ORDINANCE NO. 565

AN ORDINANCE OF THE CITY OF UNIVERSITY PLACE AMENDING TITLE 13 OF THE UNIVERSITY PLACE MUNICIPAL CODE "PUBLIC WORKS", BY AMENDING CHAPTER 13.20 TRANSPORTATION

WHEREAS, on September 16, 2009, the Planning Commission completed its review and forwarded its recommendations to the City Council on a package of housing choice code amendments intended to help the City respond to regional planning directives and more effectively implement existing comprehensive plan goals, policies, and objectives; and

WHEREAS, the Planning Commission recognized at its September 16, 2009 meeting, and the City Council recognized at its September 28, 2009 meeting, that minor amendments to the city's street design standards contained in Chapter 13.20 would be necessary to ensure consistency with the streetscape design standards and guidelines adopted by reference in Chapter 19.54 that were part of the housing choice amendments package; and

WHEREAS, the City Council directed staff to prepare amendments to Chapter 13.20 to eliminate these inconsistencies; and

WHEREAS, the Planning Commission reviewed draft amendments to Chapter 13.20 at its October 21, 2009 and November 4, 2009 meetings, and, after considering various alternatives and receiving no public comment on the proposed amendments, recommended approval of amendments to the City Council; and

WHEREAS, the City Council reviewed the recommendations of the Planning Commission, Planning Staff and Engineering Staff at a public study session on January 19, 2010; and

WHEREAS, the City Council conducted a public review and considered public comment on the recommended amendments on February 1, 2010; and

WHEREAS, the City Council finds that the proposed amendments would be consistent with the Comprehensive Plan Policy TR1A, which directs the City to develop and adopt street design standards that will reduce street maintenance requirements, increase safety and improve street aesthetics; and

WHEREAS, the City Council finds that the proposed amendments will be in the best interests of the citizens and property owners of the city, in that the proposal will ensure consistency among the street design provisions contained in Chapter 13.20 Transportation, the Design Standards and Guidelines for Streetscape Elements, adopted by reference in Chapter 19.54, and the Design Standards and Guidelines for Small Lot and Multi-family Development, adopted by reference in Chapter 19.53; and

WHEREAS, the City Council finds that the proposed amendments will enhance the public health, safety, comfort, convenience or general welfare by ensuring that well-designed public streetscape facilities are provided in conjunction with new development and certain redevelopment; NOW, THEREFORE,

THE CITY COUNCIL OF THE CITY OF UNIVERSITY PLACE, WASHINGTON, DOES ORDAIN AS FOLLOWS:

Section 1. <u>Title 13 Transportation -- Chapter 13.20 -- Transportation -- Sections 13.20.110 Purpose, 13.20.120 Additional Design Standards, 13.20.150 Street Frontage Improvements, 13.20.210 Design, 13.20.215 Functional Classification, 13.20.220 Right-Of-Way, 13.20.225 Private Streets, 13.20.230 Dead-End Streets, 13.20.245 Driveways, 13.20.255 Surfacing Requirements, 13.20.260 Excavation and Backfill, 13.20.350 EV Access Specifications, 13.20.415 Sidewalks, 13.20.610 General, 13.20.620 Purpose, 13.20.830 Bus Stops, Shelters, and Amenities, and 13.20.870 Right-Of-Way</u>

Landscaping and Irrigation, of the University Place Municipal Code, are hereby amended as set forth in Exhibit "A" attached.

Section 2. <u>Copy to be Available.</u> One copy of this ordinance shall be available in the office of the City Clerk for use and examination by the public.

Section 3. <u>Severability.</u> If any section, sentence, clause, or phrase of this ordinance shall be held to be invalid or unconstitutional by a court of competent jurisdiction, such invalidity or unconstitutionality shall not affect the validity or constitutionality of any other section, sentence, clause, or phrase of this ordinance.

Section 4. <u>Publication and Effective Date.</u> A summary of this Ordinance consisting of its title shall be published in the official newspaper of the City. This ordinance shall take effect five days after publication.

PASSED BY THE CITY COUNCIL ON FEBRUARY 1, 2010.

Debbie Klosowski, Mayor

ATTEST:

APPROVED AS TO FORM:

etia, City Clerk

Janean Parker, City Attorney

Date of Publication: 02/03/10 Effective Date: 02/08/10

Exhibit A to Ordinance No. 565

Amendments to Chapter 13.20 Transportation

Sections:

Article I. General Considerations

- 13.20.110 Purpose.
- 13.20.120 Additional design standards.
- 13.20.130 Standardized format for traffic analyses.
- 13.20.140 Developments on substandard streets.
- 13.20.150 Street frontage improvements.

Article II. Streets

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- 13.20.220 Right-of-way.
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- 13.20.230 Dead-end streets.
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- 13.20.255 Surfacing requirements.
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- 13.20.405 General.
- 13.2<u>0.410</u> Purpose.
- 13.20.415 Sidewalks.
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- 13.20.425 Joint-use facilities.
- 13.20.430 Accessibility.
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- Article V. Paved Shoulders/Bicycle Lanes
- 13.20.510 General.
- 13.20.520 Purpose.
- 13.20.530 Design standards.
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- 13.20.610 General.

- 13.20.620 Purpose.
- 13.20.630 Design standards.
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- Article VII. Traffic Control Devices
- 13.20.710 Signing.
- 13.20.720 Signals.
- 13.20.730 Roundabouts.
- Article VIII. Roadside Features
- 13.20.810 General.
- 13.20.820 Survey monuments.
- 13.20.830 Bus stops, shelters, and amenities.
- 13.20.840 Mailboxes.
- 13.20.850 Guardrails.
- 13.20.860 Walls.
- 13.20.870 Right-of-way landscaping and irrigation.
- 13.20.880 Temporary right-of-way signs, street banners and decorations.

Article I. General Considerations

13.20.110 Purpose.

The purpose of this chapter is to provide for the development of an integrated, uniform, multimodal, fully accessible transportation system that facilitates present and future travel demand with minimal environmental impact to the community.

A. The design objective for vehicular zones is to create a circulation system that provides for the safe and efficient movement of vehicles and reduces conflict with pedestrians and bicyclists and to provide roadway standards that will help create streets that are inviting, multimodal public places.

B. The design objective for pedestrian zones is to provide a high level of design detail, promote walkability by improving pedestrian safety, convenience, and comfort, and enhance the aesthetic character and quality of the pedestrian experience.

13.20.120 Additional design standards.

UPMC Title 19 presents additional design standards that apply to certain transportation facilities. These include the Design Standards and Guidelines for Streetscape Elements adopted by reference in UPMC 19.54. These standards and guidelines apply to neighborhood collector streets and local streets associated with new development as well as qualifying modifications to existing development.

13.20.150 Street frontage improvements.

A. Street frontage improvements shall be required in conjunction with the subdivisions and short subdivisions of land, <u>small lot and innovative housing developments</u>, planned development districts, conditional use permits, binding site plans, and the modification or construction of buildings. Frontage improvements shall consist of half street improvements in conformance with the standard street section and the City street standards in Article II of this chapter <u>and the Design Standards and Guidelines for Streetscape Elements adopted by reference in UPMC 19.54.</u> Such improvements may include curbs, gutters, bike lanes, planter strips, medians, sidewalks, bus stops, bus shelters, bus pads, bus pullouts, street storm drainage, street lighting systems, traffic signal installation, modification, or relocation, utility relocation, landscaping, irrigation, and street widening.

B. Plans shall be stamped by a civil engineer licensed to practice in the State of Washington.

C. Where the existing right-of-way is of insufficient width to accommodate the required improvements, right-of-way dedication will be required. The dedications shall comply with the provisions of UPMC 13.10.030. For plats, the right-of-way may be dedicated at the time of recording.

D. All frontage improvements shall be completed in a manner acceptable to the City prior to occupancy, final plat approval, final short plat approval, final development plan approval, or binding site plan approval.

E. Exceptions.

- 1. When the Director determines based on good reasons shown that any or all of the required improvements should not be accomplished at the time specified in subsection (D) of this section, a recorded agreement or financial guarantee shall be completed on forms provided by the City. The agreement shall require the applicant to install the improvements at a later date.
- 2. The construction, remodeling or enlargement of an individual Group R3 or Group U occupancy (as defined in the building code) shall be exempt from this section.
- 3. Alterations or repairs not constituting a major improvement are exempt from this section. See UPMC 13.05.220 for the definition of "major improvement."
- 4. Major improvements that add less than 10 percent floor area and which value does not exceed 50 percent of the assessed value of the existing structure shall be exempt from the requirements of this section. Alterations or repairs completed within the 12-month period immediately preceding the date of permit application shall be considered as part of the current proposal and their costs shall be included in considering the applicability of this exemption.
- 5. Two or three lot short plats accessing local streets and two lot short plats accessing arterial streets may elect to defer the construction of the required frontage improvements by completing and recording the City of University Place LID Covenant. By recording this covenant the property owner agrees to participate in and not protest the formation of a local improvement district on the abutting streets. Nothing in the covenant will in any way absolve the property owner from the obligation to improve the frontage of the property. If it becomes necessary to mitigate the effects of the development prior to the formation of an LID, the property owner will have 120 days from receipt of the written notice from the City to complete the required improvements. If right-of-way dedication will be necessary to construct the standard street section, the right-of-way shall be dedicated upon recording of the short plat.

Article II. Streets

13.20.210 Design.

- A. The design of streets shall depend upon their type and usage. Standard roadway sections for each street classification are provided at the end of this chapter.
- B. The layout of streets shall provide for the continuation of existing principal streets in adjoining subdivisions or of their proper projection when adjoining property is not

subdivided. <u>Local</u> streets shall be designed to <u>accommodate</u> through <u>connections for</u> non-motorized traffic (pedestrians and bicycles)..

- 1. Alignment. Alignment of major arterials and collectors shall conform, as nearly as possible, with that shown in the City's Comprehensive Plan.
- 2. Grade. Street grade should conform closely to the natural contour of the land. In some cases, a different grade may be required by the Director. The minimum allowable grade shall be 0.7 percent. The maximum allowable grade shall be 15 percent, depending upon the street classification.
- 3. Width. The pavement and right-of-way width depend upon street classification. Table I, Street Design Standards, shows the minimum widths allowed in subsection D, below.
- 4. Sight Obstruction. The design and construction of all streets shall provide the sight distances indicated in this article.
- 5. Parking and fire lanes shall be provided in accordance with the requirements of zoning and fire codes.
- 6. Bus stops, pullouts, and other bus transit amenities shall be in accordance with the requirements of Pierce Transit and/or the school district.
- C. Nothing in this chapter shall prevent the City from making interim transportation improvements to existing facilities. The City may make interim transportation improvements that may not fully conform to the standards set forth in this chapter. Such improvements are necessary in order to protect and improve the public health, safety and welfare.
- D. Specific street design standards are provided in Table I, below.

Table I: Street Design Standards									
Design Standard	Major Arterial	Secondary Arterial	Collector Arterial	Neighbor- hood Collector	Local Feeder Street	Neighbor- hood Street	Access Lane	Private Street	Alley
Right-of-Way Width	85'-89'	63'-67'	60'-67'	60'	60'	53'	40'	26'	1020'-24'
¹ Parking Lanes	² None	² None	² None	² None	Both sides: 7' wide parallel	One side: 7' parallel	Not permitted	Optional one side: 8' parallel	Not permitted
Grade (min./max	0.7%/8%	0.7%/8%	0.7%/15%	0.7%/15%	0.7%/15%	0.7%/15%	0.7%/15%	0.7%/15%	0.7%/15%
Cement Concrete Curb and Gutter	Both sides	Both sides	Both sides	Both sides	Both sides	Both sides	Per storm system design	Per storm system design	Per storm system design
Sidewalks	³ Both sides: 6'	³ Both sides: 6'	³ Both sides: 6'	Both sides: 6'	Both sides: 5'	Both sides: 5'	One side/ variable walkway	⁴ One side: 5'	N/A
Planter Strip Width (including curb)	Both sides: 4'-5.5'	Both sides: 4'-5.5'	Both sides: 5.5	Both sides: 5.5'-8'	Both sides: 8'	Both sides: 8'	10' (includes pedestrian walkway)	N/A	¹⁰ Both sides: 2'-4'
Bike Facilities/Shoulders	Both sides: 5'	Both sides: 5°	Both sides: 5'	⁵ On-street, striped: 5' to 6'	⁵ On-street, shared use	On-street, shared use	On-street, shared use	N/A	N/A
Intersection Curb Radius (inside)	35'	35'	30'	⁶ 10'-20'	610'-20'	20,	20'	20'	N/A
Centerline Radius ⁷ (minimum)	600'	600'	150°	150'	150'	As approved	As approved	As approved	As approved
Raised Landscape Median	8'-12'	8'-12'	88'-12'	None	None	None	None	None	None
Through Travel Lanes	Variable	Variable	2	2	2	2	2	2	1
Travel Lane Width	11'	11'	11'	11'	10'	10'	10'	⁹ 10'	16'

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- ⁶ A typical minimum curb return radius of 10 to 15 feet should be used where:
 - high pedestrian volumes are present or reasonably anticipated;
 - volumes of turning vehicles are low;
 - the width of the receiving intersection approach can accommodate a turning passenger vehicle without encroachment into the opposing lane;
 - passenger vehicles constitute the majority of turning vehicles; bicycles and parking lanes create additional space to accommodate the "effective" turning radius of vehicles;
 - low turning speeds are required or desired; and
 - occasional encroachment of a turning school bus, moving van, fire truck or oversized delivery truck into an opposing lane is acceptable.

Curb radii will need to be larger than 15 feet where:

- occasional encroachment of a turning school bus, moving van, fire truck or oversized delivery truck into an opposing lane is not acceptable;
- curb extensions are proposed or might be added in the future; and
- receiving street does not have parking or bicycle lanes and the receiving lane is less than 12 feet in width.

In such cases where a minimum curb return radius larger than 15 feet is proposed, it should be demonstrated that pedestrian safety will not be compromised beyond that which is necessary to accommodate other transportation facility requirements.

¹ Parking bays are required when parking is provided on one side of a street and may be required when parking is provided on both sides of a street.

² Parking lanes on arterials may be allowed with approval from the Director. Parking bays may be required on arterial streets.

³ Sidewalks in commercial areas shall be 10 feet wide when required by the Director.

⁴ Not required for two or less dwelling units.

⁵A paved shoulder/bike lane shall be required if the neighborhood collector or local feeder street has been designated as a bike route.

This radius may be reduced with superelevation in conformance with AASHTO if approved by the Director. Maximum equals six percent.

⁸ May be reduced or eliminated if approved by the Director.

⁹ Pavement width and tract width shall increase eight feet for each parking lane desired.

¹⁰ Alley right-of-way, tract or width may vary depending on type of development being served and be reduced to the minimum dimension shown provided that at least 24 feet of

separation will be maintained between garages with garage doors facing each from opposite sides of the alley.

13.20.215 Functional classification.

A. General.

- 1. Functional Classification Elements. Streets are most effectively classified by their function, according to the character of the service they are intended to provide. The functional classification system creates a hierarchy of classified streets. The classification system can be used for planning new routes, improvements to existing streets, and planning for area development in concert with the transportation network and providing minimum design standards or criteria to encourage the use of the street as intended.
- 2. City definitions for each functional classification are presented below. The City functional classification system directly addresses all streets that are under the jurisdiction of the City. City streets are divided into major (or principal) arterials, secondary arterials, collector arterials, neighborhood collector arterials, and local access streets in accordance with regional transportation needs and the functional use each serves. Function is the controlling element for classification and shall govern rights-of-way, road width, and road geometrics. The function classification definitions in subsection (B) of this section are provided to assist the applicant in determining the classification of a particular street. New streets will be classified by the Director. If a street or portion of a street is not listed, the applicant is responsible for making inquiries to the Director to determine the correct street classification.
- B. Function Classification Definitions.
- 1. Major Arterials.
- a. Major arterials provide service for major traffic movements within the City. They serve major centers of activity, intra-area travel between University Place and other suburban centers, between larger communities, and between major trip generators. Major arterials serve the longest trips and carry the major portion of trips entering and leaving the overall area. Typically they are one of the highest traffic volume corridors in the City. The design year ADT is approximately 5,000 to 30,000 vehicles per day or more. They frequently carry important intra-urban and inter-city bus routes.
- b. The spacing of major arterials usually varies from about one mile in highly developed business areas to five miles or more in rural areas. Service to abutting land is subordinate to the provision of routes for major traffic movements. It is desirable to place arterials on community and neighborhood boundaries or adjacent to, but not through, major shopping centers, parks, and other homogeneous areas.
- 2. Secondary Arterials.
- a. Secondary arterials interconnect with and augment the major arterial system. Secondary arterials connect major arterials to collector arterials and small generators. They provide service to medium-size trip generators, such as less intensive commercial

development, high schools and some junior high/grade schools, warehousing areas, active parks and ball fields, and other land uses with similar trip generation potential. They distribute travel to smaller geographic areas and communities than those identified with the major arterial system. They provide routes for trips of moderate length and somewhat lower level of travel mobility than major arterials. The design year ADT is approximately 2,500 to 15,000.

- b. Spacing of secondary arterials is usually less than one mile in fully developed areas. They provide intra-community continuity and are typically a continuous street with a direct rather than a meandering alignment. They may carry local bus routes. Secondary arterials allow for more emphasis on land access than the major arterial system. They usually do not penetrate identifiable neighborhoods.
- 3. Collector Arterials. Collector arterials distribute trips from major and secondary arterials to the ultimate destination, or may collect traffic from local streets and channel it into the major and secondary arterials systems. They carry a low proportion of traffic traveling through the entire subarea; they carry a high proportion of local traffic with an origin or destination within that area. Design year ADT is approximately 2,500 to 15,000. They may be on a somewhat meandering alignment and need not be particularly long or continuous. Spacing is typically about one-quarter mile in developed areas. Collector arterials provide both land access service and traffic circulation within residential neighborhoods, commercial, and industrial areas. They may penetrate identifiable residential neighborhoods.
- 4. Neighborhood Collector Arterials.
- a. Neighborhood collector arterials distribute traffic between more principal traffic routes and local service streets within neighborhoods. All of them serve as fire response routes, some may be transit streets, and <u>some</u> may be designated as bike routes. Because neighborhood collector arterials serve multiple purposes, their use must strike a balance between efficiently moving traffic and preserving neighborhood livability.
- b. Neighborhood collector arterials are found only in residential neighborhoods and provide a high degree of access to individual properties. This classification is not applied to streets in commercial and industrial areas. Both right-of-way and paving widths are typically narrower than on other arterials. Left turn lanes are only infrequently used on neighborhood collector arterials, and then only at intersections having higher volumes. A great deal of flexibility exists for on-street parking on this street type. On most neighborhood collectors, bicycles share the travel lane with other motor vehicles, eliminating the need for striped bicycle lanes. Exceptions to this can occur in situations where traffic volumes or speeds, roadway geometry, or other factors suggest that striped lanes will provide a safer design. Design year ADT is approximately 800 to 3,000.

- 5. Local Street System.
- a. The local street system provides circulation and access for residential neighborhoods away from the arterial system. The local street system consists of local feeder streets, neighborhood streets, access lanes, private streets, and alleys. Local streets should be designed for relatively uniform low volume of traffic upon full development. The system should be designed to discourage excessive vehicle speeds, maximize pedestrian connectivity and safety, and minimize the necessity for traffic control devices.
- b. For developments or neighborhoods of moderate size or larger, the streets serving as primary access to and from the bordering arterial system should be considered for collector arterial classification. Traffic generators, such as schools or churches, within residential areas should be considered within the local circulation pattern, not only from within the subdivision, but from adjacent neighborhoods as well. There should be a limited number of access points with the arterial streets that border the subdivision.
- c. Local feeder streets serve as primary access to the development from the adjacent street system. They distribute traffic from local streets in residential neighborhoods and channel it to the arterial system. There are usually no bus routes, with the possible exception of school bus routes. They directly serve any major traffic generators within the neighborhood, such as an elementary school or a church. They usually serve one moderate size neighborhood or a combination of a few small developments, rather than interconnecting two or more larger neighborhoods. They serve little, if any, through traffic generated outside the neighborhood. Typical ADT may reach up to 1,500.
- d. Neighborhood streets provide direct access from abutting land to the local street system. There are usually no bus routes on neighborhood streets. They are typically internal subdivision streets providing circulation within the subdivision or between subdivisions. Service to through traffic is deliberately discouraged. Cul-de-sacs are prohibited on neighborhood streets in small lot developments and discouraged in other locations. Such cul-de-sacs must include a central green court consistent with the city's low impact development goals and objectives. Typical ADT may reach up to 1,000.
- e. Access lanes are designed to accommodate traffic between clusters of dwelling units, most commonly within small lot developments. They are the smallest street sections that serve emergency vehicles. Access lanes with a hammerhead, central green court or auto courtyard are allowed in lieu of cul-de-sacs, which are prohibited.
- f. Private streets are streets privately owned and maintained by the owners of the parcels accessing the street.
- g. Alleys are public or private streets providing access to the rear boundary of two or more residential properties that front a public street or a common open space area that fronts a public street. Alleys are not intended for general traffic circulation.
- C. Functional classifications for arterial streets are provided in Table II, below.

Table II. Street Classifications

Street Name	From	<u>To</u>			
Major Arterials					
27 St. W.	Regents Blvd W.	Bridgeport Way W.			
Bridgeport Way W.	200' S. of 19 St. W.	South City Limits			
Cirque Dr. W.	Orchard St. W.	Bridgeport Way W.			
<u>Lakewood Dr. W.</u>	Hannah-Pierce/Orchard	66 St. W.			
Regents Blvd W.	67 Ave. W.	27 St. W.			
Secondary Arterials					
27 St. W.	Bridgeport Way W.	Grandview Dr. W.			
40 St. W.	67 Ave. W.	Olympic Blvd. W.			
64 St. W.	Chambers Creek Rd. W.	Grandview Dr. W.			
67 Ave. W.	19 St. W.	Bridgeport Way W.			
Chambers Creek Rd. W.	Steilacoom City Limits	Bridgeport Way W.			
Chambers Ln. W.	Bridgeport Way W.	Chambers Creek. Rd. W.			
Cirque Dr. W.	Bridgeport Way W.	Grandview Dr. W.			
Mildred St. W.	19 St. W.	Regents Blvd. W.			
Olympic Blvd. W.	40 St. W.	Grandview Dr. W.			
Collector Arterials					
35 St. W.	67 Ave. W.	Grandview Dr. W.			
Alameda Ave. W.	67 Ave. W.	40 St. W.			
Grandview Dr. W.	19 St. W.	64 St. W.			
Sunset Dr. W.	19 St. W.	Cirque Dr. W.			
Neighborhood Collector A	Arterials				
27 St. W.	Grandview Dr. W.	E. Day Island Blvd. W.			
31 St. W.	Vista Pl. W.	Lemons Beach Rd. W.			
44 St. W.	67 Ave. W.	Elwood Dr. W.			
54 St. W.	Bridgeport Way W.	79 Ave. W.			

Beckonridge Dr. W.	Grandview Dr. W.	Cirque Dr. W.
Elwood Dr. W.	40 St. W.	Cirque Dr. W.
Elwood Dr. W.	27 St. W.	Parkway W.
Lemons Beach Rd. W.	27 St. W.	31 St. W.
79 Ave. W.	54 St. W.	Cirque Dr. W.
Parkway W.	Vista Pl. W.	Elwood Dr. W.
70 Ave. W.	<u>19 St. W.</u>	27 St. W.

13.20.220 Right-of-way.

Right-of-way width is determined by the functional classification of a street. See Table I, Street Design Standards, in UPMC 13.20.210 for specific information. Additional roadside easements may be required to facilitate roadway maintenance. Easements shall be on a form approved by the City and meet the provisions of UPMC 13.10.030. Right-of-way width requirements shall be increased to accommodate any additional lanes, pockets, bus loading zones, paved shoulders/bike lanes, utilities, street trees or other features or facilities required by the City. Right-of-way shall be conveyed to the City on a recorded plat or by a right-of-way dedication deed. All costs shall be borne by the applicant.

13.20.225 Private streets.

- A. The following are the standards for new private streets. Existing private streets that are not in conformance with any of the following are considered substandard streets.
- 1. Construction and inspection standards for public streets apply to private streets.
- 2. The design shall conform to Table I Street Design Standards, in <u>UPMC 13.20.210</u>.
- 3. Private streets shall be permanently established by commonly owned tract or easement.
- 4. No more than four dwelling units or businesses may access a private street unless the following conditions apply: (a) the businesses are situated on one parcel under single ownership; or (b) the dwelling units are part of a multifamily development on one parcel under single ownership. The dwelling units and/or businesses may be owned by persons or entities other than the owner of the underlying property.
- 5. Private streets shall be accessible at all times for emergency vehicle use.
- 6. Prior to permit issuance, the applicant shall be required to record a private street maintenance agreement and restrictive covenant with the Pierce County Auditor, on a form provided by the City for this purpose.

- 7. All street signs for private streets shall include the text "Private Street." This text shall be at least one-half the height of the street name text.
- 8. The private street shall be signed "No Parking" when parking lanes are not provided.
- 9. Maintenance and operation of all private streets are the responsibility of the individual property owners.
- B. Alleys shall conform to the criteria for private streets in addition to the criteria below.
- 1. Alleys are allowed only when lots served have frontage on a public street or a common open space area that fronts a public street and are provided direct pedestrian and emergency vehicle access from the public street.
- 2. Alleys may provide access to an unlimited <u>number</u> of units; provided, that the alley has a maximum length of 400 feet and no dead end if serving more than four lots. When a dead-end alley is used, it should be less than 150 feet in length.
- 3. Minimum alley tract or easement shall have a width of 20 feet with a pavement surface of 16 feet, provided any structure is set back four feet or more from property line or edge of tract or easement. For small lot and other innovative housing developments that may require a structure setback from alleys of less than four feet, the required alley width may be increased a corresponding amount to provide for safe turning access to properties.
- 4. Alley entry shall be provided with a driveway approach.
- C. Acceptance as Public Streets. The City will consider acceptance of private streets as public streets only if the street(s) meet all applicable public street standards, including right-of-way widths.

13.20.230 Dead-end streets.

- A. Dead-end streets shall be permitted only if the Director determines there is no feasible connection with adjacent streets. All dead-end streets must incorporate a turn-around facility at the closed end. The turn-around shall conform to the cul-de-sac, hammerhead or auto courtyard standards identified below.
- B. Cul-de-sac. Streets designed to have one end permanently closed shall be no longer than 600 feet measured from centerline of street intersection to the center of the bulb section. Proposed exceptions to this rule will be considered by the Director based on pertinent traffic planning factors such as topography, sensitive areas and existing development. At the closed end, there shall be a widened "bulb" having a minimum paved traveled radius in accordance with the details in the University Place Standard

Notes and Details. Within the area of the public easement or dedication, applicant shall install five-foot-wide concrete sidewalk(s) from the end of the cul-de-sac to the nearest public road in accordance with the details in the University Place Standard Notes and Details. Cul-de-sacs must include a central green court consistent with the city's low impact development goals and objectives.

- C. Hammerhead Turnaround. Hammerheads <u>are permitted</u> on <u>access lanes</u>, <u>or on private</u> streets that serve four or fewer lots, <u>in accordance with the requirements of</u> the City Fire Marshal. See standard hammerhead detail in the University Place Standard Notes and Details.
- D. Central green courts or auto courtyards are permitted on access lanes in lieu of hammerheads, or in lieu of prohibited cul-de-sacs, in accordance with the requirements of the City Fire Marshal.

13.20.245 Driveways.

A. General.

- 1. Driveways and driveway approaches shall be constructed in accordance with the University Place Standard Notes and Details.
- 2. All abandoned driveway approaches on the same frontage shall be removed and the curbing and sidewalk or shoulder and ditch section shall be properly restored.
- 3. All driveway approaches at locations with curb and gutter shall be constructed of Portland cement concrete and shall be subject to the same testing and inspection requirements as curb, gutter, and sidewalk construction. Approaches at other locations may be asphalt concrete.
- 4. Shared driveways are permitted upon formal written agreement by both property owners and approval of the Director. The agreement shall be a recorded easement for both parcels of land specifying joint usage. Shared driveways shall be a minimum of 15 feet wide and paved along that portion which serves both parcels. Shared driveway width may be reduced within small lot and innovative housing developments to achieve design goals and reduce impervious surface consistent with the city's low impact development goals and objectives.
- 5. Grade breaks, including the tie to the roadway, shall be constructed as smooth vertical curves. The maximum change in driveway grade shall be eight percent within any 10 feet of distance on a crest and 12 percent within any 10 feet of distance in a sag vertical curve.
- 6. No commercial driveway shall be allowed where backing onto a sidewalk or street will occur.

- 7. Driveway locations shall be unified whenever possible to create the fewest number of accesses onto a street.
- 8. Driveways that serve only one lot shall be located a minimum of 7.5 feet from the property line where the driveway enters the right-of-way.

B. Arterial Streets.

- 1. No driveway may access an arterial street within 75 feet (measured along the arterial) of any other driveway access on either side of the street unless aligned directly opposite another driveway.
- 2. No driveway may access an arterial street within 150 feet of the nearest right-of-way line of an intersecting street.
- 3. Access to arterial streets may be limited to one driveway for each tract of property separately owned. Properties contiguous to each other and owned by the same person are considered to be one tract.
- 4. Driveways giving direct access onto arterials may be denied if alternate access is available.
- 5. Wherever a potential access exists to any property from both a public road and a private easement, the City may refuse access to the public road.
- 6. The Director and Pierce Transit will determine the minimum separation that will be allowed between an existing bus stop and a proposed driveway based on sight obstruction and vehicular and pedestrian traffic.
- 7. Residential driveways accessing arterial streets shall provide a turn-around for residential vehicles so these vehicles will not have to back out into the arterial.

C. Local Streets.

- 1. Residential driveways shall be constructed a minimum of 35 feet from a side street or intersection. The distance is measured from the street right-of-way line to the nearest edge of the driveway.
- 2. Wherever a potential access exists to any property from both a public road and a private easement, the City may refuse access to the public road.

D. Width.

1. The maximum driveway width for two-way access onto an arterial or collector shall be 24 feet for residential, 30 feet for commercial uses, and 35 feet for industrial uses. Maximum driveway widths for one-way access onto an arterial or collector shall be 20

feet for residential, 20 feet for commercial, and 25 feet for industrial uses. A road approach or wider driveway width may be approved by the Director where a substantial percentage of over-sized vehicle traffic exists, where divisional islands are desired, or where multiple exit or entrance lanes are needed.

- 2. The maximum two-way driveway width onto a local access street shall be 24 feet for residential uses and 26 feet for commercial uses.
- 3. The maximum one-way driveway width shall be 15 feet for residential and 22 feet for commercial driveways.
- 4. The minimum residential driveway width shall be 10 feet.
- 5. The Director may require intersection geometry in lieu of a driveway approach and/or ingress and egress tapers in industrial and commercially zoned areas.
- 6. Commercial drive aisles shall conform to UPMC Title 19.

13.20.255 Surfacing requirements.

- A. All streets will be paved with either asphalt concrete or Portland cement concrete unless the Director authorizes the use of pervious pavement to achieve the city's low impact development goals and objectives.
- B. The pavement design shall meet the requirements in the latest publication of the AASHTO Guide for Design of Pavement Structures. The pavement section shall be designed and stamped by an engineer currently licensed to practice in the State of Washington.
- C. Construction of streets paved with asphalt concrete shall conform to Section 5-04 of the Standard Specifications. Fine and coarse aggregate shall be in accordance with Section 9-03.8 of the Standard Specifications.
- D. Asphalt concrete shall be placed on the prepared surface by an approved paving machine and shall be in accordance with the applicable requirements of Section 5-04 of the Standard Specifications, except that longitudinal joints between successive layers of asphalt concrete shall be displaced laterally a minimum of 12 inches unless otherwise approved by the Director. Pavement material will be HMA Class one-half-inch asphalt concrete and be constructed at least two inches thick (minimum compacted thickness) over the prepared crushed surfacing top course, or asphalt treated base. Asphalt concrete over two inches thick shall be placed in equal lifts not to exceed two inches each.
- E. Portland cement concrete streets will be constructed as specified in Section 5-05 of the Standard Specifications.

13.20.260 Excavation and backfill.

The following requirements shall apply to any excavation and backfill within any public right-of-way, easement, or private street.

- A. No pavement cuts shall be made on any street or driveway constructed of asphalt cement concrete, Portland cement concrete or city-approved pervious pavement, unless approval has been granted by the Director. Pavement cuts shall be made by sawcuts. Pavement cuts for road maintenance activities and small utility windows may be made by alternate methods if approved by the Director.
- B. Trenching operations shall not proceed more than 100 feet in advance of pipe laying. Backfilling and surface restoration shall closely follow installation of pipe so that not more than 100 feet of trench is left exposed at any time.
- C. Excavation operations shall be in conformance with the Washington Industrial Safety and Health Administration (WISHA) and the Office of Safety and Health Administration (OSHA) Safety Standards.
- D. Trenches shall be restored and open to traffic during nonworking hours.
- E. Pipe cover, measured from the finished grade elevation to the top of the outside surface of the pipe, shall be three feet minimum unless approved by the Director.
- F. Gravel backfill for pipe bedding shall be installed in conformance with Section 2-09 of the Standard Specifications (WSDOT). Native material shall not be used for bedding, unless approved by the Director.
- G. Bedding and backfill material shall be placed and compacted around and under the utility pipe by hand tools. Special precautions shall be provided to protect the pipe to a point 12 inches above the crown of the pipe.
- H. All excavations shall be backfilled with crushed surfacing top course (five-eighths-inch minus), controlled density fill, or gravel backfill in conformance to Section 9-03.12(3) of the Standard Specifications. All backfill material shall be placed and compacted in maximum six-inch lifts to 95 percent of standard density except controlled density fill, which has no compaction requirement. Native material shall not be used for backfill unless approved by the Director. Utility windows (potholes) shall be backfilled with either crushed surfacing top course (five-eighths-inch minus) or controlled density fill.
- I. All excess material shall be hauled off site. It is the applicant's responsibility to dispose of this material at a proper facility.

Article III. Emergency Vehicle Access

13.20.350 EV access specifications.

- A. Width. EV access serving one or two dwelling units shall be 15 feet or more. EV access for all other projects shall be not less than 20 feet with no parking allowed, 27 feet with parking on one side, and 34 feet with parking on both sides.
- B. Vertical Clearance. EV access shall have an unobstructed vertical clearance of not less than 13 feet six inches.
- C. Surface. EV access shall be paved and shall be designed and maintained to support the imposed loads of fire apparatus. Alternate all-weather surfacing may be considered. Individual single-family or duplex EV access surface treatment may be compacted crushed rock surfacing.
- D. Turning Radius. A minimum outside turning radius of 45 feet and a minimum 20-foot inside turning radius shall be provided for all EV access.
- E. Turnarounds. A dead-end EV access in excess of 150 feet in length shall be provided with a turnaround conforming to the cul-de-sac, hammerhead or <u>central green court/auto</u> <u>courtyard</u> requirements set forth in Article II of this chapter.
- F. Grade. The maximum street grade (profile) of an EV access shall be 15 percent. All sections of EV access with grades of over 12 percent shall be paved with a minimum of two inches, compacted depth, of asphalt concrete, or equivalent.
- G. Bridges and Elevated Structures. All bridges and elevated structures, including drainage structures, on an EV access shall be constructed in accordance with AASHTO Standards Specified for Highway Bridges. Bridges and elevated structures shall be designed for a live load sufficient to carry the imposed loads of fire apparatus.
- H. Gates. If not otherwise prohibited, a gate may be installed in compliance with the following provisions:
- 1. Locked gates shall have rapid entry capabilities compatible with the local fire district requirements.
- 2. Electric gates will have an Opticom activation system and Knox key switch.
- 3. All electrically activated gates will have default capabilities to the unlocked position and swing or move freely in the event of power loss.
- 4. The minimum EV access width of a gate shall be 12 feet for one-way access and 20 feet for two-way access.
- 5. Gates shall be constructed in a manner that does not permit obstruction from the accumulation of snow.

- 6. Gates shall be set back a minimum 35 feet from the edge of the right-of-way. The Director may reduce this setback for single-family and duplex dwellings when site-specific circumstances warrant a reduction. A turnaround immediately outside the gate may be required if determined necessary by the Director.
- I. Obstruction. The required width of an EV access shall not be obstructed in any manner, including parked vehicles. Minimum required widths and clearances established under these standards shall be maintained at all times.
- J. Signs. When required by the Director, approved signs or other approved notices shall be provided and maintained for EV access to identify such streets and prohibit the obstruction thereof, or both. "No Parking Fire Lane" signs shall be installed in conformance with the MUTCD and the fire code as adopted in UPMC Title 14.

Article IV. Sidewalks, Curbs and Gutters

13.20.415 Sidewalks.

Sidewalks shall be constructed of Portland cement concrete conforming to the Standard Specifications and be a minimum of four inches thick except in driveway approaches where the minimum thickness shall be six inches. When the sidewalk, curb and gutter are contiguous, the width of the sidewalk shall be measured from back of curb to back of sidewalk.

- A. Arterial Streets. Sidewalks, curbs and gutters are required on both sides of all arterial streets interior to the development. Sidewalks, curbs and gutters are also required on the side of streets abutting the exterior of the development. Arterial streets for purposes of this subsection shall include major arterials, secondary arterials, collector arterials, and neighborhood collector arterials.
- B. Local Access Streets. Sidewalks are required on both sides of local access streets which are interior to the development and on the side of local feeder and <u>neighborhood</u> streets abutting the exterior of the development including cul-de-sacs.
- C. The design and construction of all sidewalks, curbs, and gutters shall conform to the street design standards at Article II of this chapter, Table II in UPMC 13.20.225 and the University Place Standard Notes and Details. The design of all sidewalks shall provide for a gradual rather than an abrupt transition between sidewalks of different widths or alignments.
- D. Form and subgrade inspections by the City are required before sidewalk is poured. The applicant shall request the inspection a minimum of 24 hours in advance.
- E. Monolithic pour of curb, gutter and sidewalk will not be allowed.
- F. Driveways shall be constructed in conformance with Article II of this chapter.

Article VI. Illumination

13.20.610 General.

Any applicant required to construct or improve arterial streets shall install street lights in accordance with this article. Any applicant required to construct or improve local streets shall install street lights in accordance with the applicable lighting requirements set forth in the Design Standards and Guidelines for Streetscape Elements adopted by reference in UPMC 19.54 and the Design Standards and Guidelines for Small Lot and Multi-family Development adopted by reference in UPMC 19.53. Street lighting located on private properties shall be under a recorded maintenance agreement and maintained by the homeowners' association or property owner.

13.20.620 Purpose.

To increase the safety to motor vehicles, pedestrians, and bicyclists along arterial <u>and</u> local streets.

13.20.630 Design standards.

A street lighting plan submitted by the applicant and approved by the Director shall be required for all street light installations. All public street light designs shall be prepared by an engineer licensed to practice in the State of Washington.

- A. Street Lights. Street lights shall meet the following requirements:
- 1. Streetside lighting shall consist of 16-foot-high, round tapered pole with decorative base and luminaire, in accordance with the University Place Standard Notes and Details.
- 2. Median lighting shall consist of 35-foot-high, round tapered pole with decorative base, luminaire, and decorative mast arms in accordance with the University Place Standard Notes and Details.
- 3. Poles shall be positioned to provide a minimum 24-inch clearance between the edge of the pole base and the vertical face of the curb.
- B. Spacing. Spacing will be determined using the following criteria:

Average Maintained Horizontal Illumination (Foot-Candles)

Road Class

Neighborhood Collector 0.6

Arterial

Collector Arterial 0.6

Secondary Arterial 0.8 Major Arterial 0.8

Uniformity Ratio: 6:1 average: minimum for local

4:1 average: minimum for

collector

3:1 average: minimum for secondary and major arterial

Dirt Factor = 0.85, lamp lumen depreciation factor -0.073

Minimum Weak Point Light = 0.2 fc except residential local street

Average Illumination at Intersections = 1.5 times the illumination required on the more highly illuminated street

400 watt initial lamp lumens = 50,000 200 watt initial lamp lumens = 22,000 150 watt initial lamp lumens = 16,000 100 watt initial lamp lumens = 9,500

Line loss calculations shall show that no more than a five percent voltage drop occurs in any circuit. Lamp load factor shall equal 1.2.

All street light electrical installations including wiring conduit and power connections shall be located underground.

Article VIII. Roadside Features

13.20.830 Bus stops, shelters, and amenities.

A. Bus stops, pull outs, shelters and other associated amenities are required improvements for new developments where determined necessary by Pierce Transit, the appropriate school district, or the Director and shall be constructed in accordance with the University Place Standard Notes and Details, the Design Standards and Guidelines for Streetscape Elements adopted by reference in UPMC 19.54, or the specific requirements of these agencies.

- B. Pierce Transit shelters shall be maintained by Pierce Transit. School bus stop shelters shall be maintained by the subdivision's homeowners' association or apartment owner, whichever is appropriate.
- C. Concrete walkways shall be constructed linking subdivisions and developments to streets with bus stops. Developments enclosed by walls or fences shall provide openings or gates for walkways to provide direct access between developments and bus facilities.

13.20.870 Right-of-way landscaping and irrigation.

A. Applicants required to construct medians or planter strips within the City right-of-way shall install landscaping and irrigation systems in accordance with this section <u>and the Design Standards and Guidelines for Streetscape Elements adopted by reference in UPMC 19.54.</u>

B. Purpose.

- 1. To enhance the safety and comfort of pedestrians and motorists by providing a physical barrier and horizontal separation between vehicular traffic streams and between vehicular traffic and pedestrians and by reducing vehicular speeds.
- 2. To enhance the appearance of City streetscapes, provide shade and cooling effects, provide a sense of enclosure, definition and scale to the street, and provide protection from the wind and a reduction of airborne dust and pollutants.
- C. General Landscaping Requirements.
- 1. All plant material shall meet or exceed ANSI Z60.1-2004 American Standards for Nursery Stock.
- 2. All ground areas not planted with trees shall be planted with shrubs and groundcover in the medians and with groundcover in the planter strips.
- 3. Shrubs may be comprised of a mixture of sizes but shall be not less than a two-gallon container size at time of planting. Shrubs shall be planted at a minimum density of five shrubs per 100 square feet.
- <u>4</u>. Groundcover shall be planted to achieve a minimum planting area coverage of 80 percent within three years of installation and shall achieve 100 percent coverage within five years of installation.
- <u>5. Fully composted organic material (compost)</u> shall be installed around all trees, shrubs, and groundcover to a depth of three inches. <u>The City may require installation of bark mulch as a top dressing over the compost.</u>
- D. Street Tree Requirements. Street trees are required on both sides of all newly created, widened, or substantially improved public and private streets to provide shade and to calm traffic, subject to the considerations provided in the *Design Standards and Guidelines for Streetscape Elements* and the following requirements:
- 1. Trees shall have a minimum caliper of 2 inches within a development at time of planting unless the City determines that a particular species or cultivar, which is available only in a smaller size, is the preferred selection for a specific location;

- 2. Spacing of street trees, on average, shall be 30 feet on center. Wider spacing may be approved for trees having exceptionally broad canopies and narrower spacing may be required for trees having narrow canopy forms;
- 3. Street trees shall be high-branching with a canopy that starts at least 6 to 8 feet above finished grade, depending on species or cultivar, and have roots that will not break up sidewalks or roadbeds or invade utility lines. For areas without overhead power lines, tree types shall be planted that will achieve a minimum height of 35 feet at maturity;
- 4. Street trees shall be placed so as not to block sight distance or create a safety concern. Generally, trees should be planted at least 10 feet from utility or light poles or fire hydrants, 20 feet from street intersections, and 10 feet from driveways and alleys. The City may authorize irregular spacing to accommodate sight distance requirements for driveways or intersections or to avoid public infrastructure such as street lighting, utility poles or fire hydrants;
- 5. The use of a variety of street trees within a development is encouraged to increase visual interest and minimize exposure to diseases that could target specific species and cause widespread damage if these species are heavily planted within an area;
- 6. For access lanes, street trees may be planted on the abutting private lot if the City determines that insufficient space exists within the public right-of-way to accommodate the trees;
- 7. Trees shall be centered in the planter strip or median; and
- 8. Root barriers shall be provided for all trees located within five feet of sidewalks, curbs or pavement and shall be a minimum of 24 inches in depth and 14 feet in length, installed per the manufacturer's recommendations. The City may approve the use of engineered soil to accommodate tree roots in restricted planting areas.
- E. Median Landscaping Requirements. Landscaping shall be subject to the following guidelines:
- 1. Where medians are narrowed near intersections, landscaping should be graduated and include the use of small accent trees and ground cover;
- 2. The use of groundcover or xeriscape concepts at intersections is favored over the extensive use of hardscape;
- 3. Hardscape should only be used in medians where planting is not feasible due to sitespecific constraints such as narrow median width or preservation of a significant view corridor; and
- E. Planting Strip Landscaping Requirements. Landscaping shall be designed subject to the following guidelines:

- 1. Landscaping shall take into account visibility at intersections and a safe passage for pedestrian movement;
- 2. To provide a landscape separation between street and sidewalk, planting strips should be installed between the back of the curb and the sidewalk;
- 3. Planting strips shall be designed to the extent practicable to be wide enough to accommodate medium to large street trees that have a high, broad branching canopy; a continuous streetscape planting strip, exclusive of easements, shall be located in areas adjacent to an existing or proposed public road. The City shall decide on the width of the planting strip in order to balance median and sidewalk widths;
- 4. The planting strip shall be located generally parallel to the existing or proposed road and shall not be located in areas identified for road widening, road projects, drainage areas, or other public improvement projects. Minor encroachments in the planting strip by drainage easements may be approved by the City;
- 5. Street trees shall be required to be planted within the planting strip with an even, linear spacing. If minor shifts to the linear spacing are required due to the location of existing infrastructure, development or required sight distance, these shifts may be approved by the City;
- 6. The use of groundcover or xeriscaping concepts adjacent to intersections is favored over the extensive use of hardscape; and
- 7. Hardscape should only be used in areas where planting is not feasible due to site-specific constraints such as a narrow median width or preservation of a significant view corridor.
- F. Approved Right-of-Way Landscaping Species.
- 1. Street trees shall be approved by the City in accordance with the Approved Street Tree Palette in Table 3-1 of the Design Standards and Guidelines for Streetscape Elements. The City may approve trees not on the Approved Street Tree Palette if a registered landscape architect or certified arborist demonstrates to the satisfaction of the City that the proposed tree species or cultivar will not cause damage to infrastructure or create nuisance conditions.
- 2. Shrubs.
- a. Photinia Photinia fraseri;
- b. Viburnum Viburnum spp.;
- c. Japanese Privet Ligustrum japonicum;

- d. Smooth Sumac Rhus glabra;
- e. Dogwood Cornus spp.;
- f. English Laurel Prunus laurocerasus;
- g. Rock Rose Cistus spp.;
- h. Mock Orange Philadelphus lewisii;
- i. Evergreen Huckleberry Vaccinium ovatum;
- j. Heather Calluna spp.;
- k. Heath Erica spp.;
- 1. Pieris Pieris japonica
- 3. Groundcover.
- a. Wintercreeper Euonymus fortunei;
- b. Cotoneaster Cotoneaster spp.;
- c. Japanese Spurge Pachysandra terminalis;
- d. Kinnikinnick Arctostaphylos uva-ursi.
- <u>G.</u> Exceptions to the planting theme may be made by the Director. Exceptions include but are not limited to screening industrial areas, planting around historical sites, planting native or drought-resistant species, maintaining natural vegetation that better serves as street landscaping or beautification.
- <u>H.</u> An irrigation plan is required to ensure that the planting will be watered at a level sufficient to ensure plant survival and healthy growth. All landscaped areas must provide a permanent underground irrigation system with an automatic controller plus an overriding rain switch. Battery powered systems are not allowed. Irrigation systems shall be designed by a certified irrigation designer. The irrigation plan shall be submitted for approval as part of the landscaping plan. All pipe used in irrigation system shall be schedule 40 <u>PVC</u>.
- <u>I.</u> The applicant is required to pay all water system fees and charges associated with installation of an irrigation system.
- <u>J.</u> Landscape plans shall be prepared by a Washington State registered landscape architect, a Washington State certified nurseryperson, or a Washington State certified

landscaper. The landscape plans must be approved prior to permit issuance. Right-of-way landscaping may be incorporated into the landscaping plans for the entire development. Landscaping plans shall conform to the requirements of Chapter 19.65 UPMC and the Design Standards and Guidelines for Streetscape Elements adopted by reference in UPMC 19.54.

<u>K.</u> Landscaping and irrigation installed as a condition of development shall be maintained and all utility fees and charges paid in perpetuity by the development property owner(s). A maintenance covenant shall be recorded prior to permit issuance. Any installed plant material located within required landscape areas that dies shall be replaced during the spring or fall growing season following plant loss but not later than 180 days from time of loss.

L. Following the installation of the landscaping and irrigation system, the person or persons who prepared the planting and irrigation plans shall submit, within 30 days, a signed affidavit that the landscaping and irrigation system has been installed per the approved plans and shall submit a signed set of as-built plans. The City will conduct an inspection prior to final approval of the landscaping.