

## TITLE 9

### STREETS AND SIDEWALKS

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#### CHAPTER 9.02

### MINIMUM DESIGN STANDARDS FOR STREETS

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#### 9.02.01 Definitions

##### **Street**

**Arterial street** – A street or road of considerable continuity that serves, or is intended to serve, as the principal traffic way between separated areas or districts which is the main means of access to the primary street system or expressways.

**Minor arterial street** – a street or road that does not meet the definition of a full arterial street, but which is expected to carry more traffic than the typical collector street, especially more truck traffic.

**Collector street** – a street which in addition to serving abutting properties, intercepts neighborhood streets, connects with community facilities and carries neighborhood traffic to the arterial street system. Typically residential lots do not front on collector streets.

**Neighborhood streets** – a street used primarily to carry traffic from abutting properties.

**Industrial streets** – a street that serves an industrial park or district, or that carries primarily industrial traffic. (Ord. No. 2006-44, Sec. 1.)

### **9.02.02 Minimum street design requirements**

A. Streets The location and width of all streets and roads shall conform to the official Master Street Plan.

B. New street requirements

1. **Arterial streets**

Right-of-way: 100 feet (minimum).

Pavement width: 60 feet (B/C to B/C).

Edges: Curb and gutter.

Asphalt section: As determined by site-specific geotechnical study; however, shall not be less than 6 inches of type 2 asphalt, over 8 inches of Class 7 base, over 12 inches of improved subgrade, over 36 inches of suitable material.

Concrete section: As determined by geotechnical study; however, shall not be less than 7 inches of Portland cement concrete, over 6 inches of Class 7 base, over stable subgrade and lower layers.

Crown: 2 percent; super-elevation when required ArDOT standards.

Axial slope: 0.5 percent to 8 percent.

Turning radius: For intersection – 30 feet; for through street turn – based on AASHTO design standards for posted speed. (Ord. No. 2006-44, Sec. 2.)

2. **Minor arterial streets**

Right-of-way: 90 feet (minimum)

Pavement width: 38 feet (B/C to B/C).

Edges: Curb and gutter.

Asphalt section: As determined by site-specific geotechnical study; however, shall not be less than 6 inches of type 2 asphalt, over 8 inches of Class 7 base, over 12 inches of improved subgrade, over 36 inches of suitable material.

Concrete section: As determined by geotechnical study; however, shall not be less than 7 inches of Portland cement concrete, over 6 inches of Class 7 base, over stable subgrade and lower layers.

Crown: 2 percent; super-elevation when required ARDOT standards.

Axial slope: 0.5 percent to 8 percent.

Turning radius: For intersection – 30 feet; for through street turn – based on AASHTO design standards for posted speed. (Ord. No. 2006-44, Sec. 2.)

### 3. **Collector streets**

Right-of-way: 80 feet.

Pavement width: 26 feet for two-lane street; 38 foot for three-land street; number of lanes required to be determined by traffic study.

Edges: Curb and gutter.

Asphalt section: Not less than 4 inches of type 2 asphalt, over 6 inches of Class 7 base, over 12 inches of improved subgrade, over 24 inches of suitable material. When required by the Planning Commission, a geotechnical study shall be performed for pavement design.

Concrete section: 6 inches of Portland cement concrete, over 6 inches of Class 7 base, over stable subgrade and lower layers. When required by the Planning Commission, a geotechnical study shall be performed for pavement design.

Crown: 2-3 percent; super-elevation when required on curves where AASHTO criteria requires it.

Axial slope: 0.5 percent to 10 percent. Steeper slopes must be preapproved in writing by the Fire Chief, Fire Marshal, and City Engineer.

Turning radius: For intersection – 25 feet; for through street turn – based on AASHTO design standards for posted speed. (Ord. No. 2006-44, Sec. 2.)

### 4. **Neighborhood streets**

Right-of-way: 50 feet, 120 foot diameter for cul-de-sacs.

Pavement width: 30 feet; 100 ft diameter for cul-de-sacs.

Edges: Curb and gutter.

Asphalt section: 3 inches of type 2 asphalt, over 6 inches of Class 7 base, over 9 inches of improved subgrade, over 24 inches of suitable material.

Concrete section: 5 inches of Portland cement concrete, over 4 inches of Class 7 base, over stable subgrade and lower layers.

Crown: 3 percent; super-elevation not required.

Axial slope: 0.5 percent to 10 percent. Steeper slopes must be preapproved in writing by the Fire Chief, Fire Marshal, and City Engineer.

Turning radius: For intersection – 25 feet; for through street turn – 50 feet. (Ord. No. 2006-44, Sec. 2.)

5. **Industrial streets**

Right-of-way: 60 feet minimum.

Pavement width: 38 feet minimum; traffic study required to determine required width and turning lane provisions.

Edges: Curb and gutter.

Pavement section: A specific design must be made for industrial streets, based on geotechnical studies.

Crown: 2 percent; super-elevation where required by AASHTO standards.

Axial slope: 0.5 percent to 10 percent.

Turning radius: For intersection – 50 feet; for through street turn – 80 ft. (Ord. No. 2006-44, Sec. 2.)

Design Feature	Arterial	Minor Arterial	Collector	Neighborhood	Industrial	Local
Right-of-Way	100 ft	90 ft.	80 ft.	50 ft./ 120 ft. cul-de-sacs	60 ft.	
Number of Lanes			2 or 3			
Pavement Width	Traffic Study	Traffic Study	2 lanes – 26 ft. 3 lanes – 38 ft.	30 ft./ 100 ft. cul-de-sacs	38 ft.	
Lane Width						
Shoulder Width						
Edges	Curb & Gutter	Curb & Gutter	Curb & Gutter	Curb & Gutter	Curb & Gutter	
Asphalt – Type 2	6 in.	6 in.	4 in.	3 in.		
Class 7 Base	8 in.	8 in.	6 in.	6 in.		
Improved Subgrade	12 in.	12 in.	12 in.	9 in.		
Suitable Material	36 in.	36 in.	24 in.	24 in.		
Concrete – Portland	7 in.	7 in.	6 in.	5 in.		
Class 7 Base	6 in.	6 in.	6 in.	4 in.		
Subgrade & Lower Layers	Stable	Stable	Stable	Stable		
Crown	2%	2%	2-3%	3%	2%	
Axial Slope	0.5-8%	0.5-8%	0.5-10%	0.5-10%	0.5-10%	
Turning Radius-Intersection	30 ft.	30 ft.	25 ft.	25 ft.	50 ft.	
Turning Radius-through Street	AASHTO standards	AASHTO standards	AASHTO standards	50 ft.	80 ft.	

### **9.02.03 Miscellaneous Street Design Requirements**

- A. Sidewalks shall be constructed in accordance with chapter 9.03.
- B. All pipes and sleeves installed under streets shall be backfilled using one of the two following methods. At the discretion of the city, alternative methods of trench backfill under streets may be allowed.
  - 1. Backfill full depth using Class 67 aggregate up to the bottom of the base course. Base course construction shall be in accordance with chapter 9.02.04.
  - 2. Backfill with Class 7 base material above the initial backfill of Class 67 aggregate up to the bottom of the base course, placed in 8" lifts, compacted to a minimum of 95% of Modified Proctor Density.
- C. Street design shall include provisions for prevention of groundwater from affecting the stability of the subgrade, causing unsatisfactory pavement performance or surfacing through pavement or seams between the pavement and the gutter.
- D. Pavement width shall be measured from back-to-back of curb.
- E. Construction drawings shall be sufficiently detailed to describe construction of the street, including all earthwork, and indicate how run-off will flow across pavement and through intersections. For residential and commercial subdivisions, the customary drawing set will include: Street plan and profiles; storm drainage plan and profiles (which may or may not be the same drawings as the street plan and profile); street cross-sections at 50-foot intervals and at intersections. Full grading plans, including existing and proposed contour lines, shall be provided for the entire project, including enlarged scale plans at intersections.
- F. When required, overlays of gravel roads or chip and seal roads shall be a minimum of 3 inches of hot mix asphaltic concrete.
- G. Super-elevation of pavement for drainage purposes shall be at the discretion of the city. (Ord. No. 2010-17 Sec.3)
- H. Vertical curves are required when the change in grade of the centerline of the road is 1.5% or greater. The minimum K value for vertical curves in sag is 26. The minimum K value for a crest curve is 19. If achievable, the recommended K values are 30 and 20, respectively.

#### **9.02.04 Street Construction Standards**

The roadway, base, drainage, and pavement drawings and specifications for proposed streets and roads shall equal or exceed the following minimum standards and be in accordance with the standards set forth in this chapter. Any conditions or items not covered shall be in accordance with the current ARDOT Standard Specifications. (Ord. No. 2010-17, Sec. 4.)

##### **A. Clearing and Grubbing**

1. All trees, stumps, roots and other obstructions not designated to remain shall be cleared and/or grubbed in such a manner as to not cause damage to other items designated to remain. Stump holes shall be filled with suitable material and compacted.
2. If material is to be burned, the burning activities shall comply with all applicable laws and ordinances, including any temporary burn bans, and shall be under the constant care of competent watchmen.  
(Ord. No. 2010-17, Sec 4)

##### **B. Roadway Excavations and Embankment**

1. Suitable material shall consist of soil; or a mixture of soil, stone, or gravel; shall be free of sod, logs, stumps, roots and other deleterious matter; and shall be capable of forming a stable embankment when compacted.
2. All suitable material obtained during excavating operations may be used in the construction of roadway embankments and subgrade; and all unsuitable material shall be used behind the curb or hauled to an approved waste area.
3. All roadway cuts and grades shall conform to those shown on the approved plans. Changes from approved plans shall not be made without the approval of the city.
4. Sod and vegetation shall be removed from the surface upon which an embankment of less than four feet is to be placed.
5. Roadway embankment shall be constructed in layers not to exceed 8 inches (loose measurement). Each layer shall be compacted at or near optimum moisture for that particular soil to at least 95 percent of the maximum standard Proctor density.
6. In areas where rock is encountered, it shall be excavated to a depth of 8 inches below subgrade elevation and replaced with approved material.

7. Rock obtained during excavation operations may be placed in layers not exceeding 30 inches. The rock shall be placed in a manner that the voids between the rock fragments are filled with suitable material. The top 12 inches of the finished subgrade shall not contain rock pieces over 4 inches in greatest dimension.
8. Embankment which is adjacent to structures and inaccessible to normal compaction equipment shall be placed in 4 inch (loose measurement) layers and compacted to at least 95 percent of maximum standard Proctor density. The material shall be compacted with special mechanical equipment where it is inaccessible to normal compaction equipment. (Ord. No. 2010-17, Sec.4)

**C. Subgrade**

1. Suitable material for subgrades shall have a minimum California Bearing Ration (CBR) of 8.0 and classified as a GM (silty gravel) or GC (clayey gravel) soil. All soils with a liquid limit greater than 40, or a plasticity index greater than 15, or a CBR value less than 8.0 shall be undercut and removed from the street section or improved by a designed method of stabilization accepted by the city engineer.
2. Where soils are encountered below the subgrade level that will not adequately support the intended street, the soil shall either be improved or removed and replaced with suitable material that will give adequate support. The depth of this zone below the subgrade differs for different classes of streets, as stated elsewhere in these regulations.
3. The subgrade shall be improved to the depth indicated previously in these regulations. Subgrade shall be compacted at or near optimum moisture content to 95 percent of standard Proctor density. This shall be accompanied by scarifying as necessary, and shaping and compacting to the required grade.
4. Finished subgrade shall be within 0.5 inch above to 0.75 inch below the required subgrade elevation per the approved drawings. However, subgrade shall positively drain as required by the design, so that adjustment of the thickness or shape of the upper courses is not required to achieve proper drainage. (Ord. No. 2010-17, Sec. 4.)

**D. Base Course**

1. Base course shall be constructed to the thicknesses indicated previously and shall meet the requirements of ARDOT Class 7 aggregate base course. It shall be shaped and compacted to the lines and grades indicated on the approved drawings.

2. Compaction shall be within 95 to 105 percent of modified Proctor density and at or near optimum moisture content (within 2% of design optimum). .
3. The finished base course surface shall be within 0.5 inches above to 0.75 inches below the elevation required by the approved drawings, except that the design thickness of base course shall not be reduced to achieve drainage. (Ord. No. 2010-17, Sec. 4.)

**E. Curb and Gutter**

1. Curb and gutter shall be constructed on the same improved layers as the pavement section, except that the thickness of the base course may be reduced at the discretion of the City Engineer and the director of Public Works.
2. The base course shall be extended 12 inches behind the back of curb.
3. All utility lines, utility services, sleeves for future utilities and storm drain crossing of the street shall be constructed before construction of curb and gutter. Any of these that are not constructed before construction of curb and gutter shall be installed by boring.
4. Curb and gutter shall be constructed of Portland cement concrete meeting the requirements of ARDOT Class S (AE) air entrained concrete, shall have a minimum 28 day compressive strength of 4,000 psi, and a maximum slump of 4.
5. Gutter cross-slope shall be not less than 3 percent, with 5 percent being the preferred slope. Greater slope may be provided at transition to curb inlet throats.
6. For flexible pavement, curb and gutter shall have contraction joints at intervals not to exceed 20 feet. Contraction joints shall be constructed to the proper width and depth, cleaned, and joint filler material installed in compliance with manufacturer's recommendations.
7. Expansion joints shall be provided at all stationary structures, and at intervals not to exceed 200 feet. Expansion joint material shall comply with AASHTO M 213.
8. Curb and gutter shall be cured with curing compound or wet burlap. In cold weather, curb and gutter shall be protected from excessive heat loss until curing is complete. Heaters or blankets may be used if necessary. At no time is the air temperature during curing to be less than 40 degrees Fahrenheit.



9. Finished curb and gutter shall provide positive drainage without intermediate low points or high points, to the drainage structure that removes drainage from the road. Finished curb and gutter shall not vary from plan grade by more than ¼ inch per 10 feet.
10. In subdivisions, the subdivision developer shall construct depressed curb sections to A.D.A. standards and handicapped-accessible ramp as described in chapter 9.03. (Ord. No. 2010-17, Sec. 4.)

#### **F. Asphalt Pavement**

Asphalt courses shall meet the ARDOT standard specifications for hot mix binder and surface courses, with the following provisions:

1. The thickness of the asphalt hot mix courses shall not be less than 1/4 inch of the thickness required by the approved drawings.
2. Crushed stone base course shall be primed. Prime coat shall meet ARDOT standards specification requirements. Prime coat shall cure at least 72 hours, unless a shorter curing time is approved in writing by the city.
3. A tack coat shall be placed between succeeding asphalt layers. Tack coat shall meet ARDOT standard specifications.
4. Binder course shall meet ARDOT gradation for type 2 binder course or type 2 surface course.
5. Surface course shall meet ARDOT gradation for type 2 surface course.
6. Binder and surface courses may be designed either with a Marshall stability test per the 1996 ARDOT standard specifications, or a Superpave method per the 2003 ARDOT standard specifications (or approved equals, or later editions).
7. A copy of the approved mix design shall be submitted to the city for review prior to placing any asphalt paving.
8. Both binder and surface courses shall be compacted to a minimum of 92 percent and a maximum of 96 percent of maximum theoretical density as determined by the 50 blow Marshall design procedures.
9. When a nuclear gauge is used to determine asphalt density, it must be correlated with cores taken from the roadway.

10. Thickness of asphalt courses placed shall be dependent on the capabilities of compaction equipment being used. Courses thicker than 4 inches may require pre-approval by the city.
11. The final asphalt surface, when checked with a 10 foot straightedge, shall not vary from the approved drawings by more than  $\frac{1}{4}$  inch.
12. Asphalt construction shall not be performed during weather conditions that are unsuitable for the type of material being placed as stated in the ARDOT Standard Specifications. In general, hot mix asphalt shall not be placed when the surface temperature is below 40 degrees, or when there is frost in the base or subgrade. Asphalt construction shall be suspended whenever weather conditions deteriorate such that these conditions are not met. (Ord. No. 2010-17, Sec. 4.)

#### **G. Portland Cement Concrete Paving**

Portland cement concrete pavement shall meet ARDOT standard specification requirements, and the following criteria:

1. Thickness of concrete pavement shall not be less than  $\frac{1}{4}$  inch of the thickness required by the approved drawings.
2. Concrete shall have a minimum 28 day compressive strength of 4,000 psi. Concrete shall contain an air entraining agent which produces 5 percent (+/- 2 percent) air entrainment in the concrete. Slump shall be 2 to 4 inches if conventional paving equipment is used, and 1 to 2 inches if slip forming equipment is used.
3. Concrete shall be placed on the required base course, which must be wet as concrete is placed.
4. Concrete pavement shall be checked with a 10 foot straightedge after placement, consolidation, and initial finishing to verify that the required lines and grades by the approved drawings have been obtained. Any surface irregularities shall be corrected at this time while the concrete is still in a plastic condition. Completed concrete pavement shall have a broom or tined texture.
5. Jointing, reinforcing, tying and doweling details and specifications shall be included with the construction documents for all rigid pavements.
6. Concrete pavement shall be cured with a curing compound meeting ARDOT standard specifications.

7. Joints shall be constructed as indicated on the approved construction plans. Special saw joints shall be made to control cracking around penetrations in the pavement, such as manholes and other structures, and at corner radii.
8. Joints shall be filled with a silicone joint material, preformed joint material, or joint material meeting ARDOT requirements. Backer rod materials are permitted where allowed by sealant manufacture's recommendations. (Ord. No. 2010-17, Sec. 4.)

#### **H. Transition to Unimproved Street or Road Continuation**

1. The construction should provide for a smooth transition from improved streets with curb and gutter to existing streets/roads/highways.
2. Where the continuing street is already finished with curb and gutter, provide a smooth transition to match the existing curb and gutter.
3. Where the existing road or highway includes a ditch, provide a smooth transition from curb and gutter to the ditch, and from pavement radii to the existing pavement. The transition should prevent erosion and undermining of pavement, and should allow for adequate pavement to reduce the chances of vehicles turning into the ditch.  
(Ord. No. 2010-17, Sec. 4.)

#### **I. Adjacent Street Improvements**

Where a development is proposed on a street that is unimproved on both sides (i.e., this is the first development on that portion of that street), the planning commission has the choice of having the developer complete one of the following three options for improvement:

##### **1. Option 1 – Half Street Improvements**

- a. The first developer shall improve streets adjacent to their development for half the street width to the standards for collector street or neighborhood street, as applicable. This will include: adjustment for axial street grade to meet city standards for streets (unless this requirement is waived by the planning commission which may occur in special circumstances); improvements to the existing road bed to support traffic loads or demonstrate via a geotechnical report that the existing surface meets city standard for street; drainage improvements sufficient to carry the design storm based on the road designation on the Master Street Plan; curb and gutter for the full length of the development; pavement section (base course and either flexible or rigid pavement) according to city standards. Since the resulting street will be partially improved, the developer is responsible for providing a

smooth transition from improved to unimproved portions, with the result providing for correct drainage and smooth and safe traffic flow.

- b. The second or subsequent developers shall improve adjacent streets according to city standards for collector streets or neighborhood streets as applicable. This will include: improvements to the existing road bed to support traffic loads or demonstrate via a geotechnical report that the existing surface meets city standard for street; drainage improvements sufficient to carry the design storm based on the designation on the Master Street Plan; curb and gutter for the full length of the development; pavement section (base course and either flexible or rigid pavement) according to city standards. Since part of the road will have already been developed, subsequent developers will be responsible for completing the road so that both sides of the road match, resulting in a pleasing appearance and smooth traffic movement. If significant time has passed since the improvement made by the first development; any damage to prior construction, unless as a result of negligence of the first developer, shall be completed as part of the subsequent development.

## 2. **Option 2 – Limited, Full Street Improvements**

- a. The first developer shall be responsible for partially developing the existing unimproved road. This will include: adjustment of axial street grade to meet city standards for streets (unless this requirement is waived by the planning commission which may occur in special circumstances); improvements to the existing road bed to support traffic loads or demonstrate via a geotechnical report that the existing surface meets city standards for street; drainage improvements consistent with full street improvements on both sides that also work for the limited street improvements; overlay of the road to the width set by the planning commission, which will normally be twenty-six (26) feet of pavement width. Since roads constructed under this option will be partial improved roads, the finish grade should be designed to be consistent with future improvements.
- b. Subsequent developers will be responsible for completing the previously, partially improved street to city standards on both sides. This will include: subgrade improvements in the widened portion as required by geotechnical studies and/or lab and on-site tests; drainage improvements consistent with a fully-developed street to carry the runoff from the design storm for the road based on its designation on the Master Street Plan; curb and gutter the full length

of both sides of the street and connecting to existing and proposed subdivision entrances; pavement of the widened portion of any repairs necessary, with a minimum of 1.5 inches of asphalt. For streets where home builders have not constructed sidewalks due to uncertainty of grades or incomplete drainage improvements, subsequent developers shall construct the sidewalk on the opposite side of the street.

### 3. **Option 3 – Fee in Lieu of Street Improvements**

At the discretion of the planning commission, based upon the recommendation of the Public Works Department, the developer may be required to deposit with the city a fee in-lieu-of constructing normally required adjacent and/or offsite street improvements. The fee shall include a reasonable amount to offset inflation increases for a five (5) year period. The amount of the fee shall be agreed to in writing between the Director of Public Works, or his designee, and the developer, and shall be presented to the planning commission for approval. The fee in-lieu-of shall be paid as follows: fifty percent (50%) prior to the start of construction and fifty percent (50%) before the final plat of the development is presented to the planning commission. (Ord. No. 2010-17, Sec. 4.)

### J. **Off-site Street Improvements**

Off-site improvements will be required for any development that would increase traffic to such a point that existing streets, either improved, partially improved, unimproved, or a combination thereof, will not safely and efficiently carry the resulting traffic. In general, off-site improvements will consist of: widening; overlaying to improve the strength and the wearing course; and drainage improvements consistent with the type of road after the improvements.

In any circumstances, the planning commission may ask for a traffic study, to be paid for by the developer, to determine the extent of off-site improvements required. (Ord. No. 2010-17, Sec. 4.)

### **9.02.05 Street Construction Observation and Inspection.**

Developer must employ the services of a registered professional engineer to observe construction of all public streets and drainage. Any inspection that the city performs does not supersede developer's responsibility in this area. Engineer shall make periodic site visits, and may employ qualified construction observers to assist engineer in fulfilling his obligations. Engineer shall provide the city with a copy of the construction observer's qualifications. Engineer (or construction observer) shall make a daily written report of site observations at the same time that the construction is being performed. These daily reports shall be provided to the city at least weekly.

The city, at its discretion, may require that the construction observer be onsite at all times to observe all phases of construction.

The city will make periodic visits during street construction to observe the work. Visits by the city do not reduce the need for the developer's engineer to observe the construction. The city will make a final inspection of the work when the developer indicates the work is ready for final inspection. Since the cost for the city's time to perform this inspection is borne by the developer, the request for inspection must come from the developer or the developer's engineer, not from the contractor." (Ord. No. 2010-17, Sec 5)

#### **9.02.06 Street Testing.**

Contractor, developer, or engineer shall inform the city forty-eight (48) hours in advance of when testing will take place, to allow the city to witness these tests. If the city elects not to observe the tests, the tests may be conducted under the supervision of the developer's engineer. In either case, developer's engineer shall furnish the city a copy of the construction observer's report for the day, indicating what tests were performed and what the results of those tests were (i.e., pass, fail, or numerical results).

- A. Developer shall retain the services of a testing laboratory to perform all sampling and testing. Developer will be responsible for the costs of all sampling and testing performed on the project, including any additional sampling and testing required as a result of failing tests and or poor workmanship.
- B. The testing laboratory shall copy the city with all test results. In the event the testing laboratory fails to copy the city, developer is responsible for forwarding copies to the city.
- C. In the case of failing tests or substandard work, the city may direct the testing laboratory to perform additional sampling and testing. The developer will be responsible for the costs of any additional sampling and testing results from failing tests and/or substandard work.
- D. The following tests shall be performed during construction, except that in all cases, a minimum of one test shall be made for each day of construction. Also, for small projects, a minimum of two of each test shall be performed:
  - 1. **Cross-drain backfill:** Minimum of one density test per pipe or box culvert location in every other lift including the top two lifts of backfill. This also applies for any other crossing/construction in street where Class 7 base material is used as backfill.
  - 2. **Embankment:** Minimum of one density test per each 8 inch lift per maximum width of 30 feet and maximum of 500 linear feet of embankment.

3. **Subgrade:** Minimum of one density test, including determination of moisture content, per 800 lane-feet of roadway and 1 test under curb and gutter for every 800 linear feet of curb and gutter. In addition, subgrade, including subgrade under curb and gutter shall be proof-rolled with a fully loaded tandem-axle truck, or equivalent load to look for yielding subgrade. Any location that yields shall be reworked and proof-rolled again.
  4. **Curb and gutter:** Minimum of one set of 3 cylinders per 800 linear feet of curb and gutter. One cylinder shall be tested at 7 days, and the other two at 28 days.
  5. **Base course:** Minimum of one density test, including determination of moisture content, per 800 lane-feet of roadway and 1 test under curb and gutter for every 800 linear feet of curb and gutter. There shall also be one sounding for base course thickness for every 800 lane-feet of roadway. In addition, subbase including subbase under curb and gutter shall be proof-rolled. Any location that yields shall be reworked and proof-rolled again.
  6. **Asphalt pavement:** Minimum of one density test and one depth measurement by coring per 800 lane-feet of roadway. Depending on the results of these tests, the city may increase the frequency of this testing. In addition, the city may direct that tests be taken at any location where they believe the finished roadway quality to be substandard.
  7. **Concrete pavement:** Minimum of one set of three cylinders at the beginning of the pour; then one set per 800 lane-feet of pavement, with a minimum of one set per project. One cylinder shall be tested at 7 days and the other two at 28 days. Concrete streets shall be cored every 800 lane feet or portion thereof for the purpose of checking thickness. (Ord. No. 2010-17, Sec 6)
- E. The developer must demonstrate that the pavement, curb and gutter adequately provide for removal of run-off. This may be accomplished either by wetting the pavement to allow the city to check for low points and non-draining areas, or by waiting until after rainfall to schedule the inspection for this purpose. (Ord. No. 2010-17, Sec. 6.)

#### **9.02.07 Signage and striping ( Street signs, traffic control signs and striping)**

- A. Signage and striping will be as shown on the construction plans in accordance with MUTCD, which shall be approved by the Public Works Department, and shall be installed before the final plat is presented to the planning commission. (Ord. No. 2010-17, Sec. 7 A)

- B. Street signs and traffic control signs will be procured and installed by the Developer. Proofs are to be submitted to the Public Works Department for approval prior to purchase.
- C. Striping will be the responsibility of the developer.  
(Ord. No. 2006-44, Sec. 7.)

**9.02.08 Final acceptance of streets** Newly constructed public street will be accepted by the city to become part of the city's public infrastructure as part of the final plat process for subdivision, or part of the certificate of occupancy process for developments, in accordance with the following provisions:

- A. Before acceptance, street construction shall be completed. In some cases, the Planning Commission may accept streets into the public infrastructure prior to completion, upon presentation by the developer of an appropriate bond.
- B. Upon completion, and at the request of the developer or the developer's engineer, streets shall be inspected by the city. Any deficiencies noted during this inspection shall be corrected and the areas re-inspected until found acceptable.
- C. Record (as built) drawings shall be delivered to the city, reflecting any changes to the streets and storm drainage system. These drawings shall be submitted in both paper and electronic format.
- D. Developer shall present the city with a street maintenance bond, which shall warranty the streets against any defect for a period of two (2) years from the date of the recording of the final plat. The bond amount shall be for fifty percent (50%) of the full cost to reconstruct the streets and any other stabilization work required with repair/replacement. Bond quantities shall be inclusive of the base course, pavement, and curb and gutter, sidewalks, crosswalks, signs, streetlights and any other items within the Right-of-Way, including soils slopes. The bond time period and amount may be reduced at the discretion of the Planning Commission if the stated bond requirements present a unique substantial hardship to the developer. For projects constructed in phases which construction traffic will utilize the previous facilities, the warranty period shall be extended to a date that is two (2) years from the recording of the final plat of the final phase. Bond estimates will be provided to staff for approval, with final bond amount to meet or exceed the estimate.  
(Ord. No. 10-06, Sec. 9.02.08.d)
- E. At the city's discretion, streets that fail to meet any aspect of these standards may be approved for incorporation to city public infrastructure upon presentation of a longer term Maintenance Bond with a larger bond amount. Depending on the circumstances, this could be up to three years and up to 200 percent of the street construction cost.



- F. Bond shall be executed by such sureties as are named in the current list of “Companies Holding Certificates of Authority as Acceptable Sureties on Federal Bonds and as Acceptable Reinsuring Companies” as published in Circular 570 (amended) by the Financial Management Service, Surety Bond Branch, U.S. Department of the Treasury. Bond signed by an agent must be accompanied by a certified copy of such agent’s authority to act. Bonding company shall be acceptable to the city.
- G. Repairs made during the warranty period shall be warranted from the date of the repair for the same amount of time as the original construction was warranted.
- H. Provisions must be in place for continued storm water pollution prevention after Final Plat approval. This shall take one of the following forms, at the developer’s choosing:
  - 1. The developer shall obtain an NPDES permit that will be in effect after the construction NPDES permit, and which will not be cancelled by a Notice of Termination with ADEQ for a period of one year, unless houses are under construction on all lots in less than one year. If the developer sells all lots in the subdivision to another developer after final plat approval, the purchaser will become the permittee.
  - 2. The entire subdivision site, except the location where the building pads will be constructed, shall be seeded and mulched before a final plat is issued. (Ord. No. 2006-44, Sec. 8.)

**9.02.09 Warranty period responsibilities**

- A. During the warranty period, which shall be for two years from the date of filing of Final Plat, the developer will be responsible for the following activities:
  - 1. The mowing or areas of the subdivision that do not have ongoing construction activities including detention ponds. Mowing shall occur at least monthly during the primary growing season and as need during other times of the year.
  - 2. Areas shall be watered, sodded and seeded as required to maintain growth. Watering may be reduced or eliminated only when rainfall is sufficient to maintain growth.
  - 3. Sediment and debris shall be removed from all curb inlets, junction boxes, storm sewers and detention ponds. This must be done as often is as necessary to protect infrastructure from damage and to maintain public safety, based upon activities in the subdivision.
  - 4. Erosion control measures shall be maintained in areas that do not have ongoing construction activities. This includes the inspection and removal of accumulated sediment and repair or replacement of damaged/deteriorated erosion control measures.

- B. The activities needed to remove debris from pavement and drainage facilities will vary depending on the circumstances in the development, the proper installation, maintenance, and functioning of erosion control best management practices, and the care taken by all entities working in a development. The fact that construction may be on-going does not relieve the developer from the responsibility of cleaning debris and sediment as described in this section. The division of responsibilities between the developer and others working in the subdivision shall be as defined by regulations promulgated by ADEQ.
- C. The city will conduct warranty period inspections from time to time during the warranty period. If defects are noted, the city will inform the engineer, developer or contractor, in writing, of the defect. A thirty (30) day period is allowed for the correction of any reported defect. It is not allowed to accumulate defects as punch list items and repair them at the end of the warranty period. If the defect is not repaired at the end of the thirty (30) day period, the city will notify the bond issuer of the failure of the developer or contractor to comply with the city's requirements and the city's intention to repair the defect at the bond issuer's expense. The city will also request payment for the repairs. At the city's discretion, the 30-day time period for the correction of the defect may be extended." (Ord. No. 2010-17 Sec. 9 C)
- D. Any warranty repairs made shall be under warranty for the same time period (i.e., 2 years) from the date the repair is accepted by the city.
- E. Any time a developer fails to act promptly on maintenance activities required by this section, the city will either: complete the work and charge the developer, or will exercise its rights under the street and drainage maintenance bond. (Ord. No. 2006-44, Sec. 9.)

## **CHAPTER 9.03**

### **SIDEWALKS**

**Sections:**

- 9.03.01 Sidewalks
- 9.03.02 Construction of Sidewalks
- 9.03.03 Inspection of Sidewalks
- 9.03.04 Enforcement

#### **9.03.01 General Sidewalk Design Standards**

- A. Sidewalks are to provide for safe pedestrian circulation and promote pedestrian transportation.

- B. Sidewalks generally shall be constructed on both sides of the street and shall be in accordance with current Americans with Disabilities Act (ADA) requirements and current city of Centerton standards.
- C. Sidewalks shall be a minimum of five (5) feet wide unless otherwise approved or required by the planning commission. , No obstructions (mailboxes, signs, etc.) will be allowed in the sidewalk unless specifically designed and approved in writing by the public works director or planning director, or their designees prior to installation. The minimum vertical clearance to the bottom of any obstruction overhanging the sidewalk will be 80 inches.
- D. Sidewalks shall be constructed at a 2% maximum cross slope. Where sidewalks cross driveways, the driveway shall not exceed a 2% cross slope along the path of the sidewalk.
- E. Sidewalks will be cut at five (5) feet intervals with expansion joints not to exceed 25 feet intervals.
- F. Expansion joints shall be made of fiberboard or material approved by city. TREATED LUMBER SHALL NOT BE USED.
- G. Sidewalks shall be continuous through driveways with a cold joint or expansion joint at the edge of the sidewalk opposite the street.
- H. Sidewalks shall be finished with a smooth and even surface.
- I. Sidewalks which extend or link existing sidewalks shall adjoin the existing sidewalks to form a continuous, even pathway.
- J. No fences, walls, or structures shall be constructed within two (2) feet of any sidewalk unless otherwise approved by the city.
- K. Where sidewalks join a storm drain box, the sidewalk shall be supported by the drain box. The sidewalk may be “doweled” to the drain box using #4 or #5 smooth rod or “keyed” to storm drain box subject to approval by the city. A detail of the sidewalk/drain box connection shall be submitted to the city for review.
- L. Removal and replacement of broken sidewalks require vertical saw-cuts on both ends of the sidewalk being replaced. Minimum replacement of sidewalk is in 5’ intervals.
- M. Green space shall be an area that is covered with a vegetation such as grass, low flower bedding or similar type vegetation, or decorative stone that will not encroach, impede, or cause a hazard to the pedestrian traffic on sidewalks. If loose mulch or stone is utilized, it shall include a edge material to maintain the material in the green space without encroaching into the sidewalk or roadway.

- N. In residential subdivisions, sidewalks are to be constructed along all street frontages. The subdivision developer is responsible for constructing sidewalks along all streets where driveway access is prohibited and all common areas, as designated on the plat. If a non-accessible street right-of-way exists at the side or back of the lot, the subdivision developer is responsible for constructing the sidewalk along the full side or back of the lot.
- O. In residential subdivisions, the home builder is responsible for constructing any sidewalk not constructed by the developer.
- P. In all developments, the developer is responsible for building ADA compliant ramps, also compliant with standards adopted by the city, at all locations where sidewalks intersect a curb, driveway, streets or alleys. Ramp width shall match the width of adjoining sidewalk and shall be constructed with a Detectable Warning Device Pad (DWDP), excluding ramps adjoining single family residential driveways. The DWDP shall be located so that the nearest edge of the device is six inches (6") from the face of curb. The DWDP shall extend two (2) feet in the direction of travel, be the full width of the ramp, and be placed such that the domes align in the predominant direction of travel. See Detectable Warning Examples shown in Illustrations 9.03.01(A) and 9.03.01(B). In any existing subdivision where ADA accessible ramps are required but not installed, the home builder shall be responsible for constructing ADA accessible ramps with DWDP installed.
- Q. In developments other than residential, or in mixed use developments, the developer is responsible for all sidewalk construction not adjacent to residential lots.
- R. The Public Works Department shall have the discretion and authority to grant exceptions in order to accomplish reasonable continuity in sidewalks.
- S. These requirements shall not apply to sidewalks on private property (*e.g.*, sidewalks from front door to driveway, to rear of house, pathway on residence, primary to residence, etc).
- T. Any negligent damage caused to sidewalks other than normal settling and cracking shall be the responsibility of the owner to repair. (Ord. No. 2010-18 Sec. 1)
- U. On lots that are purchased by adjacent homeowners, whether to be developed, combined with their lot, or left vacant, the owner is required to construct the sidewalk to the property line; the same as a homebuilder would if developed.

### **9.03.02 Construction of Sidewalks**

- A. Sidewalks shall be constructed of Portland cement concrete having a minimum 28 day compressive strength of 3,000 psi, a minimum of 4 inches thick, with a minimum of four (4) inches of compacted base course underneath.

- B. The sub-grade under the sidewalk shall be well compacted.  
(Ord. No. 2010-18, Sec 2)

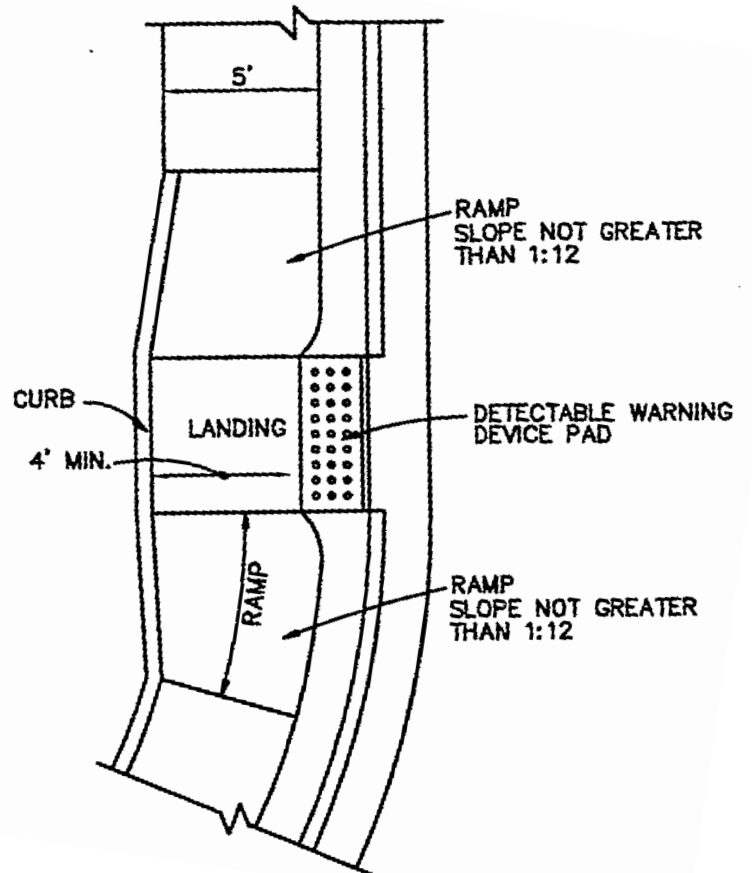
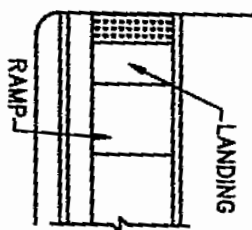
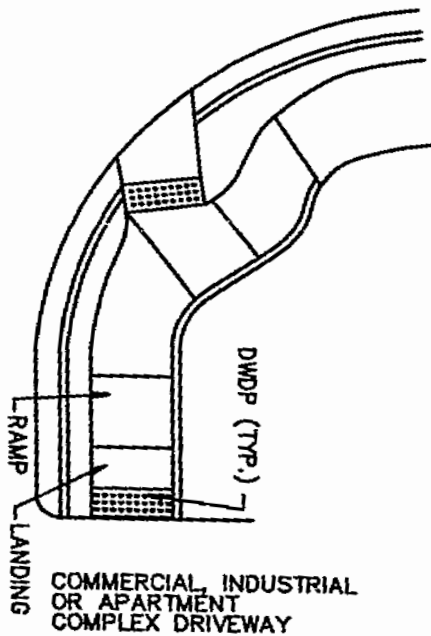
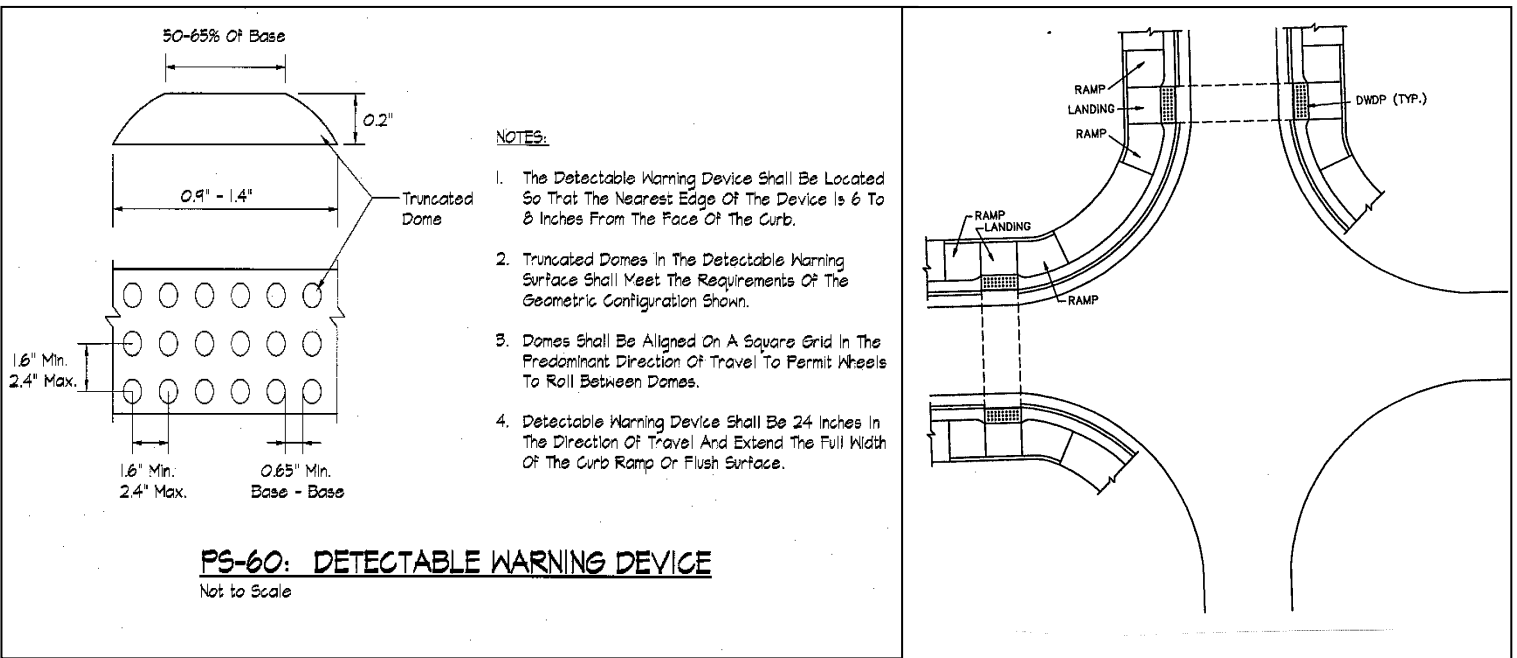
### **9.03.03 Inspection of Sidewalks**

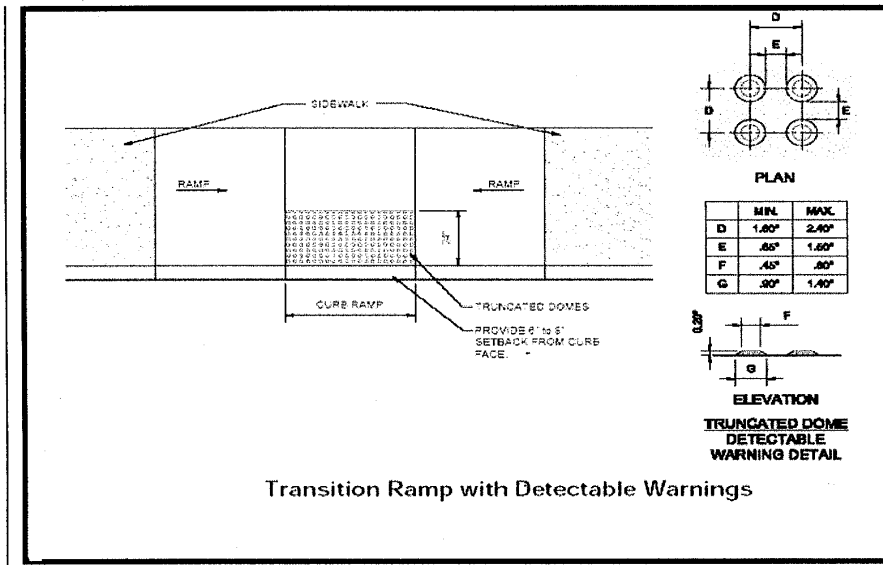
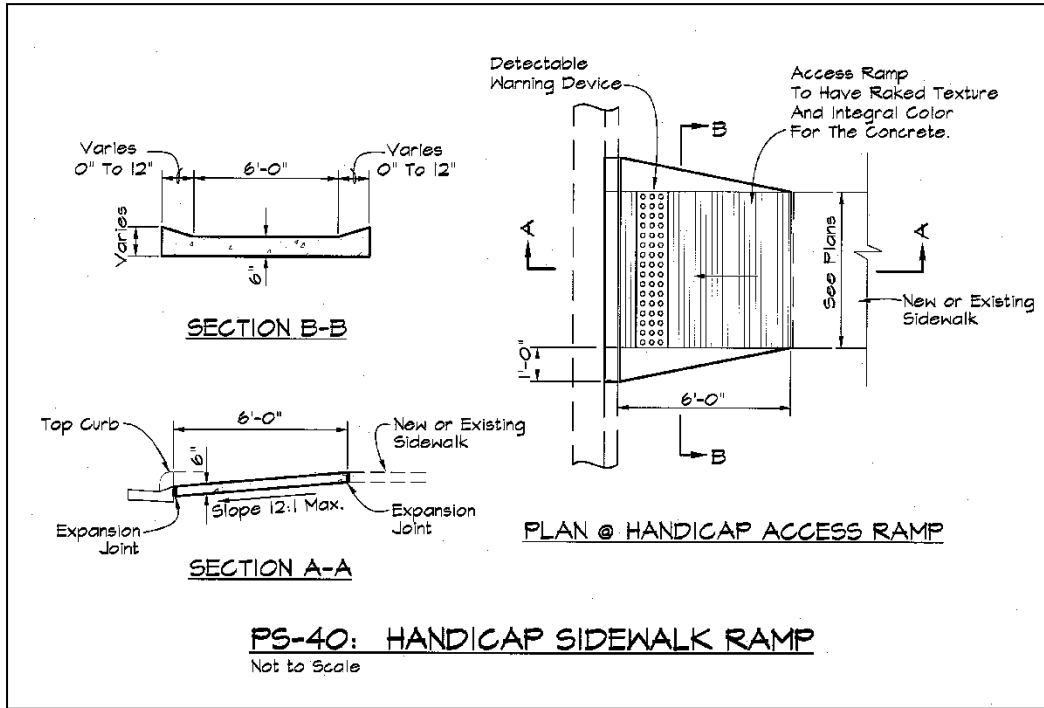
When probable cause exists that these specifications and standards are not being met, the Mayor, the Public Works Director, or their designee, may require further testing to insure compliance. Engineering or third party testing approved by the Public Works Department may be required to insure compliance. Cost of testing including consulting engineer's fees shall be the responsibility of the owner.

Sub-grade and form work for sidewalks, shall be inspected by the Public Works Department prior to pouring concrete. The home builder shall notify the City at least forty-eight (48) hours in advance of pouring concrete to allow for inspections. Notification requirements may be greater depending on availability. Notification must be provided during the published Public Works hours of operation. If notification is received outside of those hours, notification will be assumed as the start of the next business day. All ADA accessible ramps will require inspections.  
(Ord. No. 2010-18, Sec 3)

### **9.03.04 Enforcement**

It shall be the duty of the Mayor, the Public Works Department, or their designee, to insure compliance with and enforce the provisions of this chapter. In order to carry out these duties and responsibilities, the Mayor, the Public Works Department, or their designee, is hereby granted the authority to enter upon all premises and improvements located thereon within the planning area of the City of Centerton, Arkansas. If the designated inspector when performing the duties herein established, determines that any work methods, materials and/or standards do not comply with the provisions of this chapter, he shall notify in writing the person or contractor performing such work, and the developer or owner of non-compliance. The Public Works Department, or designee, will also notify in writing the Building Official of non-compliance and the Building Official shall not issue a certificate of occupancy for the subject property until the non-compliance is corrected and approved by the designated inspector. (Ord. No. 2010-18, Sec. 4)





## CHAPTER 9.04

### EXCAVATIONS AND ALTERATIONS

Sections:

9.04.01	Definitions
9.04.02	Prohibition
9.04.03	Permits
9.04.04	Permit issuance, expiration and renewal
9.04.05	Protective measures
9.04.06	Clearance for fire equipment
9.04.07	Repairs
9.04.08	Inspection or repair and/or restoration work
9.04.09	Deposit or surety bond refund
9.04.10	Penalty

**9.04.01 Definitions** For the purposes of this ordinance, the following terms, phrases, words and their derivations shall have the meaning given herein. The word “shall” is always mandatory and not merely directory.

**Applicant** is any person making application for an excavation or alteration permit issued hereunder.

**City** is the city of Centerton, Arkansas.

**City Inspector** is the Street Superintendent (or other duly authorized official) of the city of Centerton, Arkansas. (Ord. No. 2008-8, Sec. 1.)

**Excavate or Excavation or Alteration** shall include but not be limited to digging, trenching, cutting, drilling, tunneling into or under the surface, modification, removal or moving of surface structures or structures or property below the surface, removal of dirt, topsoil, rock, or other geological materials from their position prior to said removal, or in any other manner disturbing the surface of any right-of-way within the city for the purpose of installing or maintaining public utilities.

**Permittee** is any person who has been granted and has in full force and effect an excavation or alteration permit issued hereunder.

**Person** is any individual, firm, partnership, association, corporation, company, public utility, public entity or organization of any kind.

**Public utilities** means any line, system and appurtenance or facility used for producing, storing, conveying, transmitting or distributing communications, electricity, gas, heat, water, steam and sewage.



**Repair and/or restoration** is the return of the right-of-way and/or the existing public utilities to their original condition.

**Right-of-way** means any area along which public utilities are located. (Ord. No. 2001-18, Sec. 1.)

**9.04.02 Prohibition** It shall be unlawful for any person to excavate right-of-ways within the city, unless such person meets the requirements for obtaining a permit hereunder and has been granted and has in full force and effect an excavation or alteration permit issued hereunder, and notice has been given as prescribed hereunder. (Ord. No. 2001-18, Sec. 2.)

**9.04.03 Permits** Permits may be issued to persons who, in the opinion of the City Inspector, and properly qualified to make the excavations and repairs.

- A. Application for permit: An application for an excavation or alteration permit shall be made, in writing, to the City Inspector and shall contain the following:
1. The name, address and telephone number of the person or entity making application and proposing to perform the excavation.
  2. The qualifications and experience of the party performing the work.
  3. The location and purpose of the proposed excavation.
  4. The name, address and telephone number of the owner(s) of the property to be excavated, if other than the city.
  5. A plan or description of the excavation proposed, including, but not limited to:
    - a. the number of lineal feet to be excavated,
    - b. the manner in which the excavation will be accomplished,
    - c. the anticipated damage to right-of-ways, as well as the estimated costs of repair and/or restoration,
    - d. a plan or description of the measures intended to restore the excavated right-of-way to its original condition.
  6. Such other information as the City Inspector shall find reasonably necessary to make a determination of whether the permit should be issued.

B. Permit fees:

1. Filing fees the fee for a permit required hereunder shall be \$10.00, which shall accompany the application; provided, however, that utility companies franchised by the city may be billed monthly for all permits issued to them during the previous month.
2. Inspection fee The City Inspector shall charge a fee for all inspections and engineering services done on behalf of an applicant or permittee hereunder. The inspection and engineering fees shall be computed from a schedule of charges based on anticipated actual costs.

C. **Cash deposit of bond:** No person shall make any excavation for which a permit is required by this ordinance unless such person has deposited with the City Inspector cash or sufficient surety bond for the purpose of guaranteeing the repair and/or restoration of the right-of-way. The amount of the cash or surety bond required shall be determined by the City Inspector based upon the estimated cost of the repair and/or restoration, but in any instance shall not be less than Five Hundred Dollars (\$500.00).

1. Forfeiture The cash or surety bond shall be forfeited for failure by permittee to a)complete the repairs and/or restoration, b) complete the necessary cleanup, c) for causing unnecessary inconvenience or damage to vehicular or other traffic, of d)failure to otherwise adhere to the requirements of this ordinance.
2. Exemption The public utilities operated by companies franchised by the city shall be exempt from the cash deposit or surety bond requirements of this ordinance.

D. Notice No person shall make any excavation or alteration for which a permit is required by this ordinance unless such person has given notice of the issuance of the permit to the city's water and sewer department, street department, and has complied with the requirements of the Arkansas Underground Facilities Damage Prevention Act. (Ord. No. 2001-18, Sec. 3.)

**9.04.04 Permit issuance, expiration and renewal** A permit shall expire six (6) months from the date of issuance, but may be renewed upon application. The procedure for renewal applications shall be in the same manner and with the same fees as required in 9.04.03 for original application. (Ord. No. 2001-18, Sec. 4.)

**9.04.05 Protective measures** Every person performing excavation or alteration governed by this ordinance shall place and maintain proper and adequate caution lights, guards, and other appropriate protective measures around the same for the protection of the public. Such protective measures shall comply with state rules and regulations. (Ord. No. 2001-18, Sec. 5.)

**9.04.06 Clearance for fire equipment**

- A. The excavation or alteration work shall be performed and conducted so as not to interfere with access to fire stations and fire hydrants. Materials or obstructions shall not be placed within ten (10) feet of fire hydrants. Passageways leading to fire escapes or fire-fighting equipment shall be kept free of piles of material or other obstructions.
- B. The permittee shall construct and maintain adequate and safe crossing over excavations to accommodate fire-fighting and emergency equipment as well as pedestrian and vehicular traffic of the general public. (Ord. No. 2001-18, Sec. 6.)

**9.04.07 Repairs**

- A. Each person performing excavation or alteration under this ordinance shall repair the right-of-way upon which excavation or alteration was made, at such person's own expense and under the direction and supervision of the City Inspector to the following standards:
  - 1. All excavations or alterations in non-paved areas shall be backfilled and tamped with the same type of materials excavated.
  - 2. Any grass or vegetation shall be replaced or re-seeded, per the specifications of the City Inspector.
- B. The permittee shall notify the City Inspector prior to the beginning of such repair and/or restoration work and obtain the approval of the City Inspector prior to the beginning of such repair and afford the City Inspector the opportunity of being present during the progress of such repair until completed. (Ord. No. 2001-18, Sec. 7.)

**9.04.08 Inspection of repair and/or restoration work** After the repair and/or restoration work required by 9.04.07 has been completed, the permittee shall notify the City Inspector that such work has been completed. The City Inspector shall make an inspection to insure that the work has been done in accordance with the requirements of 9.04.07 and the other reasonable specifications provided to the permittee by the City Inspector. In the event any part of the work is not done in a satisfactory manner or not in conformity with this ordinance or such specifications, the City Inspector shall notify the permittee or owner in writing of the non-acceptance of the repair and/or restoration work. All such rejected work shall be removed, and replaced as required in 9.04.07 within the time designated by the City Inspector. (Ord. No. 2001-18, Sec. 8.)

**9.04.09 Deposit or surety bond refund** When the repairs and/or restoration required by this ordinance are satisfactorily completed and approved and paid for, the City Inspector shall authorize the return of any sum deposited as provided in this ordinance. In the event that the permittee shall fail, refuse or neglect to make such repairs and/or restoration, or shall fail, refuse or neglect to remove and replace any rejected work, the city may make such repair and/or

restoration, or cause such repair and/or restoration to be made, and deduct the cost therefrom from the amount on deposit with the city, and the balance, if any, shall be paid to the permittee. In any case where the cash deposit or surety bond is not sufficient to cover the cost incurred by the city in making the required repairs, the city may recover the excess cost from permittee. Failure of any permittee to pay the excess cost shall be grounds for refusal of any future permit applications. (Ord. No. 2001-18, Sec. 9.)

**9.04.10 Penalty** Any person violating any of the provisions of this ordinance shall be deemed guilty of a misdemeanor and upon conviction thereof, shall be fined in an amount not exceeding Five Hundred Dollars (\$500.00), and such violation shall be stopped until a proper permit has been issued. Each day such violation continues shall constitute a separate offense and shall be punishable as such hereunder. (Ord. No. 2001-18, Sec. 10.)

## **CHAPTER 9.05**

### **DRIVEWAY AND DRIVEWAY APPROACHES**

#### **Sections:**

- 9.05.01 General Driveway and Driveway Approach Standards
- 9.05.02 Construction Standards for Driveways & Driveway Approaches
- 9.05.03 Driveway Approaches Adjoining Street with Curb and Gutter
- 9.05.04 Inspection of Driveways and Driveway Approaches
- 9.05.05 Enforcement

#### **9.05.01 General Driveway and Driveway Approach Standards**

- A. Access to property shall be allowed only by means of a driveway, and no other portion of the lot frontage shall be used for ingress or egress. At least one driveway shall be permitted for any lot.
- B. For subdivision plats and large scale development plans, the location of driveways are to be shown on the preliminary plat in order to show potential areas of conflict with curb inlets, throat extensions and their transitions, ADA ramps, etc. Driveway locations will be reviewed by the Centerton Public Works Department and Building Department at time of construction.
- C. Driveways shall be designed to minimize interference with through street traffic, and shall be subject to site plan approval. The types of vehicles that a driveway approach is intended to serve shall be a prime factor in determining the acceptable radii of driveway approach.

- D. Driveways on corner lots shall be located as far away from the intersection as possible. In no case shall a driveway be installed closer than ten (10) feet to the beginning of the street intersection curb radius, unless otherwise approved by the City.
- E. Driveways shall be located a minimum of five (5) feet from curb inlets to be outside of the transition area.
- F. Driveways for residential lots with front entry garages should be the same width as the garage served plus two (2) feet. Driveways shall be a minimum of ten (10) feet wide with the maximum width not exceeding one-half (½) the lot width, unless approved by the city.
- G. Except in A-1 (agricultural) and R-E (residential estates) zoning districts, all driveways shall be paved from the property line and/or master street plan right-of-way with asphalt, concrete, brick or stone pavers or other solid surface and shall extend a minimum of twenty (20) feet into the property unless no parking or vehicle access is provided between the property line and the structure.
- H. Driveways shall be graded to cause surface water to be diverted into appropriate drainage structures and not diverted to neighboring properties.
- I. The driveway approach is the area between the sidewalk and the flow-line of the gutter, and shall slope up to the elevation of the sidewalk or match the top of curb elevation if sidewalk is not present.
- J. The driveway approach shall extend to the sidewalk or property line and/or master street plan right-of-way (whichever applies) from the paved street and shall be paved with concrete as specified herein.. EXCEPTION - Where a city street is not constructed of concrete or asphalt pavement then this requirement shall not apply.
- K. Driveway approaches shall be the same width as the connecting driveway plus a minimum one (1) foot wing on each side at curb cut. Commercial driveways and driveway approaches shall be as approved by planning commission. SEE ILLUSTRATION 9.05.01(A).
- L. If an unpaved driveway approach is not maintained with adequate gravel, grasses, or other plants and/or landscaping materials to keep the area from becoming rutted, muddy and/or soil from being blown or washed away and is identified as a violation of this provision, such driveway approach shall be remedied by the property owner. (Ord. 2010-19, Sec 1)
- M. The following minimum spacing of access roads and driveways (centerline to centerline) will be required based on the rating of the street as shown on the Master Street Plan (MSP) and posted speed limits:

Arterial/Collector Roads (Speed Limit 45 mph or greater) = 440 feet

Arterial/Collector Roads (Speed Limit 40 mph or less) = 250 feet

Local Roads not designated on the MSP = 220 feet

Residential Driveways = No Minimum except isolation from intersection  
stated above in 9.05.01.D

- N. Commercial Driveways = Minimum spacing of 440 feet will be required on commercial properties with road frontages of 600 feet or greater. Shared access drives placed along property lines are encouraged on all lots. Driveway locations may be reviewed by the Planning Commission on a case-by-case basis as part of the approval process of Adjacent Street Agreements and shared access may be required on lots with less than 600 feet of road frontage. Minimum spacing will still be required as noted above.
- O. If the strict enforcement of driveway spacing regulations would prevent a parcel from having driveway access to all adjacent roadways, City staff shall have the ability to review and approve an alternate driveway location that will comply with best practices for access and safety for traffic and pedestrians.

#### **9.05.02 Construction Standards for Driveways & Driveway Approaches**

- A. Concrete driveways and approaches shall be constructed of Portland cement concrete having a minimum 28 day compressive strength of 3,000 psi.
- B. The concrete shall be a minimum 4" thick for residential and 6" thick for commercial.
- C. Concrete driveways and approaches, and the portion of the driveway where the sidewalk crosses, shall be constructed on a minimum of four (4) inches of compacted Class 7 base over compacted sub-grade which is free from dust pockets, ruts and other defects.
- D. Expansion joints shall be made of fiberboard or material approved by city. TREATED LUMBER SHALL NOT BE USED. Expansion joints shall be 25 feet apart at maximum for concrete driveways.
- E. Concrete driveways and approaches shall have a surface finish of the owner's choosing, (stamped, stained, smooth, broom, etc.). EXCEPTION – Where a sidewalk continues through a concrete driveway approach then that portion of the designated sidewalk shall be a smooth finish. SEE sidewalk specifications for design criteria Chapter 9.03. (Ord. No. 2010-19, Sec. 2)
- F. Maximum allowable slope of driveways shall be 16%.

#### **9.05.03 Driveway Approaches Adjoining Street with Curb and Gutter**

- A. Existing curb shall be removed for the full width of the driveway approach if existing curb is an ArDOT Type A or C straight curb or similar. If existing curb is a low-profile curb, existing curb will not be required to be removed.
- B. All concrete to be removed shall be saw-cut.
- C. Horizontal curb cutting along the flow-line of the gutter is allowed.
- D. If no horizontal curb cut is made, complete curb and gutter removal is required.
- E. Broken edges of saw-cuts caused by demolition require a new saw-cut.
- F. The city official may grant variations where strict enforcement would be impractical due to circumstances unique to the individual property under consideration. (Ord. No. 2010-19, Sec. 3)

#### **9.05.04 Inspection of Driveways and Driveway Approaches**

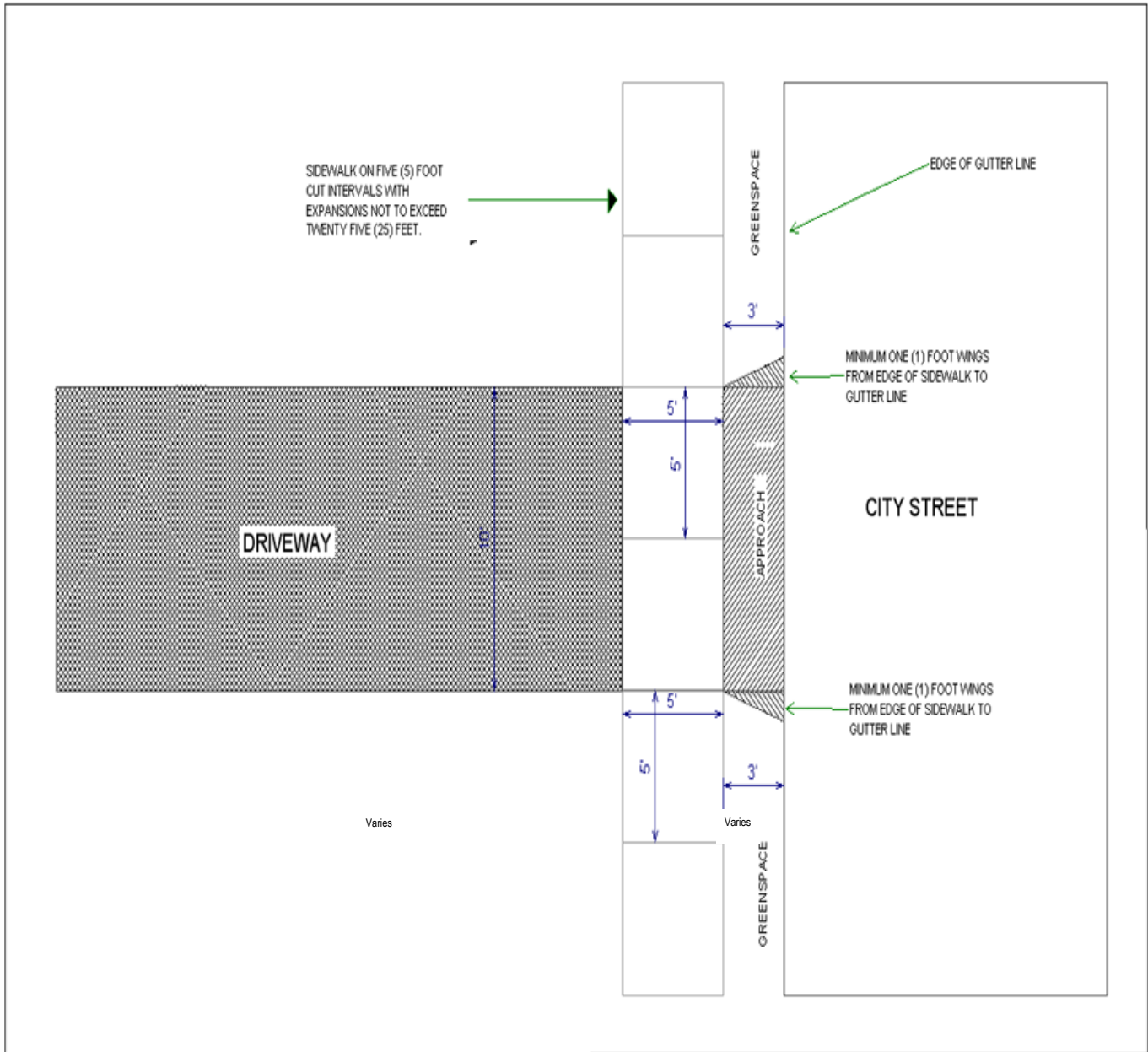
When probable cause exists that these specifications and standards are not being met, the Public Works Department, or designee, may require further testing to insure compliance. Engineering or third-party testing approved by the Public Works Department, or designee, may be required to insure compliance. Cost of testing including consulting engineer's fees shall be the responsibility of the owner.

Sub-grade and form work for sidewalks for developments other than residential shall be inspected by the Public Works Department, or designee, prior to pouring concrete. Contractor shall notify the city at least forty-eight (48) hours in advance of pouring concrete to allow for inspection. (Ord. No. 2010-19, Sec. 4)

#### **9.05.05 Enforcement**

It shall be the duty of the Mayor, the Public Works Department, or their designee, to insure compliance with and enforce the provisions of this chapter. In order to carry out these duties and responsibilities, the Mayor, Public Works Department, or their designee, is hereby granted the authority to enter upon all premises and improvements located thereon within the planning area of the City of Centerton, Arkansas. If the , or designated inspector, when performing the duties herein established, determines that any work methods, materials and/or standards do not comply with the provisions of this chapter, he shall notify in writing the person or contractor performing such work, and the developer or owner of non-compliance. The designated inspector, will also notify in writing the Building Official of non-compliance and the Building Official shall not issue a certificate of occupancy for the subject property until the non-compliance is corrected and approved by the Mayor, Public Works Department, or designee. (Ord. No. 2010-19, Sec. 5)

ILLUSTRATION 09.05.01(A) - DRIVEWAY APPROACH EXAMPLE





## **NAMING STREETS**

### Sections:

9.08.01	Purpose
9.08.02	Street address map
9.08.03	Centerlines
9.08.04	Street names
9.08.05	Address numbers
9.08.06	Signs, numbers and system maintenance
9.08.07	Number assignment, review and approval
9.08.08	Amendments
9.08.09	Coordination with 911 Emergency Service Data Center
9.08.10	Penalty

**9.08.01 Purpose** This ordinance establishes a system for assigning street names and address numbers which will assist the public and private sector in locating individual streets, buildings and places in an easy and logical manner and for the protection of public health and safety of all persons living, working or visiting in the city of Centerton. (Ord. No. 89-1, Sec. 1.)

### **9.08.02 Street address map**

- A. The official street address map is a part of this ordinance and shall contain the ordinance numbers and certifications which appear upon this document. The map shall identify all named streets, numbering centerlines and block numbering grids which specify address number ranges. A typical section of land shall be divided into blocks or grids, north/south and east/west.
- B. Final approval for any subdivision plat or large-scale development will not be granted without an address assignment.

**9.08.03 Centerlines** The address grid centroid is the intersection of Main Street and Highway 102 (AR 102). The address numbers increase proceeding north, south, east and west. The north and south address centerline is a line extending east and west from the grid centroid to the city limits. The east and west address centerline is a line extending north and south from the grid centroid to the city limits. (Ord. No. 89-1, Sec. 3.)

### **9.08.04 Street names**

- A. For the purpose of this ordinance the word “street shall mean all roadways, public and private, open for general public travel. Access drives to apartment and commercial complexes shall not be considered as streets and shall not be named as such.

- B. Streets which are also state and federal highways will be identified by their local street name followed by their state or federal designation in parenthesis on the official street address map. For example, E. Centerton Blvd (AR Highway 102).
- C. Cul-de-sac street which has only one entrance/exit shall not be called “street” or “road” but shall have a suffix name such as “cove,” “court,” “place” or “terrace” to indicate their dead end nature.
- D. Loop streets are circular or rectangular plan streets which begin at one point and end at another point along a common street and do not connect to any other streets. The street name suffixes on these streets must not be “road” or “street” but shall be “loop,” “lane,” “circle” or other name indicating a closed street layout. (Ord. No. 89-1, Sec. 4.)

#### **9.08.05 Address numbers**

- A. Address numbers shall be even on the north and east sides of the street and odd on the south and west sides of the street. 100 numbers shall be assigned to each identified grid block with the lowest number beginning at the point nearest the grid centerline. Address numbers shall be determined by the number grid in which the property is located.
- B. In new residential subdivisions each standard sized lot shall be given a pre-assigned street number by the Fire Chief or his designee prior to final plat approval. Address numbers will be assigned to large lots relative to their capacity to be divided into two or more minimum sized lots for the minimum width allowed by the zoning district. Address numbers shall be assigned to lots in the appropriate odd or even numerical sequence relative to their location, such as 201, 203, 205, etc.
- C. Address numbers for unplatted residential and all other non-residential buildings shall be determined by calculation based on the city grid.
- D. When street intersections are within 120 feet of a grid line the number series change shall be made at the intersection to be more logical to the public. When a long block faces two blocks divided by a street, the number series on the long block shall change at the intersection street so that houses facing each other will have compatible addresses.
- E. Diagonal streets which run 45 degrees or less from a north/south line will be numbered by the north/south grid and those more than 45 degrees from the north/south line will be numbered by the east/west grid. Curving streets will be assigned numbers based upon the grid of their greatest length. For instance, if the beginning is more south than east of the end then the north/south grid will be used.

- F. On loop streets and cul-de-sac streets address numbering shall begin at the entrance nearest the grid centerline. Address numbers shall increase or decrease relative to their initial movement from the grid centerline and continue to the opposite end as if the street were in a straight line.
- G. Apartment buildings on public streets shall be assigned individual addresses. Apartment clustered about a central parking area immediately facing a public street shall also be assigned separate street addresses.
- H. When apartments are arranged along a private street a sign showing the apartment complex name, with public street address below it, must be posted at the entrance. In these instances each building will be numbered, but a central postal facility for all apartments must be located so it is readily accessible to a mail carrier for the public street serving the complex.
- I. Each apartment must be identified on the exterior entrance by number. Apartment numbers shall be in sequence 1, 2, 3, etc and be in the following format: The first digit(s) shall be the building number, followed by the floor number, with the unit number being the last digit(s). (E.g. 627 signifies the unit is in building 6, 2<sup>nd</sup> floor, and the apartment number is 7.) If a common hallway is used for several apartments, the external hallway entrance to each apartment shall contain a list of the apartments served. When addressing townhouses and other buildings containing units separately owned, each address shall be placed upon the principal external entryway to the unit.

**9.08.06 Signs, numbers and system maintenance**

- A. Public street signs shall be installed at the expense of the original developer and thereafter maintained by the city of Centerton.
- B. Private street signs shall be required. They shall conform to the public street sign standards except shall have a blue background with white letters. Private street signs will be installed by the developer and maintained by the POA.
- C. Only street name signs which are authorized by the City Council shall be installed within the corporate limits of the city of Centerton. All street name signs, public or private, found not to conform with this ordinance shall be removed by the City Council. Non-conforming, damaged or deteriorated public street signs shall be replaced as soon as possible by the City Council.
- D. Address numbers shall be assigned by the Fire Chief or his designee and shall be installed by the builder before permanent power inspection and shall be the owner's responsibility thereafter. (Ord. No. 2008-8, Sec. 2.)

- E. Replacement of incorrect, illegible, or missing address numbers is required within 15 days after written notice to the owner by the Fire Chief or his designee. New and replacement numbers must be placed so that they will be clearly visible from the street of primary access to the building. Any person failing to comply with this provision of this ordinance shall, upon conviction thereof, be fined Twenty-Five Dollars (\$25.00) plus, cost of replacement by the City, and any prosecution costs.
- F. Address numbers shall be visible from the street. Numbers shall be of contrasting colors to be legible from the street, such as black on white. Other colors which have sufficient contrast to be read from the street under normal nighttime conditions may be approved by the Fire Chief or Chief Building Official, or their designees. The numbers shall be placed as near as possible to the primary entrance or front door of the building, facing the street adjacent to that entrance, and preferably above the entrance doorway. The locations, style, size and color of the required numbers shall be approved by the Fire Chief or Chief Building Official. Appeals concerning numbers shall be made to the City Council. (Ord. No. 2008-8, Sec. 2.)

#### **9.08.07 Number assignment, review and approval**

- A. Official records of address numbers shall be maintained by the Fire Department. The City Council shall have the final authority to change any assignment upon an appeal by any affected party.
- B. All proposed street names and name changes shall be reviewed for continuity with this ordinance by the Fire Chief or his designee, who may recommend alternative names when a proposed name duplicates or is so similar to an existing name that confusion could hamper prompt delivery of emergency services. The City Council shall hold a public hearing on street name changes and shall have the final authority to change any assignment. (Ord. No. 2008-8, Sec. 4.)

**9.08.08 Amendments** On any proposed amendments to these regulations or to the street address map the City Council shall hold a public hearing, a notice of which shall be published in a local newspaper of general distribution at least fifteen (15) days prior to the date of the hearing. Following the public hearing, the City Council may adopt the amendment or amendments by a majority vote of the City Council. (Ord. No. 89-1, Sec. 8.)

**9.08.09 Coordination with 911 Emergency Service Data Center** Following the naming of a new street, the renaming of an existing street, or a change of an existing street number with the assignment of a new street number, the Fire Chief or his designee shall notify the Benton County 911 Administration Office.