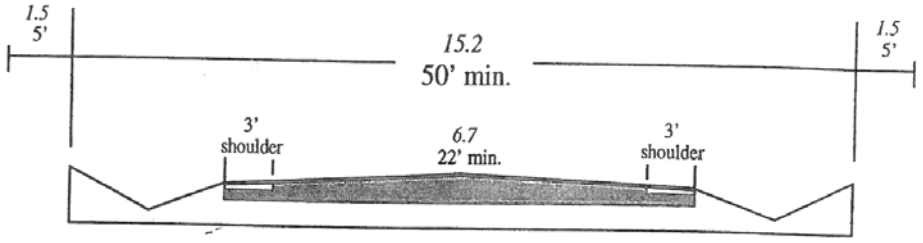
This commercial / mixed-use street accommodates a moderate number of vehicular trips, from 2,500 to 6.000 ADT. There should be a continuous building frontage with small pedestrian paths between building that lead to rear parking lots. Vehicular access to parking is from an alley. A five foot wide sidewalk must be provided on both sides along with space for street lighting and street trees. Commercial buildings can be set back an additional four feet if an outdoor display or café is anticipated. All utility easements are located to the rear of the building in the parking lot or alley.



Italic type indicates metric measurement in meters (measurements may not add up to totals due to rounding).

CLASS VI

TYPE 5
The Rural Local Road with Ditches (conditional)



Right-of-Way	• 50' right -of-way minimum. • Additional 10' utility and road work easement, 5' on each side of right-of-way.
Centerline Grade	• 15 percent maximum, but not less than 1/2 of 1 percent to insure drainage.
Pavement Crown Slope	• 3" minimum.
Road Base	• 6" minimum SB-2 gravel. • Planning commission may authorize comparable substitute. • Additional base material may be required depending upon soil tests.
Drainage	• The roadway must have sufficient pipe and carrying capacity to insure that water will not run across, collect, or stand at any point in the road right-of-way. Pipe used will be either reinforced concrete or galvanized.
Ditch Design	• Shaped to facilitate the flow of surface rain water. • Ditch design shall have a flowline a minimum of 15" below roadway base.
Intersections	• Minimum angle 75 degrees. • Surface of road shall flare on each side an extra 2' for 75' from the intersection with a minimum radius of 18'.
Road Surface	• A prime coat of .3 gallons per square yard minimum. • A minimum of double chip and seal which shall be rolled immediately upon application or alternatively, with the same prime coat as above with hot mix asphalt a minimum of 2" thick after being rolled.